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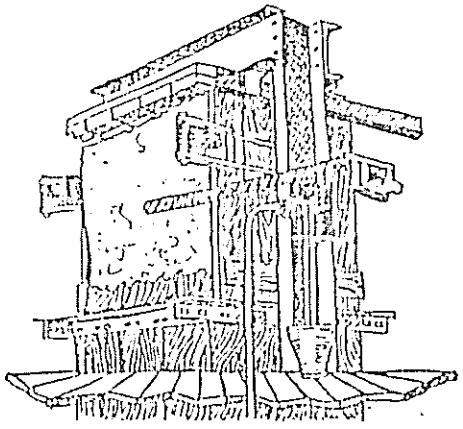

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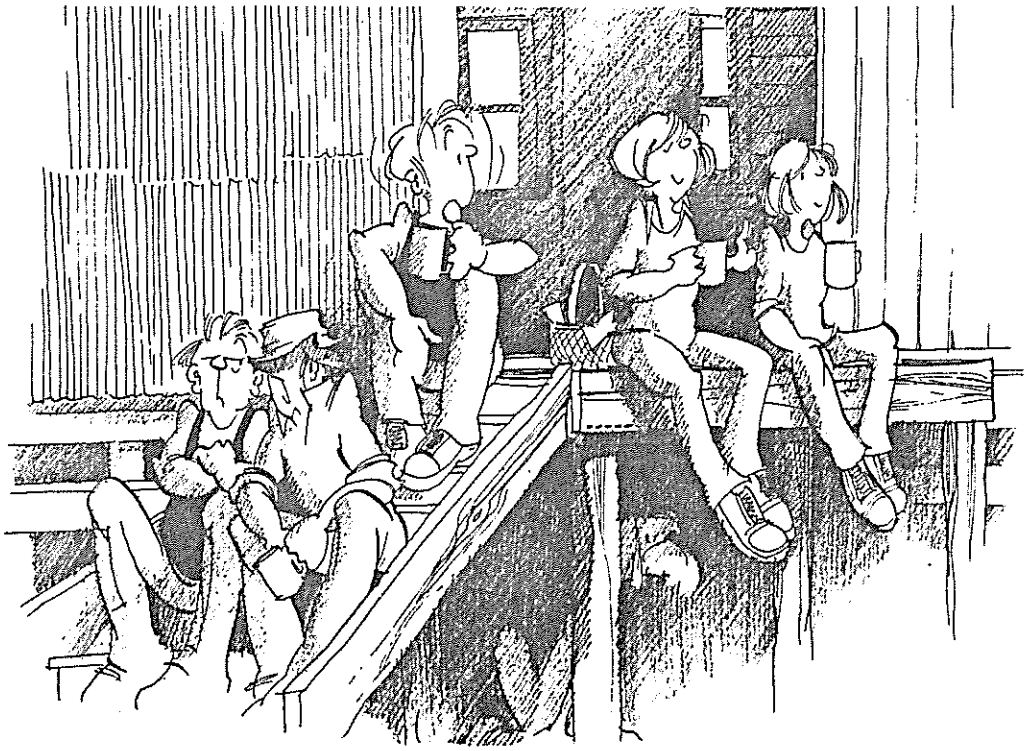
Editors - M.McLeod and R.H.B.Hall

EDITORIAL

Well, another Christmas has come and gone, together with Stanley Sports, the West Falkland Ram & Fleece Show and the Estancia Shearing Competition, but I dare say it won't seem long before we've done the full circle of annual events again. Look on the bright side... We've got a few weeks to recuperate before Camp Sports!

Congratulations to all of you who won prizes at any of the Christmas events. We will have all the results together for the next edition of "THE WOOL PRESS"

"HAPPY NEW YEAR TO YOU ALL"



IF THERE'S ONE THING THAT BRASSES ME OFF ABOUT WOMEN

- IT'S THEIR DAMNED INFALLIBILITY!

ELECTRIC FENCING (part 2)

This is the second promised thrilling instalment on Electric fencing taken from the September issue of The Sheep Farmer.

FAULT FINDING

If a sheep fails to get a shock when it touches an electric fence the problem is not necessarily on the line. David Sullivan *explains how to identify the element at fault.*

There is an increasing reliance on power fencing because of its versatility and the savings in capital outlay. However, power fencing is only successful as long as the sheep are afraid to touch it. Adequate power in the fence is the key to success and all that power must be available to pass through the sheep and return to the energiser through the earth. Unless the pulse completes the circuit - down the fence, through the sheep, along the earth return and back into the energiser - no shock will be felt.

FINDING FAULTS

Assuming the fence is correctly built, the power from the energiser is adequate and the earth return effective, how do we test and identify faults when they occur? If we think about a water supply system, the first indication of a leak (short) or an obstruction in the pipe (resistance) is a fall in water pressure. it is the same in electrical terms and the noticeable fall is in the electrical pressure (voltage). Therefore, any serious user of power fencing should consider a voltmeter, (preferably digital), to be an essential item of equipment (cost around £40). Touching fences with bits of grass is more an indication of the state of your footwear than the efficiency of the fence!

THE REGULAR CHECK

A power fence must be monitored regularly, preferably away from the unit on the fence line. Attach the voltmeter first to earth (top of a metal stake or similar) and the second lead onto the fence and note the voltage. I consider that half of the measured voltage of the disconnected energiser (*see test 1*) is the lowest acceptable voltage, assuming again that the energiser power is adequate for the installation.

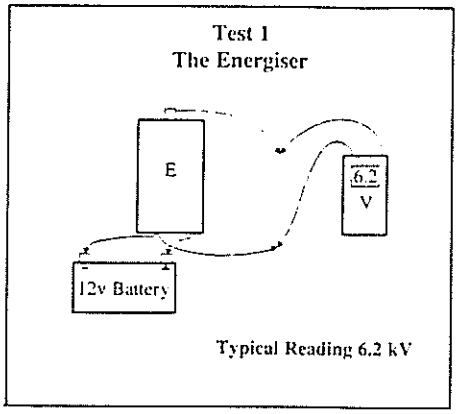
On my permanent systems I have pushed a length of high tensile fencing wire into the ground and have stapled it up the post beneath each switch in the system to make convenient test points. A low voltage in the fence must be investigated and the fault rectified.

There are three elements to a complete power fence system - the energiser, the fence and the earth return - and each element can develop its own fault which can equally invalidate the whole system. Most shepherds assume that the fault is on the fence, but my experience is that to be able to identify the element at fault can save a great deal of time and effort.

There are three simple test which, done in sequence, will identify where the faults lies.

Test 1 - the energiser

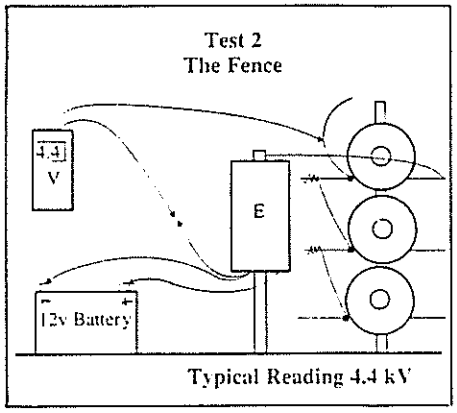
a. Switch off energiser.
b. Disconnect from fence and earth peg.
c. Connect voltmeter between output and earth return termi nal.
d. Switch on and read voltage. A typical reading is 6.2KV.



Each energiser will have its own operating voltage within a band between 5-8 KV (kilo volt), 1 KV = 1000 volts. This is a measurement of pressure and not power and cannot be used to compare power outputs of different energisers.

Test 2 - the fence

a. Switch off energiser.
b. Connect output of energiser to fence.
c. Connect voltmeter between fence and earth return termi nal on energiser. *See note 1.*
d. Switch on and read voltage. A typical reading is 4.4 KV.

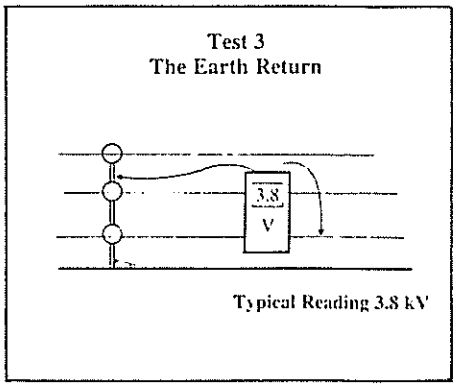


Note 1. A more accurate measurement of the fence voltage will be read if the linkover wire is disconnected from where the energiser is connected.

The fence losses = Test 1 minus Test 2 ie. 6.2-4.4 = 1.8 KV.

Test 3 - the earth return

a. Switch off energiser.
b. Connect earth return crocodile to earth peg.
c. Restore linkover connection.
d. Walk away from energiser after switching on and do the regu lar check. Typical reading is 3.8 kv.



Test 2 reading minus test 3 reading are losses in earth return system.

These simple test done in this sequence will identify where the problems lie and will save a great deal of time when a fence fault is assumed but is found to be an energiser or earth return fault.

MANDY McLEOD
DECEMBER 1992

LETTER PAGE

THE EDITOR
THE WOOL PRESS

18.12.92

I was interested to read your article "Freight - Who's responsible?" in the last issue, and hope you will permit me to take the issue a little further.

Firstly, may I correct the terminology a little - the "Shipper" is the person delivering the goods to the shipping service (the "carrier") for onward shipment to the end user (the "consignee"). This may seem like nitpicking, but the terms are the ones in use on the shipping documentation, and I would not like there to be any confusion.

You are quite right to say that the Consignee should not acknowledge receipt of anything not delivered - and we trust this will not happen often! We must admit to making the occasional mistake, but with over 50 ports and in excess of 200 consignees accepting cargo from 10 or more regular shippers every two to three months, these things occasionally happen. However, where we are in the wrong, you will not find us evasive in putting things right - either by correcting a misdelivery or making an adjustment to an invoice.

The paperwork system for the shipment of cargo around the Islands has been designed to give all parties the required legal protection, whilst being as simple as possible to speed up the processing of shipments. Users will have noted modifications made already to certain aspects of the papers, and where we can see ways to improve the documentation, we will continue to do so. We do sign acknowledging receipt of goods either to the warehouse or ship, although from the tone of the article it is not clear that this is understood. So it is clear, our responsibility lies with the goods from the time that our warehouse man, or the ships officers, sign the cargo booking note until the time that they are discharged to the jetty or beach in use at the port of destination. As you say, in a perfect world the goods would then be signed for by the consignee, which is fine until the ship must depart to catch a tide, or as happens in many cases, the consignee is not even on the jetty to receive the goods.

Where we cannot help is where we are not in possession of the order placed with the supplier in Stanley - and in fact such detail is more than is required for shipment by sea. If our manifest shows "3 boxes stores" and that is what we deliver, then we have done our job. If the consignee opens the box to find that two packets of cereals are missing from the order, it is not necessarily a misdelivery of goods, but possibly an error in making up the order. Any shipping trade relies on the shipper to present goods in a sensible fashion for carriage by sea - and in fact the use of a packing note is the normal manner of evidencing the contents of boxes or cartons being shipped. The carrier cannot open every box to check its content (and would be outside his rights to do so), and so goods are shipped on the basis of the detail declared by the Shipper. Those persons used to im-

porting goods from outside the Falkland Islands will know that a bill of lading would only normally show the detail of packaging and rough declaration of contents, for example:

"2 boxes s.t.c. (said to contain) personal effects - 3.0 cu mtrs"

The carrier does not want (or need) to know exactly what he is carrying - his contract will be for carrying two boxes of goods, and he will charge "x" pounds per cubic metre space used aboard his ship. However, the Consignee will wish to know that all he ordered arrives, and the Shipper will wish to show that he sent all that was requested - hence the use of a packing note. Perhaps Stanley traders might wish to investigate this?

On this note perhaps the issue can be opened up for further comment, with a reminder that we do take our responsibilities seriously, and that I am available to discuss or clarify matters as required by users of the shipping service.

Yours sincerely

DAVID HALL
MANAGING DIRECTOR
BYRON MARINE LIMITED

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ACCOUNTING FOR TAX

Given the imminent arrival of the annual seasons greetings from the Tax Department the January edition of the Wool Press provides an opportunity to investigate the possibilities of a greater number of farmers submitting their own accounts. It is also an opportunity to broadly outline the recent changes in the Income Tax Ordinance relating to Depreciation.

Under existing government legislation it is only limited companies that are required to have their accounts audited by a qualified accountant. For the majority of Falkland Farms there is therefore no obligation for farmers to submit audited accounts. The collapse in the wool market has in many instances identified the importance of monitoring the farm's financial position. The question of "Can I afford it?" is one that is in most peoples minds if not on paper! By adopting a hands on approach, book keeping will usually give a farmer greater insight into the mechanics of the business. Once the basic principals of the business have been established such practices as preparing balance sheets, cash flows and investment appraisals become much easier.

This financial control can often be lacking when a third party is employed with the objective of just meeting tax obligations. Such a service will usually be an historic assessment of the farm's financial position and often lacks familiarisation with

the day to day operation of the farm in question. Another major benefit of compiling one's own accounts is that all financial information remains on the farm.

At present the majority of farmers are managing to complete their cash analysis books (yellow book 1) to a reasonable standard. What many farmers fail to understand is that once the annual summary sheets in the yellow book have been completed the work entailed in preparing the profit and loss account is minimal. The principal is simply one of dividing up the payments section of the summary sheet between fixed and variable costs and calculating the level of depreciation on capital items.

Fixed and Variable Costs.

The reason why accountants adopt the procedure of dividing farm expenditure between fixed and variable costs is to assist in the financial control of the business. Such a division of costs is particularly useful for businesses that have an obligation to set a price on their goods and services.

Farmers with smaller flocks of sheep will be well aware of the concept of fixed costs (or overhead costs).

As their name implies these are costs that are incurred regardless of the scale of operation. For the smaller farms the fixed cost element is usually a higher proportion of farm costs. Larger farms are generally better able to spread the fixed costs over a greater number of sheep.

In the Falkland context such costs would include insurance, building repairs, generator costs, fence repairs, depreciation etc. These costs are incurred on a farm regardless of whether a farm has 4,000 or 4,500 sheep. Variable costs are those costs that are directly related to the number of sheep on the farm. An obvious example of such a cost would be contract shearing charges and the cost of wool packs.

To assist in separating out fixed and variable costs the Account Book 3 has a conversion table on page 17. Although this table might look horrific it is in fact not particularly difficult to complete if the principals behind completing it are understood. Many of the farm costs are of a purely fixed variable nature and need not be divided and can be entered directly in the appropriate box. The basic information required for this procedure is available from the summary sheet of book one. More specific information required may be found in the monthly cash analysis sheets. Once completed, the farm's fixed costs should be itemised in column L and the variable costs totalled at the bottom. These totals may now be transferred to the profit and loss account.

Depreciation.

Depreciation is probably a subject that causes farmers more concern than any other aspect of farm accounts. The basic principal of depreciation is not particularly hard to understand. It is

a charge to cover the replacement of an asset. Depreciation is itemised as a payment on the Profit and Loss Account and if claimed can reduce the nett farm income. If depreciation is claimed to the advantage of the farm it can provide a significant reduction in the farm's tax liability. A breakdown of the farm's depreciation schedule must be submitted to (and approved by) the Income Tax Office.

Recent changes to the depreciation allowances have given farmers a greater degree of flexibility in the claiming of the Depreciation Allowance. Under the old system the depreciation rate (%) was fixed and had to be maintained annually until the full cost of the item had been claimed. Under the new system farmers are able to withhold depreciation allowances provided the asset remains in a serviceable condition on the farm. While profit levels in the industry remain low it is generally in a farmers interest not to claim depreciation as most farms are currently non-tax payers. The new system enables allowances to be retained for when wool incomes rise and farmers return to a tax paying position. Any grants received for the purchase of an asset can not be depreciated and should be removed from the opening value of the item. The full cost of the asset can be used if the grant payment is recorded as a receipt in the profit and loss account.

The depreciation rates that currently stand in the Islands are as follows:

Buildings:

Up to 50% of the initial farmers cost in the 1st year and 10% thereafter.

Plant, Machinery and Fencing:

Up to 100% of the initial cost in the first year and 25% thereafter.

These rates are subject to occasional changes. Prevailing rates may be obtained by contacting the Income Tax Office at the Treasury.

Guidelines for completing Book 1

1. The most important rule of any accounting system is to keep financial information (receipts, invoices, statements, etc) separated into the following categories:

   a> Information received that has not been dealt with.

   b> Information that has been dealt with (ie invoices that have been paid) and that has not been recorded in the cash-analysis book.

   c> Information that has been recorded. This should be retained and be available at all times should it be required by the Tax Office.

2. Complete the cash analysis book on a regular (monthly) basis. Keeping on top of the account books will increase the accuracy of book-keeping. Transactions tend to be fresh in the mind and are less likely to be forgotten. Always complete the book in conjunction with the monthly bank statement, paying in book and cheque book stubs. Any banking/invoicing system is far from fool proof and cross-checking with the bank statement is the surest way of spotting any mistakes.

3. Ensure that every legitimate farm transaction is recorded. This will ensure that the Profit and Loss account is a true picture of the business. Failing to record farm payments may result in a higher M.S.L and Income Tax demand.

4. Always insist on issuing/receiving a receipt/invoice/statement when making a transaction. Try to avoid doing unrecorded swaps, especially if the items are capital items recorded for depreciation purposes. Always cover yourselves as the Tax Department have the authority to demand proof of any purchase/sale recorded in the farm accounts. Always attach relevant delivery notes, payment/receipt slip stubs to the invoice, this also helps reduce errors and can be cross-checked with the bank statement.

5. Try to make payments and deposits in the first half of the month. This allows enough time for the transaction to be cleared at the bank prior to the preparation of the monthly bank statement.

6. Avoid making cash transactions as these are easily forgotten and can lead to them not being recorded in the cash analysis book. If a cash transaction can not be avoided always issue/demand a receipt for the item. If cash is banked, always retain the relevant paying in slip and attach it to the receipt.

7. Enter as much information regarding a transaction when completing the details column in the cash-book. If possible include an invoice number as this often helps trace the source of any discrepancy.

8. With farms now obliged to make mortgage payments, it is worth reminding farmers that only the interest element of the mortgage payment is tax deductible. This component of the payment should be recorded in the interest and bank charges column. The principal repayment sum is not Tax deductible and should be placed under capital items. Your farm mortgage payment schedule should give you the precise breakdown for each instalment.

If the Farm Accounts have not been kept up to date in previous years it is more important to make a fresh start with an organised system now rather than wrestle with the past. Once you have organised and adhered to a good system, the previous years accounts will probably be easier to compile in any case. Should you require any advice on completing your account books please get in contact with either Mandy or myself and we would be happy to arrange a visit, particularly if such a visit could coincide with other department duties. Should you have any direct tax related queries you should contact the Tax Department at the Treasury.

For those farmers who still find book keeping a nightmare, it might be worth considering the possibility of having a fellow member of camp complete your account books on your behalf. A farm secretarial service might provide an excellent diversification opportunity for those farms that are currently able to complete their accounts to a high standard. This would naturally require an element of confidentiality to be built into any arrangement.

HUGH MARSDEN
JANUARY 1993

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USE THE WOOL PRESS
AS A MESSENGER
TO YOUR FELLOW FARMERS

AIR YOUR NEWS AND VIEWS

SHARE YOUR HOME GROWN IDEAS
AND RECIPES

ARE THERE ANY
BUDDING CARTOONISTS OUT THERE?

WE WANT TO HEAR FROM YOU!!

! !

N.S.F. NEWS.

In early December the 22 rams were shorn and the lambs were marked.

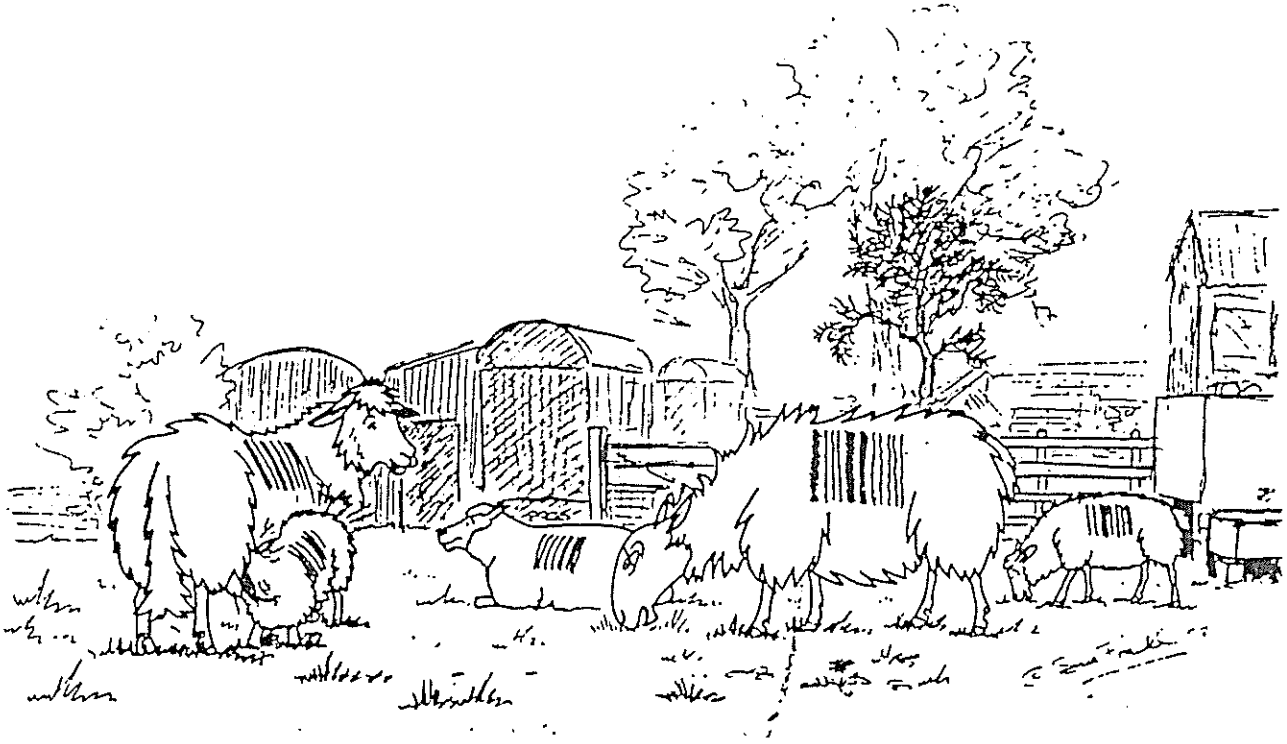
The ram wool results were encouraging with unskirted fleece weights ranging from 6.8 - 12.4 kg and averaging 8.7 kg and the skirted fleece weights ranging from 5.9 - 10.9 kg and averaging 7.6 kg.

(Note that like the ewes the exact shearing interval is unknown and not the same for each animal. These weights are thought to be for about 11 to 14 months wool growth.)

The eight weeks of lambing are now complete. 443 lambs were born, however only 357 lambs were alive and tagged and 310 have been marked. These are disappointing results from 497 ewes put to the ram. The cantankerous nature of the ewes lambing for the first time, Johnny Rooks and rough weather were an unhelpful combination. As anyone who worked with the NSF during lambing will confirm, the inexperienced ewes were very flighty having lambed and were only too keen to abandon their responsibilities. Next year will be a better performance indicator all round and we will be seeking a big improvement.

Our thanks to the McBains for their good work during two difficult months.

RHBH.



"I know this Baaa (Bar) Coding is the latest technology,
but I still don't think the Wool Board will like it!"

SAFETY WITH POWER TAKE-OFF

and

POWER TAKE-OFF SHAFTS

A tractor power take- off (PTO) and the power take-off shaft of a machine are extremely dangerous if used incorrectly guarded! Every year operators are killed or seriously injured in accidents involving PTO's and PTO shafts.

Many of these accidents would have been prevented if the PTO and PTO shaft had been correctly fitted with a guard which was properly used and maintained. The fact is that broken, damaged or badly fitting guards can be just as dangerous as no guard at all. So it is essential that these vital safety features are regularly inspected and kept in top working order.

SAFETY CHECKS

* Make sure that the guard is the correct size and length for the shaft. If in doubt consult the supplier. Remember to take into account the shaft's vertical and lateral movements during work.

* Ensure that the closed and extended length of the guard and the shaft are right for the tractor and machine. The guard should be slightly shorter than the shaft by not more that 12mm so that it will not separate at its longest length or jam at its shortest.

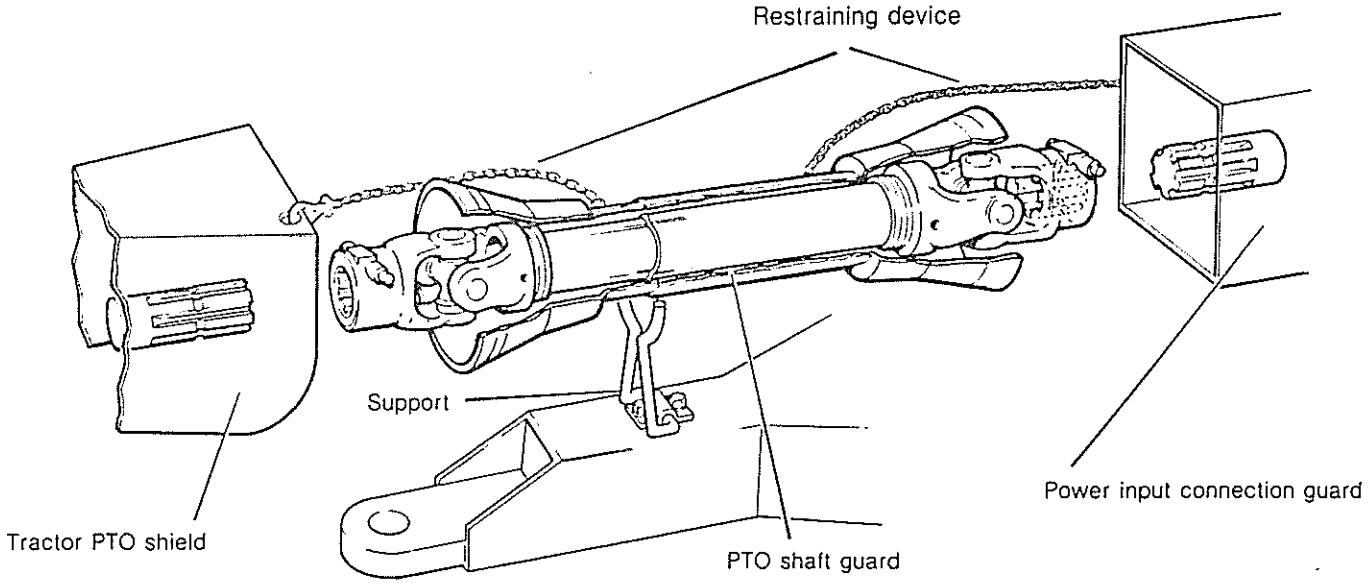
* Fit non-rotating guards. They are less likely to suffer mechanical damage. Make sure the guard is secure in the correct position on the shaft grooves and free to rotate on its bearings and that a restraining device usually a chain or chains - is in place to prevent the guard rotating with the shaft.

* Attach restraining devices at suitable points. The device at the machine end should be attached near the power input connection guard. The device at the tractor end should be coupled to a hole in the PTO shield as specified in BS 5861.

* Clean the sliding inner and outer surfaces of the guard daily and lubricate the guard bearings weekly with a lithium based grease. Grease nipples at universal joints should be lubricated with a good quality lithium based grease as often as necessary.

* Ensure that the spring-loaded plunger of the quick release yoke is adequately lubricated.

* Torque limiters or clutches should be fitted to the machine end of the shaft.



Guards for PTO shaft, power input connection and tractor PTO (and support for shaft/guard when not in use)

SAFE USE TO AVOID DAMAGE

The PTO shaft and its guard should be supported when it is not connected to the tractor. A support - such as a cradle - should be attached to the drawbar of all PTO driven machines and should be designed to prevent the halves of the shaft and guard from separating.

Do not rest PTO shafts and guards on drawbars and do not drop them on the ground. Do not wear scarves or loose clothing which could be caught in moving parts. Long hair should be tied back and shirt or overall sleeves securely buttoned. Make sure draw bar pins of trailed machines cannot foul and damage the shaft guard. The recommended height of pins above the draw bar is 20mm. Allow enough clearance between the guard and the parts of the tractor and machine to prevent the guard being fouled. This is particularly important when working on undulating land.

Check that no one is in danger before engaging the PTO drive and take care when operating the tractor and machine. Don't turn too sharply as this could cause the lower links or tractor tyre to foul the PTO shaft. Always disconnect the PTO drive when making sharp turns.

Never try to clear blockages from a power driven machine while it is moving. Always disengage the power drive, stop the tractor engine and wait for all movement to cease before attempting to clear any blockage.

DUAL SPEED PTO's

British Standards state that the shafts for the two speeds should be different, six splines for the 540 rpm and 21 splines for the 1000 rpm. In both cases the speed should be achieved at not less that 80% of the engine rated speed.

Any adaptor allowing a six spline shaft to drive 1000 rpm machines is potentially dangerous and is not recommended. Adaptors create the further problem of extending the length of the shaft so that the standard guard no longer offers the necessary protection.

It is essential not to drive the machine too fast. If a machine is used in excess of its design speed it will come under too much stress and there is a possibility of it disintegrating. This can be caused by using the wrong shaft speed or too high an engine speed when using a adaptor.

This information has been taken from a leaflet distributed by the Health & Safety Executive in Britain. When considering safety using any machinery, it mainly boils down to common sense, although you'd be surprised at how many people have very little of that. Some people just have an attitude of "I know what I'm doing." or "It won't happen to me!" It may not happen to them, but what about the neighbour or friend helping out?

SOME OF THE REPORTS ON ACCIDENTS IN BRITAIN
INVOLVING PTO's ARE GRUESOME TO SAY THE LEAST.
MANY ARE FATAL!

MANDY McLEOD
DECEMBER 1992

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BOILS

I thought this little snippet taken from "The Sheep Farmer" was quite interesting!

Australian shearers may be introducing Caseous lymphadenitis (boils to you and me) into U.K. flocks, according to a report in the Farmers Weekly. The suggestion is that the disease, which is common in Australia, may be imported on shearers' clothes and equipment and then infect U.K. flocks.

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CHEMICALS AID CONSERVATION

The use of chemicals in agriculture is a sensitive topic throughout the world, Falkland islanders are no exception. At two recent meetings (one agricultural, one conservation) this topic was raised and resulted in heated arguments, some even threw up their hand in horror. This was even at the mere mention of chemical use. The main objection is probably due to a lack of understanding of such chemicals - of use, effectiveness and their safety (to both humans and the environment).

I have always held the belief that if methods of control are available that mean chemical use is not needed then go for it. The Agricultural industry in other areas of the world are dependent upon chemical use in order to achieve and maintain output per acre and in some instances they are the sole reason why that crop is being grown in that region. Thankfully this is not the case in the Falklands; 'organic' agriculture is the preferred term by some.

I hope this article will demonstrate to those in agriculture and conservation that there is a place for chemicals when used correctly and control is restricted. A wide variety of examples are listed that demonstrate the selectivity of some chemicals, thus removing the widely held belief (of some people at both meetings) that all chemicals are bad, should not be used in the islands and should be banned altogether.

The judicial use of agriculturally related chemicals such as herbicides and insecticides when required is being demonstrated by scientists (both in agriculture and conservation) that the use of a well chosen herbicide can be a valuable tool.

Herbicides are no longer simply a means of improving any yields and quality, they can (when used for this purpose) enhance the natural diversity of wild flowers and plant life. (Well that's the conservationists on my side - half the battle is won!) The idea is to use a highly selective herbicide to kill those plant species not wanted. This allows more important species (the ones you want) an opportunity to flourish unhindered by competition.

EXAMPLES OF USE:

A single spray of ICI's grass weed killer, Fusilade, has been particularly successful in allowing the violets and herb rich flora at the base of the sward to gain ground. Willmot's agronomist Marek Nowakowski says that Fusilade is used as a surgical tool to redress the natural balance. Once the problem species are checked, natural succession and management techniques take over. The Game Conservancy Trust has adopted a similar approach in the management of conservation headlands and hedgerows.

It is clear that farmers are becoming much more aware of conservation headland and hedgerow management but surveys suggest that some are still getting it wrong. A survey held at Cereals '91 and the Willmots Field Management Event revealed that 50% of

farmers still spray under hedgerows, often with a broad spectrum weed killer. Dr Boatman says this is a mistake and simply compounds the annual weed problem. Eliminating competition from the harmless perennial species allows space for the troublesome weeds such as sterile brome and cleavers to establish from seed.

'Farmers then get themselves onto a pesticide treadmill and have to keep going back each year to keep on top of the problem weeds', he adds. Work is now underway looking at the use of selective herbicides, such as Quinmerac and Fusilade, along the hedgerow bottom to knock out things like cleavers and sterile brome and leave the perennial species undisturbed.

The Game Conservancy Trust along with government bodies are attempting to re-educate farmers either to adopt a selective herbicide approach where there is a weed problem or where possible to leave the hedgerow bottom undisturbed. Long Ashton Research Station in conjunction with Willmots, has been working on the idea of creating a herb rich field margin by planting a grass and wildflower seed mixture in a trip along the edge of the arable field. With good management this effectively creates a weed barrier and at the same time harbours predatory insects useful in the control of crop pests. It also provides a refuge for natural plants and animals.

This approach serves both a farming and a conservation role - the public can enjoy the wildflowers, the Government sees land set aside, farmers benefit from weed, pest and disease control and conservationists see a boost to wildlife.

The key is to select species which will tolerate the herbicide that is used in the initial stages of establishing the strip. Experimental trials using a range of grassweed killers suggest that Fusilade is the most appropriate herbicide.

For these same comments to be made and chemicals to be put into practice here in the islands, field testing would need to be carried out to answer the aim of their use.

How applicable this particular chemical, Fusalide, is in the islands is unknown, however, may be this is the seed for Falkland Conservation to grow!

GERRY HOPPE
JANUARY 1993

********** VIDEO LIBRARY **********

There are a series of videos on chemical use. One in particular is good and deals with the field trial testing, legislation of chemical use and shows a range of uses. This video is an ICI production made by the conservationists friend, David Bellamy. It is worth watching - the kids will enjoy it too!

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LYCO CAPLESS WOOL PRESS

We purchased our Lyco press in 1991, being one of the first three imported into the Islands by Goodwin Enterprises. On agreeing to attempt to write this article, it is intended as a brief account of the press operation and not part of any sales campaign for the press, although we are quite happy with the press performance over the past year.

The press is delivered as a complete unit with a twelve month guarantee. The power pack is filled with oil which the manufacturers recommend be replaced along with the filter after the first fifty hours use, thereafter every five hundred hours. The Lyco has digital readout scales behind which is a warm up switch to pre-warm the oil in the hydraulic system on cold winter mornings. However, to avoid blown fuses it pays to use this switch every morning prior to pressing.

When installing the press you will need headroom of at least 8'5" and a sufficient power supply to power the 3 HP single phase 230 volt motor.

All the information on specifications etc can be obtained from Robin, but briefly the press has twin rams generating in excess of 13 tonnes thrust under the platen producing a bale approximately 52"x 28"x 27", this being the size of the bottom box which has a hinged door. The top box consists of two box sides which unlatch and a hinge back for the removal of the bale and insertion of the wool pack. The front and back of the top box consists of two safety doors, which by hinging the appropriate platen trip arm to the "extended" position, the press can be filled from either the back or the front.

The instruction manual gives clear instruction on the press operation which basically are:

* Turn motor on and cold start switch if required. Move control lever to the "up" position. (The pump will engage and the platen will be moved up and open the appropriate safety door).

* Open both safety doors and two box sides and insert wool pack using the four clamps provided. Close two box sides and one of the two safety doors. Fill press with wool through the remaining open door. (The press will not operate until the door is closed by the operator). When the door closes a micro switch is operated which activates the pressing cycle, the operating handle automatically goes into the down position and the twin rams will press the platen into the bottom box. A rod fitted along the length of one of the rams then activates the control lever to the "up" position and the rams return the platen to the top of the top box, leaving four spikes in each corner of the two box sides holding the wool. Also, as the platen returns up the trip arm will automatically open the required door ready for the insertion of more wool.

* To cap off the bale, remove all pack clamps and fasten the side flaps together over the spikes using three hooks. Make sure front and back flaps are clear of their retaining clamp channels but do not fold into press. Activate another cycle by closing safety door. The spikes will now be on top of the fastened side flaps. Now fold front and back flaps into press over the spikes using four hooks. Activate another cycle and the spikes should now be on top of all flaps and the bale.

* The side boxes can now be unhinged and the bottom box door opened for bale removal.

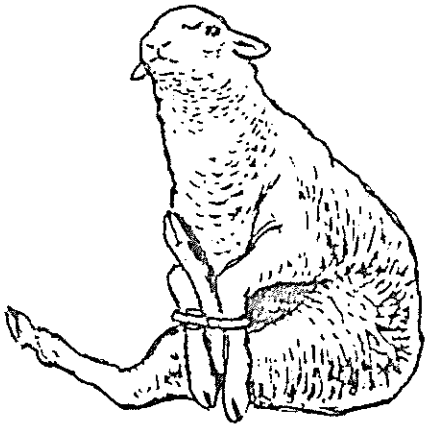
M.ALAZIA
PORT EDGAR FARM
DECEMBER 1992

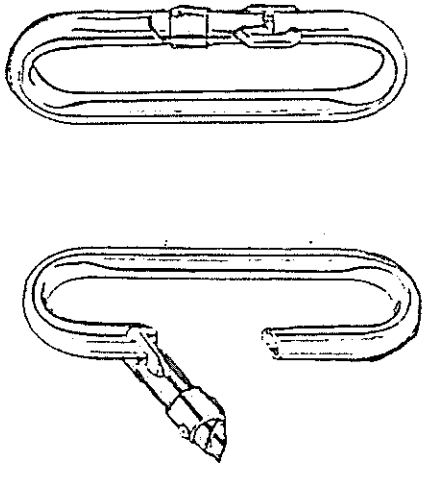
NEW PRODUCT

QUICK ATTACH SHEEP RESTRAINT

This sheep restraint is available from Ritchey Tags. The two front and one back leg of a struggling sheep are simply cuffed together.

Made from steel tubing and zinc plated to stop weathering, the cuffs hold the stock comfortably as blood circulation is not impeded. They also eliminate any possibility of wool contamination from wire and twine. Large sizes are available to fit very big rams or calves.





TRACTOR & TRAILER SAFETY

BRAKES

These instructions highlight the practices that drivers should follow to reduce the likelihood of accidents while operating tractors and trailers.

If you drive a tractor:

* check that the brake pedals are coupled together
* check the tyre treads and walls for wear and damage
* make sure tyre pressures are correct
* keep ballast correctly distributed
* make sure the brakes are evenly balanced
* keep the parking brake in good working order
* keep the pedals and footplates free from obstructions and from mud, oil and other slippery substances
* when using independent brakes equalise the direction of turn to prevent uneven wear
* keep the cab windows clean

If you drive a tractor with a trailer or trailed appliance:

* choose a tractor adequate for the job
* clean the hydraulic brake couplings before coupling up
* make sure the towed vehicle's brakes are coupled to the tractor and can be applied from the driving seat. Find out how they work
* make sure any diverter valve is in the brake position
* make sure the brakes have been properly maintained. If you need to, check them while on the move
* check any device that automatically applies the brakes if the towed vehicle becomes detached - is it working properly?
* make sure the hydraulic brake coupling is correctly fitted - the male coupling should be on the tractor

Tips for safe driving and towing

* Adjust the tractor speed to the conditions
* Don't climb a slope that you can't safely descend

* Don't change gear on a steep slope

* Before descending a slope choose a gear that will provide adequate engine braking - the slower the better

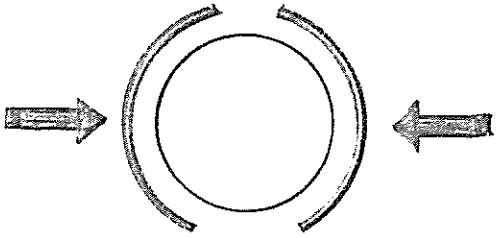
* Reduce engine speed before braking, and always apply brakes gradually - except in an emergency

* Don't change speed or direction quickly-your wheels could lose their grip

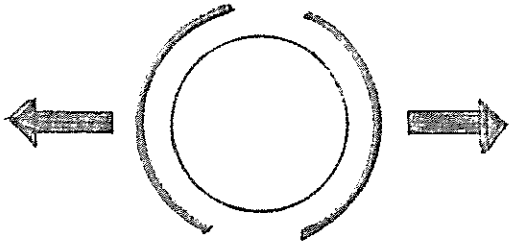
* Remember - operation of tractor and trailed vehicles by a single control (simultaneous braking) is the best system in an emergency.

KNOW YOUR BRAKE SYMBOLS

Brakes on



Brakes off



THESE SAFETY TIPS HAVE BEEN EXTRACTED FROM A LEAFLET SENT TO US BY THE HEALTH & SAFETY EXECUTIVE.

MANDY McLEOD
JANUARY 1993

* * * * * * * * * *

SOCK 'EM

An increasing number of farmers are not shearing socks off their sheep's legs. From a wool point of view this reduces the chance of fleece wools being contaminated by short wools, kemps and coarse wools. Sheep do look less clean shaven on leaving the shed with their socks on, however they are taking away only locks (LOX) and potential problems. This idea does perhaps make shearing slightly more difficult however, all farmers should consider it.

RHBH.

A.T.S.

Training courses have been non-existent (except for the ATS youth) in the last three months while you have all been busy with lambing, shearing, etc. Do start thinking now though of what your requirements might be after the season.

We are hoping to run more First Aid courses in conjunction with the Medical Department as this is an important training area that should be covered regularly to keep your knowledge of First Aid procedures up to date. When in remote situations it could be the difference between life and death if you know what you are doing.

The Training and Economics section would also like to hear from any farmers who would like some instruction on Book-keeping. These training courses are intended to be run on a one to one basis and done in conjunction with other farm business visits (ie, Grant or EDF project inspections). We feel that this way the instruction may be clearer as it can be related to your own farm figures and any queries can be made in privacy.

Ricky McCormick and Susie Clarke are in the last quarter of their ATS (youth) year. As yet we have no new recruits for the next year but it would still be handy for us to know of anyone willing to be a host farmer in the event that we do have a late applicant or two.

Anyone interested in any of the above can contact Hugh or myself at the Department of Agriculture.

MANDY McLEOD
JANUARY 1993

RECIPE

The following recipe was given to me by Sandra Lang while on a visit to Spring Point Farm. It is a homemade mayonnaise that can be bottled and it keeps well. I can personally say that it is very tasty!

INGREDIENTS

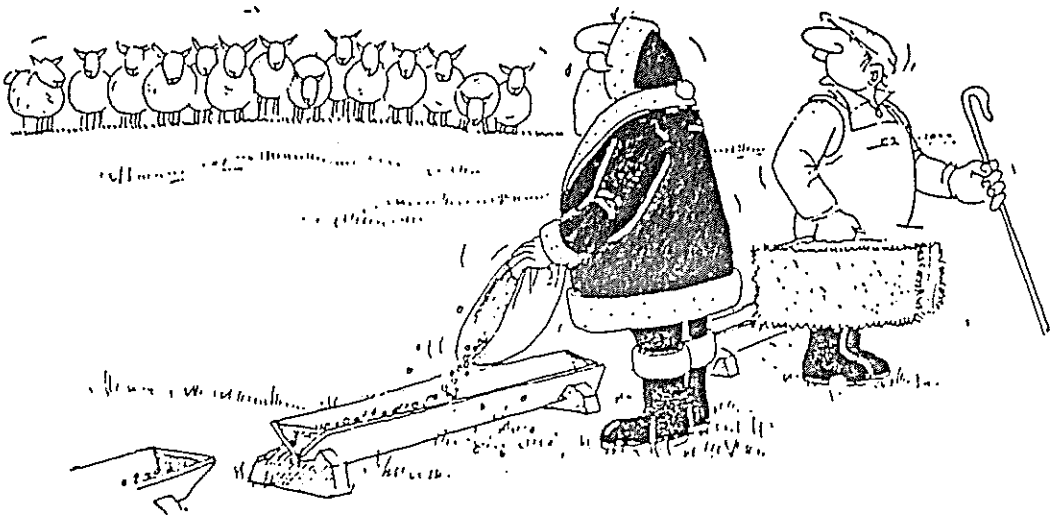
2 eggs
salt and pepper to taste
English mustard - powdered or paste,
(about a level tablespoon - you can make it stronger if you wish)
4 tablespoons vinegar
4 tablespoons sugar
oil

METHOD

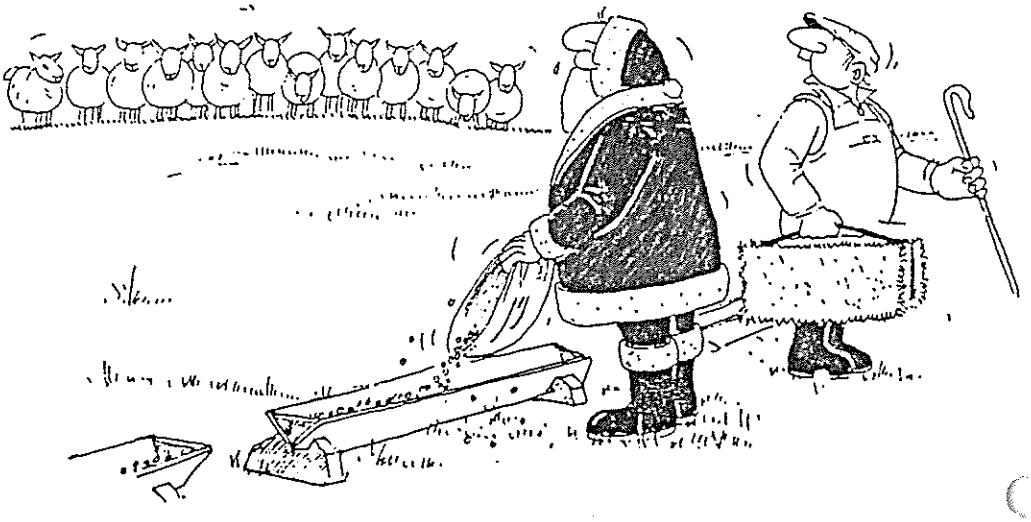
Put all the ingredients except the oil into a liquidiser. Blend for about 3 minutes, by this time the mixture will be quite thick with a hollow in the centre. While blending gradually add the oil until the top becomes level. Continue to liquidise for a further minute.

Try these proportions first, then the next time you make it you can reduce or increase the mustard / salt / pepper to your own taste.

SPOT THE DIFFERENCE



well they're not goin' t' come anywhere near while you're still wearin' that bloody silly outfit, are they . . .?'



. . well they're not goin' t' come anywhere near while you're still wearin' that bloody silly outfit, are they . . .?'

LAST MONTHS DIFFERENCES

In bottom picture:

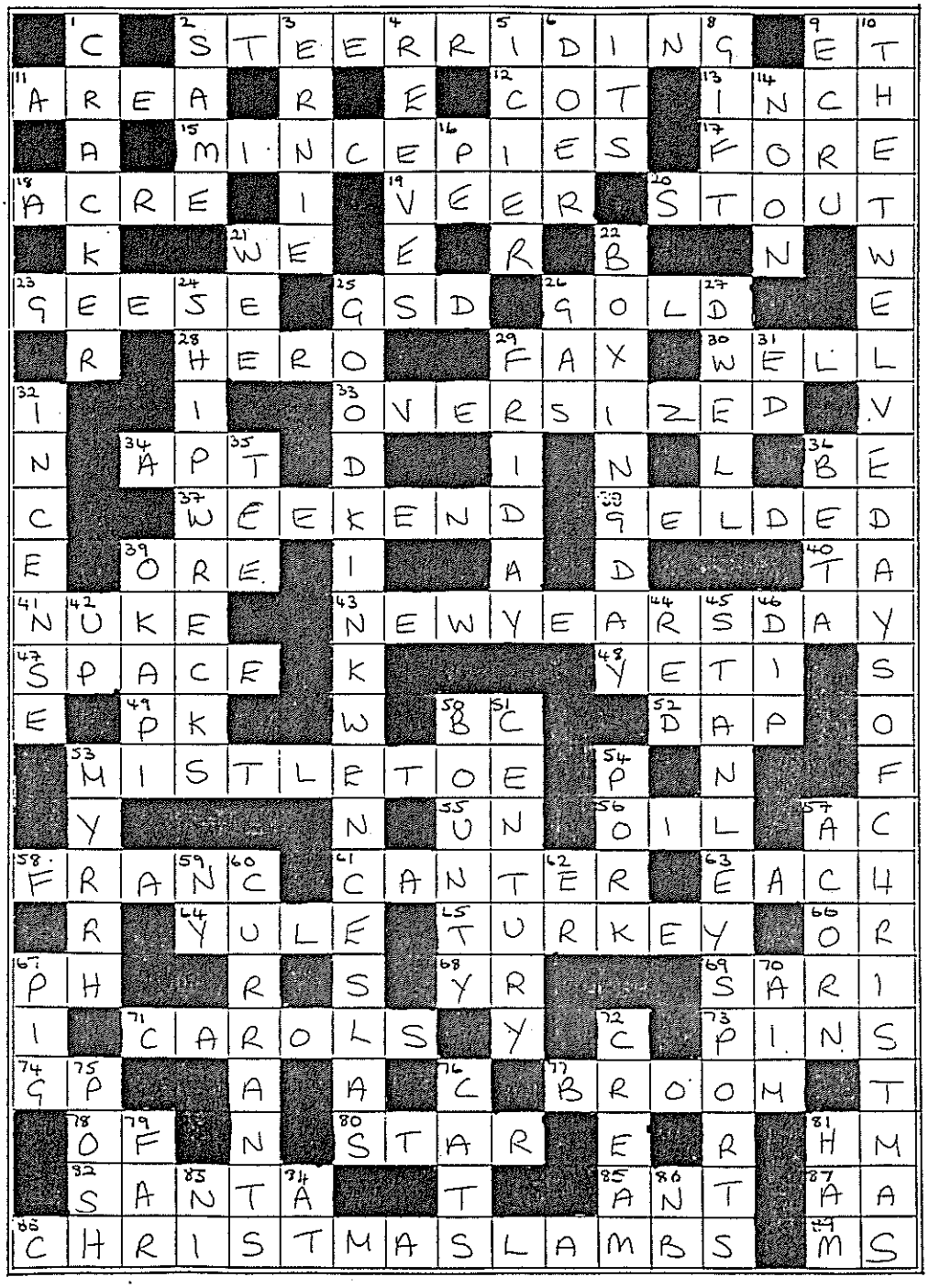
1. Turkey with bell has a shortened 'nose'. 2.Shine marks on the bell. 3.Shortened tail feather on turkey with bell. 4.Eyebrows on second turkey from right. 5. Turkey with bell has eyebrows added. 6. No lines on left foot. 7. Feather lines on wings. 8. Right hand turkey has tail feathers changed. 9. Extra claw on left foot. 10. hook added to 'nose'.

BLADES

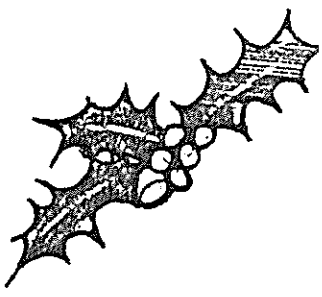
I read an article recently about the resurgence of interest in Blade shearing in many sheep farming countries. The article mentioned the 100 year old record held by a shearer called Jack Howe, who sheared 321 sheep with blades in seven hours and forty minutes.

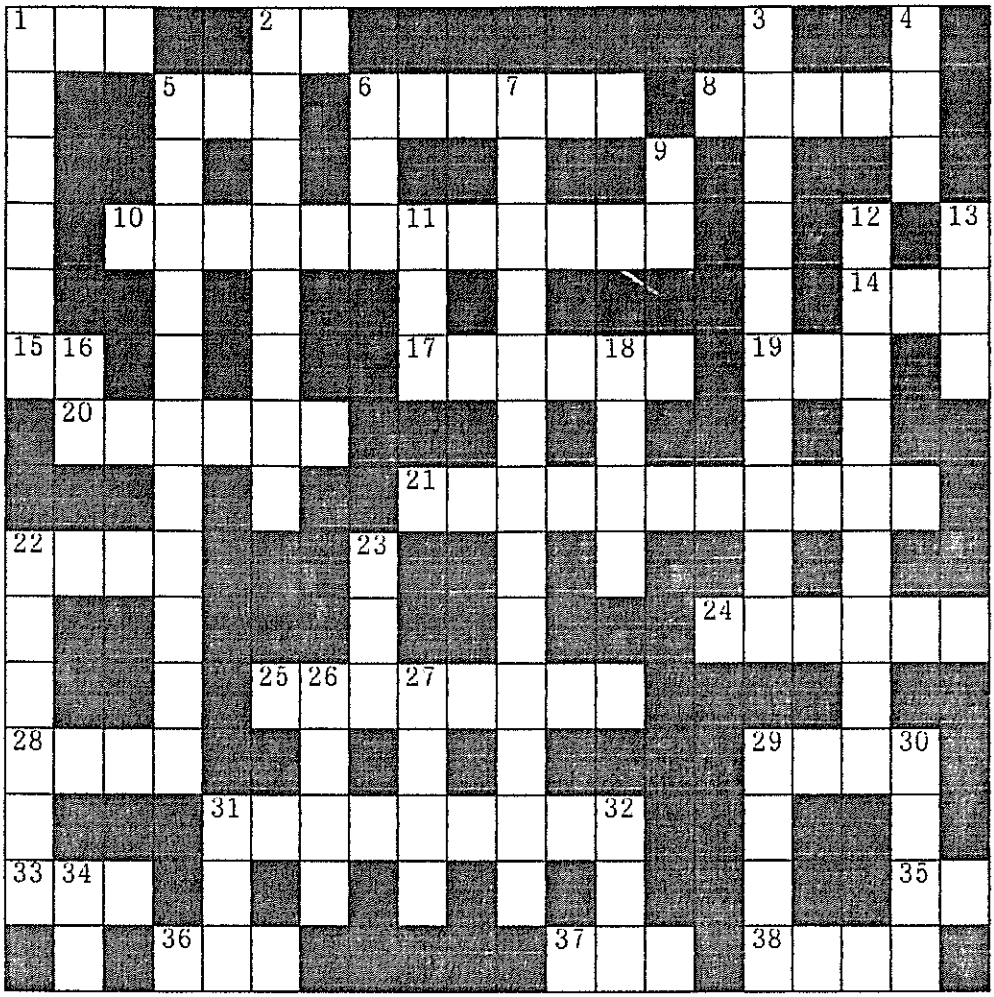
Can anyone enlighten us as to the shearing record for "blade shearing" in the Falklands. I know that Bob Steel sheared well over the three hundred mark (at Goose Green I think) but I'm not sure of the exact number, or how many hours were in the working day.

MANDY McLEOD
JANUARY 1993



Christmas Cross Word Solution





WOOLPRESS CROSSWORD

ACROSS

1. MALE OFFSPRING
2. START
5. POWER TAKE OFF
6. REAR END OF FLEECE
8. YELLOW FLOWERING SHRUB
10. LATEST IDEA IN WOOL BALING
14. UPPER APPENDAGE
15. TIME BEFORE JESUS
17. CASTRATED MALE SHEEP
19. THUS FAR
20. ALTER
21. YOU WORK THESE OUT AFTER LAMB MARKING
22. WHEELED CARRYING BOX
24. GOOD FOR TYING THINGS WITH
25. URGENT TASK WITH WOOL??
28. MANURE
29. SHEEP GATHERERS?
31. SPOKEN EXPRESSION
33. PAIR
35. MORNING
36. FEMALE SHEEP
37. ABLE
38. HEAVENLY BODY

DOWN

1. SACRED SPIDER OF ANCIENT EGYPT
2. A LOT OF THESE WILL HAVE FLOWN BY NOW
3. WEST VILLAGE
4. FEATHER HOLDING AREA?
5. TRANSPORT OF LOCAL FUEL
6. LARGE PASSENGER TRANSPORTER
7. ONE WHO DRIVES THIS PARTICULAR FARM VEHICLE
9. LIKE
11. FEMALE PIG
12. COLLECTING (AS IN SHEEP)
13. MEASUREMENT OF ELECTRICITY
16. CUBIC CENTIMETRE
18. WATER CARRIER
22. POSTPONED PAYMENT
23. MONKEY
26. ENLARGE A HOLE BY BORING
27. VEGETABLE AND MEAT DISH
29. HEAVILY SOILED PEICES TAKEN FROM FLEECE
30. BOXING PRACTICE
31. STITCH
32. END
34. US

WOOL PRESS

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ISSUE 39 FEBRUARY 1993

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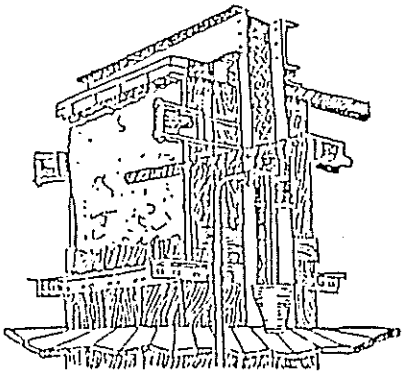
PLUS ALL THE REGULAR FEATURES



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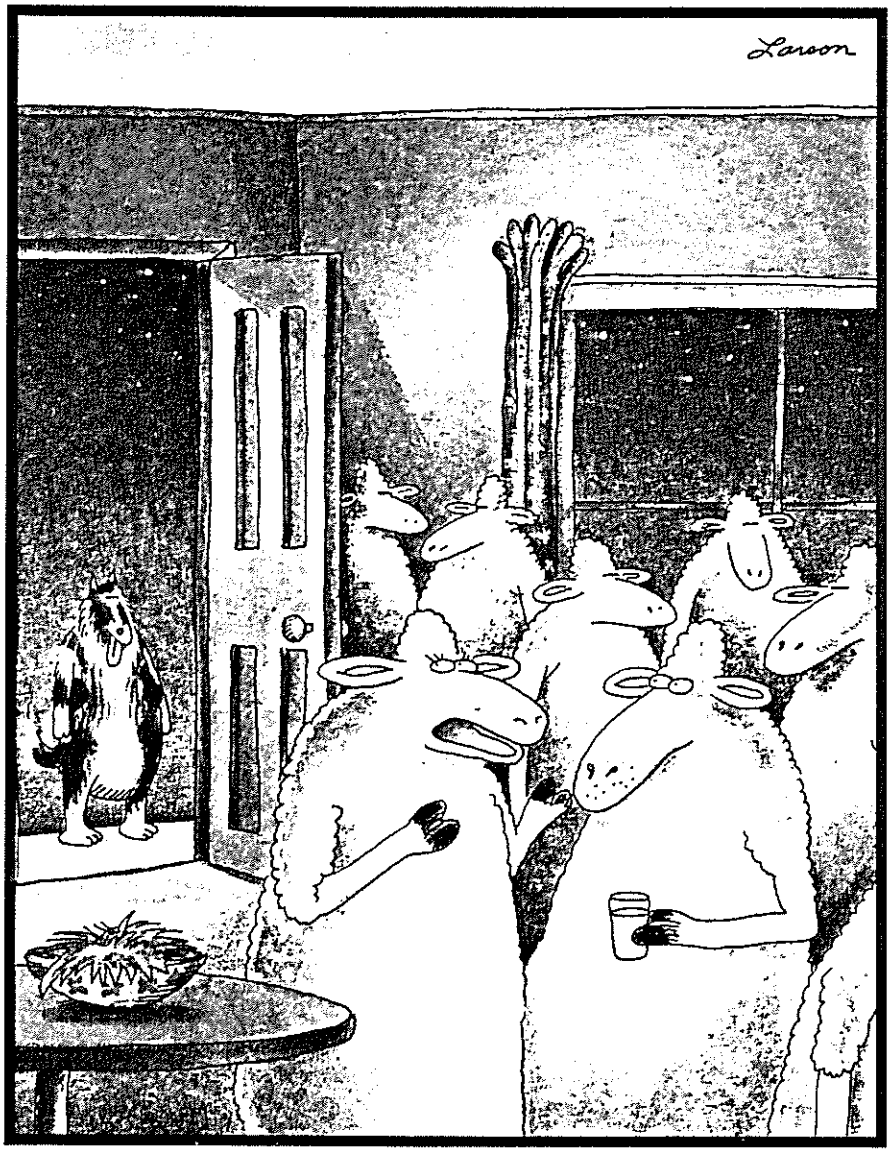
Editors - M.McLeod and R.H.B.Hall

* * EDITORIAL * *

February should see the main shearing out of the way for the majority of you... Yes, there is a light at the end of the tunnel after all! Quite a few farmers are now using their own shearing sheds which must make planning, driving etc a lot easier.

Dog and horse training (not to mention elbow bending) will be getting quite intense toward the end of the month in preparation for Sports Week. Have a good time!



"Henry! Our party's total chaos! No one knows when to eat, where to stand, what to . . . . Oh, thank God! Here comes a border collie!"

COMPETITIVE FIBRE PRESENTATION

Wool from the Barbara E was in Bower Green's Norwood warehouse when Colin and I visited Bradford last week. The large warehouse contained not only wool from the Falklands, but an assortment of other fibres.

Two stacks stood out in particular; one large stack was in pristine condition in very smart, undamaged, bright white packaging, whilst the other stack came from Sardinia and had bagging on only four sides with filthy fibre hanging from the two exposed sides.

The reason for these stacks making such an impression was that the stack of pristine bales contained not wool, but immaculately presented raw man-made-oil-based fibre, whilst the Sardinian wool bales (which looked like the worst mal-treated Falkland wool) was destined for the cheapest carpets.

The raw man made fibre producers, although part of a young industry, have achieved a high standard of packaging, which both looks good and more importantly protects their commodity from packaging and external contamination. In general, with the exception of Australia and New Zealand, the much older wool industry, despite its head start of many years, often fails to protect and present the product it claims to value and promote. Australian and New Zealand farmers together with their respective Wool Corporations, have generated a reputation for quality by continually seeking and implementing production, presentation and marketing improvements.

The message is obvious, yarn producers can use a variety of fibres and wool must compete with them all. Competition is a continuous process involving continuous efforts to improve the product in relation to competitive fibres. Falklands wool must compete with the best, rather than Sardinian carpet wools.

ROBERT HALL
FEBRUARY 1993

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THE PROSPECT FOR WOOL

THE FOLLOWING IS A COPY OF THE JANUARY WOOL RECORD EDITORIAL, SENT TO US BY COLIN SMITH

It is still less than two years since Australia abandoned its floor price scheme for wool. Two years ago, large percentages of sale offerings were being bought by the Australian Wool Corporation in support of its floor price - a floor price which had already been reduced from the highest point, as the crisis built up. The task of eliminating the stockpile of over 4½ million

bales was a daunting one, but a year ago the free market for wool was working well. Prices had bounced up erratically from a seasonal low in October, and the second half of the season had opened firmly.

This year the second half of the season opened on what can best be described as a subdued note. The AWC market indicator fell four cents to 505, only nine cents above the lowest recorded for the season, 496. At least equally important in assessing the market situation was the high proportion withdrawn from sales at growers' reserves. On the first day, Jan 12, 25% of the offering at Adelaide and Sydney failed to meet the minimum prices growers considered acceptable.

Also important in assessing prospects is the very slow rate at which the stockpile was being reduced. In the first half of the 191-92 season the AWRC disposals were about 267,000 bales; the corresponding figure in 199-93 was 98,000 bales. Stocks are only sold above market prices. Wool production has declined below its bottom-line peak. The wool market is a free one, yet demand is clearly well below the levels needed to create firmness.

It seems that forecasts suggesting that the second half of the season will see usefully higher prices in Australia than the first half, which is the traditional picture, may not this time be realised. Most of those now looking ahead are more cautious than they were earlier in the season. The world recession is clearly of major importance in keeping the demand low. There are many reports of firms with higher stocks than they would wish, and of late payment for what has been taken in delivery. Those in earlier processing ensure profitability only by keeping busy in the final hours of full capacity working, and in trying to achieve this there is price cutting which erodes the market price and has a knock on effect on the wool market itself.

Yet perhaps the main problem on the demand side is the collapse of demand in the state trading countries which played such an important part in enhancing world demand in the 1980's. Developments in 1992 did not raise hopes of an early revival in this demand; or more accurately, in the ability to pay for what was still wanted.

The Australian Bureau of Agriculture and Resource Economics have forecast little change in wool prices, in real terms, in the next five years. With a stockpile of almost four million bales being only very slowly reduced, with the current demand scarcely matching currently offered supplies, and above all with the ex-state trading countries unable to compete, it is difficult to adopt a significantly more optimistic view.

However, the is one very important optimistic note to make in conclusion. Wool is cheap - in real terms, cheaper than it has ever been, even in the 1930's. The retailers who matter so much in guiding fibre usage and choice prefer it to be cheap. They also prefer price stability. Hard though the medium term future may be for growers in particular, a sound basis remains for wool as a fibre, and for its long-term future.

* * * * * * * * * *

WEST FALKLAND
RAM & FLEECE SHOW REPORT 1992.

HERITAGE YEAR

The organising Ram Show committee were optimistic that as it was Heritage Year the 1992 event would be somehow 'special'. Before the end of the day it became quite obvious that their hopes would be fulfilled. Not only were there more and better entries, but the new location of Nigel Knight's new wool shed allowed for a better presentation of both rams and fleeces.

From the 9.00 am opening time until the 1.00pm close of entries Steve Howlett was kept very busy coping with the deluge of exhibits. The fleece tables were filled with 89 fleeces, 34 of these were in the Hoggett fleece class, 42 in the 'Fine wool' class and 13 in the 'b' wether class, whilst the individual pens contained 30 extremely handsome rams. Three of these were in the A.I. progeny Hoggett class, 16 in the local progeny class and 11 in the Mature Ram class.

As usual each entry was allocated a number, no names were displayed. Much interest was shown in the entries as they arrived, and no wonder, the very high quality of the rams and fleeces was the source of many an admiring gaze.

After the entries closed, the visitors and residents alike moved to the New Social Club where liquid refreshment could be obtained. This was of course at the 'barbecue' once again in the capable hands of Richard and Grizelda Cockwell.

The focus of attention of all present then reverted to the 'woolshed' where the ominous task of judging the entries began. Judging was the same as last year and by Public Ballot, except for class 3; rams in this class were judged by R.M.Pitaluga and P.C.Robertson. In all the other classes interested members of the public who considered themselves capable of such a difficult task started off by judging the Ram hoggett classes, and this was followed by the Mature Ram class. Each ram was judged individually by awarding points out of ten. Rams they considered best would be allocated higher points than the ones they considered less worthy.

The fleeces were judged differently, here the participants were asked to select what they considered to be the five best fleeces in all three 'Fleece classes'. Their five were also ranked in order of preference. After the judging votes were collected and added together. Those entries with the highest number of votes won that particular class. Prizes being awarded for the entries with the four highest scores. The collating of the results was carried out admirably once again by the Show Secretary, Niamh Howlett.

At 6.30pm all assembled for the prize giving. H.E. The Governor kindly agreed to distribute the prizes at this years' show. In the 'Full Wool Ram Hoggett' (A.I. Progeny) class, Nigel Knight of Coast Ridge Farm won first prize with 256 points. This was a Silver Cup plus £40.00 presented by Cable & Wireless Plc. Second prize was won by Roger Edwards of Lake Sullivan Farm with 242

points, this was £50.00 presented by Falkland Landholdings. Third prize was won by Bill Pole-Evans of Manybranch Farm with 216 points, this was £25.00 presented by the Farmers' Association.

In the 'Full Wool Ram Hoggett' (Local Progeny) class, first prize went to Bernard Betts of Boundary Farm with 286 points, this was the Engraved Challenge Shield and Miniature presented by Mr & Mrs Austin Davies, plus £75.00 donated by Standard Chartered Bank Plc. Second prize also went to Bernard Betts, Boundary Farm with 285 points, he won £50.00 donated by Port Howard Farm. Third prize was again won by Bernard Betts, Boundary Farm with 266 points, he won £25.00 donated by the Falkland Islands Sheep Owners Association. Fourth prize was won by Nigel Knight of Coast Ridge Farm with 230 points, he received £10.00 donated by R.M. Pitaluga and family.

The Full Wool Mature Ram class was won by Clive Wilkinson, Dunnose Head Farm with 244 points, the prize for this was the Falkland (Woolsales) Challenge cup plus a replica presented by the Falkland Islands Wool Marketing Co., second prize went to Alaistair Marsh, shallow Harbour with 237 points, he received £50.00 donated by the Falkland Islands Development Corporation. Third prize went to Bill Luxton, Chartres with 219 points, he received £25.00 from Little Chartres Farm. Fourth prize went to Frazer McKay of Teal River Farm who received £15.00 from Stanley Electrical.

First, second and third prize winners were also presented with a statuette each, donated by Peter Short of Falkland Supplies. The Champion Ram this year was owned by Roger Edwards, this was chosen out of all the rams by Rob and Peter, and received the Heritage Year Cup presented by the Heritage Year Committee plus an engraved shield plus £50.00 from the Luxton family, Chartres. The runner up was Bill Luxton, Chartres, he won a Heritage Year Cup donated by the Falkland Islands Development Corporation.

In the Fleece Wool, class 4 Hoggett Wool was won by Bernard Betts, Boundary Farm with 64 points, he received a Figurine donated by the Falkland Islands Company Ltd. Second prize went to Clive Wilkinson of Dunnose Head with 57 points, he received a £60.00 voucher from Falkland Farmers. Third prize went to Bill Luxton of Chartres with 37 points, he won a £40.00 voucher also donated by Falkland Farmers. Fourth prize was won by Leon Marsh, Rincon Ridge with 36 points who won a £15.00 fuel voucher from Stanley Services. The Fine Wool Fleece class was won by the National Stud Flock with 47 points, they won the Governor's Challenge cup donated by H.E. The governor W.H. Fullerton, plus a replica donated by F.I.D.C. Second prize with 42 points went to Alaistair Marsh, Shallow Harbour he won £50.00 donated by Falkland Landholdings. Third prize with 30 points went to the National Stud Flock they won £30.00 from B.T.Construction. Fourth prize with 29 points went to Bill Luxton, Chartres, who received £30.00 also from B.T.Construction.

The 'B' Wether Class was won by Bill Luxton, Chartres with 84 points, he received the Engraved Challenge cup presented by Coast Ridge Farm plus £50.00 from Ursula Wanglin. Second prize also went to Bill Luxton, Chartres, with 72 points who received £50.00 from the Southern Cross Social Club. Third prize went to Alaistair Marsh, Shallow Harbour who received £30.00 from the

Southern Cross Social Club. Fourth prize went to Clive Wilkinson with 39 points, he won £20.00 also presented by the S.C.S.C..

Rosettes were presented for 1st, 2nd 3rd and 4th prize winners in all classes except for class 3 where a 'Supreme Champion' rosette was given. These were all donated by Jim McAdam, Department of Agriculture, Northern Ireland.

The challenge cup for the farm with the most points in all classes, presented by Owen Summers, went to Bill Luxton, Chartres.

The 'Frazzles weight' competition was won by Pat Luxton who guessed the actual weight of 167 lbs. Pat won a prize donated by Lakelands Farm. The competition for the 'Best Guess' of the weight of the ewe hoggett fleece was won jointly by Kristin Wohlers who guessed a weight of 7 kg and Bill Luxton who guessed a weight of 7.20 kg, the exact weight was 7.10kg. The prize for this was £25.00 donated by Lake Sullivan Farm.

The 'Best Guess' prize for the fibre diameter drawn from a mid-side sample was won by Shirley Pole-Evans who was closest to the actual test result of 25.2 microns. The £25.00 prize was donated by the Argos Fishing Company.

The 'Pure Wool' sweaters donated by Griz Cockwell, Rosemary Wilkinson and the Falkland Mill were auctioned for £47.00, £46.00 and £50.00 respectively. These items were auctioned by Roger Edwards, the proceeds going to the show funds.

A new competition introduced last year was a 'sheep judging competition' for the under 21's. Contestants were asked to individually judge five maiden ewes. Their results were then compared with judging cards previously marked by two experienced stockmen. The contestant who came closest to the two stockmens result won the competition. This year Tom Blake came first with Becky Edwards as runner up. The Department of Agriculture sponsored this event.

Dunnose Head Farm won the 'Finest Tested Bale' competition with a bale of hoggett wool with an average test result of 21.5 microns. The prize was a silver cup presented by D.S.& Co (Falkland Farming) Ltd.

The organisers would like to take this opportunity of thanking sponsors, entrants and the general public for their support, interest and enthusiasm.

Special mention must go to the Department of Agriculture Sub-Centre at Fox Bay for their invaluable support, the committee of the Southern Cross Social Club, F.I.G.A.S. for carrying fleeces free of charge, F.I.B.S. and the 'Woolpress' for keeping everyone informed.

Also the residents in Fox Bay for entertaining visitors so well.

N.A. KNIGHT
Chairman W.F.R. & F.S.

* * * * * *

"RESEARCH & DEVELOPMENT"

The benefits of research and development started today will usually occur many years from now, so it is essential to plan an R & S programme with an understanding of the marketplace into which todays research will be delivered.

The Australian Wool Research and Development Corporation has produced a vision for the wool industry 20 - 25 years from now and is using this to develop priorities for the present planning period. One of the key features for this vision is that the wool industry is a market driven industry in which wool will be produced for specific uses. Another feature is that wool will continue to be a high value product with a premium for quality.

Consideration of the vision for wool and the mission of the WRDC to maximise returns to Australian wool growers and the economy, has led to the development of four objectives for the assessment of major research and development projects.

These objectives are firstly; Wool value enhancement to increase the price that Australian wool growers receive for their wool. Research and development activities to achieve this objective will include the development of new wool products to increase consumer demand for wool and improvements in wool product quality, such as reducing contamination, increasing fibre strength and producing fibres to meet specific markets.

The second objective of the WRDC is Fibre and Product Specification. This objective recognises that if total quality management throughout the wool chain from farmer to consumer is to be achieved,the quantitative and accurate specification of raw wool and part or fully processed wool must be possible. The WRDC is also looking for cost reduction of wool production and processing costs.

The final objective is Environmental Sustainability and the development of technologies which enable wool to be produced and converted into products in an environmentally sustainable way.

Having considered these objectives the WRDC has established research priorities, placing the research and development of innovative products at the highest priority research area. Expenditure on new or improved processing is also considered a high priority because this research area is crucial for environmental sustainability.

The WRDC believes that innovations arising from research and development programmes will be a major factor in ensuring the industry can capitalise on the unique properties of wool and to compete successfully against other fibres.

From the article "VISION & PRIORITIES" by Jo Curkpatrick as published in the Australian Wool Exporter 1992

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COMPLETION OF THE FITZROY TRIAL

The young sheep nutrition trial at Fitzroy Farm - initiated by David Makin-Taylor and completed by myself has now been analysed and reported on in full.

The trial was established in order to investigate the longer term effects, in terms of body weight and fleece characteristics, of a period of reseed feeding for hoggs.

Over two consecutive years, hoggs were given access to a reseed pasture for varying lengths of time and at different stages between weaning and hogg shearing. The growth rate of sheep from the first year of the trial was monitored until they reached 1½ years of age spanning hogg shearing only, whilst sheep from the second year of the trial were recorded until they reached 2 years of age and had been shorn as hoggs and shearlings.

During the first year, hoggs grazed on a reseed pasture immediately after weaning clipped coarser (not statistically significant) and (significantly) heavier fleeces than any other treatment group. The heavier fleece weights were not however, reflected by a heavier body weight at first shearing. The heaviest body weights were those of hoggs grazing a reseed immediately prior to shearing. Five months later at age 1½ years, this latter group still had a significant weight advantage over other groups.

The second year of the trial dealt with extended periods of reseed feeding and the monitoring of body weights and fleece characteristics until second shearing when the animals were approximately two years of age.

At hogg shearing in this second year, animals grazing a reseed for 112 days immediately prior to shearing showed significantly heavier body weights than any other group. The heaviest fleece weights however, were clipped from hoggs grazed on a reseed pasture for 205 days immediately prior to shearing. One year later, at shearling shearing, the only significant difference between the fleece weights of treatment groups was a lighter mean fleece from those animals which had grazed an area of reseed late in the season, after it had already been stocked earlier in the year by a different group of hoggs.

From the trials, a few interesting facts have emerged. Firstly, that animals grazing a reseed are, as expected, able to make liveweight gains far closer to their genetic potential than are camp grazed animals. In almost every instance however, when reseed animals are returned to camp they were seen to suffer quite an acute nutritional check and growth rates are dramatically depressed resulting in some cases, in a loss of body weight whilst continuously camp fed animals are making gains of up to 60 grammes per day. The only time that this did not occur was when reseed fed animals were returned to the camp in the spring when presumably, the higher quality of the natural

pastures at this stage went some way towards cushioning the impact of the nutritional gradient.

Secondly, the response of body weight to a higher plane of nutrition (i.e. reseed grazing) is relatively prompt whereas the response of wool growth rate is delayed. As has been recorded in papers on the subject, there exists a lag phase - which can be between 30 and 73 days - only after which wool growth rate responds to improved nutrition. Therefore, if increased growth rates are the result of reseed feeding, the effect of that feeding on body weight is relatively immediate whereas wool growth rate does not increase for some considerable time. This was evident in hoggs fed on a reseed immediately prior to shearing and showing a healthy advantage in liveweight over other groups but this not being reflected in improved wool weights.

Although the effect of feeding regime on body weight was still evident at shearling shearing, unless this is reflected in improved wool weights, it is of little consequence and it was found that there was no beneficial treatment effect at this stage. It appears therefore that allowing hoggs access to reseed pastures for a limited period of time has beneficial effects in terms of body weight which are of a short term nature only. Fleece weights at hogg shearing can be improved upon by judicial feeding but the benefits gained are by no means justified in relation to capital costs and from the first year at least, it appears that the heavier fleece weights are tending towards being coarser.

Jo Baughan.
February 1993.

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RECIPE

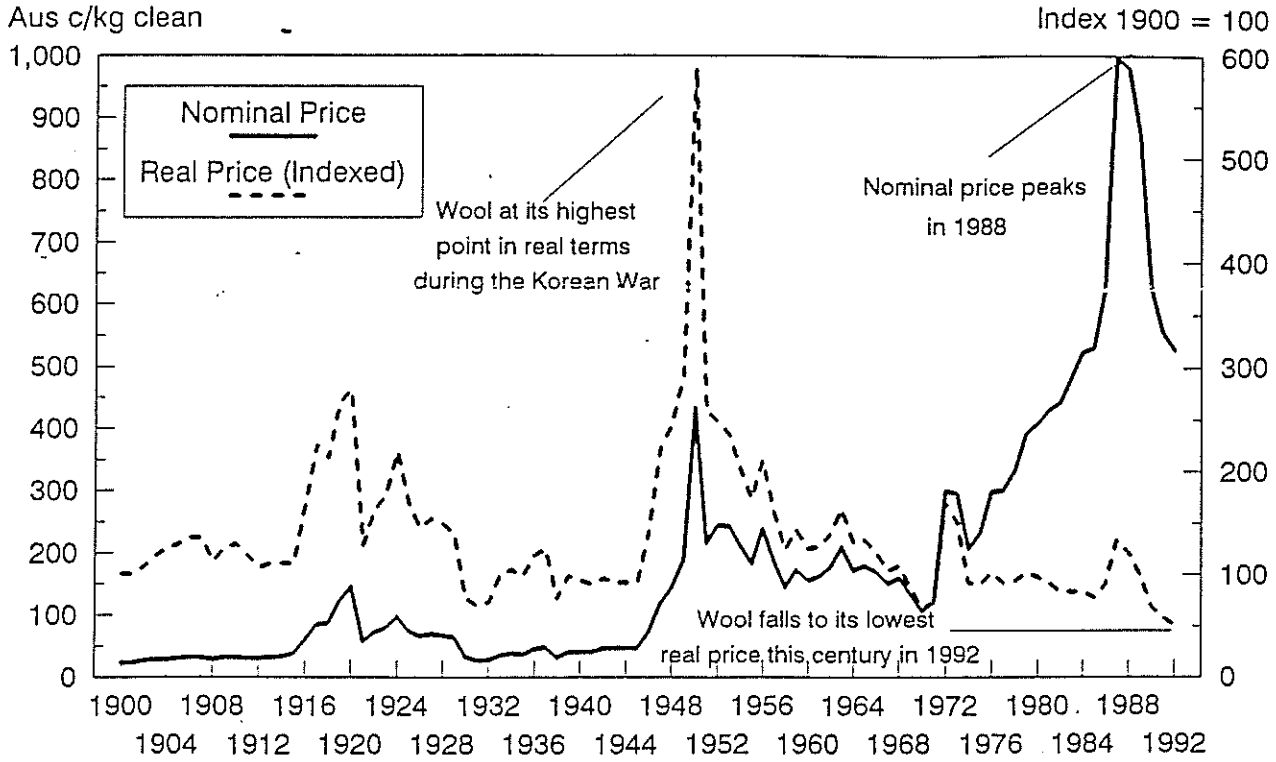
CALAFATE PIE
(Berberris berry pie)

INGREDIENTS
Short crust pastry (enough for top & bottom crusts)
Washed ripe calafate berries
Sugar to taste

METHOD
Make as you would any fruit pie but do not pre-cook the berries or they will go mushy. Just put them in the pie and sprinkle well with sugar. They are a bit like a blackcurrant to taste when cooked up. Brush the top crust with beaten egg and sprinkle lightly with more sugar before baking in a moderate oven until golden brown.

Serve hot or cold. Best with fresh cream!

Australian Wool Prices in the 20th Century in Nominal and Real Terms



Sources : Merino Export Review, AWC

Readers might be interested in this graph which clearly puts the current state of the Wool Market into perspective.

The graph shows the actual (nominal) price of wool in Aus $ terms and the real purchasing price (value) of wool after allowing for inflation. As the graph heading suggests farmers are currently experiencing the lowest wool prices in real terms this century. Even during the depth of the great depression in the 1930's wool prices were not as low in real terms as they are today. As many elder members of the farming community may remember, the graph shows the strength of the wool market experienced during the post war the early 1950's. This was a time of considerable development in the Falkland's Wool Industry and throughout the Islands generally. One can not help thinking that this period could have been a more appropriate time to have embarked on a limited policy of farm sub-division in the Islands.

The graph is perhaps a little misleading in that it does not take account of the dramatic rise in productivity in the wool industry. Wool weights per sheep and labour requirements on farms have for example altered considerably over the period. This increase in efficiency has, to a certain extent, offset the decline in wool prices relative to the cost of other goods and services. It is also worth remembering that whereas the characteristics of 27 micron wool has remained unchanged throughout the century, the performance of other goods and services have changed considerably. One only has to look at the increase in the performance of the motor vehicle or computer to appreciate how technology in other industries has advanced. It does however indicate to farmers the fact that faced with a gradual decline in the real value of wool, the Falkland Wool Industry can not remain static without experiencing a decline in earnings.

HUGH MARSDEN, FEBRUARY 1993

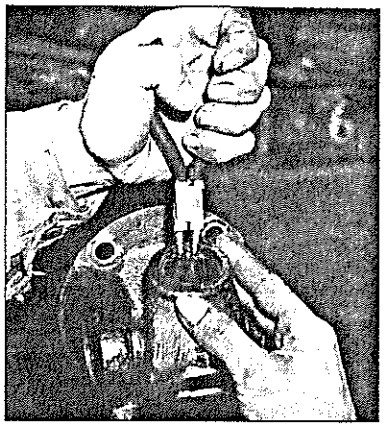
P.T.O's – NEW JOINTS & GUARD MAINTENANCE

Following my last article on Safety with PTO's, I think it goes without saying that the maintenance of both the shaft and the guard are important points and should not be neglected. The following guide on the care of PTO shafts (particularly the guard and Universal joint replacement) was written by Andrew Pearce in a recent Farmers Weekly.

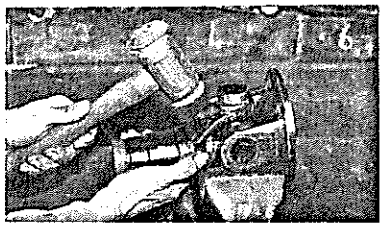
REPLACING A UNIVERSAL JOINT

Tools required are a substantial hammer (ideally soft faced), circlip pliers, a vice, a spacer and perhaps a drift.

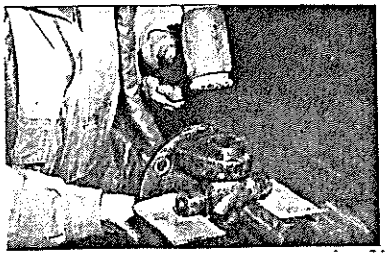
1. Start by taking out all circlips. If one or more is tight, gently drift the underlying bearing cup inwards to release it. If rust has locked a circlip in place, a little heat should free it.



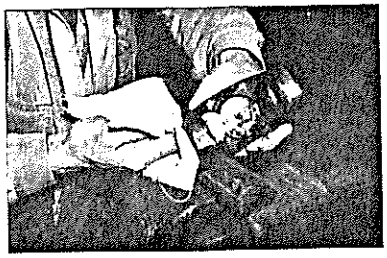
2. First, deal with the joint half with the shaft attached. Support one yoke across open vice jaws and tap the other. This will drive one bearing cup upwards. Turn the joint over and repeat to unseat its partner. On a good day the cups practically fall out!! On a bad day, grip the exposed section in the vice and pull/twist/swear. With one cup removed, release the joint cross-piece or spider from the yoke.



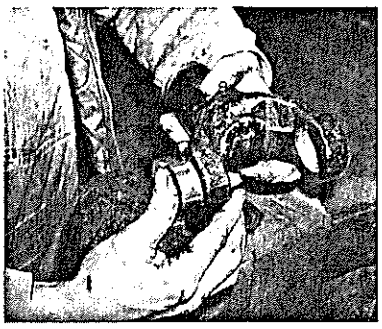
3. Repeat step two for the second yoke. If the joint is to be re-used, protect the spider's exposed bearing surfaces by laying them on thick card or soft vice jaws.



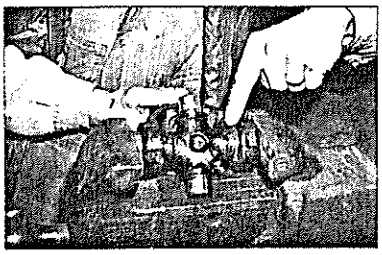
4. Clean all yoke bores. Take out any burrs by filing gently or driving an old bearing cup through. Wash hands and treat yoke bore to a light smear of grease. Needle rollers will tip if not held in place with clean grease, but go easy on the amount. Check each cup has its seal in place.



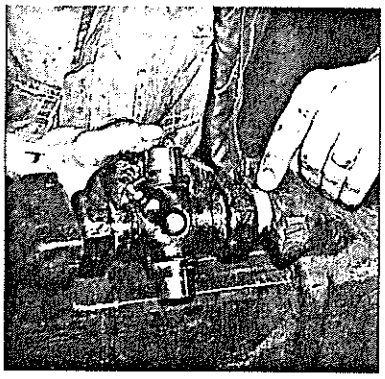
5. Start re-assembly with the most awkward joint half. Seat a bearing cup part-way in one bore. Then, remembering which way the grease nipple is to face, fit the spider. Keeping it square and using no force, slide the spider arm into the waiting cup. If it feels as though a needle roller might have slipped out of place, check now!



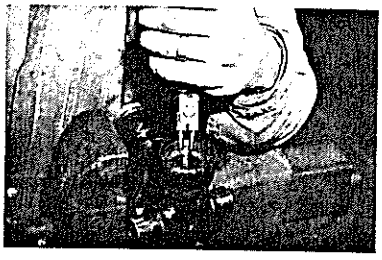
6. Keeping the spider pushed into the first cup, fit the other. Press cups gently inwards using vice pressure until both are roughly half way into the yoke bore. Don't try hammering; the needle rollers are likely to jump out. Now the crucial bit! Slide the yoke across until it glides into the second cup. Leaving the yoke centred between cups (and thus engaged safely in both roller sets), squeeze the cups in until they sit flush with the yoke tops. Rotate the spider; roughness or binding means the needle has slipped and the cup(s) will have to come out again.



7. Using a spacer that just fits inside the yoke bore, squeeze one cup in until the circlip groove appears.



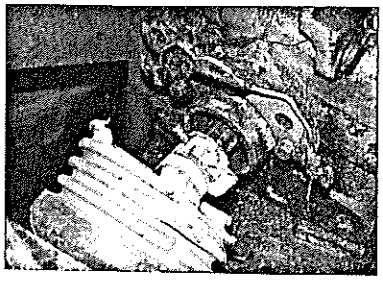
8. Then fit a circlip. Using the vice and spacer, squeeze the second cup in. This should seat the first and reveal the second's circlip groove. If no groove appears and the joint feels rough, don't force it; a needle is trapped between the spider arm and cup. Take everything apart and try again. If all is well, fit the second circlip.



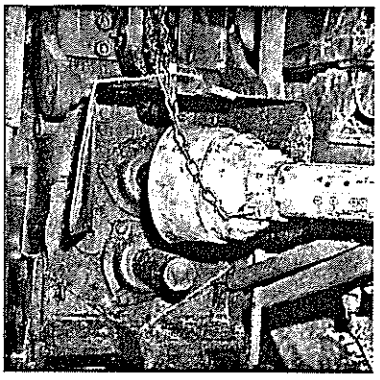
9. Fit the second yoke by repeating steps 6-10. Finish off by greasing the joint until clean stuff just squirts past the seals.

GUARD MAINTENANCE

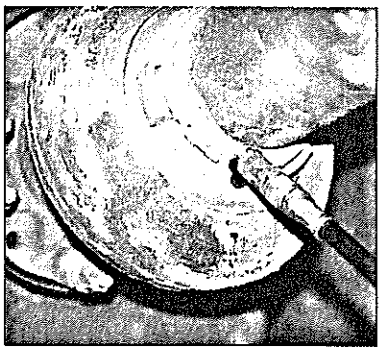
1. An accident waiting to happen. The tractor's fixed guard is missing: the PTO coupling's push pin sticks up, just waiting to catch a sleeve, trouser leg or coat tail and wind the operator mercilessly round the shaft. A damaged shaft guard just adds to the risk.



2. Much better. The tractor fixed guard envelops an intact PTO shield; a chain stops shaft guard rotation and the tractor's spare PTO stub is covered.



3. Perhaps the kindest thing for a guard is to keep its bearings greased, though not all have nipples. The shaft inside spins fast and bearings need help if they are to last.



MANDY McLEOD
FEBRUARY 1993

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* * TAGS * *

WOULD FARMERS REQUIRING TAGS FOR THE COMING SEASON
PLEASE LET ME HAVE THEIR ORDERS BY THE END OF FEBRUARY

"THANK YOU"

(Jimmy Forster - Bold Cove)

* *

* * EWES * *

I HAVE A SURPLUS OF APPROXIMATELY 300 BREEDING EWES
4 - 6 YEARS OLD AND IN EXCELLENT CONDITION
AVAILABLE AT THE END OF FEBRUARY

(Ian Hansen - Main Point)

* *

PREVENTION OF TRACTORS OVERTURNING

Tractors are basically stable machines but they are sometimes used in circumstances where there are risks of overturning. Experience shows that providing an operator stays within the confines of an approved safety cab he will not be crushed. In a high speed or multiple roll this may not be easy to ensure and in such incidents injuries may arise from being thrown about inside the cab. It is preferable to avoid the tractor overturning in the first place. Safe use of tractors depends on a variety of factors and some of the more important ones are set out in these guidelines.

Maintenance

Always make sure that tractors and machines are properly equipped and maintained. Routine checks should ensure that:

* Brakes on tractors and equipment are connected and working efficiently.

* Steering is maintained so that there is no excessive free movement and no unnecessary play on the front wheel bearings.

* Tyres are inflated to the correct pressure and have adequate tread. They should not be used if there are dangerous cuts or other damage.

A safe working system

Always plan in advance so that the system of work is safe and efficient at all stages. For example:

* Always turn uphill when working across a slope. Always descend straight down the gentlest possible gradient of a slope, rather than drive diagonally across it.

* Remember that although a tractor can be driven up a slope with a hard surface it cannot necessarily descend the same slope safely.

* Select the correct gear at the beginning of a slope, and so eliminate the need to change gear on the slope.

* Keep well away from banks and ditches, especially when turning.

* Ensure that a tractor of adequate size is used for the proposed machine or trailer.

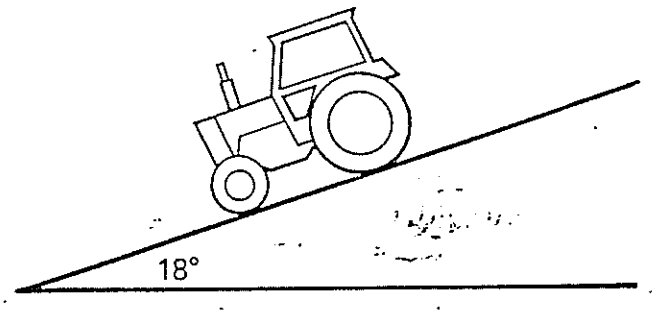
* Remember that when using rear-mounted fertiliser spreaders or spraying machines, tractor rear-wheel grip lessens as the load is discharged, this increases the possibility of sliding down the slope.

Training

Drivers should be adequately trained, particularly in the recognition of potentially dangerous situations. Training should emphasise the need for care and concentration when working with tractors and, in particular, the importance of paying attention to changes in ground conditions which may affect the safety of an operation. Drivers should also know that control of a tractor sliding on a slope after losing wheel grip will not be regained by application of the tractor brakes. The main reasons which cause tractors to go out of control should be stressed. They are:

(a) being driven too fast;
(b) inadequate braking;
(c) insufficient wheel grip;
(d) the type of tractor used is unsuitable for its task;
(e) lack of awareness of the effect of ground conditions especially slopes;
(f) incorrect hitching and load distribution.

Basic precautions for safer tractor driving

	HAZARD	PREVENTION
1	Tractors driven too fast for the task or situation	Select the correct gear and speed for each operation. Drive slowly when: - on rough ground - cornering - using steering brakes - on slopes - crossing gulleys - near ditches
2	Driving up and down slopes 	Before starting select the correct gear to achieve adequate engine braking when going downhill. Where the tractor is fitted with four-wheel drive front wheel grip and traction will be improved if sufficient weight is attached to the front. Tractors can generally obtain sufficient wheel grip to climb steeper slopes than they can be safely driven down. Tractors with a positive four-whell drive fully engaged will be less likely to slide out of control during a descent than a similar two-wheel drive tractor. However, four wheel drive tractors also have a slope working limit which, when exceeded, can result in a severe accident. Four-wheel drive systems which are not positive may not achieve any improvement.

ESTANCIA SHEARING COMPETITION

1992

Despite the heavy rain of the previous 16 hours, the Estancia shearing Competition got underway as scheduled on 29th December.

The sun came out so the large crowd were able to enjoy a day out with tasty snacks from Jeannie and Mike McKay's barbecue which devoured the best part of seven sheep and numerous bowls of salads. Ray and Marlene Newman again operated a licensed bar and some of the contract shearers put down a "hangi" (not too sure about the spelling) before shearing commenced. This was enjoyed by a large crowd at the end and consisted of beef, turkey, fish, mutton, potatoes and Tanya's famous stuffing, all of which had spent several hours sealed in foil and cabbage leaves and had been lowered below ground in wire baskets, onto hot irons.

The first event was the Novice competition with three entries. Gillian Phillips won the 1st prize of £20. Patricia Card got £15 for second and Tina Hirtle got the third prize of £10. Then followed six heats in the Open Competition with 23 entries.

The eight intermediate entrants then shore in two heats before the top eight shearers from the 'Open' (Peter Goss, J. Craig, D Takle, R. Short, H. Grierson, T. Bonner, J. Jones and P. McKay) shore their two semi final heats.

We then had the finals of the Intermediate Class, at last. Ricky Evans managed to triumph over wife Michelle with Mary Howlett in third place. Mary got 1 comb and £20, Michelle 2 combs and £30 and Ricky 3 combs and £40. The Junior Competition only had two entries and was shorn next. Jan Clarke was the victor for the second year at the grand age of 12 years, collecting first prize of 3 combs and £30 with Ruben Harwood taking second prize of 2 combs and £20.

Then it was time for the finals of the Open. Lister Shearing Equipment had donated a challenge shield and 3 medals for this class which greatly enhanced the prizes. John Jones emerged the winner to take the shield, a gold medal, a pendulum, 5 combs and £60. Hugh Greirson was second and collected a silver medal, 4 combs and £30. Third place went to Peter McKay who received a bronze medal, 2 combs and £20. Richard Short got a Falkland Island woollen jumper and £10 for fourth prize. Incidentally, Peter, John and Hugh also featured in last years final.

As the winner of the Novice Competition, Gillian Phillips was elected to present the prizes and was then relieved of her duties by John Jones who presented the novices with their prizes. The cleanest pen of sheep prize was won admirably by Timmy Bonner who gave just as good an account of himself on the shearing board as on the race course. He got £20 plus a box of cutters and 2 combs for his efforts.

Special thanks must go to Mr Brook Hardcastle who again ensured a well organised and smooth running event. Also to Sarah Dickson who was time keeper throughout the day and George Smith, Owen Summers, Stuart Morrison, Eric Goss and Keith Heathman for jud-

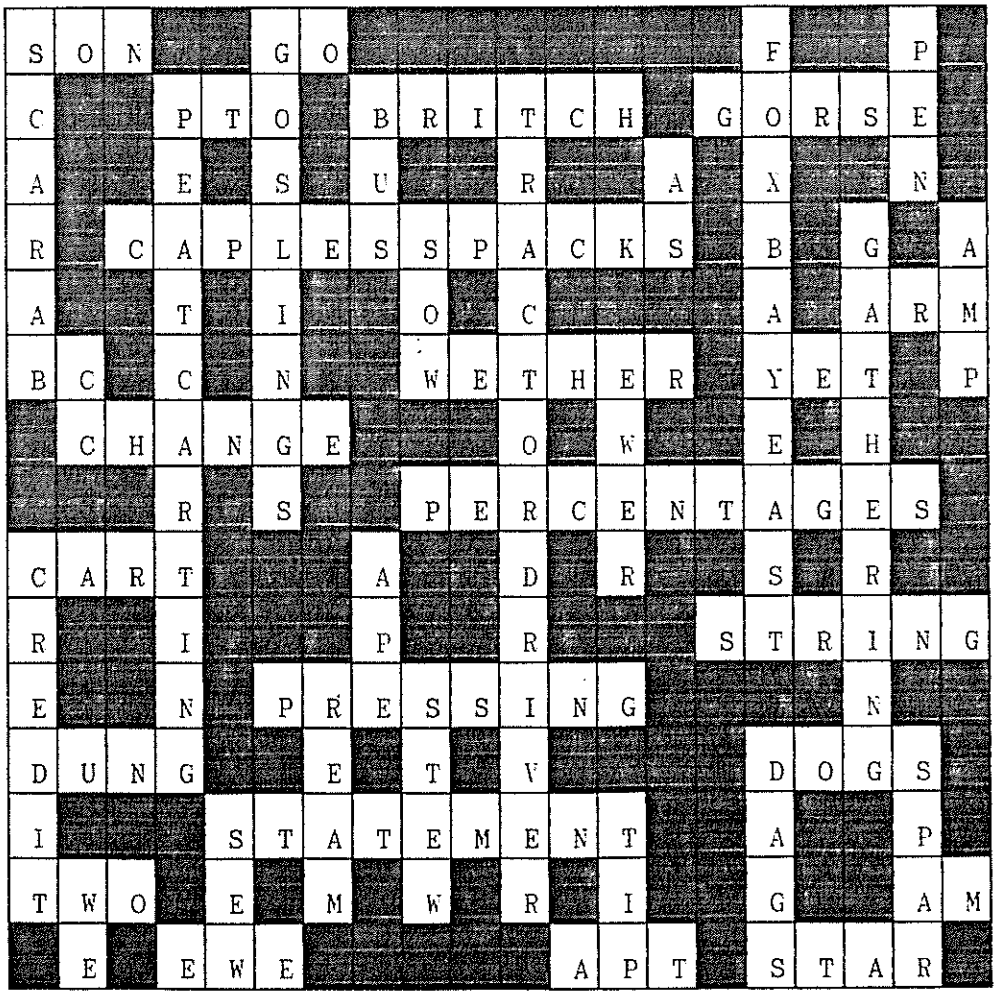
ging on the board and Ron Binnie in the pens. Ron was relieved by John Jones for the Intermediate Class but saw little else of the shearing.

Many other people also did a lot to help with preparation and work on the day for which we are most grateful and not least to those people who made generous donations towards the prizes.

We had been able to speed up events a bit on last year by providing more pens for the sheep judging which enabled the next heat to get underway quicker. As the shearing was over by mid-afternoon, Mr Teddy Summers then organised a bale rolling competition after a break for refreshments. A bale had to be rolled across the wool floor and up two planks onto the shearing board. The winner was determined by speed and Neil Clifton was a clear winner in just 23 seconds. Two pairs of ladies also managed to accomplish the task, despite all the rude comments and giggling. They were Gillian Phillips and Michelle King as one pair and Sybella and Julie Summers as the other. The male contestants did roll their bale single handed though!

A GOOD DAY WAS HAD BY ALL

AILSA HEATHMAN
ESTANCIA FARM

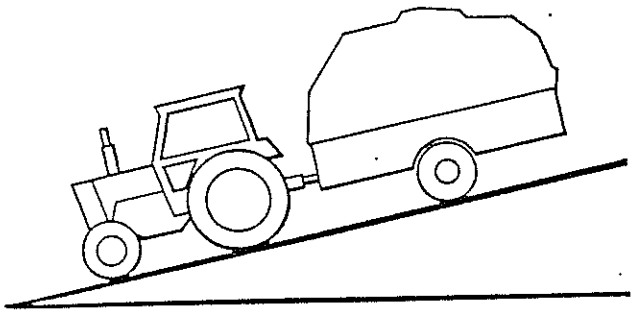


JANUARY

CROSSWORD

SOLUTION

3 Towing on slopes



Safe control depends on adequate adhesion of the tractor driving wheels, which means adequate weight in relation to the drawbar load. Rollers, four-wheel trailers, balanced trailers and machines, and forage harvesters with coupled trailers all create a thrust with no added weight and may cause the outfit to slide away. Trailers fitted with brakes operated directly from the tractor foot brake are very much safer on slopes.

4 Driving across and turning on slopes

Surface irregularities such as animal tracks, rock outcrops etc are potential overturning hazards when driving diagonally across a slope. Turning downhill on a slope is especially hazardous. Wherever possible work should be planned so that the run is made uphill rather than down. Extending the wheels reduces the likelihood of the tractor overturning.

5 Turning with rear mounted equipment on slopes

Sufficient front ballast to counterbalance rear-mounted equipment should be added, particularly when working on slopes. But remember, use of such ballast will reduce safety when travelling downhill. Select the correct gear for ground conditions and turn slowly, so the tractor is under complete control during the manoeuvre. Use the widest practicable wheel track setting (or double wheels) and do not turn down a slope. Use a three-point turn on sharp corners and take extra care with offset mounted machines.

6 Operation without adequate brakes.

Adequate braking is essential for safe driving of a tractor and trailer/trailed machine combination. Apart from occasions when independent use of brakes is required, always ensure the brakes are coupled, adjusted correctly and balanced. Many surfaces provide only limited grip therefore brakes on trailers and trailed machines should be used to aid

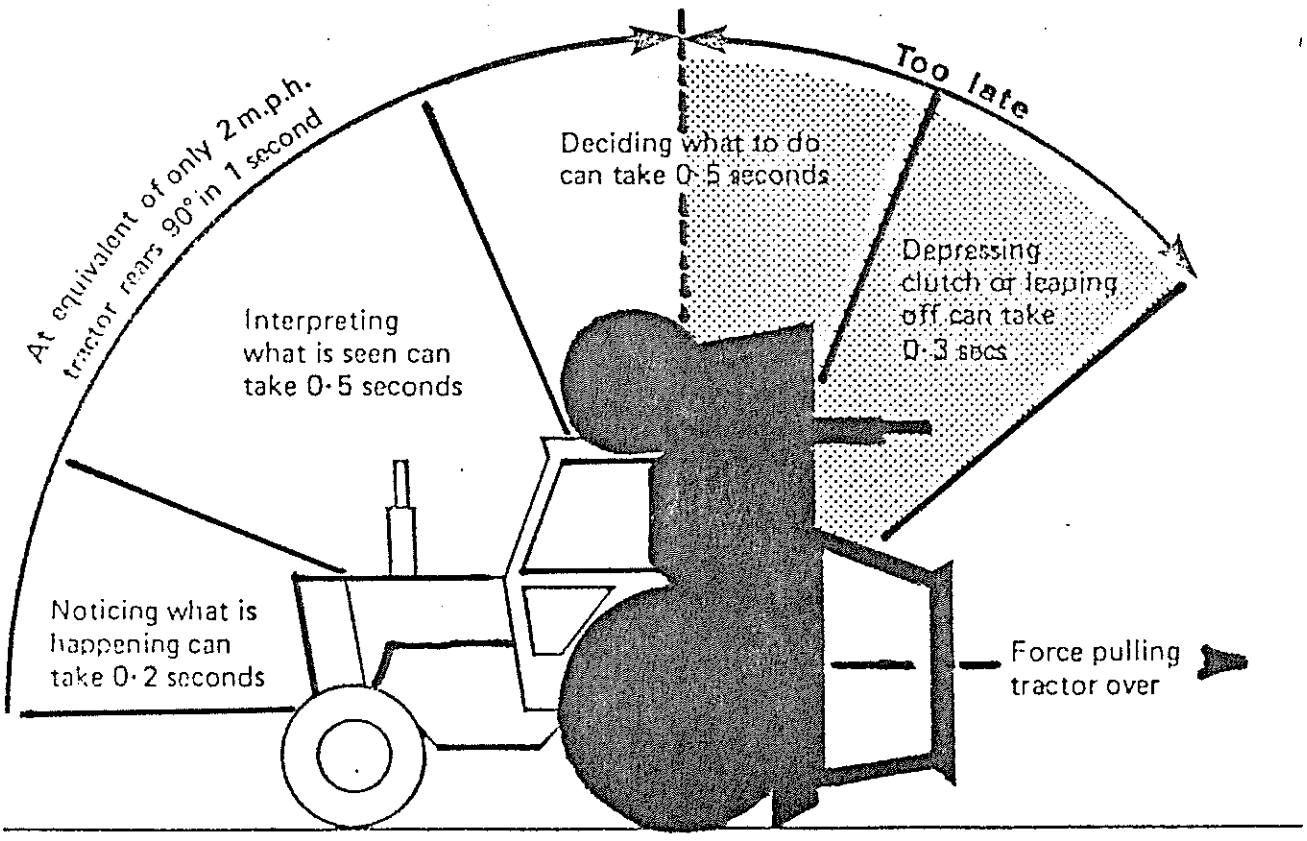
		control of the combination.
7	Parking	Before dismounting stop the tractor engine. Apply the parking brake fully and leave the tractor in reverse or lowest gear. Do not park with a heavy load on a steep slope.
8	Driving too near a ditch or bank	Do not drive too near to ditches or banks, particularly where the surface is loose or wet or where the edge is concealed by undergrowth. Make headlands wide enough for safe turning.
9	Using a tractor to conso lidate silage	Ensure that the sides of the clamp are properly supported and supplied with adequate edge markers or guard rails. Keep away from the edges and ensure the clamp is made properly. This is a job for the experienced driver only.
10	Driving over hidden obstacles	Drive slowly where the ground surface is not easily seen, eg in long grass, bracken etc. Be on guard for hollows, hidden logs, tree stumps, rock outcrops, rabbit holes, etc.
11	Hitching chains or tow ropes	Always hitch as low as possible - never above the axle. A chain or tow rope hitched too high could cause rearward overturn of the tractor even on level ground.
12	Sudden engagement of clutch	Sudden engagement of the clutch can also cause a rearward overturn. Let the clutch in slowly and avoid snatching. This is particularly important when driving up slopes.
13	Winch pull not in line with tractor (mounted winch)	To avoid overturning the tractor during winching always see that it is set straight in line with the pull.
14	Tractor with raised load on front end	Ensure that sufficient ballast weights are fitted to the rear. Make sure the loader is not overloaded and, whenever possible, lower for travel. Do not drive at speed, make abrupt turns, or suddenly stop with the loader raised.

15 Freeing a bogged down tractor

If the rear wheels of a tractor become bogged down try to reverse out. If this fails help must be sought. Never jam or chain the wheels with blocks of wood. They may be forced into the ground and the tractor will overturn rearwards.

16 Vertical jack knifing of tractor and trailer combination

Ensure that trailers are not overloaded. Care must be taken when tipping so that the load slides freely from the trailer. the correct size of tractor for the trailer to be towed must be used.



With the rear wheels only turning slowly tractor rearing is rapid. At 2 mph with 12.4-36 tyres the rear wheels make one revolution every 4 seconds - only one second is needed for the tractor to rear to the vertical. An inexperienced driver may need as much as 1.5 seconds to decide on and carry out some remedial action.

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EAST FALKLAND SPORTS 1993

FITZROY: 1st – 5th March

Monday 1st March:	A.M. - Dog Trials. 3 - 5 pm. Course open. 5 - 6 pm. Entries taken for horse racing.
Tuesday 2nd March:	Horse racing all day followed by a dance in the evening.
Wednesday 3rd March:	Gymkhana events all day and a football match to run concurrently in the afternoon, followed by a dance in the evening.
Thursday 4th March:	A.M. - Shearing competition. P.M. - Polo. 8 pm. - A.G.M.
Friday 5th March:	10 am. Childrens sports including mounted events. P.M. - Steer riding. To be concluded with a dance in the evening with prize giving at 11 pm. Tickets for the dance will be available at the meeting.

THE CLOSING DATE FOR ENTRIES TO THE DOG TRIALS AND SHEARING COMPETITION IS MONDAY 15th FEBRUARY.

ACCOMMODATION SHOULD BE BOOKED BY THIS DATE ALSO

All entries to Shirley Goss, Donna Evans or Ron Binnie.

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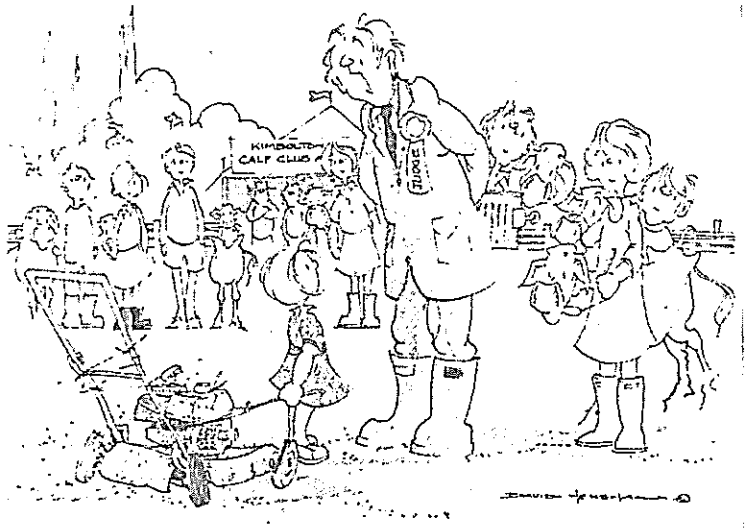
SPOT THE DIFFERENCE

"I know y'daddy said it is a 'right little cow of a thing' but I have to tell you it still doesn't qualify as a calf!"



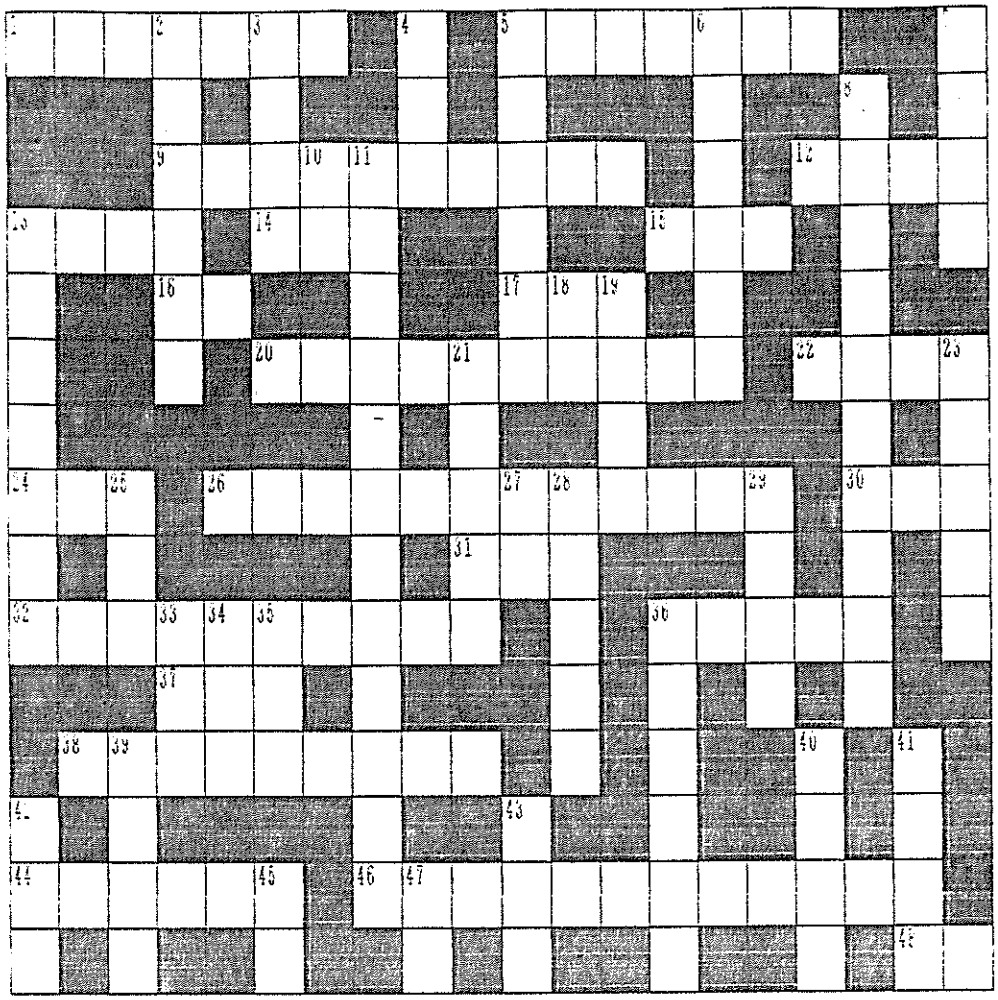
"I know y'daddy said it is a 'right little cow of a thing' but I have to tell you it still doesn't qualify as a calf!"

LAST MONTHS DIFFERENCES

In bottom picture:

1. Left hand sheep has an eye. 2. Grass moved from ridge. 3. Extra bog of grass. 4. Santa sack has more wrinkles. 5. Santa's boots have spots on the fur. 6. Leg removed from right hand trough. 7. bale string darkened. 8. walking cane shortened. 9. Farmers little finger shortened. 10. Farmers cap darkened on the inside.

WOOLPRESS CROSSWORD



ACROSS

1. bring back to former state
5. cone producing tree
9. February holiday (usually)
12. break
13. poultry
14. cat cry
15. black road making substance
16. like
17. footballer no 12
20. event selling second hand goods
22. tree covering
24. Bomb Disposal
26. imported shearers
30. Capital of Brazil
31. Department of Agriculture
32. large yellow blooms
36. pressed wool packs
37. lubricate
38. Island near North Arm
44. natural fibre
46. main place of Falkland farm work
48. in a way

DOWN

2. local grass
3. space
4. possesses
5. dairy product
6. sow, bitch, cow, queen etc
7. order of doing
8. disease of 2 down
10. Royal Engineer (abbrev)
11. not used so much now telephones have arrived
13. holding gear
18. me and you
19. explosion
21. lots of
23. hit door
25. Sandy horse colour
27. Company (abbrev)
28. a reckoning
29. strong wind
33. enemy
34. tell untruths
35. not young
36. yellow fruit
39. feel sorry for
40. perpetual dull pain
41. finishes
42. part of play
43. drinking place
45. negative
47. Hire Purchase (abbrev)

WOOL PRESS

retail price: £1.00

ISSUE 40 MARCH 1993

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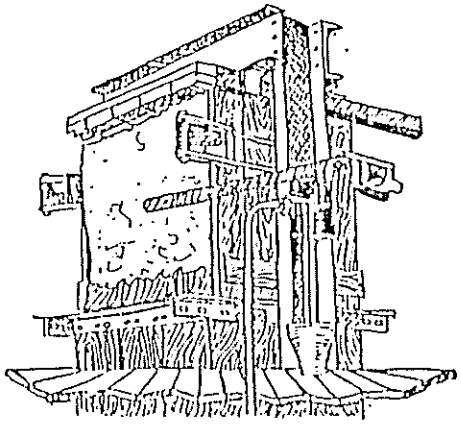


The WOOL PRESS is published by the Department of Agriculture

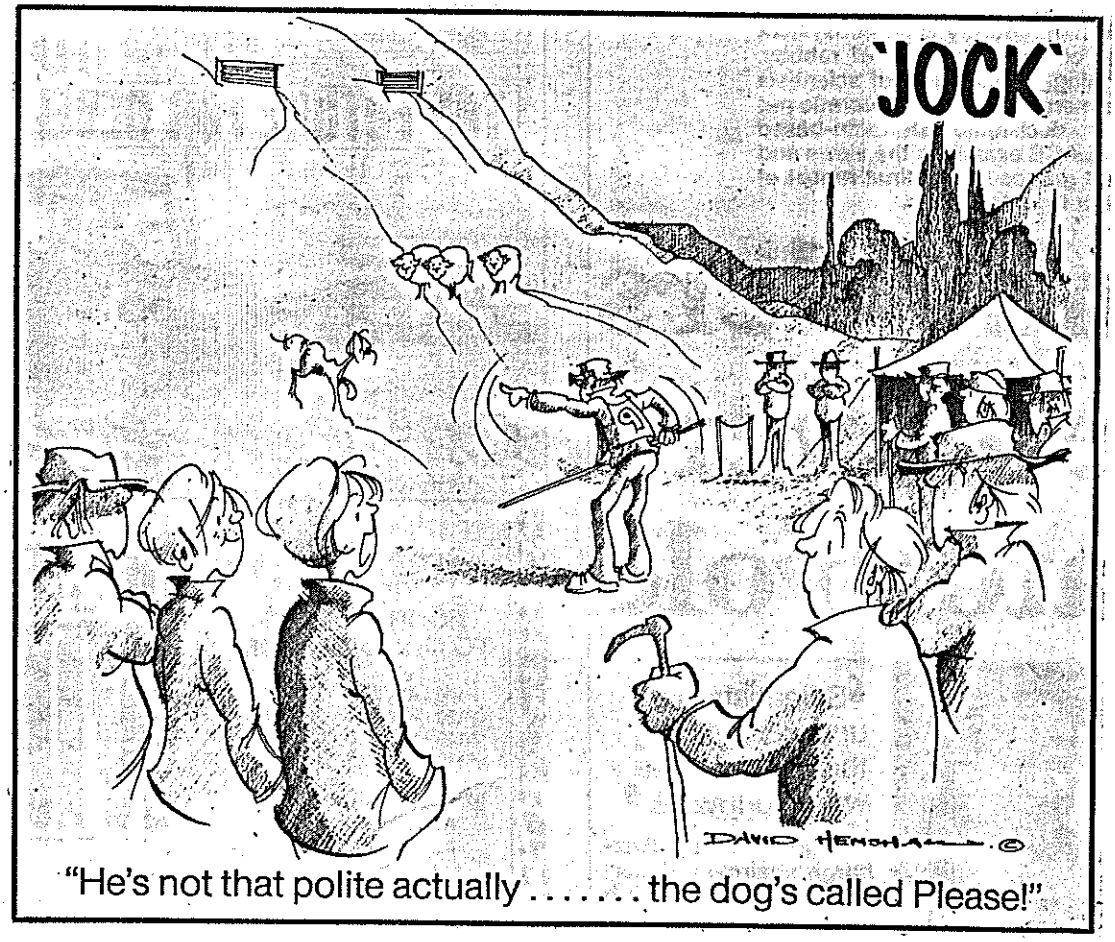
Editors - M.McLeod and R.H.B.Hall

EDITORIAL

Nobody should be in any doubt as to the serious steps which are being taken to counter the Government's current financial problems. Like many other departments, the Department of Agriculture is faced with severe staff and funding reductions, which are to be discussed further by the Executive Council. Farm subsidies may also face the spotlight, so be warned!

On a much more cheerful note; shearing is all but completed and March kicks-off with Sports Week.

HERE'S TO OPTIMISM!



The articles printed in the WOOL PRESS do not necessarily represent the views of the Department of Agriculture.

A.W.C. — NEW STRUCTURE

The structure of the Australian wool industry has been through a period of dramatic change in the last two years. Following the withdrawal of the Reserve Price Scheme in February 1991 which had operated for Australian wool for the previous 20 years, the old Australian Wool Corporation (AWC) was broken up into three new and separate bodies which began operation on July 1, 1991. The new Australians Wool Corporation is responsible for the marketing and promotion of Australian wool. Management of the wool stockpile and the associated debt was handed to the Australian Wool Realisation Commission and responsibility for the industry's research and development programmes is now with the Wool Research and Development Corporation. Each of the bodies has its own board and management and their activities are funded by woolgrowers through a wool tax on their gross wool revenue. In 1992/93 the wool tax is 8.5% of gross industry revenue.

International wool promotion is still carried out by the International Wool Secretariat. Australian woolgrowers contribute more than 70% of the IWS budget and the Australian Wool Corporation has the Chairmanship and a majority membership of the IWS Board. The AWC sets and monitors standards for the preparation and sale of wool, provides marketing services to early stage processors around the world, promotes wool in Australia, funds and monitors the promotion activities of the International Wool Secretariat and provides market information services to the Australian wool industry.

These activities ensure that processors receive the highest quality wool possible through the monitoring of clip preparation standards, testing for pesticide and in-bale contamination of wool and training of shearers and other people involved in the handling and classing of wool. The AWC also sets standards for wool packs and seeks to encourage the adoption of objective specification for wool. The AWC is working on improving raw wool measurements to specify Australian wool for buyers. It is currently working to improve the understanding and adoption of staple measurements by growers and buyers.

The AWC is also examining ways of improving the selling system of Australian wool. The AWC is committed to delivering improvements in the selling system, to meet the needs of its major buyers and this season it conducted a major survey of buyers to see what they want from the wool selling system. The AWC is looking at a range of issues including greater use of wool specification and computer technology. The international marketing division of the AWC aims to improve the understanding of Australian wool by early stage processors around the world. The AWC can assist users of Australian wool who may be unfamiliar with its characteristics to get the most benefit out of using Australian wool.

THE AUSTRALIAN WOOL REALISATION COMMISSION

The stockpile of Australian wool which in mid 1992 stood at 4 million bales is gradually being cleared to the world wool trade. The Australian Wool Realisation Commission is responsible for selling off the stockpile and clearing the industry's debt. The AWRC has an annual debt reduction schedule to meet over a period of seven years. It has developed disposal policies to meet this schedule with minimum disruption to the operation of the auction

market. These policies are based on selling stockpile wool at premium to auction wool. The size of the premium is varied according to prevailing market conditions at any particular time.

THE WOOL RESEARCH AND DEVELOPMENT CORPORATION

The Wool Research and Development Corporation (WRDC) plans, coordinates and implements the research and development programmes covering all areas of wool production, marketing and processing. Highest priority currently is for textile research where there is great potential for increasing wool demand through new products and process technology. The textile programme is looking for ways of improving the easy-care aspects of wool, soft handle and tactile comfort; stronger and finer yarns for lightweight fabrics; enhanced bulk knitwear; improved wear performance and durability and reduced processing costs. Australian funded research has led to a number of new developments in textile processing including Sirospun which improves the efficiency of spinning yarns for lightweight fabrics; Sirescour which is a high-tech scouring process that reduces the cost and end product of scoured product; and Siroclear, a device to remove vegetable matter and dark fibres from undyed yarns. There is also "Optalyser", an instrument for measuring faults in wool tops. WRDC also places a high priority on addressing environmental issues. This has led to the development of a process which refines wool grease into lanolin while removing virtually all pesticide residues. Wool research is investigating new uses for wool - for example wool as an insulation material and ways of improving wool quality such as developing alternative baling twine - a potential contaminant of wool that can be more readily removed during processing.

Such work is an indication of the dedication Australian woolgrowers have to ensuring wool keeps ahead of other textile fibres in this highly competitive textile industry.

Taken from: THE AUSTRALIAN WOOL EXPORTER 1992

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EWESFUL

An extract from the Telegraph

After four years as Governor of the Falkland Islands, William Fullerton, our new man in Kuwait, has installed a couple of sheep in the embassy compound there.

"The idea was that they would keep the grass down in the garden," says Fullerton, who kept a flock of 10 at his residence in Port Stanley. "So far they haven't been very effective and we have resorted to the lawn mower. They are leading a sedate life under a tree."

The sheep were given to Fullerton by a Kuwaiti friend who had heard of his ovine predilections. "Someone gave the embassy a sheep after liberation with the intention that it should be eaten," he says. "I don't think my predecessor liked the sheep very much and it was given away to a Kuwaiti friend. When I arrived he decided to give me a ewe and her lamb so they could keep each other company."

WOOL CONTRACTS.

"What is the average size of a wool contract and how far forward are contracts made?", were among my earliest questions to Colin Smith, whilst I was at D.S. & Co. in January.

Wool is sold on a clean kilos basis and although contracts vary in size, the majority of contracts are for either 10 or 12 clean tonnes; depending on yields this may be 15 or 18 greasy tonnes of wool, or roughly a lorry load. This is a fairly large quantity of one type of fleece or oddment wool and explains the necessity of bulking wools together prior to sale to manufacturers.

Wool processors have millions of pounds worth of plant and equipment, which must be kept operating in order to recoup their capital and variable costs. Operating such a business, necessitates that processing work is taken-on well in advance of planned use of the machinery. The processor may thus contract to supply his processed product in six months time. Since the processor usually wishes to avoid the risks of wool price changes on his operation, he will fix his input costs at much the same time as the supply contract is made; this is done by making a contract for greasy wool to be delivered to him in four or five months time, at an agreed price. This allows sufficient time for the processor to process the greasy wool and honour his delivery commitments. In short, the demand for spot delivery of greasy wool is comparatively small and the majority of greasy wool is contracted to processors on a forward basis. In January, D.S. & Co. were contracting wool for delivery between April and July; 3 to 6 months in advance. This is interesting, as it means that delivery of greasy wool to processors can rarely be less than 3 months after a farmer's decision to allow sale contracts to be made.

ROBERT H.B. HALL.

N.S.F. NEWS.

During the last week of February, 307 lambs were shorn. This practise is a necessary part of the Flockmate-Woolplan selection procedure. Lamb shearing reduces the effects of different dates of birth on fleece weight, by having all hogget fleece weights being grown over the same period.

A few lamb fleeces were weighed and demonstrate a considerable range, with fleeces going from 0.6 kg to as much as 1.85 kg. The 307 lambs clipped 400 kgs (881 Lbs) wool, making an average of 1.3 kg.

With as much date of birth fleece weight variation now removed, future selection procedures should be able to identify those sheep which are the more efficient wool growers.

RH.

RURAL ENERGY AND FOSSIL FUEL CONSERVATION

As we move into the 1990's with the advent of fax machines, the frequent use of power tools and now "live" television, the need for electricity to be available all the times becomes more and more basic. Just as, if not more important, is the constant availability of electricity at little or no increase in fossil fuel usage.

At present almost all electricity generated in camp is by diesel generator, commonly overloaded at peak times and very lightly loaded at other times. Very low loads on a diesel generator are detrimental to the machines, glazing occurs in the bores leading to increased oil consumption, leaks and other problems. Apart from that, running a 25 Amp load is very inefficient in fuel use, as is leaving on a number of unnecessary lights just to keep the load up.

The concept of the FIDC Rural Power Supply is to store surplus electricity in deep cycle batteries during diesel run times and then make it available in a usable form for limited loads during the diesel-off periods. You will need a battery twice as big as your normal daily consumption, and then size up. Load analysis forms are available from FIDC.

To provide 240V "mains" power from a battery requires an "inverter". These used to be rotary motor generators, which still exist, but they are inefficient and do not have the advantage of being reversible and acting as chargers. With the advances in power electronics most electrical requirements can now be met by a modern "solid state" inverter unit with an efficiency in the high nineties. The automatic inverter/charger brings the possibility of constant power availability within reach of many farms and with a little care the technology is now available to meet most domestic needs.

The problem always used to be that the starting "surge" caused by motors blew the transistors. Now an inverter rated at 2500 watts may have a surge capability of not more than 6000 watts, ample for most electrical requirements. Not all equipment can be powered and it is suggested that you obtain an FIDC Technical Information Sheet if you want to consider using this technology for your own application. The problem loads have switched to the very small end of the range where some electronic items do not like the quality of output.

However, it now becomes possible to provide the basic electricity requirements for taping a T.V. programme, lighting in the middle of the night, making toast or boiling the kettle when the stove goes out or benefiting from an electric blanket; all activities taken for granted by town dwellers and all without specially starting (and stopping) the diesel.

The system is based on an experimental unit that has been operating on Sea Lion Island for the past three years.

FIDC
MARCH 1993

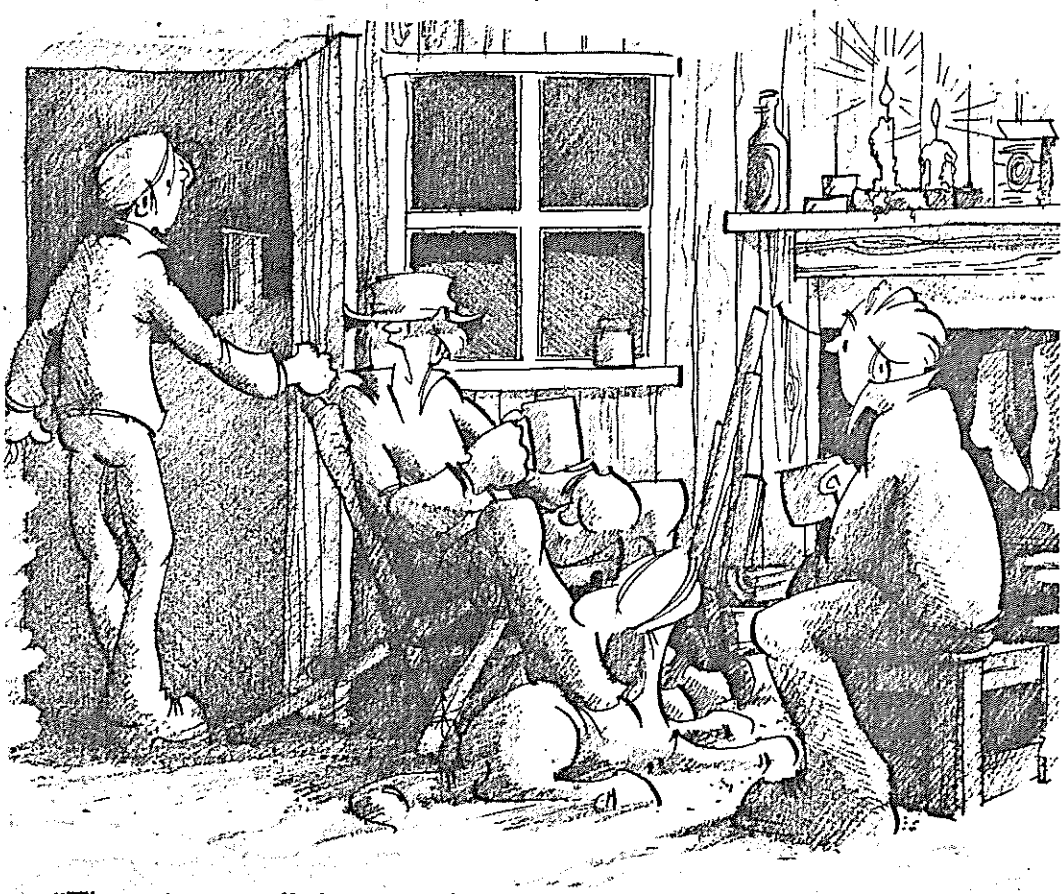
FALKLAND ISLANDS DEVELOPMENT CORPORATION
RURAL ENERGY PROGRAMME

DIESEL/BATTERY/INVERTER ASSISTANCE SCHEME

FIDC wishes to encourage increased availability of electricity in Camp situations whilst conserving usage of liquid fuels.

The Corporation announces the establishment of a scheme of assistance to Camp residents with the purchase of battery/inverter systems linked to deisel generator sets.

For details of the scheme and an application form please contact the Asistant General Manager, FIDC, Airport Road, Stanley.
Telephone 27211; Fax 27210.



"There's no light up there lad .... so whatever y' gonna do, sit down t' do it!"

LIVESTOCK IMPORTATION PIGS

FIDC is considering the importation of boars, sows and gilts and would be pleased to hear from farmers who may wish to purchase pigs and take advantage of the economies to be gained from one large shipment.

An indication of numbers and preferred breed would assist FIDC in any negotiations. Interested persons should contact the Assistant General Manager on telephone number 27211.

FIDC
MARCH 1993

THE USE OF NON-PREGNANT EWES AS FOSTER MOTHERS

The rearing of orphaned lambs can be a costly business in ewe milk replacer products, not to mention time consuming when that part of the year is so busy anyway. I read an article recently in SHEEP FARMER which I thought was interesting , even if the idea is still in the research/trials stage. The idea is to induce non-pregnant ewes to produce milk and then foster orphaned lambs onto them. It could be a good way to use those "pet" ewes that always seem to find their way back to the house paddock, thereby missing the ram at tupping. Read on....

Non-pregnant ewes are given vaginal sponges (like those given to programme the ewes for A.I. - only containing a different balance of hormones) for at least six weeks (sponges changed every three weeks). This will induce a 30-40% level of udder development compared to parturient ewes.

When ewes are required to foster lambs they are placed into individual pens. The sponges are removed and the animals given two minutes of artificial stimulation of the vagina and cervix. The ewe should then show signs of labour and may lay down. The lamb which you are hoping to foster is then smeared on the head with some of the secretion from the ewes vagina so that the ewe will then accept it as being born of her. She will then rear an orphan lamb through until weaning with normal growth rates.

The ewes form selective bonds with their adopted lambs, just like normal *post-partum* ewes, and can be run with a flock within a few days of fostering if required. The action of the lamb suckling the ewe acts to boost the milk production to normal *post-partum* levels within a week or so of fostering.

If ewes with stimulated lactation are not ultimately needed for fostering lambs then their sponges can be removed and their udders will reside without risk of mastitis (the risk of mastitis is low since the initial level of lactation is low).

The current estimate of the total commercial cost of the hormone-containing sponges is less than £5 a ewe, which is almost one third of the total cost of artificial milk for a lamb. The first milk expressed by the ewes appears to be colostrum and, subject to confirmation through further analysis of its composition, should provide the lambs with the same level of immunity as that derived from normal *post-partum* ewes.

Trials so far have been fairly successful (around 90%) although the lactation induction is less reliable if the ewes are less than nine months old.

MANDY McLEOD
MARCH 1993

females were born to ewes producing triplets than to those producing single and twin lambs. More males were born during the first half of the lambing season than during the second half (51.43 vs. 43.59%).
Author: J.P. Kent.
Publication: Behavioural Ecology and Sociobiology.

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MINI-WORMS SLUG IT OUT WITH PESTS

The days of the slug pellet may be numbered. Scientists have announced that they have discovered tiny worms that can wage biological warfare on slugs.

The Agricultural Genetics Company in Cambridge has found out how to mass-produce nematodes - soil-dwelling worms less than a millimetre in length that prey exclusively on slugs and snails. The species was first discovered by establishing what had affected dead and dying slugs found in the wild. It is "the first known example of a nematode that kills slugs", said Dr Paul Rodgers, the company's research manager.

The nematodes, the journal New Scientist reported, rely on bacteria that they carry into the slug. "They are like guided missiles that take the bacteria into the slug and release the bacteria to do their dirty work," said Dr Rodgers.

The company plans to mass-produce the worms in special fermenters that mimic the conditions under which they normally reproduce in a dead slug. It plans to package the live worms in clay powder, which can be stored for up to three months in a fridge. "When the powder has been mixed with water, gardeners will be able to use a spray to wage war on slugs. The molluscs are the only victims, said Dr Rodgers. "With all the tests we have done so far, we have not been able to infect any other soil dwelling organism with the nematode". By comparison, slug pellets contain "fairly broad spectrum chemicals" that can poison cats, dogs and birds, he said.

Dr Rodgers expects that gardeners will be able to buy the nematodes in two years or so. Other nematodes have already been enlisted to help gardeners, for instance to combat vine weevils, the long-snouted, wingless beetles that chew leaf edges.

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Animal Breeding Abstracts

Animal Breeding Abstracts is one of many monthly publications of the Commonwealth Agricultural Bureau (CAB). The CAB is an international, inter-governmental organisation owned by its member governments (currently numbering 29). Staff at the Bureau's headquarters scan scientific papers from over one thousand world scientific journals from which they prepare abstracts in English. Abstracts are short statements giving the main findings of the work. Relevant scientific and technical literature is acquired world wide for abstracting and databases on agriculture, forestry, the environment, applied social sciences and aspects of human medicine are compiled. From time to time we will include those abstracts of interest which have been taken directly from Animal Breeding Abstracts or Nutrition Abstracts and Reviews.

Effect of shearing on reproductive performance.
Of 154 ewes born in March, half were shorn in September and half were not shorn. Oestrus was synchronised in all ewes in October by means of vaginal sponges impregnated with MAP or FGA, at a minimum body weight of 40 kg. There were no significant differences between FGA-treated and MAP treated ewes in conception rate. However, shorn ewes had a slightly higher conception rate and a longer gestation period (by 1.24 days) than non-shorn ewes.
Author: W. Schlolaut
Publication: Kleinviehzuchter

Gestation period in Polwarth and Corriedale ewes.
For 86 Polwarth and 37 Corriedale ewes lambing in 1985, gestation length averaged 151.2 and 149.1 days respectively, vs. 150.3 and 148.2 days for 218 and 90 ewes of the 2 breeds lambing in 1986/1987. The differences between ewes of the 2 breeds were significant, but there were no differences between ewes giving birth to single or twin lambs, except for Corriedales in 1985 (149.2 vs. 148.0 days)
Author: D.S. Roda and P.A. Otto
Publication: Boletim de Industria Animal (Brasil)

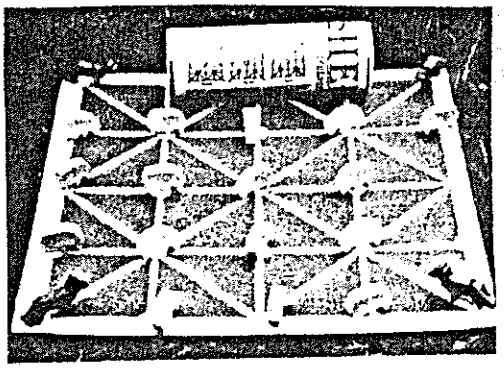
Observations on the genital tract of cull ewes.
Genital tracts collected from 133 non-pregnant cull ewes in early April were examined for macroscopic abnormalities; 8 were excluded because of signs of early or recent pregnancy. An assessment was made of the possible effect of any abnormality on the ability of the animal to become pregnant. It was found that 23.2% of the tracts had abnormalities and it was considered that 16.8% had abnormalities likely to interfere with the establishment of pregnancy.
Author: A.C. Winter and H. Dobson.
Publication: Veterinary Record.

Birth sex ratios in sheep over six lambing seasons.
For 1820 lambs born during a 6 year period, the overall percentage of males was 49.56. A significantly higher percentage of males was born to ewes producing single lambs than to those producing single-sex twins (56.23 vs. 47.73%). Significantly more

SHEEPDOG

Sheepdog is apparently a new board game which will definitely appeal to shepherds of all ages (it is claimed). It is a simple game with twenty wooden sheep and four wooden sheepdogs acting out their roles. It is designed for two players and has some similarities to draughts, in that the plan is either for the sheep dogs to get the sheep off the board or for the sheep to corner the dogs. It is said to be "an intriguingly simple but challenging game, attractively made with an equally attractive price".

"Sheepdog" costs £8.99 (plus P&P I assume) and is available direct from: Parlour Games, 28 Brixham Crescent, Ruislip Manor, Middlesex HA4 8TX.



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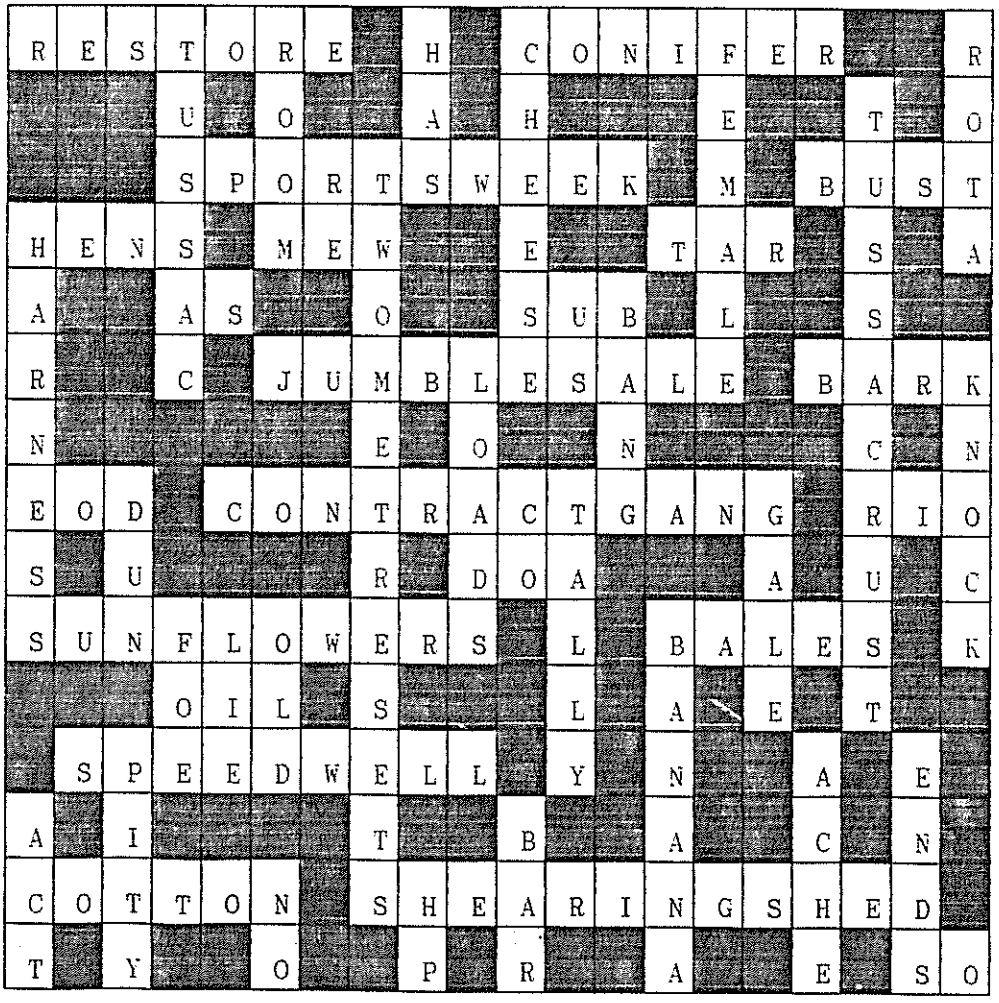
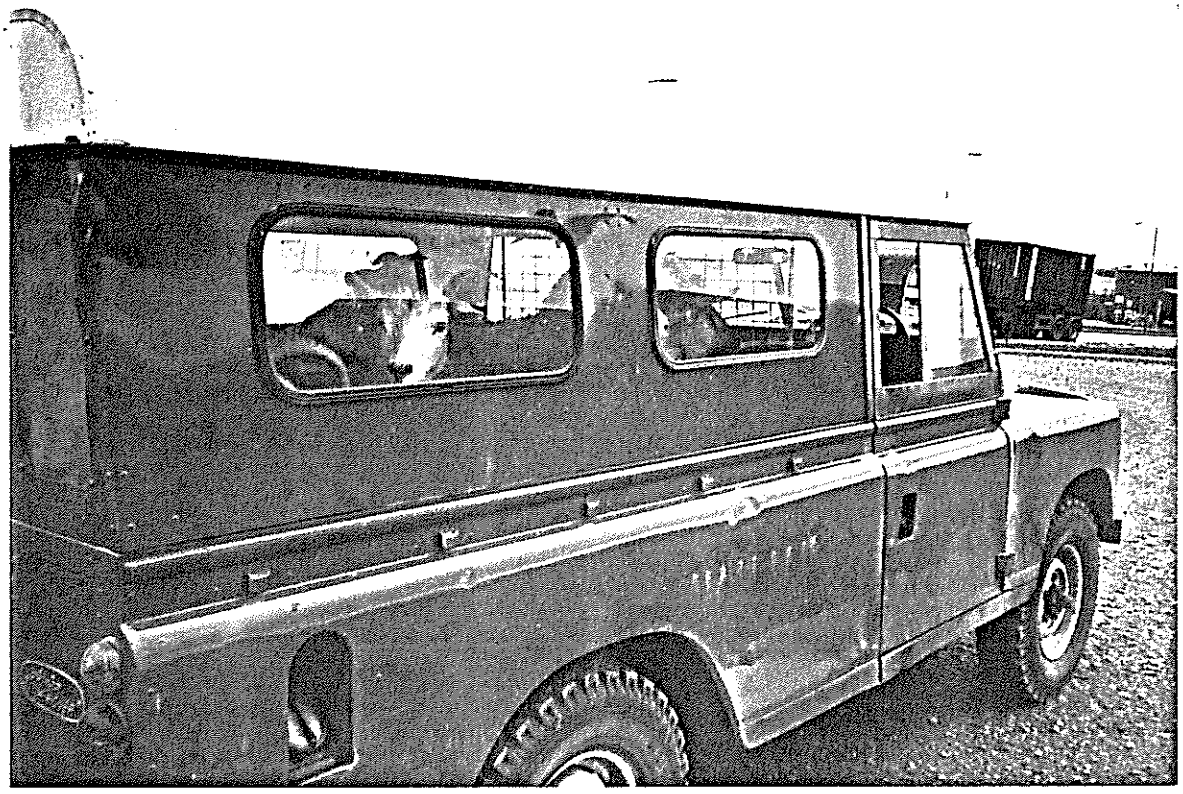
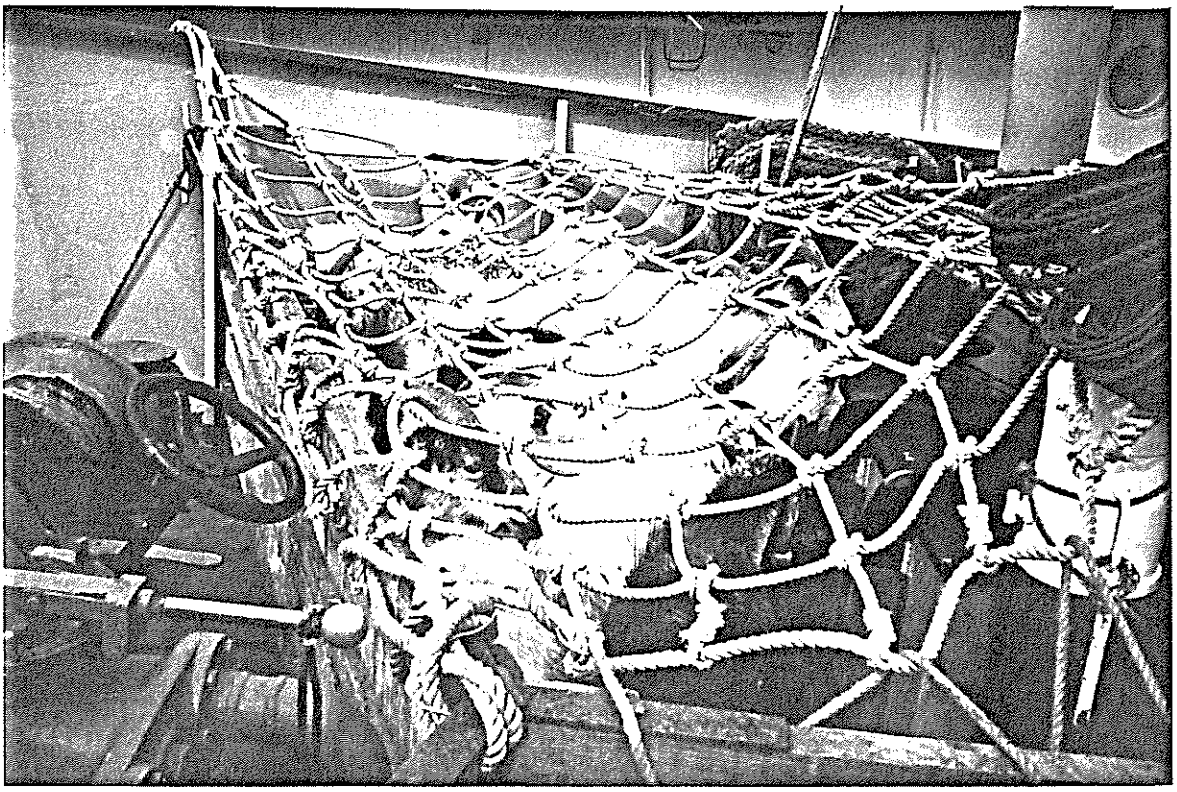


FEBRUARY CROSSWORD SOLUTION

FROM GOOSE GREEN. . . .





. . . . TO PEBBLE.

GOAT UPDATE

The month of December saw quite a few additions to the goat population on Pebble Island. The fourteen remaining adults at Goose Green were chauffeured into Stanley on December 14 and allotted cabin space on the good ship Forrest to make their way to Pebble for an emotional reunion with their former companions. Kidding, in November and December, produced a total of 48 live kids - 30 females and 18 males, representing a kidding percentage of 114 per 100 does to the buck. All were tagged and weighed soon after birth, the average birthweight being 2.8 kg.

The comments on the fibre samples from last years shearing that we have had subjectively assessed in the U.K. have been encouraging. There are one or two problems that are to be dealt with but nothing that cannot be achieved. Yield assessments (yield in relation to cashmere production being (weight of cashmere / total weight of shorn fleece) x 100)) have been extremely variable ranging from 7 to 55%. 7% is a long way below the acceptable figure of 25% but it has been suggested to us that the animals are still showing great variability in shedding dates and the lower yields are a reflection of natural loss of cashmere prior to shearing. A slightly earlier shearing date is therefore to be employed this year. Objectively, the fibre diameter analysis that has been conducted on the males born at Goose Green and retained for breeding have ranged from 15.18 to 16.62 microns.

Cashmere has not been exempt from the current world fibre situation and we have been advised not to sell at the current time. This provides us with an opportunity to experiment with the Cashmere here in the Islands once it has been dehaired. The results will be viewed with interest by many! Overall, Raymond is delighted with the animals (my words not his) and I'm sure he'd agree that he is a lot wiser as regards their management now than he was this time a year ago!

Jo Baughan
March 1993

* * WANTED * *

* Series 2 (or series 1) pushbutton starter solanoid.

* Drive flange for L/R capstan winch (the splined bit with the six holes in it)

* 2 Pucara main undercarriage leg strut axles. Anyone know of anyone else who may have such a thing lurking in a junk pile.

* 2 inch tow ball socket for trailer draw bar.

Please phone Nick on 31193 mealtimes and evenings, or fax on 31194.

AND WHILST ON THE JUNK PILE ..... does anybody have a sump guard from an old motorbike which would be suitable for a Kawasaki KLR 250cc. Please get in touch with Mandy on 27355

LETTERS PAGE

I'm sure many other people will have read the article in the F.I. Newsletter No. 53 of November 1992, by Major Spafford, giving a brief biography of one Col. George Abbas Kooli D'Arcy, former Governor of the Falkland Islands. This gentleman appears to have left his mark in Falkland Islanders hearts in much the same way as another did just over 100 years later (for various other reasons). For those who have not read it, the bit I like is this; From chapter III part 2, I quote:-

"At the time of his arrival in Stanley, the farmers on the then newly settled West Falkland were in a state of collapse facing bankruptcy having spent their capital on the purchase of stock, buildings, drainage and fencing. Without waiting for approval from London, Col.D'Arcy put into effect Ordinance No 6 of 1870, extending settlers leases on both islands from ten to twenty one years, reducing the rental from 10 shillings to 6 shillings and the price from 8 shillings to 2 shillings per acre" (What a star!!) "When London heard of it, the Ordinance was disallowed and D'Arcy was told that under no circumstances could land be sold for less than 4 shillings an acre. Meanwhile D'Arcy had sold 800,000 acres at 2 shillings an acre". (Oops!!)

"In 1871 , however, a new Ordinance was passed reducing the price of land to 4 shillings an acre but embodying all the other benefits of the disallowed Ordinance " (Fair do's) - resulting Prosperity."

"The ten years extension gave the struggling farmers on West Falkland a new lease of life and renewed energy; instead of giving up, some found new partners with capital to join them, others worked on alone. As a result, by the mid 1870's, sheep farming was not only well established, but prospering. In 1877 the farmers on West Falkland were able to charter ships to bring out stores and take home their woolclip without calling at Stanley."

Whilst this last bit is not a prime consideration, many have not forgotten it, and maybe one day it will happen again. However, the land purchase bit is, and a century on, it is occurring again in smaller blocks. Given that the supplementary subsidy from Government is not the guaranteed income alternative to selling wool on todays world markets, and given that rising costs of production and high interest rates fail to be matched by generated income, some sort of long term solution is needed if some areas (if not all one day!) of our rural environment are to be kept alive.

Fishing revenue which has until now helped support the sheep industry has dwindled, oil is still a long way off, and it may not be too long before someone feels that farming should be generating more fuel for the Treasury, and a fortuous hope it will be too, unless someone somewhere starts a really decent scrap which is what appears to have kickstarted the world economies following the last big recession.

Assume for a moment that a small section holder within the last 2 or more split ups no longer had interest or mortgage repayments

to make but wished to get out anyway. Could we in any way get a realistic price for the property? Who would wish to buy it? Would Government repurchase it having finally got rid of it only to have to mortgage someone into it instead?

Given our present financial situation , hell could well freeze over first, because it might not rate as a priority. Lets face it, the Falkland Island Government is financing Falkland Islanders into Falkland Island territory with Falkland Island cash. There's no such thing as a free lunch, so those on the receiving end have to do their bit as well or else. Different if you are acting as a rural bank attracting and financing an overseas interest in the businesses and expecting to generate Treasury or other revenue from outside.

F.I.G. can hardly be accused of trying to make a vast profit on the on sale of property it re-acquired on islanders behalf (why break the banks on those you are trying to help), but it must feel like it to many people who bought in when the going was good, only to have it go pear shaped a year or three later. A lot of people have no chance of repaying their mortgage in their lifetime at todays prices/costs, and must feel that the old permanent & pensionable or 9 to 5 job in town might have been a better bet. It's due to change there too; a budget approaches, and reality looms up for many who relied on fishing to create or support their work or trade.

Might it not be timely for some bright and influential characters to study the leaves of Governor D'Arcy's book and consider whether or not with a millstone removed from around their necks, the individuals concerned may actually get near to some of the sense of achievement that was originally sought, with the on-going effect that once firmly attached to the land, and not being in it for a profit as a land-broker passing it on, then any income derived from production should start to be of more direct benefit to our economy rather than a vicious circle of banking and lending.

As a example I quote the N.S.F. with all good intentions in mind, take a close look. A lot of people could not even consider affording to buy in sheep themselves, prior cash commitments saw to that. Alternative - subsidise a National Stud flock which could help everyone, not just individuals and generally improve the National Flock at a more affordable price.

Still no such thing as a free lunch remember, you get out for nowt, and how many people are going to get near to the help they need from this flock, when recovering the cost of breeding of animals from it is threatening to push it out of the reach of many, particularly those whose farms need it the most?

Priorities vary from every ones point of view and this is well exampled here where its small enough to know about them, so it is for the powers that be to see that the place survives, and runs effectively. This includes creating ways of attracting efficiency from everyone else (look at that road gang move). No one intended this situation to arise, but it has and it must be navigated through.

The effect of a loss of morale in rural industry has been demonstrated in New Zealand and I dare say shortly to be duplicated in

Australia and south American areas, and should not be underestimated by those whose are slightly more financially secure.

Read the words again! "... a new lease of life and renewed energy.." This is not to say it is the solution to end all problems and could even create a few others, but if required a more efficient rural industry could go a long way towards supporting itself through the lean times still yet to come if it in turn is seen from a long term point of view, and something more definite is done in the way of action towards ending a great deal of uncertainty about peoples future.

All very well to say from where I sit, but even the secure ones can not survive alone.

The place needs to work more efficiently with what it has until the fish return and the oil flows, I for one will not risk holding my breath, till then.....

N.PITALUGA, SALVADOR
MARCH 1993

* * * * * * * * * * *

* * RECIPE * *

CONTRIBUTION CAKE

INGREDIENTS

2 cups of recipes
1 cup of "Home Grown Ideas"
1 pint of letters
a pinch of enthusiasm
contents to taste

METHOD

Put on paper and send to the Editor of the WOOL PRESS to be blended, baked and distributed to all farmers.

This is an old therapeutic recipe which does wonders for the treatment of Apathy!

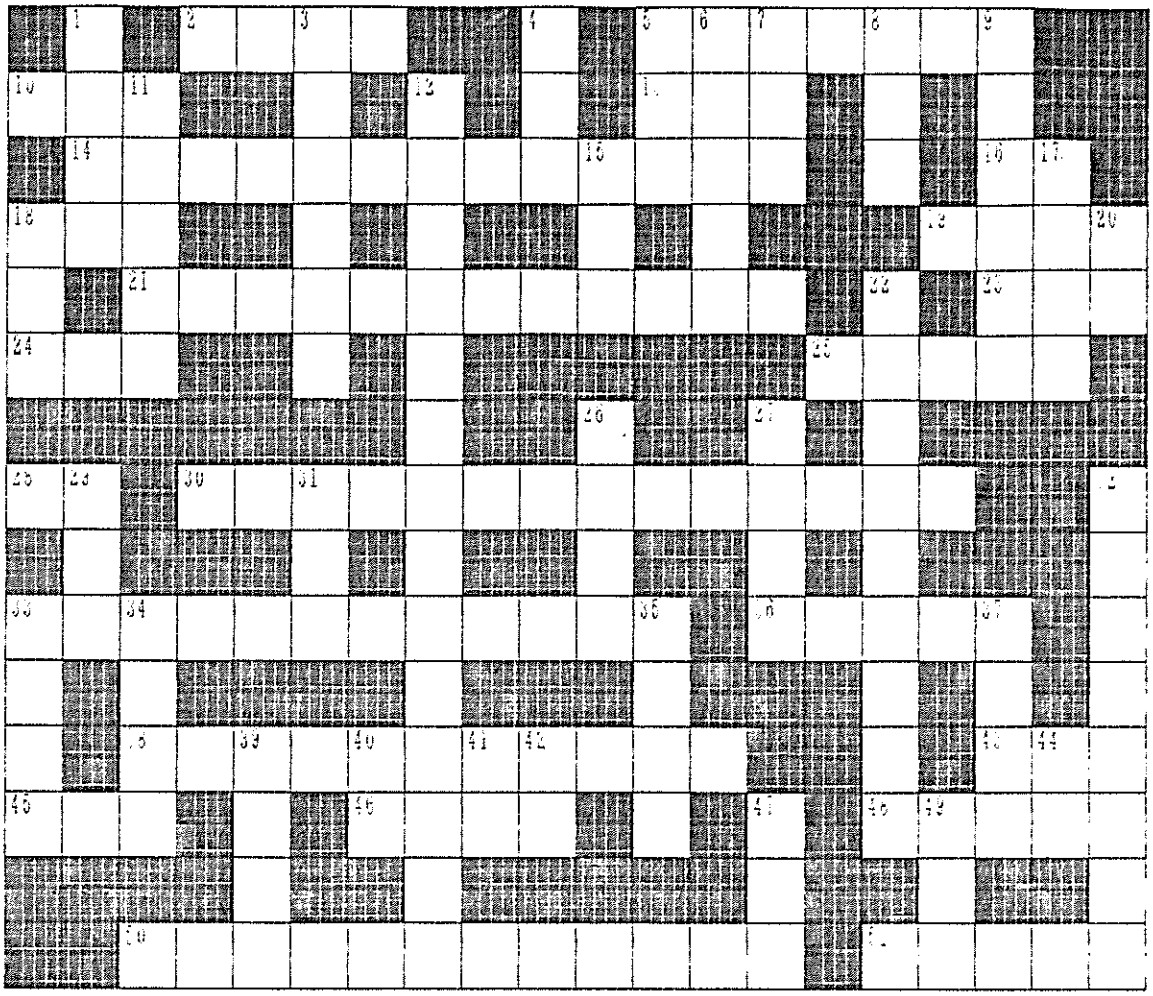
THE DEPARTMENT OF AGRICULTURE

SPOT THE DIFFERENCE

LAST MONTHS DIFFERENCES

In bottom picture:

1. Tall tree has been erased. 2. A flag has been added to the tent. 3. The judges badge has the middle removed. 4. The judges welly has a darker stamp. 5. The second spectator on the left has dark wellies. 6. The lady behind the judge has her hairline filled in. 7. The calf behind the judge has a leg added. 8. A fence post on the fence. 9. The lawnmower's tyre has been filled in. 10. The bottom of the knot on the lawnmower's string is gone.



ACROSS

2. LARGE CLOTH BAG
5. LARGEST PENGUIN
10. OLD DEPARTMENT OF AGRICULTURE INITIALS
13. COW NOISE
14. WATER DIVIDING GOOSE GREEN FROM WALKER CREEK CAMP
16. COMPERE
18. THE CAT'S MOTHER PERHAPS??
19. SECURE A SHIP
21. SCHOOL HOSTEL
23. LARGE STORAGE TANK - FOR TAX PERHAPS?
24. ANIMAL KEPT AS COMPANION
25. SING WITH A FLUCTUATING VOICE
28. MEMBER OF PARLIAMENT
30. MOUNTAIN RANGE ON EAST
33. SOFT RED FRUIT
36. A TALLY OF POINTS
38. JUMPING PENGUINS
43. HEADGEAR
45. TELL UNTRUTHS
46. ENGRAVE WITH ACID
48. VENTILATING PART OF PLANT
50. LIGHTHOUSE LOCATION
51. ROYAL HEADDRESS

DOWN

1. CURVED STRUCTURE
3. COVER
4. NATIONAL HEALTH SERVICE
5. VERY LARGE BIRD
6. THEY LIVE IN MONASTERIES
7. PEA HOLDER
8. FISH EGGS
9. TAKE AWAY
11. TREASURE BOX
12. BAY BETWEEN WEDDEL AND SHALLOW HARBOUR
15. YOKO
17. FUEL
18. VITAL PLANT FLUIDS
20. DISUSED STATION IN STANLEY
22. OLD EAST SETTLEMENT
26. FOOT ATTIRE
27. A LONG TIME
29. HOLE IN GROUND
31. PONY BREED
32. HIGH AREA
33. SEA MAMMAL
34. NOT COMMON
35. PAINFUL AREA
37. REFLECTED SOUND
39. CHICKEN HOUSE
40. MALE
41. POLICE CONSTABLE
42. ACIDITY LEVEL
44. BE
47. SINGLE UNIT
49. LARGE ROCK FORMATION ON MOOR

FAREWELL

Is it really true that all good things must come to an end? Well I hope not, otherwise there would not be much to look forward to in the days ahead and we may as well pack our bags and go home! I have been assured that Belfast will be more than something to look forward too!

It is very hard to believe that we have come close to the end of our stay in the Falklands. As you are probably all aware, my FIG contract is at a close and the family and I will move back to Northern Ireland. I am one of the 'lucky' ones who have a job to go to after departing the islands. It certainly is hard to think it would be 4 years come this June, since we first arrived. A lot of water has gone under the bridge since we arrived some of it clean and some very dirty indeed!

Radical changes were made in the Agriculture services available to farmers only 2 years ago when the Agricultural department and the Agricultural Research Centre joined forces. Yet again changes are in progress in light of the estimated decrease in revenue to the Islands. I think that even those in Government administration have to concede that since the conflict and rise of the Fisheries Industry, agriculture was placed on the back burner and considered some what of a nuisance factor. These latter changes to the remit of the Department of Agriculture and its sphere of work will almost certainly have a long lasting impact on agricultural development and a maintenance of the farm life-style that is 'the Falkland Islands'.

How easily people forget that the sole revenue for the islands was generated from the sale of wool almost from the time the Islands where first settled.

If the projected revenue loss is sustained over the next 5 years then agriculture should again despite the current low wool prices be of significant importance to the islands income. It is acknowledged the world over that to sustain an agricultural industry, requires research and development pertinent to the present and future needs of the industry. I hope that what ever decisions are made that the agriculture industry and its support by the Department of Agriculture will fare well (pun intended).

I would like to take this opportunity to thank all those who have helped not only my work but also that of the Department. Thanks go to those of Fox Bay East for assistance with trials, and a special thanks to Michael and Linda McRea for the most enjoyable work day I have spent in the Islands since June 1989.

Farewell goes out from the whole Hoppé clan. Who knows we will may well meet again before we go to the mansion in the sky. Finally a thanks go out to all in camp who encouraged my involvement and work in the Tabernacle. No-one is indispensable except the saviour of the world, Christ Jesus.

My prayers will be with you all, God bless until next time.

Gerry, (Kika, Carla, Craig, Sarah and Kimberely).

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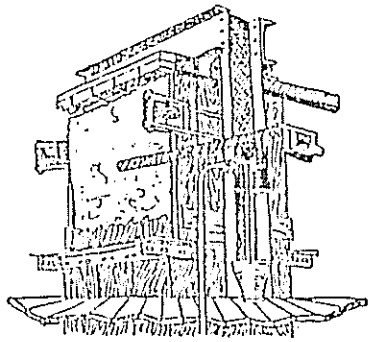
PLUS ALL THE REGULAR FEATURES



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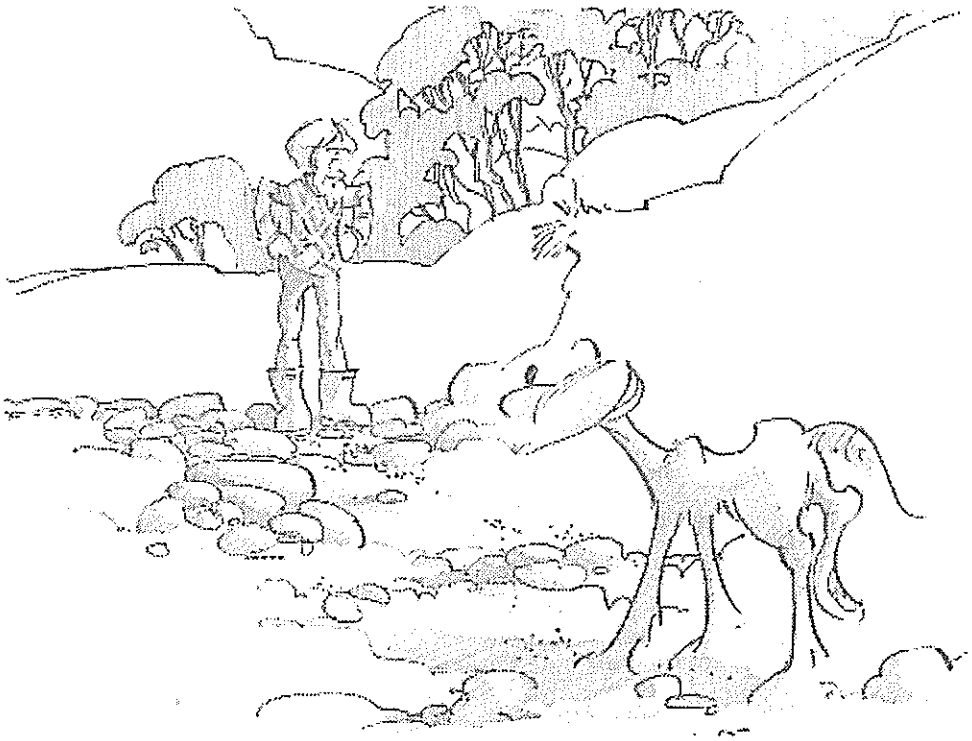
Editors - M.J.McLeod and R.H.B.Hall

EDITORIAL

Last month saw the departure of Gerry Hoppe and his family from the Islands, we wish them all well. We also welcome a visitor who arrived to be in our midst for the next year (see BEETLE WOMAN article).

With Sports and other frivolities being over, I suppose you are all looking forward to those interesting winter jobs around the farm. Come on - you know how much you love cleaning out the shed!! You will also be putting your rams out shortly so the articles "ARE YOUR RAMS UP TO IT?" "INBREEDING" and "A.I.ABUSE" should be of interest to you.



"I've done my BComm an' I've majored in valuation an' property management an' I've done my masters and I've got first class honours ... so when I say 'get in behind' th'least y'can do is get in behind!"

Brucella ovis — an obituary?

born: sometime in the '50s
died: April 1993

R.I.P

Well a bit early to sing it's swan song yet, but after testing approximately 97% of all the rams which are about to be used this mating season, it would seem that *Brucellosis* appears to be on its way out at long last. We are hoping to complete the testing of the remaining 200 or so rams within the next couple of weeks, and all going well should be able to re-accredit all of them.

We will also send 1,000 of the blood samples to Dr Frans Hilbink of the Central Veterinary Laboratory, Wallaceville in New Zealand who has kindly offered to test them free of charge as a quality control measure. A confirmation of our results from New Zealand will lend further credibility to the statement, that the Falkland Islands have successfully eradicated *Brucella ovis* from their ram flock, a statement which I hope to be able to send to the International Office of Animal Diseases (OIE) in Paris in due course.

Because of the nature of the disease it will be necessary to continue a small surveillance programme for a number of years yet, say 500 to a thousand rams sampled on the last infected farms, but the effort and costs involved should be small compared to the islandswide testing we performed this year.

In order to protect the achievement of *Brucella ovis*-free status further strict measures need now be applied to further semen and sheep imports, which should only originate from *Brucella ovis*-free countries (only Britain, but which has other nasties) or flocks which have been officially accredited *B.ovis*-free in the country of origin, and tested again prior to export. Only by applying these very strict controls on imports will you be able to avoid a repeat of the situation which led to the introduction of the "bug" in the first place.

The testing of the almost 7,000 blood samples has taken considerable time this year, as we have taken extraordinary steps to make sure that the results were valid, by re-testing a number of samples two or three times, with a couple of different test systems. And yet, most results were returned to the farm within a couple of days, and on weekends, if necessary.

The cooperation of all farmers in providing transport, accommodation and often, assistance with the actual sampling itself, is gratefully acknowledged as is the work of the laboratory staff in Stanley, who often enough were only able to start their work at the end of the day, when I returned with the samples from Camp.

MICHAEL P REICHEL
DAVID J BABER
APRIL 1993

THE BEETLE WOMAN

Otherwise known as Jennifer Fuller. I have come to the Falkland Islands to study grassland insect pests. I will be based at the Department of Agriculture in Stanley for the next 12 months while I carry out my research. My main areas of interest are the grass grub problem in reseeded pastures and the tussac beetle.

TUSSAC BEETLE

A major problem when replanting tussac has been attack by insect pests. Very little is known about these insects but the most serious damage is believed to be caused by the juvenile stage of a small beetle *Poopylax Falklandica*. During the next year I will be collecting and studying the life cycle of this beetle. An understanding of the life cycle will enable the formulation of appropriate control measures.

GRASS GRUB

The grass grub problem is caused by the larval stage of a small weevil, *Malvinius compressiventris*. The larva which resemble maggots, eat grass roots in reseeded pastures. This results in the death of the grass which can be lifed away from the underlying soil with ease. During the next year I will be studying the various stages in the life cycle of the weevil and looking at various control methods. This study will be important in determining the correct timing and methods of control used to ensure maximum eradication of the weevil.

Any information or comments about either of these problems would be greatly appreciated - please write or phone on 27355.

JENNIFER FULLER
APRIL 1993

HYDATID DOG SURVEY
A LABORATORY UP-DATE

Currently over 700 dogs have been bled in the survey. The methodology involved in the testing of the blood for the presence of antibodies against the parasite is considerably complex, and at one time it was hoped that this could be set up and the samples tested here. Unfortunately, due to the difficulty in raising the necessary funds for a visit to Melbourne University to learn first hand the techniques involved, it has been decided to send all the samples to Melbourne for the test to be carried out there. It is hoped that the first batch will be sent at the end of April, and the results should be forthcoming in 2 - 3 weeks from them arriving at the Veterinary Clinical Centre.

However, once the dust has settled from the B.ovis survey I hope to be able to spend more time on the development of the test which would mean that in the future the test will be able to be carried out here in the Department Laboratory.

D.J.BABER, SENIOR LABORATORY TECHNICIAN
APRIL 1993

FARMERS' HEALTH AND SAFETY

As farm staff numbers fall, those who are left on farms are increasingly likely to be working alone. So what happens if they have an accident and need urgent medical help?

You saw him get off the tractor, stagger and fall. Your were in the yard; he was up on the hill nearly half a mile away. You run as fast as you can but it takes several minutes, uphill across a rotovated field. When you reach him he is on his back, unconscious but breathing. It could be your father, son, worker, spouse. What do you do? Has he had a heart attack, or a stroke? You are alone on your farm. No one else is at hand to help. It's obvious he's seriously ill. You must get help. You must dash back down to the house and get on the phone (if it works) or on the two metre and summon help. Wrong! After only a few minutes an unconscious person on his back will die, suffocated by his own tongue which gradually slips back and blocks the airway at the back of the throat as the muscles go limp. By the time you had got to the phone, and got back it would have been too late. After more than about three minutes the brain, starved of oxygenated blood, is irreversibly damaged. He will be dead when, with a few seconds' help, you would have kept him alive. All you needed to know was how to slip him easily and gently into the recovery position, check his airway was clear and then dash to the phone.

It's a terrifyingly familiar situation that could happen on any farm and highlights one of the dangers of isolation. Better techniques, increased mechanisation, farm sub-divisions and labour force cut backs due to economic necessity have added to this isolation.

The correct First Aid techniques can save lives. If anyone needs to learn them it is farmers, farm workers and their families for the simple reason that unlike people working in urban areas, there may be nobody else around to make that urgent call to the emergency services or to carry out the basic first aid. Generally speaking, If an accident happens on a farm there are so few, if any, people around so it is absolutely vital that you know the basic things to do to save a life - including your own.

If someone were to have a heart attack it's probably not the doctors or nurses who will save their life, but the person standing next to them, who knew how to give the aptly named "kiss of life". This is a combination of mouth-to-mouth ventilation and heart massage. It only takes a few minutes to learn. With two or three minutes practice on a purpose-made dummy you soon feel proficient, but beware, it is not something you can practise on another conscious person. Putting a casualty into the recovery position is however something you can practise on somebody else, if they are willing.

People only die for three reasons; They don't breathe, their heart doesn't work or they leak blood.

So next time a stab of indigestion prompts that fleeting fear of a heart attack, how sure will you be that the person next to you could save your life? And could you save theirs?

We are planning on running First Aid courses again this year and would like all those interested to contact myself or Hugh, so that we can see what the level of demand is and work out the best venues. IT IS ADVISABLE TO REFRESH YOUR KNOWLEDGE, ESPECIALLY IF IT IS SEVERAL YEARS SINCE YOUR LAST FIRST AID COURSE ATTENDANCE.

MANDY McLEOD
APRIL 1993

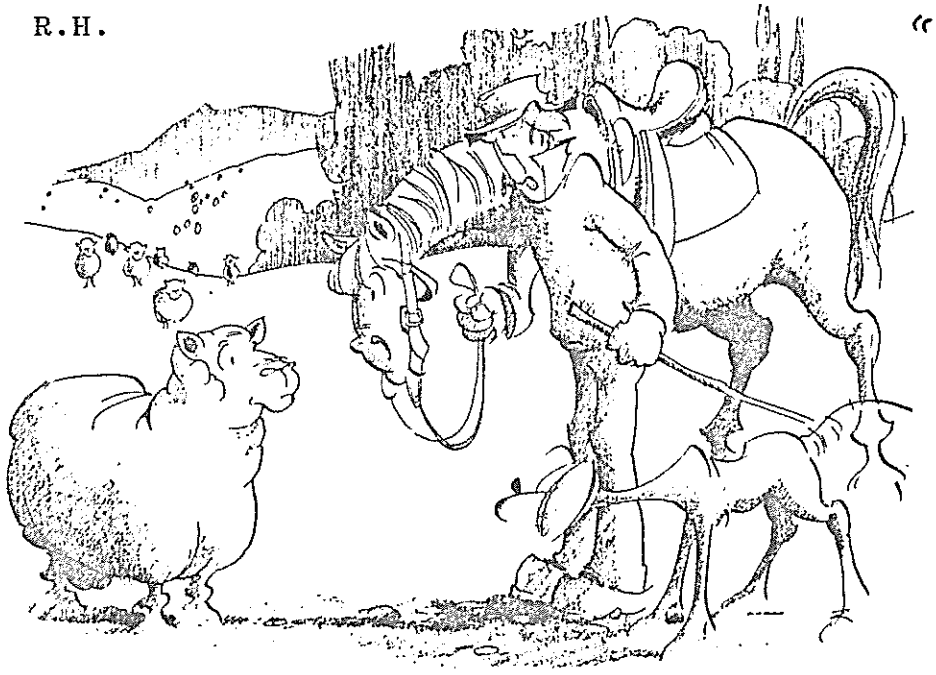
N.S.F. NEWS.

The lambs were weaned during the middle of March. 306 lambs had an average body weight of 23.6 kgs.

SGS laboratory results for the N.S.F. wool clip of 9 bales of ewe and ram wool (Shearlings) were:
Average fibre diameter: 23.1 microns.
Clean weight: 1452 Kgs.
Reweight yield: 70.3%
Vegetable matter: 0.2%

The N.S.F. Breeding and Marketing Group are to meet in early April to discuss the first year of operation and plan for an improved second year.

R.H.



A.I. ABUSE.

High levels of inbreeding in livestock production are generally avoided with good reason. The article "INBREEDING" by Jo. Baughan explains the calculation of an inbreeding measure and the consequences of excessive inbreeding. The subject of inbreeding is not simple, however I would urge all farmers to read the two paragraphs of her article that are in bold type, which warn of the effects inbreeding on sheep production. Having read of these effects, there should be sufficient incentive to sheep breeders to try and plough through the whole article (Help Line 27355).!!

Attention is drawn to farmers using A.I. progeny. Given the fact that few ram's semen was used, care MUST be taken when mating A.I. progeny together. FULL SIBS (brothers and sisters) and HALF SIBS (animals sharing one parent) should NOT be mated. Records of semen used in different years are therefore of great importance. Farmers who do not have the pedigrees of the rams which semen came from for their A.I. programme for farm breeding and planning records, can obtain copies by contacting myself at the Department of Agriculture on 27355.

R.H.B.HALL

INBREEDING

Inbreeding is the mating together of animals which are related to each other by ancestry. The consequence of two individuals having a common ancestor is that they can both carry replicates of one of the genes present in the ancestor, and if they mate, they may pass on these replicates to their offspring. In other words, homozygosity is increased (having more of the same genes) and heterozygosity is reduced. Inbreeding causes both good and bad, as well as dominant and recessive genes to become homozygous.

In the heterozygous condition undesirable recessive genes are not apparent. However, if 2 animals carrying the same undesirable recessive gene are mated, on average one-fourth of the offspring will not carry the recessive gene, one half will be heterozygous like the parents and one fourth will display the undesirable characteristic because it is homozygous for the detrimental gene. Thus inbreeding, when practised in capable hands, is useful in concentrating desirable genes from superior lines and also in identifying the carriers of undesirable recessive genes.

The degree of inbreeding of an individual animal can be calculated and is expressed as the 'inbreeding co-efficient'. The level of inbreeding depends on the closeness of the relationship between the parents. Either or both of the parents themselves may be inbred, but if they are not related to each other then the subject cannot be inbred.

How the inbreeding co-efficient is calculated

For individual animals, the inbreeding co-efficient can be worked out by the use of an equation, but attention must be paid to certain important points:-

1. The pedigree of the subject must be written down and the common ancestors on the sire and the dams side must be highlighted - i.e. where the same animal occurs on both sides of the pedigree.

2. Although concerned with the subject animal of the pedigree, the lines of descent end at the sire and the dam of that subject animal. The offspring would not be inbred if the parents of the subject were unrelated to each other.

The equation which is used to calculate the co-efficient of inbreeding is:-

$$(\tfrac{1}{2}^{ns+nd+1})(1+F_A)$$

which simply represents:-

ns = the number of generations from the sire to the common ancestor.

nd = the number of generations from the dam to the common ancestor.

F_A = the inbreeding level (if inbred) of the common ancestor.

For example, if the inbreeding co-efficient (expressed as a percentage) of a ram whose identification number is R 20 is to be calculated, his pedigree should be written thus:-

			S 115
		S 200	
			D 50
	R 20		
			S 115
		D 75	
			D 25

It can be seen that the parents of the subject ram (R 20) both share the same sire i.e. Ram No. S 115 (underlined). So, to calculate the inbreeding coefficient:-

ns = 1 (generation)
nd = 1 (generation)
F_A = 0 (as in this case S 115 himself is not inbred).

The equation then becomes:-

co-efficient of inbreeding = $(\frac{1}{2}^{1+1+1})(1+0)$

$=(\frac{1}{2}^{3})(1)$

$=(0.125)(1) = 0.125$ or 12.5%

N.B. $(\frac{1}{2}^{3})$ is $\frac{1}{2}$ to the power of 3 <u>not</u> $\frac{1}{2}$ multiplied by 3.

Because of his common ancestry then, Ram No. R 20 has an inbreeding co-efficient of 12.5%. So what?

The following table shows estimates for inbreeding depression that have resulted from some of the countless experiments investigating the effects of an increase in the co-efficient of inbreeding of <u>10%</u>.

<u>Performance Trait</u>	<u>Decline In Production</u>
Decrease in greasy fleece weight.	0.29 kg
Decrease in body weight at 1 year old.	1.32 kg
Lambs born/ewe joined (Inbred dam)	9.0%

These results, and others obtained from numerous experimental procedures indicate that inbreeding has a depressing effect on most productive traits. Work with Australian merinos for example has shown that the ewe progeny of a ram and ewe sharing the same father (i.e. half sibs, co-efficient of inbreeding 12.5%) could show a lowering of adult clean fleece weight by 0.23 kg, body weight by 3.0 kg and lambs born by 11.2 per 100 mated.

The example calculation given above is the inbreeding co-efficient for a subject ram whose parents shared the same sire, that is the mating of half sibs. Examples of different intensities of inbreeding expressed as a co-efficient of inbreeding percentage for different relationships are given below and serve to give an indication of the levels of inbreeding that can be reached:-

Generation	Full Sib Mating (Brother x sister)	Sire x Offspring
1	25 %	25 %
2	38 %	38 %
3	50 %	44 %
4	59 %	47 %
5	67 %	48 %

The above has considered the level of inbreeding in individuals. It should be remembered however that if a flock is 'closed' i.e. no genetic variation in the form of bought -in rams being introduced from outside, then there will be a slow build-up in the level of inbreeding through relatives mating together.
The increase in inbreeding per generation when considering a population as opposed to an individual can be calculated by:-

$$\text{Inbreeding increase per generation.} = \frac{1}{8M} + \frac{1}{8F}$$

where M is the number of males in the population and
F is the number of females in the population.

Thus in a stud flock of 2 rams and 60 ewes this means that (1/8 x 2) + (1/8 x 60) = (1/16) + (1/480)
= 0.0625 + (insignificant amount*)
= 0.0625 or 6.25 % of the homozygosity (likeness) is increased per generation.

* The ewes are much larger in number than the males and because of this the 1/8F part of the formula can be ignored. The male side is the most important.

It is recommended that in populations such as this the level of inbreeding per generation is maintained below 3%.

Inbreeding then, results in the gradual lowering in performance of traits and is seen especially in characters like fertility, size and survival. A breeder may not suspect inbreeding depression and may search for other factors in the environment likely to cause a decline in production such as disease, poor nutrition or climatic factors. It is true that in the past inbreeding has played a huge part in establishing new lines or breeds of sheep, that with its accompanying increase in homozygosity the 'fixing' of (good and bad) genes in a population has been permitted, and if those carrying the 'bad' genes are successfully identified, then the animals carry only the desirable genes are allowed to breed and they will 'breed true'.

However, success stories associated with programmes of inbreeding have evolved from vigorous and consistent selection among large numbers of animals by experienced breeders often in association with geneticists who are able to closely monitor every aspect of performance. Outcrossing therefore, should be the mating plan of the commercial farmer due to the accompanying increased size and hybrid vigour.

J. BAUGHAN
APRIL 1993

FINE THREADS OF DISASTER

This picture shows fibre from black binder twine scattered through scoured and carded wool sliver. The twine is there because it got into the wool press. It will be scattered further as the sliver is turned into yarn and fabric. Finally, people with tweezers will have to pick out each black spot.

Obviously, the thing to do is to ask shearers and shed hands to be careful, but it is equally important that farmers have convenient, well lighted sheds with plenty of receptacles for rubbish and places to hang towels and clothing.

Binder twine and other contaminants should be swept out before the shearers arrive.

MANDY McLEOD
APRIL 1993

NEW LABELLING

The stencil and boot brush should start disappearing from woolsheds about March or April next year. Woolpacks will have a paper / plastic label sewn on one of the flaps. The presser will need a stamp or a spirit based felt pen to put on the station brand, bale number, description etc.

The core of the system is a unique number and bar code for each label, which means it can be traced through the marketing system. As this is being written, the final trials were being done on scanning the bar code in store.

EXTRACTED FROM SHEARING MAGAZINE - NOVEMBER 1992

ARE YOUR RAMS UP TO IT?

There is great variability in the fertility of rams. Although it is not possible to accurately predict a ram's ability to get ewes pregnant, a routine examination should be undertaken to assess and define any abnormality that may be present. If by chance, infertile or low fertility rams are dominant, they will suppress the mating ability of a subordinate ram that could well be of high fertility, with a consequent reduction in overall flock fertility.

A reproductive examination need not entail a collection of semen - a careful physical examination will, in the majority of cases, be sufficient to indicate abnormalities, which can then be more fully investigated.

Any examination should include a full physical check-up. Any physical or disease conditions which will prevent or reduce a ram's ability to serve normally will reduce the number of lambs it will sire.

EXAMINATION OF THE HEAD

TEETH

Those sheep with incisor teeth closing firmly onto the upper dental pad are more likely to withstand the wear and tear of feeding on rough vegetation. Incisor teeth tend to drift forward with age and their premature loss can occur for many reasons. An efficient set of teeth is a must for any ram which is expected to breed. By running the fingers along the outside cutting edge of the upper molars, which can be felt through the cheek on either side, gross abnormal changes can be detected. Any swellings above the root area of the upper molar teeth or lower jaw could indicate the site of a serious tooth problem and ultimately, affect performance. All rams showing signs of 'cud spilling' should also be rejected.

EYES

There should be no persistent discharge from the eyes which should also be examined for impaired vision.

HEAD AND EARS

Head butting among fighting rams can be a cause of serious local damage and even death. Rams which exhibit signs of ear irritation should be investigated further. 'Snoring' rams must be suspected of pharyngeal or laryngeal injuries and should be rejected.

EXAMINATION OF THE BRISKET

Brisket sores can be a regular source of pain and infection and affected rams will be lying down for most of the day to avoid irritation. Particular attention should be paid to the brisket if ram harnesses have been, or are to be used.

EXAMINATION OF LIMBS AND FEET

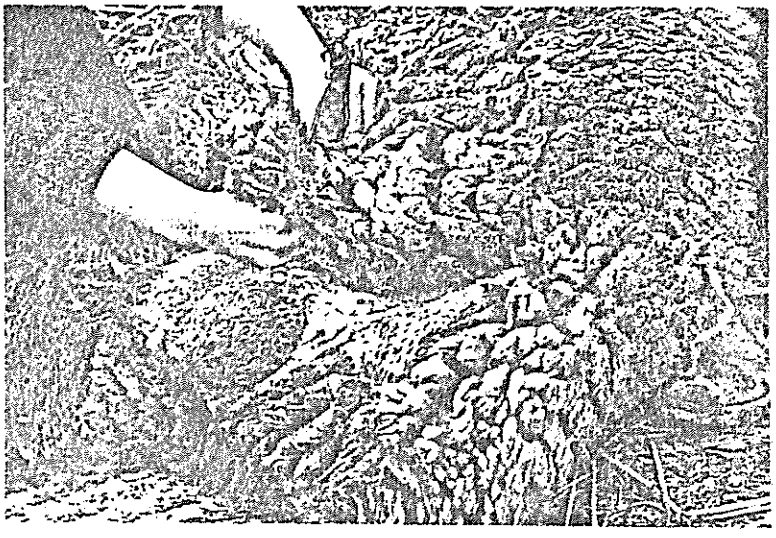
The conformation of a ram's limbs is important: cow hocks, and straight hocks with long sloping pasterns are signs of weakness. The claws should be strong and well developed; severe turning in of the front or hindfeet, splayed or corkscrew claws are all undesirable. Interdigital growths are common to all breeds and if present, can cause constant pain and lameness. Fortunately, most causes of lameness arising from this source respond well to treatment if given early. Persistent and prolonged lameness in the two-month period before mating is one of the most common causes of reduced fertility. It can act indirectly by forcing the ram to spend long periods recumbent as well as directly by causing pain. Lameness reduces not only the ability of the ram to serve but also, if an infection is present, the active daily production of sperm.

GENITAL EXAMINATION

For this it is best to sit the ram on its tail in a well lit area.

PREPUCE AND PENIS

The prepuce or sheath, is visible all the time whereas the penis which is extruded only during the act of mating. Examine the prepuce closely looking for signs of injury, ulcers, abnormal discharges or blood staining. Shearing cuts to the prepuce are dangerous because upon healing, scarring may occur to an extent whereby erection of the penis is prevented and thus, successful mating. Homosexual practices are common among rams in a group and it is not uncommon to find the penis coated with faecal material.



To examine the penis it is necessary to manually extend it. This is done by grasping the sigmoid flexure between finger and thumb, pushing upwards towards the prepuce and, at the same time, push the prepuce downward grasping it tightly. A further push from the sigmoid flexure area will completely extrude the penis. (See photo)

In extending the penis, it is essential to ensure that it can pass through the preputial orifice and that there is no abnormal deviation in its onward direction. The vermiform appendage ('worm') on the end of the penis serves to spray the semen onto the cervix and although there for a purpose, the lack of it does

not necessarily affect the fertility of the ram. Whilst in this region, check the umbilical area for signs of hernias.

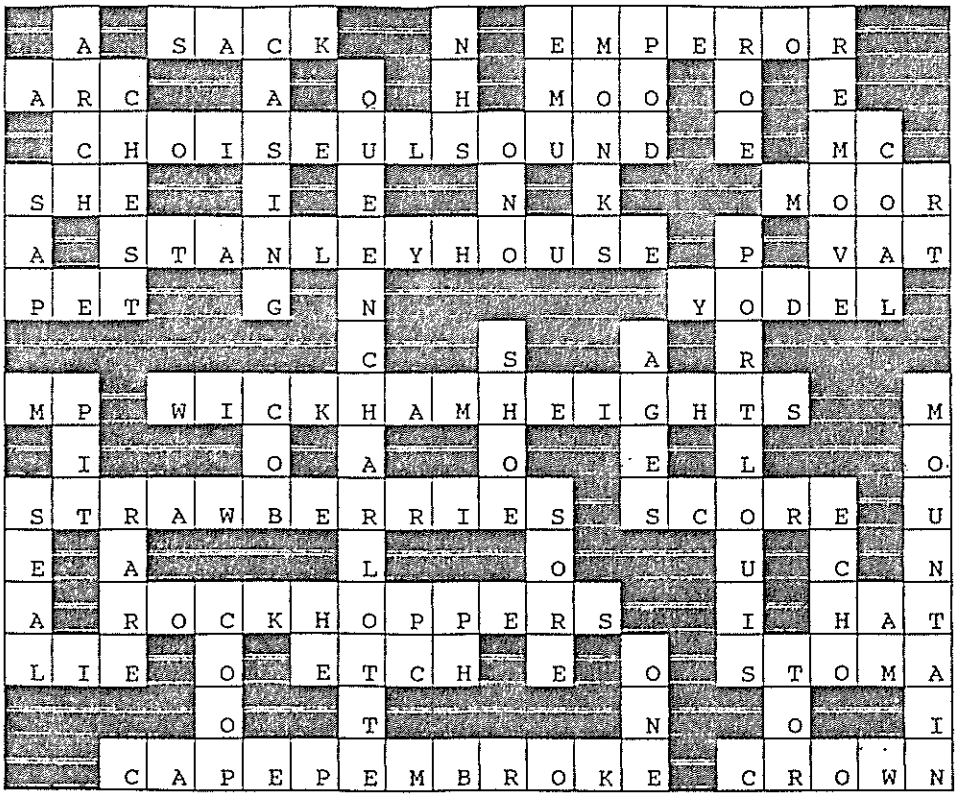
SCROTUM AND TESTICLES

As for the penis, these are delicate organs and should be handled with care!! There are numerous abnormalities of the testicles and it would therefore be more pertinent to describe how normal healthy testicles should appear and feel rather than describe the abnormalities that can affect them.

The scrotum should feel heavy when lifted up and should be covered in soft skin which should be supple and slide freely over the testicles. Any resistance to movement of the testicles within the scrotum is indicative of a past injury which often leads to infertility (a temporary state) or sterility (permanent). The examination of the testicles should start high up against the body wall, lightly grasping the scrotum with both hands and gently squeezing them to feel the condition of the testicles, working down to the bottom of the scrotum. The testicles themselves should feel firm, plump and springy. At the base of the each testicle there is the tail of the epididymis where the sperm is stored. These are recognisable as being the size of a walnut - though not as hard! Again there should be no hard lumps or other abnormalities.

A routine examination of rams before mating may be time consuming but is worth the effort. No-one can afford to be turning out sub-fertile rams to mate with their ewes.

J.BAUGHAN
APRIL 1993



MARCH

CROSS WORD

SOLUTION

OFFAL SURVEY 1992

The story of the 1992 offal survey is one of set-backs and some minor successes.

As in 1991 we inspected the offal sets of all sheep slaughtered at the Stanley Butchery, 6019 in all, up from last year.

1297 of the offal sets had boils in them, which represents 21%, down about a third from last year. As the ages of the sheep are never recorded, there is no knowing whether this is just a reflection of younger sheep being killed (with a lesser number of boils in them) or a true decrease, due to efforts on the farms to reduce the contamination in the shearing sheds.

253 bladderworms (*Cysticercus tenuicollis*) were also recorded, 4.2%, which is up a fraction on the previous year. This is some cause for concern as the regular *Droncit*-treatment terminates all tapeworm infections, not just the hydatid worm. It may be further indication that dogs are not regularly dosed, or have access to offal - the running total to date in 1993 is 6.7% for "bladderworms", a worrying further upward trend.

In 1992 we also came across a total of 17 true hydatid cysts, i.e. 0.28%, up two and a half times from the previous year, and unfortunately this trend also shows no sign of abating. The running total for the first 2.5 months this year is a total of 5 cysts, as many as we recorded in the whole of 1991, giving a percentage count of 0.36%. There is obviously a considerable lag period between the time of first infection of a sheep and its slaughter, and what we are seeing now are the results of carelessness during the campaign quite a number of years back, with its effects to be felt for quite a while yet. We have also had a great increase in the number of cysts recorded on offal returns from Camp, which either demonstrates a further true rise out there, or at long last, increased awareness on the farms.

Particularly distressing is the recording of a cyst in a two-years old sheep, which in all likelihood has mates still alive out there, equally infected. If an animal could become infected within the past two years, whose to say it could not be happening today.

The more reason for our blood (serological) survey of dogs, which should back-up the data we are getting from the butchery, with the advantage that they will give us the status-quo as of 1992/93. Hopefully it will allow us to react much quicker, i.e. treat a dog if it is identified as being infected. Over 700 dogs have been bled so far, with a couple of hundred yet to go, and results are awaited in the not too distant future. In the meantime, please keep up your vigilance, the dogs under control and the offal out of their reach.

Thanks are due to other staff at the department for offal inspection and in particular, David, for his laboratory support.

MICHAEL P REICHEL
APRIL 1993

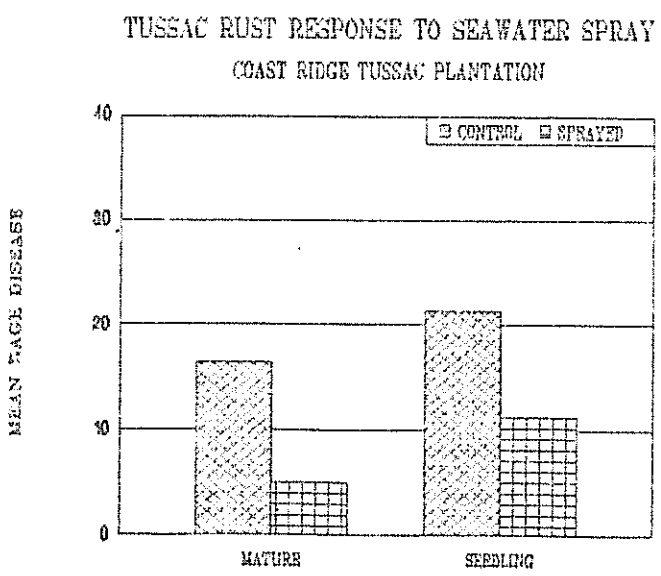
THE EFFECT OF SEA-WATER SPRAYING ON RUST DISEASE OF TUSSAC

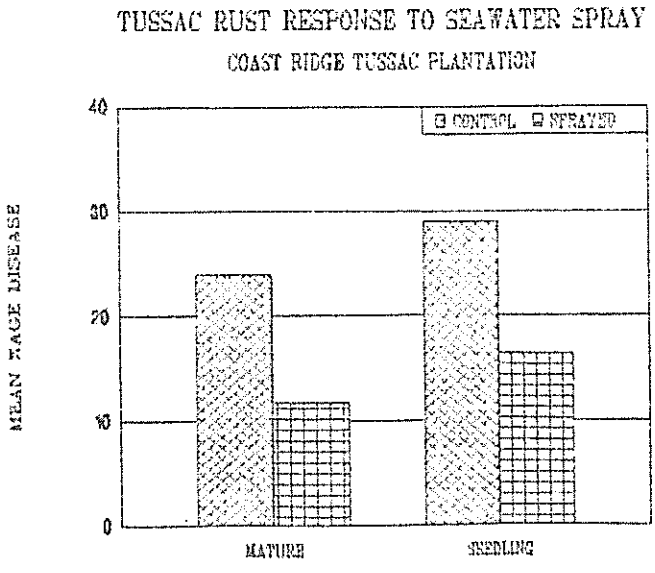
Before the days of chemical seed treatments, soaking seeds in brine was used to eradicate seed-borne rust fungi in cereals. The brine was toxic to the rust spores and mycelia. It had also been noticed at Coast Ridge Tussac plantation (Su Binnie's) near Fox Bay East, that during rust infestations, Tussac plants around the edge of the plantation nearest the shore, were relatively rust free in comparison with plants further inland. It was thought that this may be due to closer proximity to salt-water spray from waves on the shore. Tussac plantations are generally havens for diverse wildlife, and the use of chemical sprays to control the regular rust infestations is undesirable. If salt-water spraying could be proven to be a useful alternative to chemical sprays, rust control could be practical and extremely inexpensive.

At Coast Ridge Tussac plantation, 20 mature and 20 seedling Tussac plants were selected away from the shore, and marked with stobs. 10 plants of each type were sprayed with sea-water using a knapsack sprayer, on three occasions during the summer. 10 plants of each type were used as unsprayed controls. Disease levels were monitored throughout the period using cereal leaf rust keys, based on the visual assessment of percentage leaf area covered by the disease.

Disease assessments were recorded on the 3rd of February and the 9th March 1993, and are represented graphically below. On both occasions, the level of rust infection was reduced on both the seedling and mature plants that had been sprayed with the seawater. Seedling plants are more susceptible to the disease, and exhibited a greater proportion of the disease than the more mature plants.

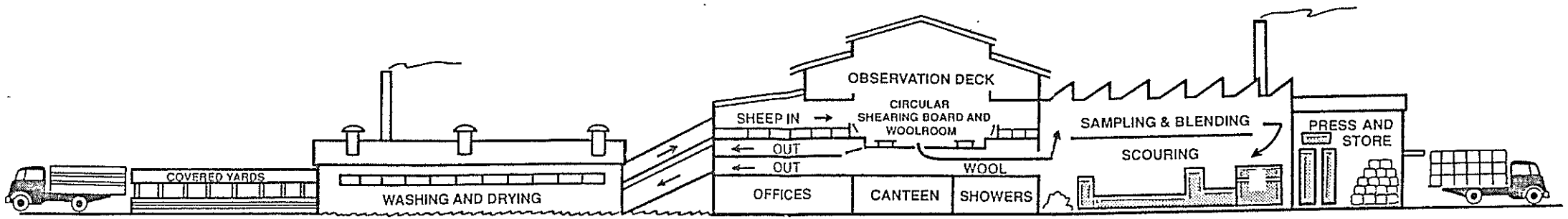
The results from this trial are interesting, in that seawater does have an effect on the level of disease, but further investigations will have to be carried out to determine the frequency and timing of sprays for optimum impact. For anyone contemplating initiating a Tussac plantation and in possession of an old farm sprayer, it may be worthwhile applying seawater to establishing plants, and certainly worthwhile planting in areas that are frequently exposed to sea spray.





S.HOWLETT
APRIL 1993

PROPOSED
NEW CONCEPT
20 STAND SHEARING SHED



INCORPORATING A WOOL PROCESSING PLANT

ONE ON THE EAST ISLAND AND ONE ON THE WEST ISLAND

20 STAND WOOLSHED.

In the next 30 years shearing in the Falklands is going to have to change radically. Big sheep and wool handling centres - probably one on both East and West Falkland will be built. The sheep will be trucked in on the new Camp tracks and the wool will be prepared and probably scoured into standard, tested blends for export from each island. A consultant artist's diagram below illustrates the concept.

The current system is said to be inefficient with; expensive sheds only used for a few weeks a year, the poor standard of some sheds as workplaces, the travelling shearer lifestyle etc.. "It is mainly the employment conditions that will bring about the change" it was claimed, "as hard manual labour is becoming less and less attractive. Shearing gangs won't buy the draughty sheds, and gypsy lifestyle in the future."

And so to the solution: the big central shearing and wool handling facilities. It will mean a massive outlay and will have to be financed by business or farmer co-operatives - a figure in excess of £50 million has been quoted.

The flocks would be trucked in and put through a wash to remove most of the contamination and improve the shearing. They would then go into drying rooms under currents of warm air, (probably using waste heat from the scours).

The circular shearing boards are planned with 20 stands and the wool tables in the middle. Lighting will be excellent so that work can continue round the clock, noise levels controlled and the space will be air conditioned. There will be a canteen, plenty of hot showers and probably full time specialists in maintaining gear.

The consultant points out the labour benefits in such an arrangement. "Shearers and shedhands will live at home with employment almost all year (shearing sheep every 8 months and a larger sheep population are anticipated). With a large staff, there would be space for training youngsters and creating career paths, both on the board and in the woolroom. = Shift work ... sports teams ... and less temptation to go to the boozer!!"

From the floor, the wool would go (probably without baling) to another part of each centre for sampling and blending. A scour would be part of the complex and finally a store, where the dense bales would await export to Europe's fashion manufacturers.

The consultant sees the centre as an attraction to tourists and townspeople. There would be displays, conducted tours and an observation deck above the shearing board. Sheep could be dagged, drenched or foot trimmed in covered yards. The place on West Falkland will become a centre for the planned one-man Department of Agriculture, with advice on animal health, disease control, sheep nutrition, wool production, pasture management, training, farm finance and agricultural research being available.

A. PHOOL !

COVER COMB SHEARING

I came across an article recently from the New Zealand Society of Animal Production which was of relevance to the shearing season here - even if it has just ended!

Sheep shorn with a cover comb were compared with sheep shorn conventionally in two experiments carried out in Palmerston North, New Zealand in 1989.

The first experiment used 60 pregnant Romney ewes, half of which were shorn using a conventional comb (leaving a stubble of 1-3mm), and the other 30 were shorn using a cover comb (leaving a stubble of 6 - 13mm).The date of shearing was 27 July 1989. These ewes were monitored to observe metabolic rate through blood samples and food intake through faecal monitoring for two weeks after shearing.

The second experiment involved 12 Romney wether hoggs, again half of which were shorn using a cover comb and half with a conventional comb. These animals were monitored in calorimeter chambers which measure the amount of oxygen used by an animal and the amount of heat produced.

Basically, when a sheep comes under cold stress (for example after being shorn), chemicals are released which mobilise stored protein and fat from body reserves into their component parts so that the animal has " fuel" ready to use for heat production.

FOOD + OXYGEN = ENERGY (for heat or growth) + carbon dioxide

These two experiments measured this effect in two ways - by the increased amount of oxygen needed to " burn " these fuels and by the increased levels of food components in the blood.

With the first experiment there was a difference between the two groups when the amounts of mobilised reserves in the blood were examined in the first three days after shearing. The normal comb ewes had higher amounts showing they had to produce more heat than the cover comb shorn ewes. (The two groups had no difference in average lamb weights born, but they would both be heavier than an unshorn ewe's lamb weight).

The experiment with the wethers showed that both groups used more oxygen in the first two weeks after being shorn, but that the normal comb shorn group used nearly twice as much as the cover comb group. This effect was still obvious to a lesser degree up to 11 days after shearing. Interestingly, both groups were back to normal levels by day 22 when their stubble length had grown from 4mm to 14mm (normal comb) and from 9mm to 16mm (cover comb group).

It is clear from these two experiments that a cover comb leaves more wool on the sheep which is important insulation for it in the early post-shearing days. With this increased insulation, a cover comb shorn sheep loses less heat and so does not need to either draw on its body reserves to help keep warm or eat as much as a conventionally shorn sheep. Both these points have a lot of

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relevance for Falkland sheep especially with our variable climate through the shearing season.

Australia loses around 0.5% of its sheep (0.8 million) each year in the first two weeks after shearing and up to 8% in bad weather. The Falklands must have an average above the Australian one so perhaps we should be thinking about using cover combs across the whole flock as a cheap and easy way of cutting down post-shearing losses.

FIONA DICKSON
APRIL 1993

* * A.T.S UPDATE * *

Our two trainees, Ricky McCormick and Suzie Clarke have come to the end of their year with us on the Agricultural Training Scheme (youth). They have both done well and have had excellent reports from their host farmers, which covers not only their working capabilities, but also their ability to get along with the people that they worked and lived with. We wish Suzie and Ricky well in the future and thank all those farmers who hosted them over the last twelve months.

It does seem a shame though that two young people who would like to carry on in the camp are now having difficulties in finding full time work in Agriculture. (Not to mention a place to live, or even a base where they could "contract out" from). If any farmer is in need of work assistance (a fencing project maybe) and feel that they could give Suzie or Ricky temporary employment, please call either myself or Hugh at the Department. I dare say there could be plenty of work for them at various locations throughout the summer months, but they will still need a base. Does anyone have a house in a settlement that is not being used that they would be willing to rent out. We would be pleased to here of any suggestions or offers.

MANDY McLEOD
ASSISTANT (Training & Economics)

* * * * * * *

ROVER TO BOOST PRODUCTION OF THE DISCOVERY

Rover is planning to raise production of the 4x4 Landrover Discovery next month for the fourth time in nine months, from the current 600 a week to around 700 a week.

The success of the Discovery - sales in Britain rose by almost 60 per cent in the first two months of this year - has prompted Honda to consider asking Rover to design and build the Japanese car makers a similar vehicle.

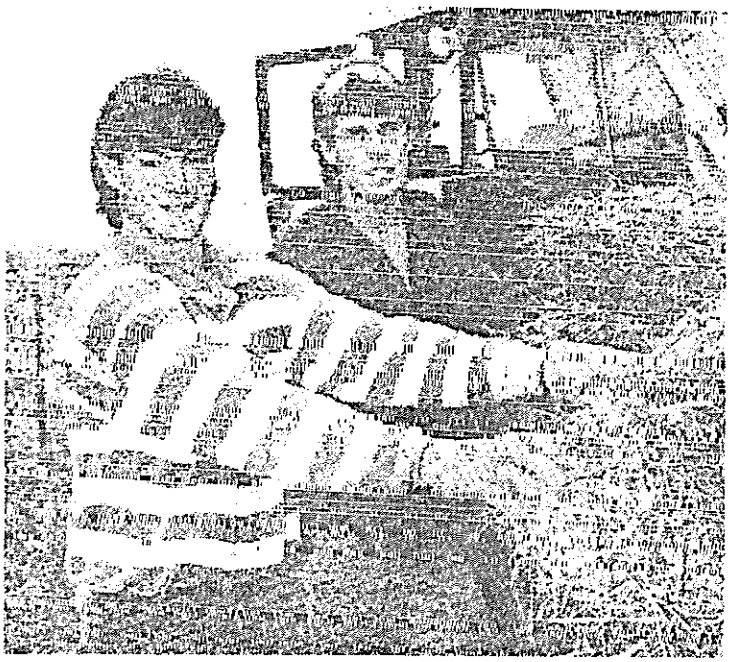
In return, it is suggested, Honda would help Rover to develop a multi-purpose vehicle or "people carrier", like the Renault Espace.

From the Weekly Telegraph - Week ending March 14th 1993

ISLAND VISITOR FOR FARM

Falkland Islands farmer Steven Dickson is experiencing life as an Australian farmer first hand, including the mice, flies, hay dust and cropping.

For Mr Dickson, 18, from East Falkland, the seven month farming exchange trip to Australia will give him an insight into Australian sheep farms and cropping. Mr Dickson comes from a large family farm with 5,300 sheep grazing but according to him most of the land was wet ground and swamps and the trip to Australia might give him new farming ideas.



He was awarded the exchange trip after completing an agriculture course in the Falkland Islands and topping the class run by the Falkland Islands Agriculture Department. He is one of five Falkland Islands farmers to work on South Australian farms in the past two years.

Mr Dickson said although agriculture was a depressed industry world-wide, the farms on the Falkland Islands were subsidised by the government which made life a bit easier.

He said he was keen to get stuck into Australian shearing, as he was also a shearer back home and they did not farm Merinos. "The sheep are completely different as we have Polwarths and Corriedales and their wool is not as thick as Merinos which makes shearing a lot faster," he said. Mr Dickson is currently working at Shoalmarra Quandong farm with the McNamara family near Tumby Bay. He said it was the first time he had worked on a farm with fruit, wheat and barley crops - an experience in itself.

Mr Dickson said farm exchanges were a great way for young farmers to exchange ideas, learn new farming methods and gain an insight into other forms of farming. As for the weather - while Eyre Peninsula people are pulling out the woollen jumpers, the Falkland Islands farmer considers the cool to mild autumn warm weather. "Our hottest day was 28 degrees but 19, 20 degrees is quite a warm day for us", he said.

The flies are also proving to be more than friendly but he said at least the Tumby Bay farm had hardly any wind and was not as stoney as some of the farms on the Falkland Islands. Mr Dickson will work at the McNamara property for about eight weeks before moving to another farm.

FROM THE PORT LINCOLN TIMES
18TH MARCH 1993

to extract the skin extremely cleanly with little or no flesh being torn from the carcass. This reduces the effort require to extract the flesh under the traditional method and greatly enhances the quality of the end product. It is worth remembering that sheepskins represent a largely untapped diversification opportunity for every farm in the Islands.

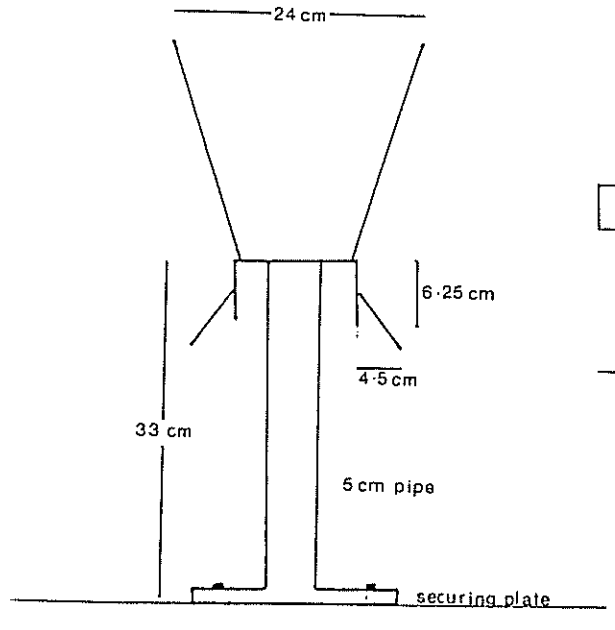
PROCEDURE

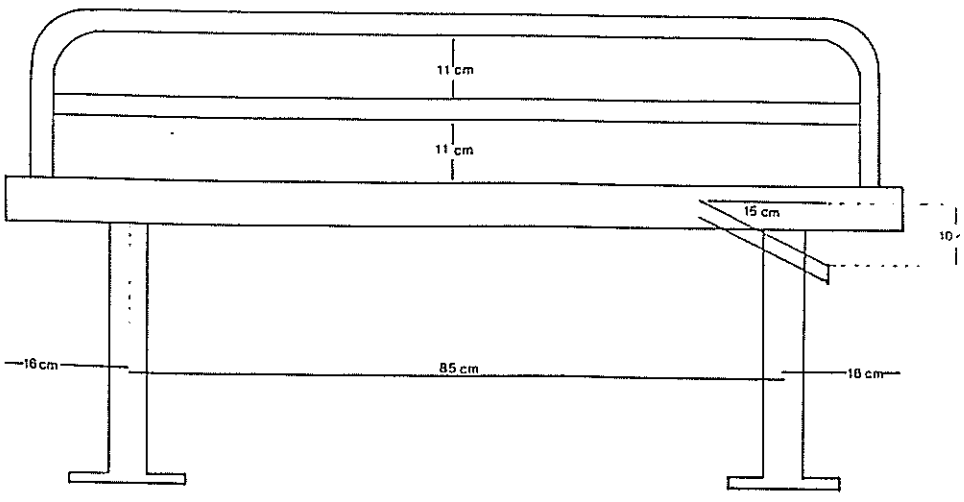
The sheep is killed in the normal manner and allowed to bleed before placing on the cradle with the feet uppermost and the head pointing away from the direction of pull on the winch.The skin is severed down the length of the sheep's belly and the brisket is cut. The front legs are severed at the first joint and the skin is pulled away from the leg to the shoulders. The skin and lower part of the leg is secured in the retaining arms of the cradle. The hind legs are also severed at the joint.The winch cable is then placed around the upper part of the front legs and the winch operated to pull the carcass away from the pelt (the pelt being secured in the retaining arms. A slight amount of punching may be require during the initial part of the process to release the skin in the front shoulder region. (This will depend on the condition of the sheep)

SIMPLICITY OF DESIGN

The materials used to construct the table can only be described as basic. Robbie used 2 pieces of 2.5" telegraph post supports for the cradle top (a single piece of 5" channel would be even simpler. The side rails were made of 2.25mm galvanised pipe and the rounded corners were cannibalised from metal framed chairs. The central support was made from a piece of 2" pipe. The cradle was secured at the base plates by 4 bolts. I am certain that Robbie or David would be extremely willing to provide additional information to any other farmer wishing to construct a similar system.

Perhaps one draw-back of the system is the height required in a killing house to accommodate the table, pelt, carcass and winch cable. This height should ideally be around 12 ft from the floor. Should this prove to be a constraint the height requirement could be reduced by placing the winch motor in the eaves of the building and by increasing the angle of pull on the pelt.





HOME GROWN IDEAS

Following a recent visit, I am extremely grateful to the Saunders Island Institute of Agricultural Engineering for 2 extremely practical and useful ideas for making life on the Farm a little easier.

GEARBOX OIL DISPENSER

The farm has for a number of years been using a rechargeable fire extinguisher as a handy way to add gearbox oil to Landrovers and other agricultural vehicles. Such a dispenser could offer welcome relief to those (such as myself) who have wrestled with long pieces of pipe, funnels and other devices to fill differentials and gearboxes in the more inaccessible places. Although the Department should not be seen to encourage the inappropriate use of safety equipment I think that the idea is a good one for those farms which have access to surplus ones!

The extinguisher should obviously be clean inside and preferably be the type that can be recharged by an air hose. The gas cylinder type have the drawback of often requiring an additional tap on the outlet pipe and the cylinders can be difficult to obtain.

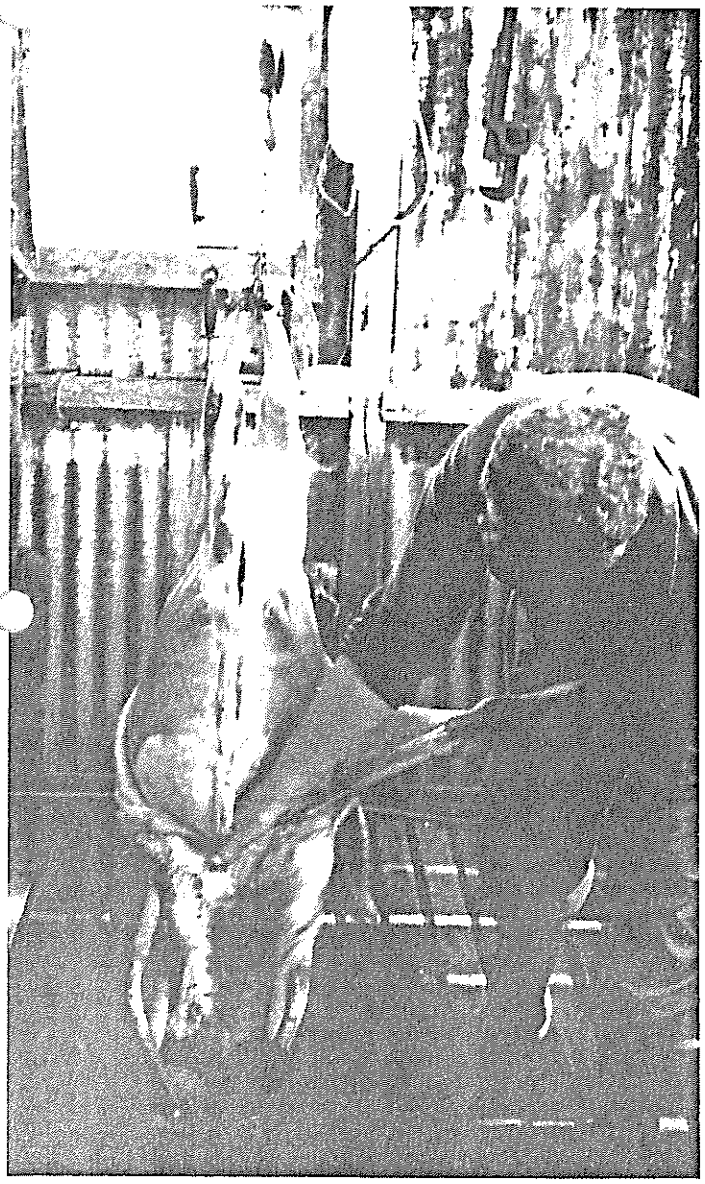
SHEEP SKIN REMOVER

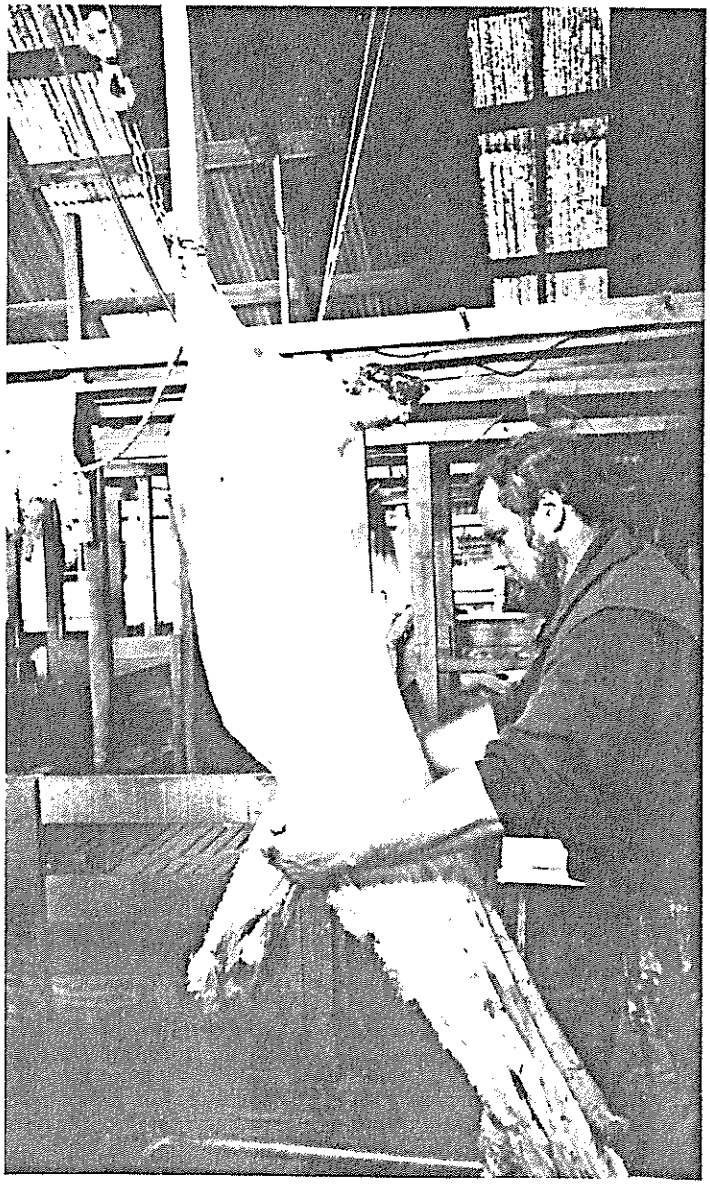
This idea has been adapted by Robbie Maddocks who worked with the system while working in Norway several years ago. The concept behind the remover is that the skin is removed from the sheep in a gradual manner by the use of an electric winch (12 or 240 volt.) It replaces the more traditional practice of punching the skin away from the flesh and has several advantages:

INCREASED HYGIENE
The process enables the removal of the skin of the sheep with virtually no direct contact between carcass and operator. Regardless of the level of personal hygiene, it is impossible to avoid contaminating of the carcass using the traditional punching method. The carcass also has no contact with the killing house floor which can be another major source of contamination. In countries such as Norway, complete batches of meat can be condemned due to contamination. I think that most skeptics would agree that the Falklands must also strive for excellence in butchering technics by eventually adopting similar standards.

REDUCED EFFORT
Having had experience with both techniques, there can be no question that the cradle and winch method eliminates the majority of physical effort involved in slaughtering sheep. It not only eliminates the effort in removing the pelt but also lifts the carcass directly onto the gibbet. The system used at Saunders uses a Clarke 1/4 tonne power 240v electric winch purchased from Lifestyles. The Winch has a 2 speed motor for heavier loads up to 250 kgs. The winch could obviously be installed in the killing house to enable easy removal and use elsewhere on the farm. Prior to purchasing the 240v winch the farm used a 12 volt Rover winch which was equally effective and might be more readily available for farms who are considering such a system.

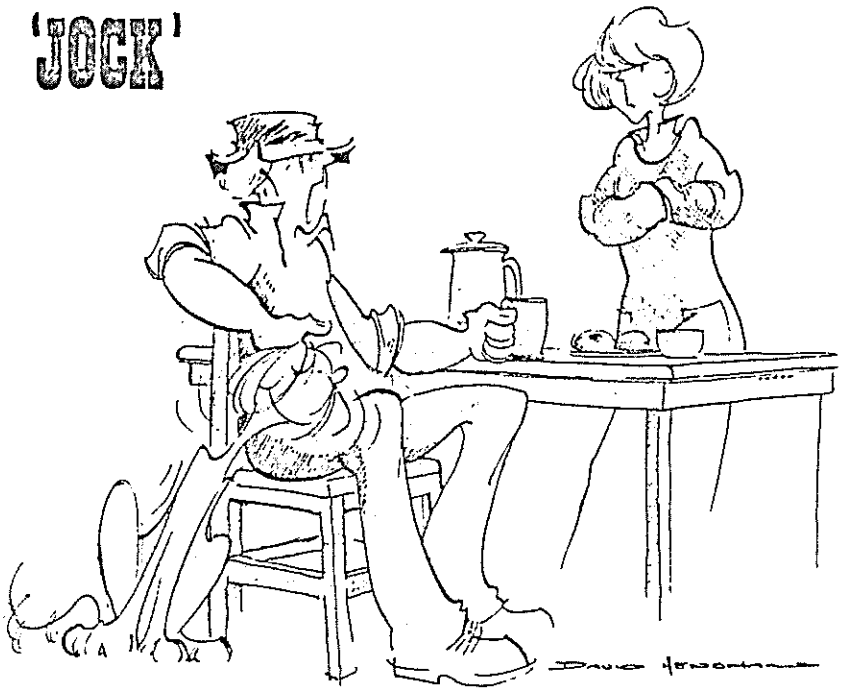
IMPROVED SHEEP SKINS
Unlike the more traditional "punching" method, the winch is able



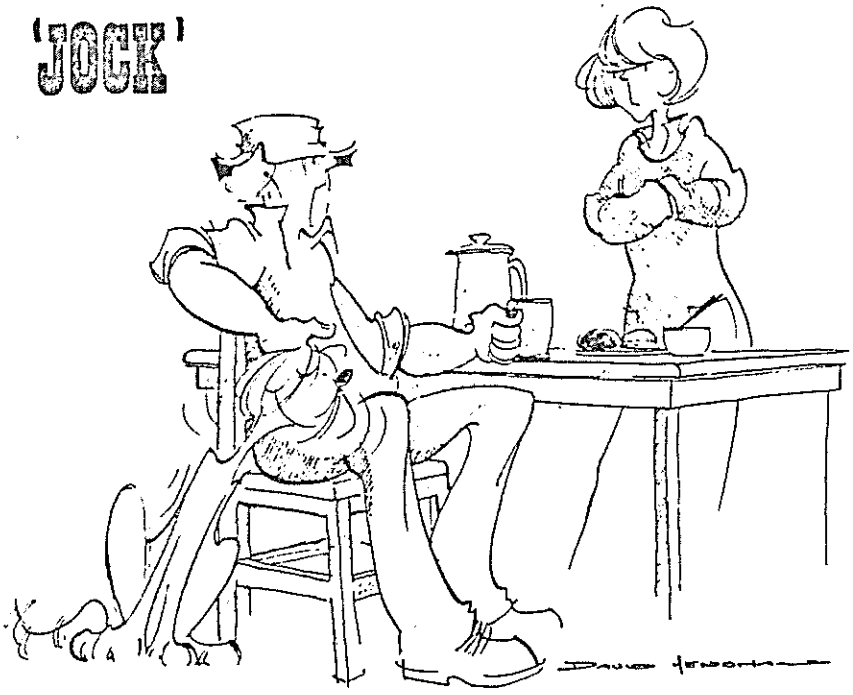


H.MARSDEN
APRIL 1993

SPOT THE DIFFERENCE



"Waddya mean 'not demonstrative enough'... only last week I said you were right up there with m'dog!"



"Waddya mean 'not demonstrative enough'... only last week I said you were right up there with m'dog!"

LAST MONTHS DIFFERENCES

1. Small sheep erased from top picture. 2. Ear removed from sheep in top picture. 3. The front man's hat has been darkened. 4. in the bottom picture the writing has been covered on the left/top man's hat. 5. The ribbon on the hat has been filled in. 6. The top right hand dog in the top picture is missing an eye. 7. The bottom right hand dog has an all white tail in the top picture. 8. The bike in the grass has a missing brake lever. 9. The bike in the grass has a white handle grip in the bottom top picture. 10. The bush in the bottom left hand corner has a frond missing in the top picture.

RECIPE PAGE

MARROW TART

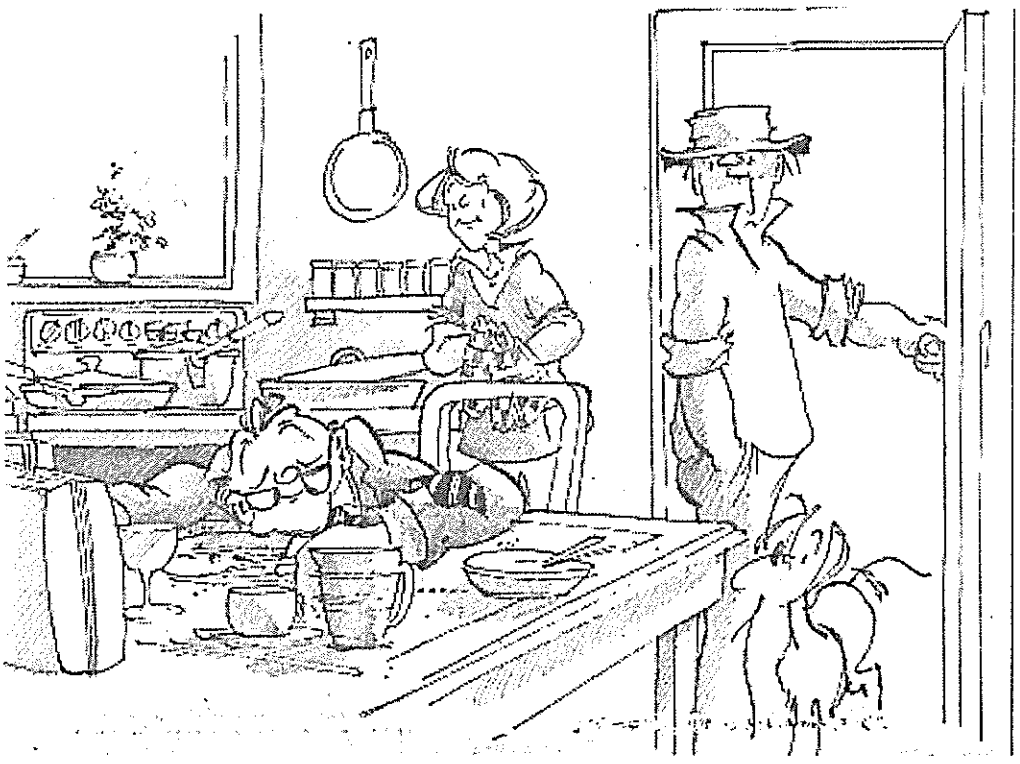
INGREDIENTS

8oz shortcrust pastry
2oz jam
1lb vegetable marrow
1 egg
pinch ground nutmeg
1½ tablespoons sugar

METHOD

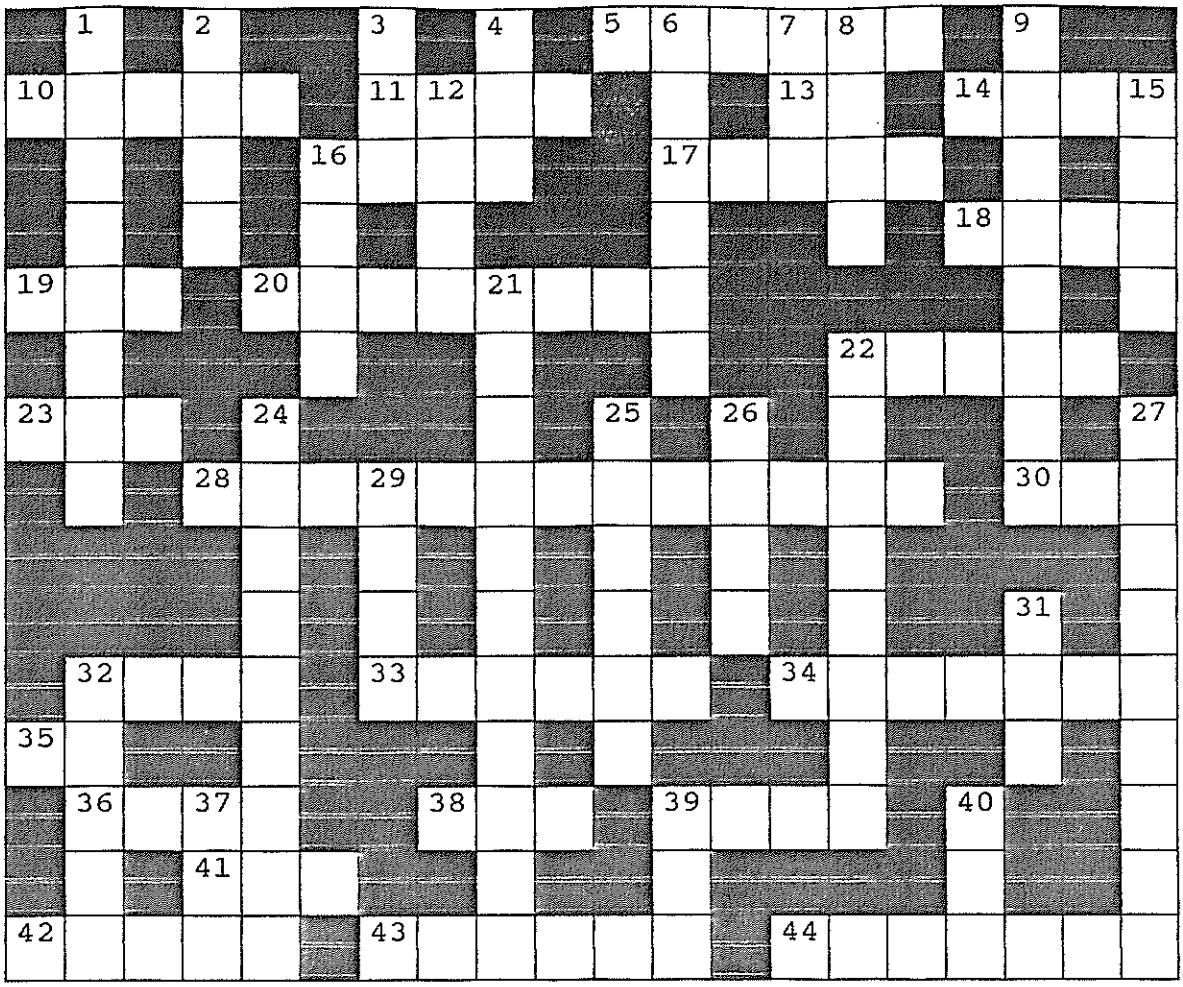
Line flan tin with pastry then spread with a thin layer of jam. Boil marrow until soft and place in a colander until all liquid is removed. When cold add well beaten egg, sugar & nutmeg. Bear together with a fork then spread in pastry case. Sprinkle a little more nutmeg over the top. Bake in 400°F - 200°C for 10 minutes or until pastry is golden. Serve hot or cold.

MARLENE MARSH,
SHALLOW HARBOUR
APRIL 1993



"Well, I can safely assume that roast lamb, new potatoes and two helpings of marrow tart and fresh cream, means further discussion concerning th' overdraft is postponed!"

APRIL



ACROSS

5. 43 ACROSS'S DOGGY BOAT
10. ICE DIRECTION
11. HALT
13. NEGATIVE ANSWER
14. CIRCULAR BAND
16. FEMALE HORSE
17. RODENT
18. LETTERS AND PACKAGES
19. THE GOVERNOR'S CHAUFFEUR
20. YELLOW HORSE WITH WHITE MANE AND TAIL
22. PICK UP
23. SNAKE
28. WATER BETWEEN PASSAGE ISLANDS AND ROY COVE
30. WAS SEATED
32. BOVINE MALE
33. HERB
34. EAST SETTLEMENT
35. US
36. SHARP
38. WIPE UP
39. INCREASE
41. LOWER LIMB
42. COMPLETE
43. HE HAD A BOAT THAT SOUNDED LIKE A DOG?
44. CIGARETTE HABIT

DOWN

1. MARINE MAMMAL
2. MAIN AXIS OF PLANT
3. ROAD BUILDERS?
4. FOOT DIGIT
6. SMALL RUGGED PONY
7. WILD CATTLE
8. MISPLACE
9. RED SALAD FRUIT
12. THRE
15. TUG
16. FEED
21. EAST COVE WATER
22. STUD HORSE
24. LOCAL BERRY
25. CITRUS FRUIT
26. TOP
27. DON'T GROW OLD
29. FOOD OR INSECT
31. ANIMAL SHIP?
32. COASTAL AREA
37. POORLY
39. GOES WELL WITH TONIC
40. INQUIRE

WOOL PRESS

retail price: £1.00

ISSUE 432 MAY 1993

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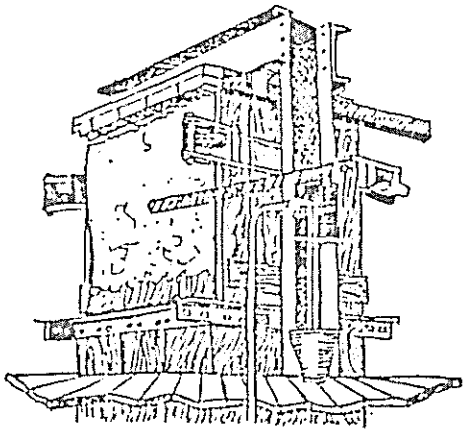


The Wool Press is published by the Department of Agriculture

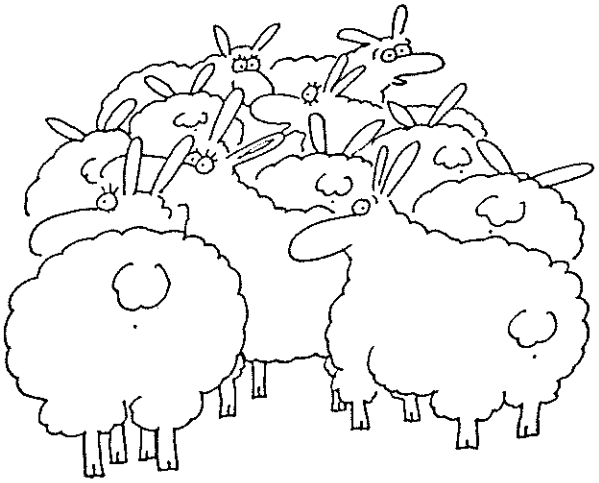
Editors - M.J.McLeod and R.H.B.Hall

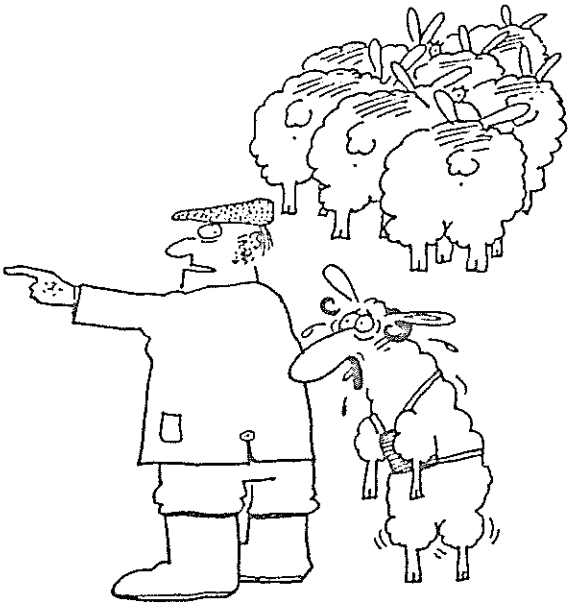
EDITORIAL

This months issue is rather thin - lean times for all. Article contributions, like Government funds are hard come by!!

The articles in this issue cover the usual wide range of subjects, from conception to culling and from pressing advice to the latest in animasl breeding.

Twenty five percent of farms generally have their rams turned out by the end of April and another forty nine percent of farms start tupping during the first week of May, so mating is well underway. Hopefully rams are not this lean.....





IMMACULATE CONCEPTION?!

LAPAROSCOPIC AI IN SHEEP

This procedure has now been carried out in the Falkland Islands for the fifth season and I felt it was time to summarize the results so far to illustrate what AI can and cannot do.

Year	Inseminated	Conceived	%	Lambs (%)
1989	316	112 (186)	58	154 (83)
1990	nk	141 (315)	45	213 (68)
1991	nk	197 (368)	54	203 (55)
1992	370	165 (345)	48	207 (60)
1993	106	nk	nk	nk
Total: (excl. 1989)		503 (1028)	49	623 (61)
Total: (incl. 1989)		615 (1214)	51	777 (64)

nk = not known

Figures in brackets are the numbers of ewes/lambs for which farmers returned information sheets.

The first year of AI, 1989, was different, in that far more PMSG, hormone to synchronise the ewes' heat better, was used, resulting in higher conception rates, and more lambs, but many deaths amongst ewes and lambs because of the high incidence of pregnancy toxaemia and multiple births, with many underweight lambs and lambing difficulties.

Using only 400 I.U. (units) of the hormone, the next three years give a picture of what can be expected of AI, i.e. about 50 % conception rate, with 60 % lambs - anything higher than that is unrealistic. As 1989 shows, higher conception rates can be achieved with higher PMSG levels, but this requires a lot more care and willingness to give the ewes the required nutritional level during gestation and a hand at lambing time.

Figures obtained from Edinburgh Genetics show pregnancy rates for 9,900 ewes inseminated by them over 3 seasons, with conception rates for frozen semen of 64%, and for fresh semen of 77%. So there is still scope left for improvement.

With the arrival of the NSF only 100 or so straws have been ordered for 1993, this gives David and myself time to go to Sea Lion Island this season to collect semen from National Stud Flock rams - to keep, for insurance purposes, but also, if people are interested, for use next year on Falkland Islands ewes.

MICHAEL P REICHEL
MAY 1993

THE CORRECT LINE OF FIRE

Over the years we have seen a decline in the amount of horned sheep in the islands due to culling out. That is until recently! With the re-introduction of Merino sheep in the endeavour to improve the micron of the wool, it looks like horned sheep are on the increase.

With this in mind I thought it worth showing the following diagram of an alternative site of fire when humanely slaughtering horned (or polled) sheep with a captive bolt of fire-arm (free bullet), as the poll (ridge of horn) can be an obstruction.

When looking at the sheep front on, imagine two lines running from the base of the ears to the inner corner of the opposite eyes. An inch up or down of the point where the lines would cross will be within the correct site of firing.

This position and means of alignment is also suitable for shooting cattle.

MANDY McLEOD
MAY 1993

MARKER SPRAYS.

I have just received a horrendous envelope full of blue and red/brown wool from Colin Smith. The wool was drawn by G. Modoano Ltd from SCOURED Falklands wool and draws attention to the misuse of substances to mark sheep.

Farmers are requested to note the following recommendations:

1. Old unscourable sprays should never be used.
2. Likewise tars, bists and keels should never be used.
3. Primary sheep identification should be by ear marks and tags.
4. If spray marking cannot be avoided, it should only be done with a modern scourable spray.
5. The minimum area of sheep and quantity of spray should be used.
6. The nose or top knot (avoiding the animal's eyes) are the best spray sites from a wool point of view.
7. Heavily sprayed wools should be skirted into the Stained Pieces at shearing.

ROBERT HALL.
MAY 1993.

FEED VALUE OF PASTURE SPECIES.

Although the range of Falkland grasses, shrubs and herbs is small, little was known of their nutritive value for grazing animals. To gain a clearer picture of potentially useful feed sources, Austin Davies and Andrew Carter did several studies, including taking samples of various grasses, shrubs and herbs each month for a year. This article is a summary of those and other results, and an interpretation, some of which has previously been published in Farm Link 13.

The D-value of a feed is a measure of its quality and is the percentage of digestible organic matter in the food dry matter. The higher this value the better the feed.

The Metabolisable Energy (M.E.) value is a measure of the energy contained in a feed, which can be potentially used by the animal's body. Such energy is needed for maintenance and production of wool, body growth, pregnancy and lactation. In general, the higher the M.E. value, the more useful the feed.

Crude protein, (C.P.) is a measure of the protein content of a feed and is expressed as grammes of Crude Protein per kg of Dry Matter (D.M.). Generally, the greater the value, the more valuable the feed source.

The C.P./M.E. ratio is a measure of potential rumen digestion. The micro-organisms of the rumen require protein and energy, which are used most efficiently when the C.P./M.E. ratio equals 10. At the lower ratios, digestion is less efficient; for ratios greater than ten the excess is not wasted as it can be beneficially absorbed as undegraded protein further along the gut. Thus for optimum rumen digestion, the C.P./M.E. ratio should approach, or exceed a figure of 10.0.

A valuable pasture species must therefore have a high D - value, provide sufficient protein and a high level of energy.
Note: Selective grazing can result in an improved diet by containing species with different relative qualities.

RESULTS

The table below shows the actual mean of the values obtained throughout the year, for all "species" excepting the reseed grasses.

SPECIES	D-VALUE (%)	MJ of M.E. per kg DM	C.P. (g/kg DM)	C.P./M.E.
GRASSES				
Whitegrass	48.0	7.36	64.3	8.74
Cinnamon grass	59.9	9.28	81.1	8.74
Native Fog	66.1	10.29	86.2	8.38
Nat. Fine Leaved Fescue	70.1	10.94	75.8	6.93
Mountain Bluegrass	61.4	9.53	58.0	6.09
Tussac	69.0	10.70	81.0*	7.57*
ARC reseed (spring)	69.0	10.70	149.0	13.90

SPECIES	D-VALUE (%)	MJ of M.E. per kg DM	C.P. (g/kg DM)	C.P./M.E.
SHRUBS				
Christmas Bush	63.9	9.93	55.2	5.56
Faschine	46.8	7.16	69.1	9.65
Diddle-Dee	40.1	6.08	45.1	7.42
HERBS				
Small Fern	36.2	5.44	75.8	13.93
Pig Vine	65.2	10.14	158.1	15.59
Mountain Berry	42.3	6.43	60.3	9.38
Scurvy Grass	67.0	10.43	150.1	14.39
Teaberry	37.2	5.61	55.4	9.88

GRASSES

The grass group in general had the highest D - Values and M.E. levels, with Native Fine-Leaved Fescue possessing the highest levels of all species tested on an annual mean basis, although it did not fare so well in the C.P. and C.P./M.E. calculations. Reseeded pasture proved the best in spring. Native Fog and Mountain Blue Grass are also worthy of mention as useful feed sources. Whitegrass certainly did not show itself as a feed of high nutritive value.

Tussac grass only appears to have high M.E. and D-values however, C.P. levels were extremely variable rising to 178.8 g/kg DM during the months in which it is traditionally grazed, thus the C.P./M.E. ratio (16.7) during these months exceeds the recommendation of 10.

SHRUBS

Christmas Bush had a surprisingly high digestibility, but very poor protein levels. Faschine did not really excel in any of the measurements, and Diddle-Dee proved to be of very little value.

HERBS

Pig Vine and Scurvy Grass emerged as the two best species in this study. However, Pig Vine does not appear to be grazed by sheep, and Scurvy Grass was found to have a poor availability, and low frost tolerance, resulting in the plant being present for only four months of the year. The other herb species had little to commend them.

It must be noted that the samples were collected by hand-clipping. The actual diet of any animal is likely to be of greater quality, because the animal can graze palatable material in a selective manner. When evaluating any plant species with regard to animal consumption, consideration should be given to whether the animal chooses to eat the plant or not. Thus, its palatability is of utmost importance.

In short, Falkland Islands Camp pasture is generally fairly poor compared to Tussac plantations and reseed pastures however, Tussac has various production problems whilst reseeds are currently uneconomic. The variety of plant species with differing qualities, does much to sustain Camp animal production.

STEVE HOWLETT & ROBERT HALL
MAY 1993

PRESSING MIXED BALES.

Mixing wool types in a bale is not an ideal practise. The ideal situation is to send wools for sale in unmixed bales; this can be done either by retaining excess wools for pressing next season, or by skillfully gauging the quantity of wool to be pressed 3 or 4 bales from the end of a line and pressing slightly lighter or heavier bales to ensure that all the wool fits.

If for whatever reason, wool remains in various wool bins and cannot be kept until next season, then selling mixed bales will be necessary. It should be noted that in such a situation, all wools in a bale should be stated on the specification and stencilled on the bale. It should also be noted that all the wool will usually have to sell at the price of the worst wool in the bale. In the same way that someone buying an inseparable and mixed bulk lot of Kelloggs and Family Choice cornflakes, would only pay the Family Choice price, the wool processor is not going to pay over the odds for mixed bales. Mixed bales by definition meet no specification and contain a wide variation of wool.

If mixing bales is necessary, the following table is a guide to making the best of a bad job.

MIXING WOOLS.

	FLEECE WOOLS.						ODDMENT WOOLS.				
	A	AA	B	BB	C	CC	Nks	1stPcs	StnPcs	Bls	Lox
A	Y	Y	Y	n	n	n					
AA	Y	Y	Y	Y	n	n					
B	Y	Y	Y	Y	Y	n					
BB	n	Y	Y	Y	Y	Y					
C	n	n	Y	Y	Y	Y					
CC	n	n	n	Y	Y	Y					
Nks							Y	n	n	n	n
1stPcs							n	Y	Y	Y	n
StnPcs							n	Y	Y	Y	n
Bls							n	Y	Y	Y	n
Lox							n	n	n	n	Y

KEY: Y = YES may be mixed.
n = No may not be mixed.

NOTE: Fleece wools and oddments should not be mixed. Double Grown wools and locks must never be mixed.

ROBERT HALL.
MAY 1993,

VISIT TO AUSTRALIA

When Jeff Halliday and myself were in Australia on the Agricultural Youth Exchange Scheme we worked on several different properties. Firstly we were in the South East and then went on to Bungaree Station where I stayed for 4 months. The property was about 10,000 acres. They cropped 1000 acres; ran 200 Hereford cattle and 4 - 5,000 Merino sheep. There was also a stud side of the Station in which were strong wool Merinos.

During our stay we attended Marsden College of TAFE to complete an "owners classers" woolclassing course which involved various practical tests such as identification of wool types and lab work. We had to do tests to find the breaking point of a staple of wool and also find out what the vegetable matter amounted to. Lectures were also part of the course which covered the selling of wool, grab samples, core testing and the way bales are lotted. We also visited a large wool processing company called Michells Wool Mill. We went through the different stages, firstly from the wool being emptied out of the bales into the scours, then to where the tops were being pressed into bales ready for export.

In Port Adelaide which is the main industrial area of Adelaide we saw how the "dumpers" work. This process is when three bales of wool are squashed together to make one bale so it can be shipped overseas. We also went to Dalgetties wool store and saw the core and grab machine in operation.

We actually worked at Michelles for the last four days of the Exchange trip in the Wool Store and had to open the bulk class bales which involves taking the different sorts of wool out and putting it into separate bins ready to be pressed. The different types of wool are split by sheets of paper so it is easy to sort. At this particular time the wool store was particularly full due to the bad wool prices. It was a very good experience to see what happens to the wool once it has left the shed.

An interesting thing that I noticed while I was in Australia was the lack of concern about Hydatid. Offal is dumped in pits, uncovered, allowing dogs or foxes easy access. Dog dosing is no concern either!

Overall, the experience I had in Australia through working on various properties was very rewarding. I enjoyed my time, had the opportunity to meet many people and learn the ways and "know how" of the Australian farmer.

LEE MOLKENBUHR
MAY 1993

N.S.F. NEWS

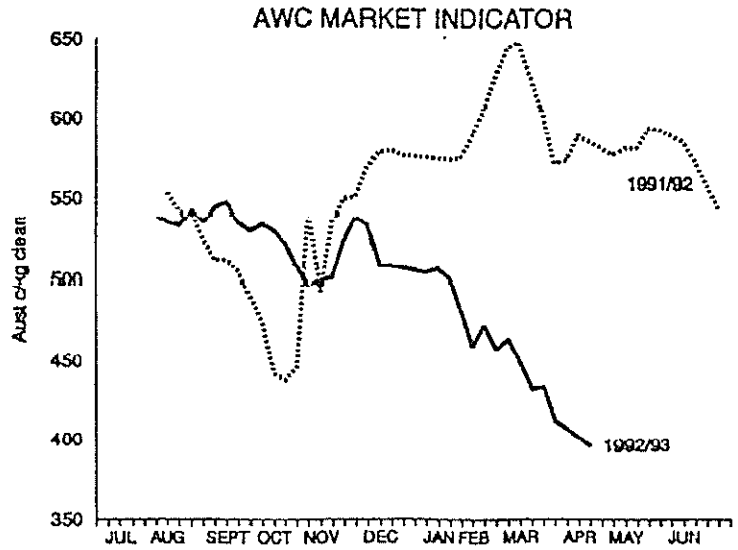
The N.S.F. Breeding and Marketing Advisory Group, namely O.Summers, R.Binnie, J.Forster, M.Goss, R.Hall, R.Lee (F.L.H) and N.Knight met on the 3.4.93. Much of the meeting was spent discussing the F.L.H. management contract and any means of reducing the costs currently associated with managing the N.S.F.. The idea of contract rearing ram lambs was raised and considered to be sensible and a cost effective alternative to moving the breeding flock from Sea Lion Island - certainly for the medium term future. The method of selling rams in less than a year's time is still being discussed with an auction, sealed and ranked tenders or fixed pricing being the remaining options being considered - either separately or in combination.

On the 26.4.93 a small sample of the N.S.F. ewes had an average body weight of 52.0 kg and an average condition score of 2.6. The ewes are currently in good condition. The shorn and weaned young hoggets are in good shape but with an average condition score of 2.3. The ram hoggets have had a couple of weeks in a tussac plantation, and a sample of 28 animals had an average body weight of 28.7 kg with an average gain of 5.4 kg in the 7 weeks since weaning. The ewe hogget sample of 27 animals, put on 4.7 kg in the same time to average 27.2 kg body weight.

Plans are in-hand for 20 single sire mating groups to be operated as last year, tupping will begin on May 20th, plans for improving lambing results have also been made, with an area of tussac to be fenced off to allow both more sheltered lambing and the tagging of lambs.

R.H.B.H.
APRIL 1993

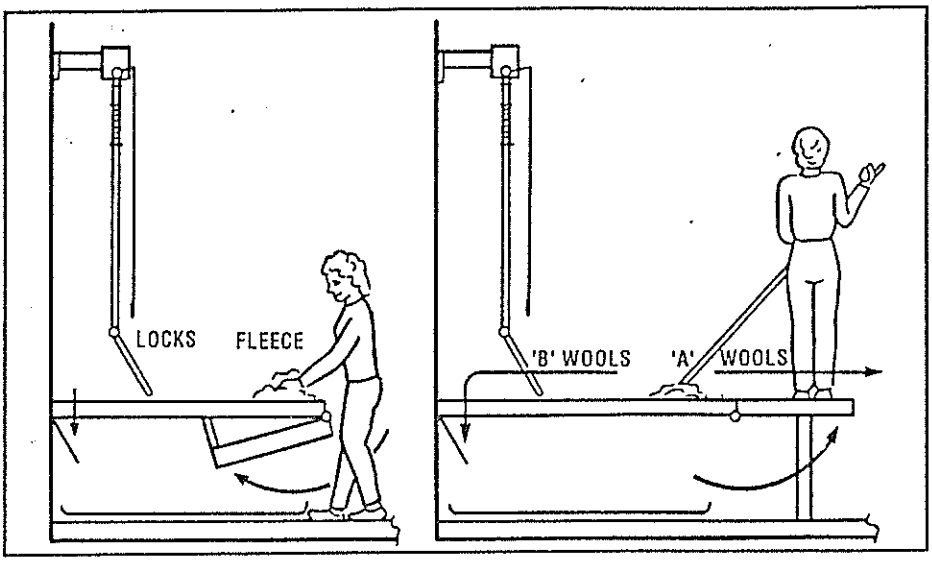
A.W.C. MARKET INDICATOR



The Australian Wool Corporation market indicator, which is a weighed average across 15 (micron) categories, closed the last week of April 7 cents lower at 389 cents / kg clean.

This graph shows the indicators general downward trend since Nov '92 (and earlier), and the current un-healthy situation.

A RAISED BOARD PLUS



Here is a suggestion for woolgrowers who want go give their wool handlers the best of both worlds. Suggested by the Wool board's shearing service, it is a folding extension to the raised board so you can use a long-handled sweeper for second shear.

A second idea is a hole in the board through which locks or B wool can be swept onto a plastic sheet below. it can be pulled out when loaded. The hole is between the chute and the catching pen door. A box is built over it with an opening at the side.

Taken from: SHEARING MAGAZINE - MARCH 1993

* * PEN PALS * *

Susie Hansen has sent in the following information on pen pals. If you would like to write to any of these people, please contact Susie at Main Point and she will supply you with the full addresses.

KATRIN VOLKMANN - Germany; Age 20; likes reading, music, travelling and letter writing.
KRISZTINA Sz MOLNAR - Hungary; Age 23; married; likes sports,reading, music, dancing and corresponding; collects postcards and has a 5 month old spaniel.
EIJA MAKELA - Finland; Age 26; has a 2½ year old son; lives in country with fiance; has 2 cats; likes riding, reading, music, dancing and playing billiards; collects poems and postcards.
JENNIFER McKAY - Northern Ireland; Married for 20 years; has three children aged 18, 14 & 9.
LISBET ANDRESEN LORGEN - Norway; Age 36; married with 2 children aged 14 & 10; collects dolls, pens and serviettes; writes novels; likes 50's 60's music and country and western and her favourite singer is Willie Nelson.
CAROL DOWNING - U.K.; Age 38 and married with 2 sons age 13 & 14; likes pen palling; does a lot of knitting and wine making; works as an auxiliary nurse for the mentally ill.
MRS IRENE TOUESEND - Australia; Age 62; loves gardening and fishing with her husband; makes bridal wear.
JANET HUMPHREYS - U.K.; Age 44; Divorced Nurse; Many interests; will answer all nurses, especially those over 60.
JUNE SIMMONDS - U.K.; Age 56; interested in animals, gardening, knitting, reading, corresponding; ladies only, all answered.

Animal Breeding Abstracts

Farm investigations of anaemia in lambs caused by feeding cow colostrum.
The deaths on 9 farms of lambs which had been fed cow colostrum as a substitute for ewe colostrum were investigated. Of 105 lambs which received cow colostrum, 65 (61.9%) showed clinical signs of anaemia and 42 (40%) died. The signs of anaemia usually appeared when the lambs were between 8 and 12 days old. The most significant post mortem finding was the appearance of the bone marrow which was cream or grey rather than the normal bright red. The types of treatment which were given are summarised in this paper. Whey from samples of the colostrum fed to the lambs was tested for its effect on sheep red blood cells. Haemolysis or agglutination of the red cells occurred with some, though not all, of the samples which caused anaemia.
Author: A.C. Winter and M.J.Clarkson.
Publication: Veterinary Record.

Age-related changes in pigmentation traits of adult Merino sheep.
A study was made of relationships between various types of pigmentation on white Merino sheep, and of changes in these characters between 1.5 and 5.5 years of age. Two large effects were found, and their possible origins are discussed.
Firstly, Merino sheep with and without pigmented leg hairs differed for many types of pigmentation, including pigmented fibres in the fleece. Sheep without pigmented leg hairs had a lower number of isolated pigmented fibres in the hogget fleece, and of age -related pigmented fibre spots in later adult life, than sheep that had pigmented leg hairs.
The second large effect was a difference between the main fleece region and the points with regard to the persistence of pigmentation throughout adult life. Most types of non-fleece pigmentation had high repeatabilities; these traits increased in degree or remained unchanged between 1.5 and 5.5 years. In contrast, isolated pigmented fibres in the fleece showed a marked decline in concentration in the first few years of adult life. It is suggested that certain major genes known in mice are analogous to genes in Merino sheep that give rise to these large differences between and within animals. The results support the traditional practice of culling Merinos that show leg hair pigmentation, but do not support the culling of animals without pigmented leg hairs that have other types of non-fleece pigmentation. The traditional practice of selecting against all types of pigmentation in Merino sheep would indirectly reduce the expressivity and incidence of pigmented leg hairs and associated pigmentation, including isolated pigmented fibres in the fleece, but, from the results of this experiment, the practice is not considered to be efficient.
Author: M.R. Fleet, D.H. Smith and T. Pourbeik.
Publication: Wool Technology and Sheep Breeding.

Development of a self-drafting system for oestrus ewes.
Approximately 75% of ewes in oestrus seek out and remain near rams. This experiment evaluated a variety of systems for trapping oestrus ewes attracted to 2 decoy rams. The system included traps with 1 or 2 entrances, and traps sited 1.5 or 6 m from the rams. In each trial, 13 - 16 ewes of mixed age and breed were artificially induced into oestrus, and the proportion of oestrus

ewes entering the trap was recorded. In addition, the trapping rate in a flock of naturally cycling ewes was assessed. Over all trials, half of the animals in oestrus were trapped. Trap system had no significant effect on catching rate. Trapping rate was similar for 2 and 4 tooth ewes. It is concluded that the catching rate with the trapping system is sufficiently high for practical use in AI programmes.
Authors: L.R. Matthews et al.
Publication:Proceedings of the N.Z. Society of Animal Production.

* * * * * * * * *

* * FOR SALE * *

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* * * * * *

NEW PRODUCT

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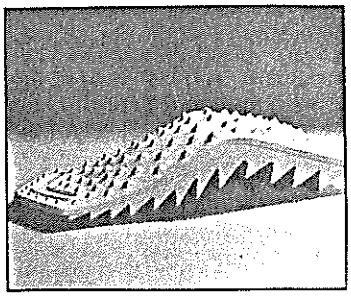
A ramp made by Blox Sports, is designed to fit under a spinning wheel to enable a stuck vehicle to free itself.

Made of a high density polymer plastic, the ramp weighs under 1 kg and has a toothed underside and treaded surface. The ramp can withstand loads in order of 900 kg and is priced at £15 plus P & P.



If you require further information on this product, please contact the Editors, Wool Press.

WOOLPRESS ADVERTISING.

The Woolpress is prepared to include adverts of farm input supplies. Adverts of personal and domestic supplies cannot be accepted.

Adverts may be submitted in two forms:

1. The advert can be typed-up and photocopied as part of the Woolpress @ £40/page, £20/half page and £10/quarter page.

2. The advertiser can provide prepared advert pages which can be attached as a back page, for either the whole Woolpress mailing list or for farmers alone. Such prepared pages must be in keeping with the high presentational standards of the Woolpress, with all writing being typed. A sample of such adverts should be submitted to the Editors prior to providing a pile of advert pages. Space for stapling should be included. Accepted advert pages will be charged at £10/ A4 page added to a Woolpress issue (for part or all of our mailing list).

THE EDITORS.

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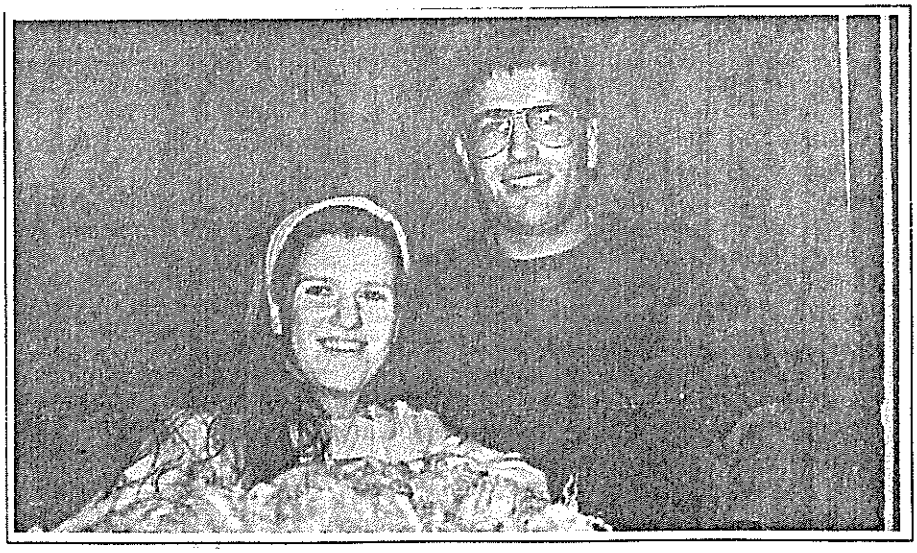
ISLANDER WINS COMPETITION

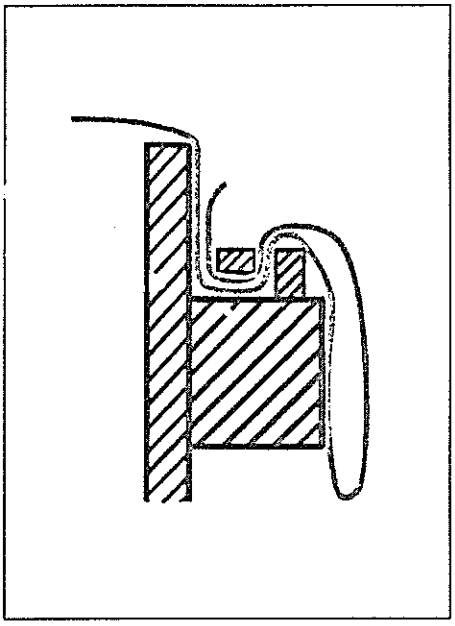
At the Riversdale competition in New Zealand recently, Coleen Mowat (nee Morrison) won the Junior Woolhandling section.



This photograph was in Shearing magazine and Coleen is pictured with her husband Biggles, a former shearer.

A CAPLESS PACK PROBLEM!

In a recent article in Shearer Magazine, the damage caused by hold-down bars which accidentally get into the wool was pointed out.



Fold the flap under the hold-down bar like this and the bar can't fall into the wool

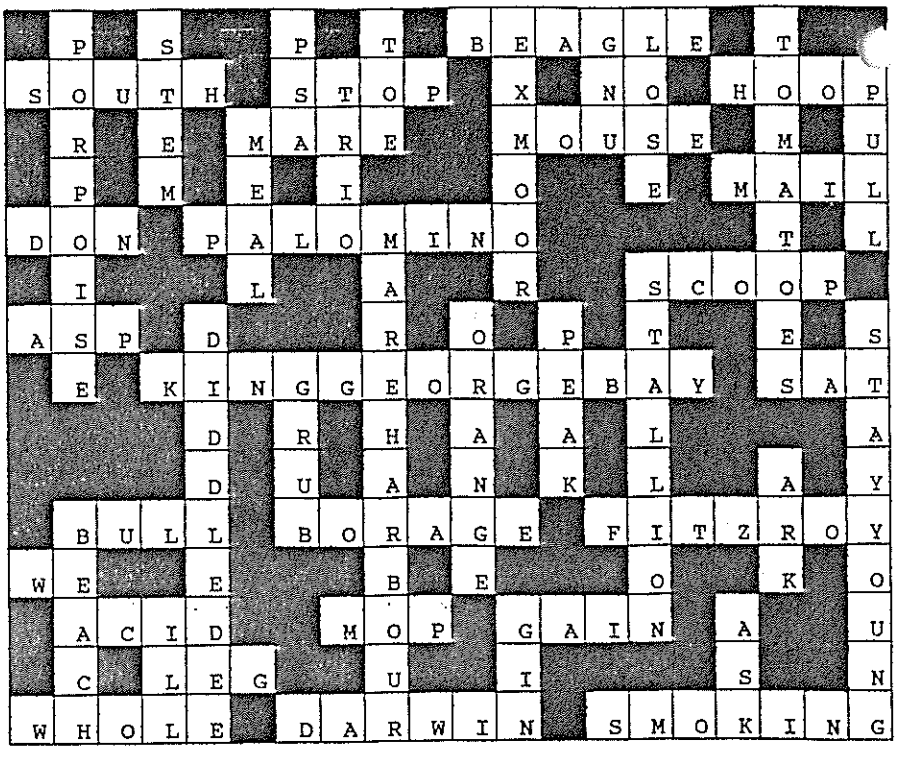
At the New Zealand Wool Board, quality manager Owen Petrie says "You wouldn't believe it if you didn't see it." The article has him pictured with 50 bars, most of them picked out of the wool at one wool scour. He says that the total nation-wide would be hundreds per season. "They do awful damage at the scours." The bales are emptied into "openers" where heavy steel teeth whirl around in a drum. "The bars make a tremendous noise and may come flying out. Workers have to be careful near the machines. But it is on the plastic conveyor mats that the bars do most damage. It is surprising how far they can get, and the cost is thousands and thousands of dollars."

Scourers would like to see steel hold-down bars replaced with plastic ones that would break up easily in the machinery. Owen Petrie agrees and is looking for a firm to make them, but it still puzzles him that so many pressers press on regardless having lost a bar.

They must be just under the pack fabric, easily felt and removed through a small cut.

MANDY McLEOD
MAY 1993

APRIL CROSSWORD SOLUTION



GET FIT!!

Get fit enough and a day's shearing may require only half the effort!

That is the lesson from 15 years measurements by the University of South Australia School of Physical Education. The programme has been run by David Stuart in co-operation with the South Australia office of the Australian Wool Corporation. Each season shearers at training schools and in the shed have been measured - and not just their biceps! Figures show their percentage of body fat, their hand grip strength, lung capacity and oxygen uptake, their heart rate under stress, and so on.

David Stuart has talked at many seminars about the results and helped the Wool Corporation prepare pamphlets and videos for shearers on how they can achieve more with less effort. The first thing he stresses is that shearing is very hard work, judged by the amount of oxygen required (1.65 litres a minute), the heart rate (133 beats a minute), and an amazing energy cost (over 5000 kilocalories per day, which is twice that of a normally active man).

But Stuart's measurements show many shearers get through the day by determination rather than fitness. Taking one group of 25, he found that only 16 were what you would describe as "muscular". When their heart/lung (or "aerobic") efficiency was measured on a bicycle ergometer, only six reached a desirable level. The average was about 90 per cent of that level and the man with the biggest lung capacity was only 60 per cent.

The hand grip test is a good indication of general body-strength, says Stuart, but the results were only fair, again about 90 per cent of the expected level.

Back flexibility ranged from good to excellent, however. "The maintenance of exceptional trunk flexibility is extremely important since it is a position they maintain for many hours per day", he says. "Most shearers need to improve their general and specific levels of physical fitness." David Stuart concludes, "Specific fitness will come from continuous shearing. Some additional work is required to improve the general level of fitness. One of the major benefits is reduced working intensity - in other words a reduction in the physical demands of the task. For example, if a shearer's maximal oxygen uptake (or maximum heart/lung efficiency) is 3 litres of oxygen per minute and his shearing requirements are 1.5litres, he is working at 50 per cent effort. Now by improving his fitness, this maximal value may be extended to 4 litres of oxygen per minute and his shearing requirements decreased to 1 litre. The work intensity in now 25 per cent, so the intensity of effort required for shearing is cut in half! These figures have been chosen to make the calculations simple but they are a reasonably accurate reflection of shearers' fitness levels, the oxygen requirements of shearing and most important, the benefits of fitness. Other benefits would relate to improved strength and endurance, better flexibility and lower levels of body fat".

David Stuart says he is not silly enough to say shearers should do strenuous exercise after a day's shearing, but since physical

fitness can only be maintained by hard work or exercise, they should have an exercise programme during periods off work.

He also says it is important to pace yourself. Balance the number of sheep per run; have planned rest periods during each run, changing comb or cutter, having a drink or simply a breather. This increases efficiency and makes the job less demanding and tiresome.

Second thing is to drink 200-250 mls (a cupful) of cool (not cold) water each quarter hour, specially when the temperature tops 30 deg. Thirst is a poor guide as to your body's need for water so you should drink whether you are thirsty or not. Dehydration can cut your working ability 20 - 30 per cent. You may lose 2-3 litres of sweat an hour but there is no point in drinking more than 1 litre because that is all you can digest.

Third point is to look after your back. Protect it from draughts, rest flat on the floor with your legs up, do the back-arching and warm-up exercises; put your mattress on the floor if the bed is like a banana. "Remember," says David Stuart, "your body and its physical well being will determine how well you shear, how many sheep you shear, how long you keep shearing and how demanding shearing is for you. Surely your body is worth looking after, and surely the points mentioned are worth a try!"

SHEARING MAGAZINE
MARCH 1993

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RECIPES

The following two recipes were sent in by Susie Hansen of Main Point Farm

CHEESE PUFFS

INGREDIENTS
1/2 pint water, 1 oz butter, 4oz flour, salt & pepper to taste, 4oz grated cheese, 2 eggs beaten.

METHOD
Put water and butter in saucepan and bring to boil, stirring to melt the butter. Add flour, salt & pepper and stir until the mixture leaves the sides of the pan. Remove from the heat and beat in cheese and eggs. Deep fry spoonfuls of the paste until golden brown. Drain and serve hot.

SINTY'S MUSTARD SAUCE

INGREDIENTS
6 tablespoons sugar, 1 tablespoon mustard, 1 teaspoon curry powder, 1 cup vinegar, 1 cup boiling water.

METHOD
Heat all this together and bring to the boil, thicken with two tablespoons flour or cornflour mixed with a little water. Bottle when cold.

SPOT THE DIFFERENCE

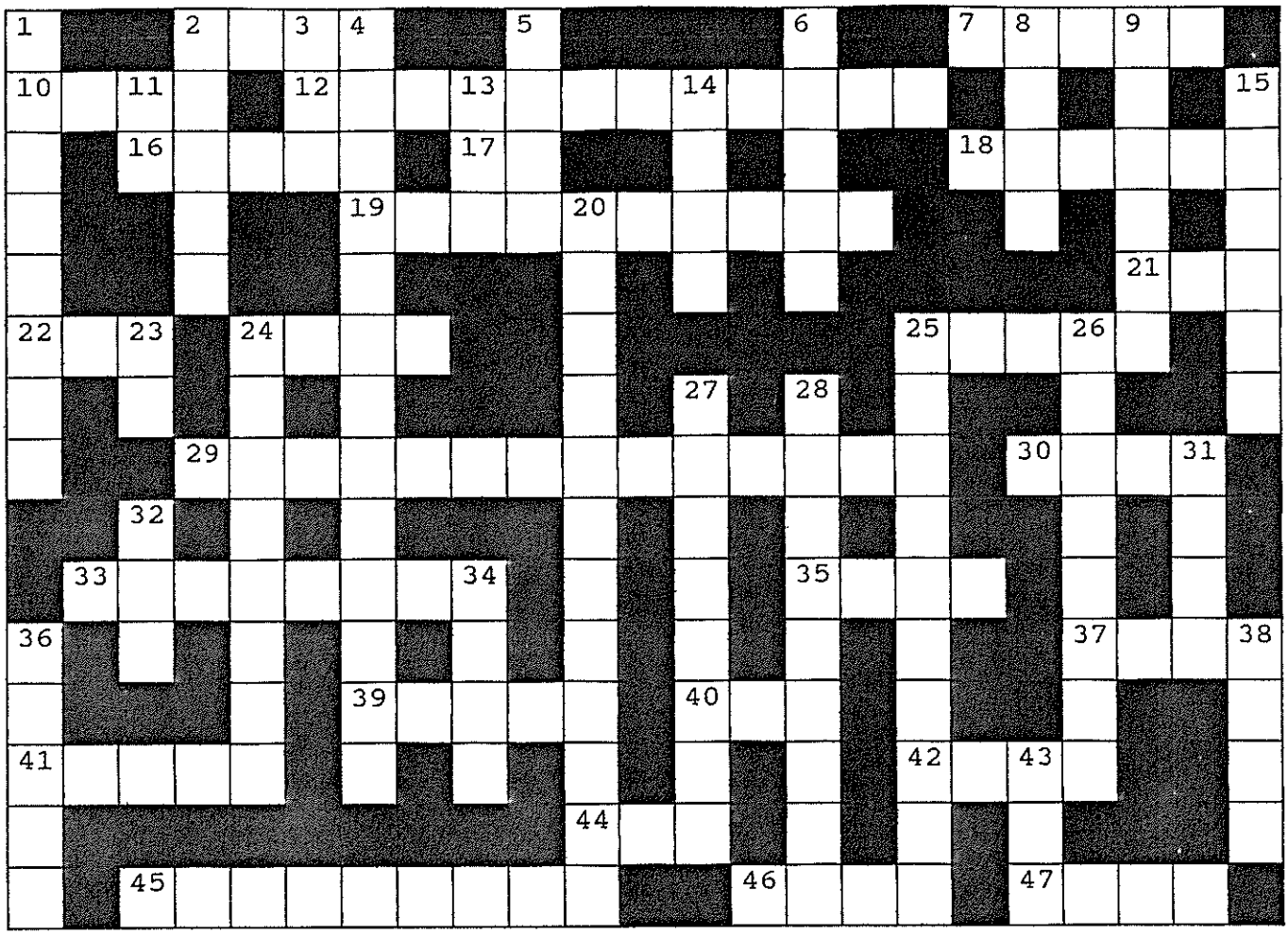
"Three things happen when y'get older lad ... y'start to forget things .... an' I forget the other two!"

"Three things happen when y'get older lad ... y'start to forget things .... an' I forget the other two!"

LAST MONTH'S DIFFERENCES

1.Man's hat is more shaded on top picture; 2.Ladies collar longer in bottom picture; 3.Man has black thumb nail on bottom picture; 4.Dog has black nose on bottom picture; 5.Crease on left trouser leg is a different length; 6.Bun on table is burnt in bottom picture; 7.Dots on table end have gone; 8.Dog's tail is longer; 9.Spoon handle in sugar bowl is a different length; 10.Corner on chair brace erased.

MAY CROSSWORD



ACROSS

2. SHIPS PERSONNEL
7. CARD GAME PLAYED AT DRIVES
10. SCANDINAVIAN GROUP OF THE 70's
12. ANIMAL OF UNMIXED BREED
16. DESERT (LILY) PLANT
17. AT HOME
18. OVERSTRAIN MUSCLES
19. HEAVY BUILT FALKLAND WATER BIRD
21. RIM
22. OVA
24. BARS
25. COMMOTION
29. 1 DOWNS MALE COUNTERPART
30. DECIDING PANEL AT LAW COURT
33. IMMEDIATE MEDICAL ATTENTION
35. COMPILED INFORMATION
37. BROAD SMILE
39. GAME OF STRATEGY
40. GARDEN TOOL
41. FEELING OF GUILT
42. MALE SHEEP
44. ATMOSPHERE
45. WEATHER FACTOR GIVEN FOR SHEEP
46. FLOWERLESS PLANT
47. COVERING AT FINGER AND TOE ENDS

DOWN

1. THE FINEST YOUNG LADY AT THIS MONTHS BALL
2. A REASON
3. AND SO ON
4. SIGHT TO SEE BY THE CATHEDRAL
5. SMELL
6. A PAIR OF FOWL
8. BEER INGREDIENT
9. STEADY HORSE HOUSE?
11. NEXT TO
13. SHEEP WITH ONE TESTICLE
14. TWITCHERS TENT
15. MARKSMAN
20. LARGE SEA MAMMAL
23. DEPART
24. ONE THAT LIVES OFF ANOTHER
25. WADING BIRD
26. MINCED SEASONED MEAT IN A SKIN
27. ONE GIVING A SERMON
28. FALKLAND HEATHER-LIKE BUSH
31. TIBETAN SNOWMAN?
32. LIVELY DANCE
34. ANTLERED MAMMAL
36. MEAN TIGHTFISTED PERSON
38. MONSTER LOCH
43. HUMAN MALE

WOOL PRESS

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ISSUE 43 JUNE 1993

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by S.Lang

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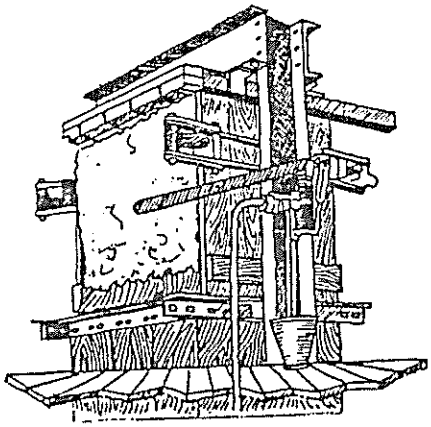
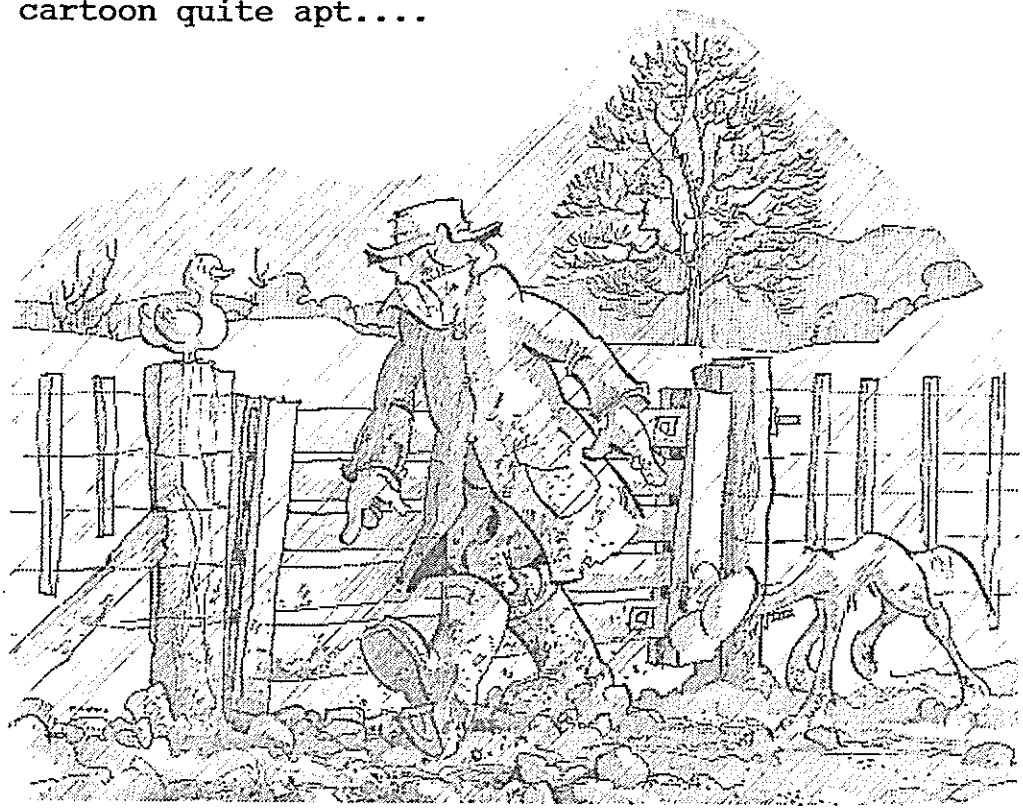


The Wool Press is published by the Department of Agriculture
Editors : M.J. Mcleod and R.H.B. Hall.

EDITORIAL

Once again the WOOL PRESS is a little lean but there are some interesting articles. Robert is away at D.S.& Co at the moment but still manages to send us a few contributions and as you will read, Michael and David have been experimenting in semen collection and Michael has been doing his rounds as it was A.I. time again. Let's hope for good results. Talking of results... Good news on the B.ovis front eh!

Considering the amount of rain that fell at one point last month and bearing in mind that it's open season for ducks, I thought this cartoon quite apt....



"After th'wettest winter in flamin' years it'll take just one peep outa you ... an' you're lunch!"

** STOP PRESS **
B.OVIS SURVEY 1992-93

We have just received final results on the 1024 sera selected from 43 farms on E & W Falklands sent to the Central Animal Health Laboratory in New Zealand. These selected sera were duplicates collected in the last sampling round which we tested in the laboratory here with negative results. I am glad to announce that they confirm our findings and we can with greater confidence state that B. Ovis has been eradicated from the Falkland Islands.

The next stage is to maintain that freedom from disease by instituting a plan of surveillance and monitoring to therefore ensure that this condition is not allowed to re-enter the Falklands. Congratulations!

DARK FIBRES DEVASTATE INCOMES

Dark coloured fibres visually wreck wool garments and consumers won't buy such products; would you? It is for this reason that retailers reject contaminated products and manufacturers only accept wool within certain tolerance levels; such as "less than 20 dark fibres per 100g tops".

Dark fibres may be either stained by urine and dung or naturally pigmented black fibres. Urine and dung stain is the most important cause of dark fibre contamination, particularly when crutching is not generally practised. Such urine and dung contamination can be minimised by having clean pens and sheds, minimised by emptying sheep out (little food for 12 hours) before shearing and rectified by careful accurate skirting of fleeces on the wool table. Pigmented fibres in wool occur through contamination from coloured sheep (black sheep, Suffolks, Jacobs etc.) running in a white flock. Alternatively, pigmented fibres occur through black spots on white sheep; these appear to be more prevalent in older sheep. Such pigmented fibres can be minimised by choice of breed, animal selection and culling for age.

"Australian wool is conspicuously free of dark fibres compared to wool of many other countries and commands a premium because of this." The Falkland Islands are not consistently free of dark fibres as demonstrated recently by a rejection of Falklands wool due to severe coloured fibre contamination and by a penalty claim against Falklands wool due to moderate dark fibre contamination. Both contaminated lots occurred at Whiteheads (the largest U.K. integrated scouring, combing and spinning company.) Apparently this has resulted in Whiteheads especially scrutinising all Falklands wool due to their rather shaken confidence in our product. Obviously this is not the way to obtain a premium for Falklands wool.

Dark fibres are of increasing importance to farmers in the Falklands for two reasons. Firstly wools from other origins are continually reducing their dark fibre levels; Australia has spent two decades training classers and shed hands to obtain the consistent premium they have today, whilst the traditionally contaminated wools from South America are now occasionally producing lots with as few as 5 coloured fibres per 100g. The Falklands must strive to consistently produce low dark fibre readings for the whole clip in order to compete. The second reason that farmers should be more concerned by dark fibres, is that there is a massive oversupply of wool in the world today, therefore manufacturers are under no pressure whatsoever to purchase contaminated wools or wools which might be contaminated: far safer to buy Australian wool guaranteed to have less than 20 dark fibres per 100g, than risk a wool source with a poor dark fibre reputation. Again the Falklands must strive for low dark fibre readings.

According to the Wool Testing and Marketing Handbook by D.C. Teasdale: "levels of around 20 dark fibres per 100g of top may be specified as upper limits before discounts apply. This corresponds to around four staples of stained or pigmented fibres per bale, so great care is required to keep all such wool out of dark-fibre-free lines". Thus there is no room for complacency and error. The Falklands already have extra lee-way by guaranteeing less stringent standards than Australia (e.g. < 25

dark fibres per 100g). Dark fibre minimisation is vital and since most contamination is caused by urine and dung, good accurate skirting cannot be over emphasised.

Unfortunately dark fibres are a collective problem for all Falkland farmers. This is because to date, the International Wool Textile Organisation have not produced an acceptable dark fibre test for use on greasy wool. At present dark fibre tests are done on scoured wools and at subsequent stages, and it is only then that problems are identified. Thus wool lots with many dark fibres are blended and scoured before identification; in such instances rejection or a penalty claim penalises the individual producer, however, when reordering such a manufacturer will inevitably shy away from origins of wool which damage his system - he certainly won't pay a premium!! Without consistent and low dark fibre standards throughout the Falklands, all farmers will lose out, particularly given improving standards from competitors and current world wool over supply.

In conclusion, dark fibres are a very serious problem with severe financial implications to both individual farmers and to the Falklands as a whole. Dark fibres should be minimised by choice of breed, animal selection, culling for age, having clean pens and by emptying sheep out before shearing. Dark fibres must be removed by very careful accurate skirting of every Falklands fleece for export.

ROBERT HALL
JUNE 1993

A.T.S.

As I write this a First Aid course is taking place at Fox Bay Village (thanks to the instruction of Major Davy and Cpl.Pigeon). The interest shown by farmers is pleasing, and I am sure that all those who participate will feel more secure and confident about administering the correct First Aid should anything happen to anyone on their farms. It really cannot be stressed enough how important it is for those of you in isolated spots to know how to deal with a situation until professional assistance arrives. It is especially encouraging that some of the older "children" are taking part on the course. I will give a full report in the next Wool Press.

We have had interest shown from the people of North Arm also and will arrange a course to be held there. If there is anyone else who would like to participate in a First Aid course please let me know. Find out from others in your area if they are interested and maybe a venue can be arranged.

I had a phone call from Robin Pitaluga at Salvador the other day to say that Susie Clarke was working on the farm and that things were going well. Susie was one of our Agricultural trainees last year and we wish her all the best in her new job.

MANDY McLEOD
JUNE 1993

SEMEN COLLECTION ON SEA LION ISLAND

We arrived on Sea Lion Islands on 11th May 1993 to trial the semen collection procedures on NSF rams with the aim of obtaining frozen straws for insurance against premature death of rams and for laparoscopic insemination at a future date.

Two rams out of an initial group of 6 selected by Robert Hall for the superior breeding potential had been trained by Arthur McBain to a very good standard, to be used with the artificial vagina in the presence of humans.

On the 12th May we commenced semen collection and had no difficulty to obtain very high quality (in terms of density and motility) ejaculates from the rams. Dilution and cooling down of the semen presented no great problems, even though the facilities on Sea Lion are rudimentary for this purpose, to say the least. In excess of 100 straws containing 40 million spermatozoa each were obtained from the very high quality of ejaculates (370 straws in total over the two days). Freezing of samples to -70 c did not present a problem, as post freeze-thaw assessment of the spermatozoa testified. However, the final plunge into the liquid nitrogen resulted in a very dramatic die-off of spermatozoa, and/or reduction of the motility of the surviving sperm. Subsequent investigation suggests that this is a problem related to the diluent used, possibly the milk component, and will require further work.

In summary: While the exercise did not yet result in any commercially usable straws, it did show that semen collection is feasible and cold be commenced now, if only chilled. Liquid storage and distribution around the islands (up to 6 days) was envisaged. Long-term, frozen storage will be possible once the problems with the diluent have been resolved.

FALKLAND ISLANDS HYDATID SURVEY

This is really just a short note to inform people and dog owners of the current status of the hydatid survey. As of the week beginning the 10th May 1993, all the sera from 891 bloods (31 Stanley, 10 Butchery, 7 MPA and 843 from camp) were received by Robin Gasser at the Veterinary Clinical Centre, Melbourne University. He plans to start the testing almost immediately and hopes that the first set of results will be running off the production line in 2 - 3 weeks. This test will determine whether the dog has got, or has experienced the parasite - tapeworm by demonstrating the presence or absence of antibody against it. Once these results are received, obviously all positive dogs will have to be retested, plus further examination etc, and some form of questionnaire completed. This simply enables us to attempt to target the reason or reasons why the parasite has been able to penetrate the dog dosing regimen.

It is still hoped that later in the year we can introduce the technology involved into the agriculture laboratory to enable us to carry out future testing and monitoring of the dog population ourselves.

D.BABER & M.REICHEL
JUNE 1993

HYDATID DISEASE (U.K.)

The majority of people who come to the Falklands have never heard of "HYDATID". When they are given an explanation of it and the fact that it is transmittable to humans, the response is sometimes one of "Oh! How awful to have something like that in your country". What they don't realise is that it is more prevalent in certain areas of the U.K.

I have come across an article in "Sheep Farmer" on Hydatids. I thought I would extract a few bits of it for this edition of the Wool Press, although the complete article is very readable and I will publish it in full next month.

EXTRACTS

Abattoir surveys reveal 2 - 3% of sheep in the U.K. to be affected. Since the disease cannot be recognised in its early stages in lambs, it is surveys of slaughtered older sheep* which give a more accurate indication of the level of Hydatid disease. Surveys of sheep from South Wales have revealed over one third of carcasses to be affected. The disease occurs to a lesser extent in other hill farming areas, on many Scottish islands and in England around abattoirs where many sheep are held before slaughter.

Hydatid disease in people is twenty times as common in South Wales as in England, where many cases occur in people living near abattoirs in the Midlands.

The publicity campaign to control Hydatid disease included the treatment of dogs with Droncit (worming tablets containing praziquantel). They were issued free to farmers in South Powys every six weeks from 1983 - 1989 to dose their dogs. An abattoir survey of old sheep* from the area revealed that the number of animals infected with Hydatid cysts fell from 30% to 10% in six years.

**There is no indication of how "old" old is, but bear in mind that sheep meat is generally from reasonably young animals.*

MANDY McLEOD
JUNE 1993

While on the subject of hydatid, Susie Hansen sent the following question to us at the Wool Press.

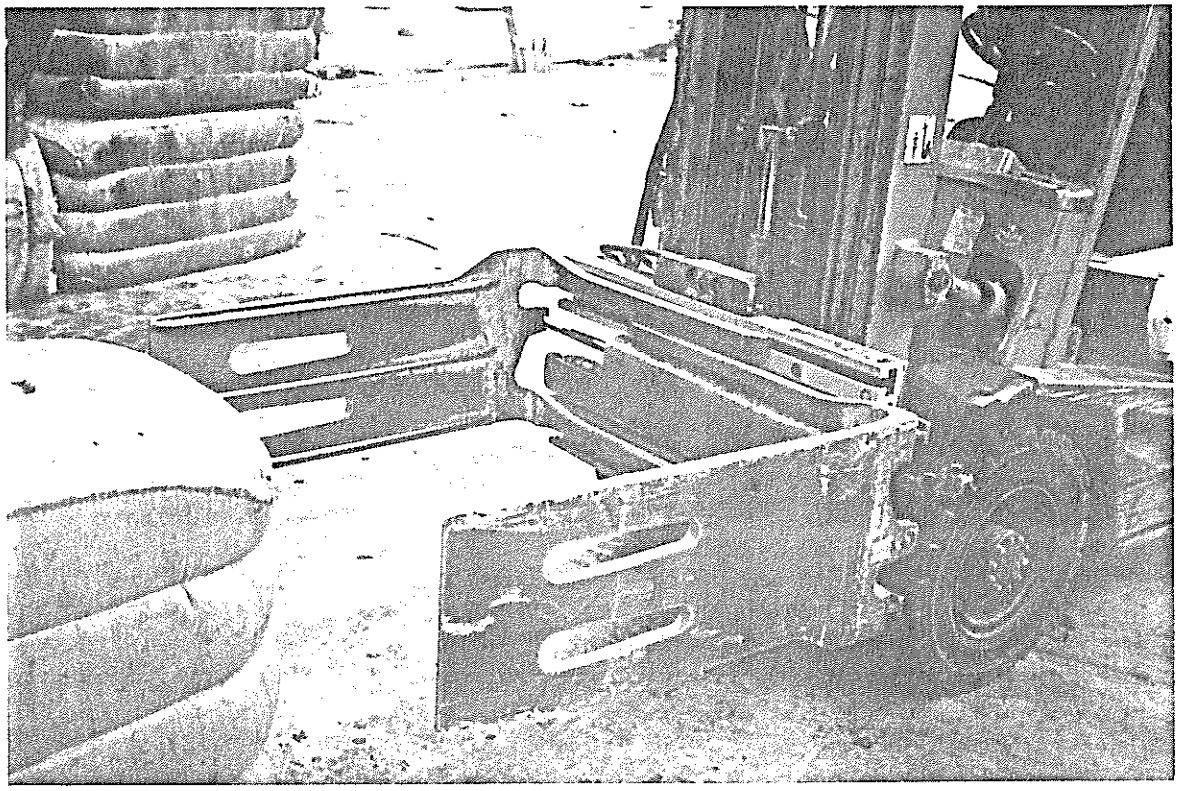
Can a bitch, if she is carrying hydatid, pass it on to her pups?

The straight-forward answer to that from the Vet is NO, although he does stress that other worms (toxocara canis for example) can be passed on to the pups, therefore it is a good measure to worm a bitch 4 weeks before whelping, then follow up with worm treatment for the pups every three weeks from the age of three weeks.

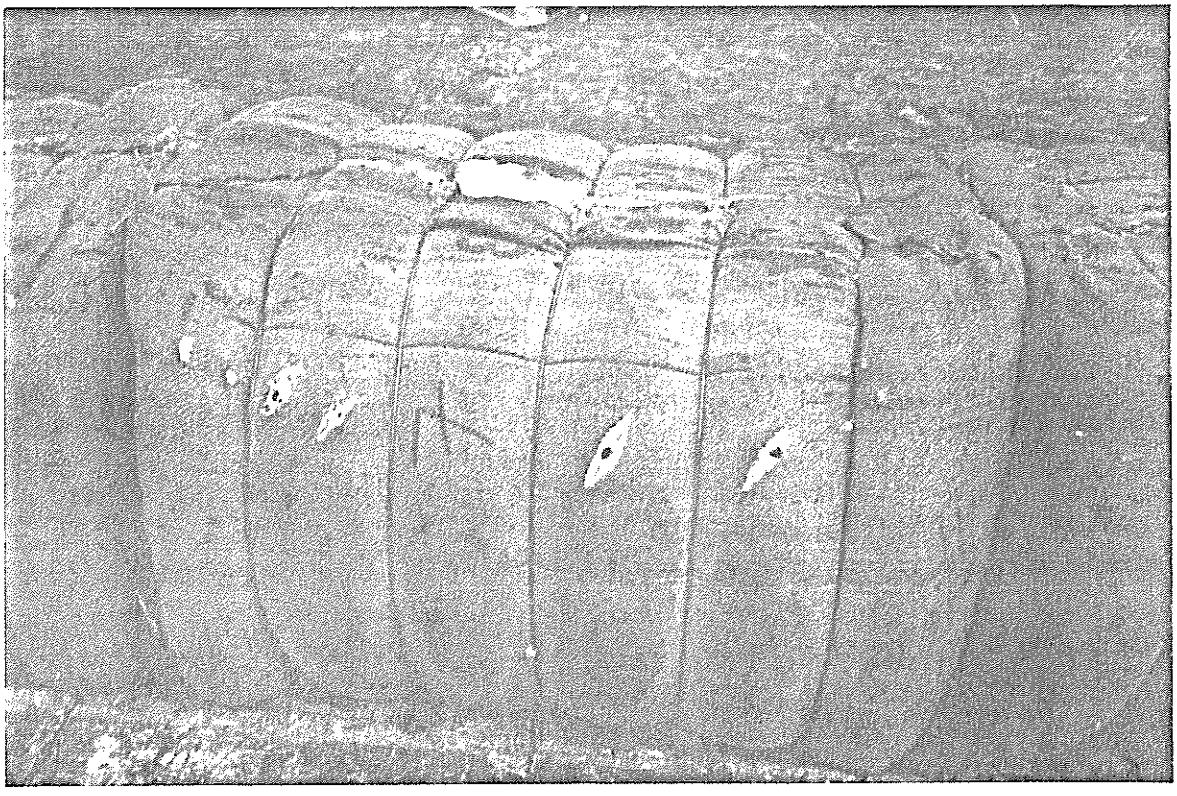
If anyone has a veterinary question to put to Michael he will answer them for you through the WOOL PRESS

FORK LIFT TRUCK CLAMP

Fork lift truck clamp attachments have often been mentioned as the approved method of mechanically moving wool bales. The photograph below shows one such machine in operation at a Bower Green warehouse.



The Photograph below shows the Core Sample sites on a bale of Falklands Wool.



ROBERT HALL
JUNE 1993

INSECT PESTS OF TUSSAC GRASS

The presence of insect pests of Tussac grass was observed as early as 1965 when small patches of Tussac were killed on Sedge and Carcass Islands. In 1974 the first report on the diseases of Tussac grass was compiled by T.C Gunn. This report stated that damage by insect larvae and attack by fungal infections were the two main diseases of Tussac grass. Gunn found various adult insects and their larvae feeding in the Tussac but listed three species which he believed were causing the most damage. Two were moth larvae and the third was a beetle larvae *Poophylax falklandica*. Recent examination of Tussac from various sites including Port Harriet, Fox Bay, Cape Pembroke, Sea Lion Island, and Flat Island have shown that the Poophylax larvae is undoubtedly responsible for the most serious damage.

Poophylax falklandica is a yellow/bronze coloured, black-eyed beetle. The adults are 6-8mm in length and are usually appear in late September/early October. The larvae are cream coloured "fish-tailed" grubs ranging in size from 2-12mm and are found all year round. The larvae live at the base of the tiller where they eat their way towards the central growing point, often severing the leaves. The damage caused by the larvae eating the tillers can be severe but it is often the bacteria or fungi that infect the wounds, made by the larvae, that causes the death of the plant. It had previously been thought that the Poophylax larvae lived in tunnels under the leaf sheaths, but close examination has shown that this damage is caused by moth larvae. The Poophylax larvae often enter these tunnels to feed or for shelter, and so gave the false impression that they had created the tunnels.

Symptoms of Poophylax infestation are usually only visible when the damage to the plant is at a very serious level. Heavily infected plants appear a dull green at first, and later turn bright yellow. Some newly emerged leaves may have holes in them caused by the boring action of the larvae. Dead leaves, severed close to their base, may also be visible.

In order to determine an effective control measure, biological or chemical, a clear understanding of the life cycle of the beetle is required. Once it is known when and where each stage of the life cycle occurs, the vulnerable point where the insect could be eradicated can be pinpointed. It is already apparent in the case of *Poophylax falklandica* that this point will be either the egg or the adult stage, as all the larval stages are very well sheltered, and are almost inaccessible to the two most obvious means of control, predators and sprays.

JENNIFER FULLER
JUNE 1993

COARSE WOOL

Since Falklands agriculture is dependent upon the export trade of various finenesses of wool, it is prudent to monitor the demand for different wools.

Traded price is the result of supply and demand. Price generally increases with decreasing fibre diameter from 30 microns, whilst for coarser than this diameter prices are fairly level. This current situation results from the availability of different wools. Table 1 below shows the "Fineness of Wool Traded Internationally", of particular note is that only 7% of traded wool is 30 -35 microns; combine this with current low level prices and it is obvious that little is supplied and little is demanded , indeed wool of 31 coarser microns is very difficult to sell at all in todays market. Compare this with 25-30 micron wool in which 3 times as much is traded and the prices increase; thus much more is supplied and there is strong demand.

Table 1. Fineness of Wool Traded Internationally.

Fineness	Percent
Finer than 20 microns	5
20 - 25 microns	50
25 - 30 "	20
30 - 35 "	7
35 microns or coarser	18
	100%

Ref: Wool Processing by D.A. Ross

One should now evaluate the demand - what is the demand for and is it a healthy sector of the market? Take 32 micron wool, it is mainly used for coarse hand-knitting yarn, pressed felts, quilt fillings, furnishings and blankets!! 27 micron wool has entirely different uses namely men and women's woven outer wear, knitwear, socks, fine hand knitting yarn and pressed felts. For the 32 micron wool only quilt fillings and furnishing sectors thrive, whilst for the 27 micron wool, it is all part of the strong fashion and clothing market.

Table 2 Shows that in 1991/92 the Falklands produced 387,355kg of greasy wool over 31.0 microns, 139,337kg of which was over 32.0 microns. This production deserves serious evaluation, since it is difficult to sell due to the limited demand, which appears to have much less of a future than the clothing and fashion sectors. Wools in the 30.0 - 31.0 micron range should also be seriously studied as these wools are in danger of falling into this least inspiring sector of the wool market.

Falklands coarse Wool Production: 1991/92

Table 2	Microns	Greasy Weight (kg)
	31.1 - 31.5	237,359
	31.6 - 32.0	55,708
Ref	32.1 - 32.5	52,244
Test certificates		
	32.6 - 33.0	14,251
	33.1 - 33.5	17,134
	33.6 - 34.0	10,659
		387,355

In short, the saying "the customer is always right" is sending a very clear message: 30.0 - 35.0 micron wool is not in great demand.

ROBERT HALL
JUNE 1993

* * * * * * * * *

THREE-LEGGED TUP

THIS ARTICLE WAS IN THE FARMERS WEEKLY RECENTLY AND IT JUST GOES TO SHOW THE LEVELS OF INGENUITY THAT CAN BE DERIVED WHEN DETERMINATION IS THERE.

A polworth ram valued at £2000 is being used successfully to tup ewes, despite the handicap of an artificial hind leg.

David the ram, owned by Tracy Flack, of Wateringbury, near Maidstone, Kent, had to have part of his leg amputated after being caught in barbed wire as a lamb.

Because of his value, and with only some 500 Polworths in the country, Ms Flack said she had to do everything she could to save the ram. She managed to make a temporary artificial leg out of yogurt pots (what she described as her "Blue Peter leg").

Eventually it could not take David's increasing weight, and after a lot of searching she managed to find a firm in Canterbury able to make a sturdy artificial leg which can be replaced again if David outgrows it.

ARE YOU FIT?

As a brief follow up to last months article "GET FIT", this is David Stuart's (the man behind the article) rough test for fitness:

Speed sit-ups.	Lying with the knees bent and hands behind your neck, sit up to touch your head to your knees 45 times a minute.
Flexibility.	Sitting with legs out, reach your fingertips 15 cms beyond your toes.
Long Jump.	Off both feet jump 2.2 m.
Push-ups.	Do 40.
Running.	2 km in 8 minutes.

HOW WELL DID YOU DO?

NO MORE DAGGING

According to a brief article of the same title in a recent farmers weekly, daggings will no longer be acceptable to the British Wool Marketing Board. The board says that the cost of collection and sorting out-weigh the commercial value of the scraps of wool in the current depressed market. The move is yet another burden on U.K. wool producers following governments decision to drop the wool guarantee.

A VISITOR FROM HOLLAND

Some of the farmers in the Roy Cove and Hill Cove areas will have met Mr Ryken Folkertsma last month when he visited a variety of farms with Hugh Marsden to look at projects and equipment provided to Farmers in the Falklands by the European Development Fund. Ryken is here to put together a mid term report for EDF and the duration of his stay in the Islands is three weeks. As an added bonus, Ryken had the pleasure of being one of the final judges at the May Ball.

STOCK RETURNS

The economics section of the Department will greatly appreciate the prompt completion and receipt of your annual stock returns to enable us to compile the Farming Statistics.

THANK YOU

BOOK REVIEW

'Border Collies' by Iris Combe is an interesting book for any dog handler. It also contains a small article on sheep dogs in the Falklands with photos. The cost is £14.99 plus £2.50 for air mail postage.

You can get the book by writing to:

Mrs Iris Combe,
Oak's Corner,
Common Lane,
Hemingford Abbots,
Huntingdon,
Mambs PE18 9AP
U.K.

* * * * * * * * *

OBITUARY TO BOUNCE

It was with regret that on 26th April Les had to have Bounce put down after a short illness.

As I think anyone will know Bounce was the most successful trial dog the Falkland has produced. Bounce worked hard over his 11 years and was a very good farm dog as well as an excellent trials dog. He seemed to know he was that much better than other dogs and right up to the end was never happy to watch a younger dog do something he felt he could still do better!

He was quite happy to travel, with or without Les and in later years spent a good deal of time 'on holiday' to visit various bitches. He sired a lot of pups, most being good pups and a couple in particular look like they may well be taking over from Bounce on the trials field.

In his eight years of trialing Bounce had quite a record..

1st in Novice trial.
9 Open First places.
3 Second Open places.
Twice won the Championship trials.
Second in The Champion trials 4 times and third once.

While many handlers often blame the sheep for their dog not getting a place in dog trials this was not the case with Les and Bounce. Les insists there is no such thing as 'bad sheep' in dog trials if you have a dog good enough to work them, and points out that Bounce never had 'bad sheep', on the trial field or otherwise. Les will also tell the story of one very hot day driving a large flock of sheep at Port Howard. All other dogs gradually tired and it looked as if the drive would be lost but Bounce's stamina held the sheep together. Proving he was much more than just a trialing dog.

SUSAN HANSEN
JUNE 1993

RECIPES

The following recipes were given to me by Sandra Lang. The first two are a couple of ideas for serving tongue.

TONGUE FRITTERS

Make up a simple fritter batter with egg, milk, flour, baking powder, salt, pepper and a dash of Lea & Perrins sauce. Dip pre-cooked and skinned halved tongues (sheep) or pre-cooked and skinned sliced tongue (beef) into the batter and fry in oil.

TONGUES IN WHITE SAUCE

Halve pre-cooked and skinned tongues and place in a casserole dish with pre-boiled onion and tinned peas in layers. Cover with a white sauce and put in the oven until bubbling and browned on the top.

COLD NIGHT PUDDING

INGREDIENTS

1 cup dried fruit; 1 3/4 cups of plain flour; 1/2 cup of milk; 2 oz sugar; 1 teaspoon baking powder.

METHOD

Mix all the ingredients together and place in a buttered oven proof dish. Pour over a sauce made of the following ingredients mixed together: 1 cup of brown sugar; 1 tablespoon of butter; 1 3/4 cups of boiling water.

Bake for one hour in a medium oven.

GINGER OATY

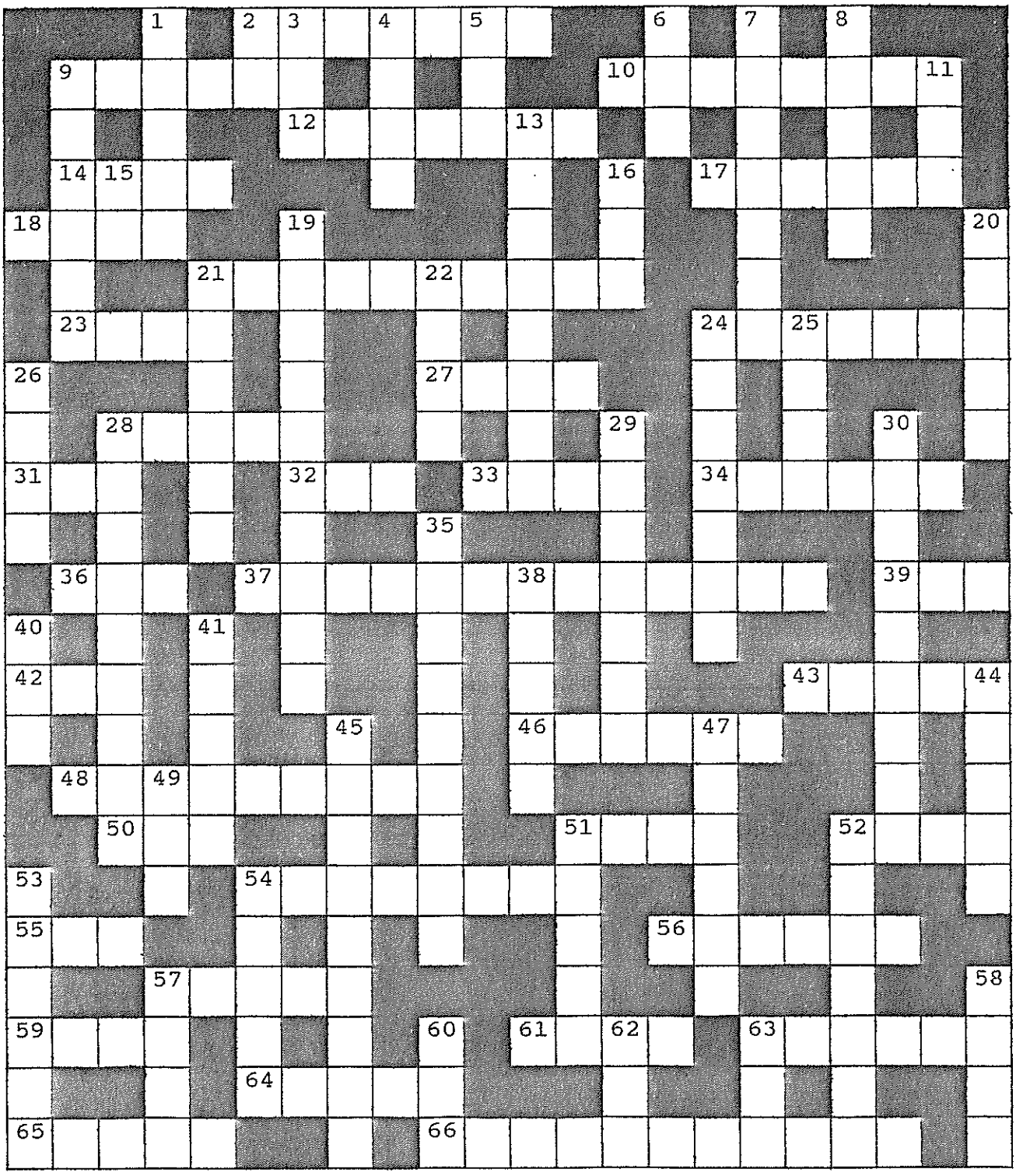
INGREDIENTS

MAIN MIX: 8 oz oats; 4 oz margarine or butter; 2 tablespoons syrup; 4 oz brown sugar; 2 teaspoons ginger. TOPPING: 6 tablespoons icing sugar; 3 oz margarine or butter; 1 teaspoon ginger; 3 teaspoons syrup.

METHOD

Put oats, ginger and sugar from main ingredients together in a bowl. Mix together with gently melted butter and syrup. Press into a shallow baking tray. Bake in moderate oven for 20 - 25 minutes. Melt all the topping ingredients over a low heat. Pour over baked oaty and leave to set. Cut when very cold.

JUNE CROSSWORD



By Mandy McLeod

ACROSS

2. Chicken heart, liver and neck
9. Teaching and learning place
10. Two masted sailing ship
12. South East Falkland
14. Precipitation
17. Three
18. Suffering
21. Robin
23. Most prominant facial feature
24. Pot for cooking with water vapour
27. Extinct bird
28. Outer coating
31. Plant fluid
32. Self image and esteem
33. Group of three
34. Soil breaking farm implement
36. Writing fluid
37. Water separating East and West Falkland Islands
39. Thoracic bone
42. Mineral spring
43. Sunless time
46. White cattle birds from S.A.
48. Machine for removing cream
50. Moved fast
51. Fall short of target
52. A micro-organism
54. Cabbage family
55. Dried grass for fodder
56. Young cow
57. Potted meat made from pig cheeks
59. Bread bun
61. Farm storage area for hay etc
63. Small antelope
64. Shabby and dull
65. Lose blood
66. Keeping up to standard

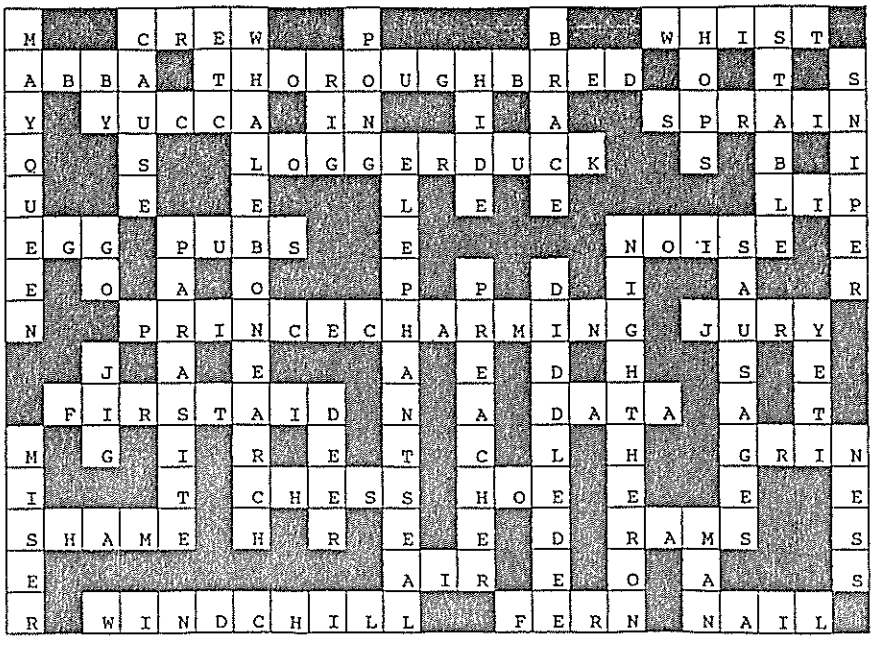
DOWN

1. Connected links
2. Leave
3. Poorly
4. Roof space
5. Heavy weight
6. Best card palyer?
7. Falkland vessel
8. Long beaked bird
9. Overstrain muscles
11. Fish eggs
13. Aircraft
15. Artificial Insemination
16. Request
19. Pig breed
20. Convey across water
21. Shooting star
22. Paddle deeply
24. Non-metallic strong smelling substance often associated with rotten eggs.
25. Reflected sound
26. Job
28. Large racing sail
29. Male domestic fowl
30. Sum total
35. Large sea bird of great wing spa
38. Not ever
40. Valuable hardwood tree
41. Of birds
44. Herb
45. Filtering
47. Land cultivator
49. Sopft area of dogs foot
51. Animals of a region
52. Small cucumber usually pickled
53. Child angel
54. Burnt mark
57. Primary colour
58. Rubbish container
60. Work-out place
62. Vermine
63. Horse of brownish grey colouring

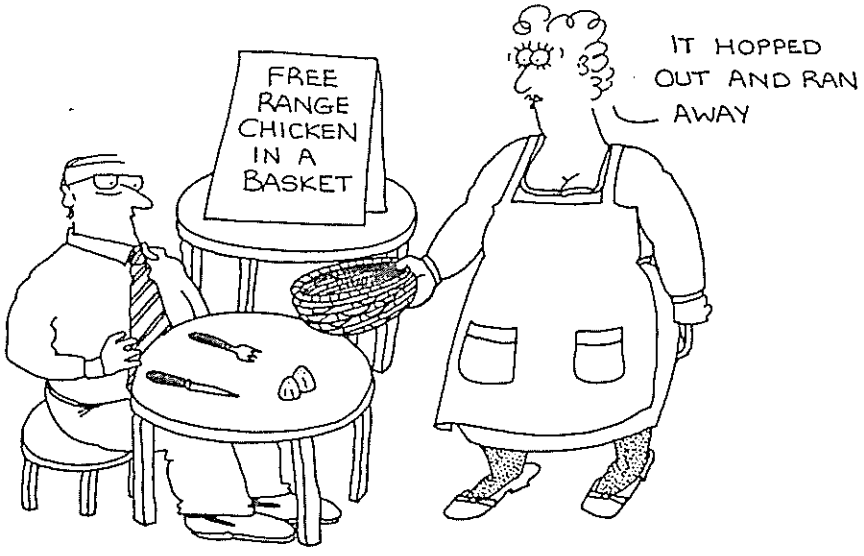
MAY

CROSSWORD

SOLUTION



SPOT THE DIFFERENCE



LAST MONTH'S DIFFERENCES

TOP PICTURE: 1.Man's hat band is dark; 2.Saddle edge is dark; 3.Stirrup has no foot bar; 4.Man's shirt has no buttons; 5.Girth over fence rail is longer; 6.Youth's hand is fuller; 7.Rear fence post is longer; 8.Middle rail missing from left of rear fence; 9.No chimney on stable; 10.Bottom branch of tree is missing.

WOOL PRESS

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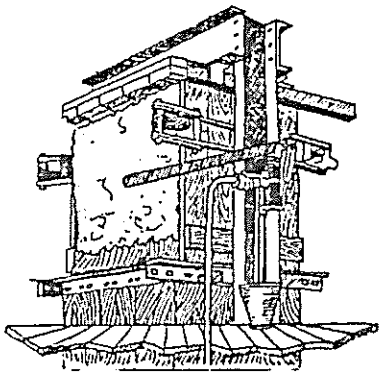

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EDITORIAL

It's Farmers Week and it's good to see many of those people we only talk to on the phone the rest of the year.

There has been a lot of interest from both the general public and the Farming community in the Hydatid display that we put on at both the Trade Fair and the Town Hall. There are a few articles related to Hydatid in this issue.

So far the weather has been kind to us and our livestock, but as I write this a snow squall is enveloping the Department buildings and the South view from my office window is varying from bleak to non-existent. I suppose it had to come at some time .....

"I'm not ungrateful, an'I know you're the staff of life 'n all that.... but South Georgia's that way!"

Hydatid survey - 1993

We have now received the results of the first ever hydatid survey of Falkland Islands dogs. Robin Gasser at the University of Melbourne, Australia tested all but 60 of 891 samples we sent within a fortnight of receiving them from us. Unfortunately the 60 or so samples had leaked in transit and we will have to replace them from the duplicates we kept in the freezer in Stanley.

The data will have to be scrutinised closely and interpreted in conjunction with your offal returns, the killing records from the butchery and the results of a questionnaire that is appended For your information (if you wish to fill it out for your farm and send it in to the Veterinary Office you are welcome to do so).

To interpret the test results, it will have to be understood that the test detects antibodies to the adult tapeworm, not the worm itself. If the hydatid tapeworm has been resident in the dog's gut at the time of the test or in the past, the dog's immune system will produce antibodies which can be detected by the test. Antibodies come in different classes, Immunoglobulins (Ig's) A,G,E and M, and this test has been performed to detect two classes, the IgG's and IgA's against hydatid. The test records the strength of a colour reaction compared against known positive and negative blood samples.

Very high positive titres, a strong colour reaction against both antibody classes, are indicative of experience of the hydatid worm, and out of the sera on which tests could be performed, 9 had a very definite positive reaction. These dogs (Priority 1) are currently being followed-up with a re-test, purging (with Arecoline hydrobromide, and treatment with injectable DRONCIT (to eliminate any possible, residual risk).

Positive reactions of a lesser degree are also being followed-up, when possible where they reside in the same location as the priority one dogs.

Positive test results must be a disappointment for the campaign which has been running in its present form for at least 12 years (since the last Ordinance came into effect in 1981), but they do explain now why we are still finding a number, and an increasing number for that of cysts, at the Stanley Butchery. One of the youngest sheep with a cyst found, was only two-years-old last year, thus cycling in dogs must still have occurred within the last two years. Some of the dogs on East Falkland are clearly found in the same locations where we had previously detected cysts, so finding positive dogs there is a confirmation, not a surprise.

The findings on West Falkland are a revelation as we obviously only get to inspect very few offal sets from West Falkland at the Butchery. Keppel Island had been the exception, and cysts found last year confirmed that hydatid cysts did still occur on the West. Locating five dogs with positive reactions on West Falkland in clearly defined locations may help us to focus on those settlements. There may be factors peculiar to those settlements that explain why reactors can be found there and not anywhere

else.

Through the collection of information about the dogs, farms and their killing practices, etc. we may be able to fine-tune the campaign to close the remaining loopholes which obviously exist and have allowed these dogs to get in contact with hydatid cysts.

As I mentioned above, it is too early to draw concrete conclusions as to the whens and whys of the breakdown.

It seems however already obvious to me that there are far too many killing facilities around that are by no means dog-proof, some of them consisting of merely a wooden cradle and a plinky in the open field - while you may deny the dog access to offal, this arrangement still allows them to lick and ingest blood and body fluids, and possibly the contents of a ruptured or cut hydatid cyst.

- Killing facilities have to be completely dog proof and deny dogs access to it at all times, not just when you are killing.

Dogs Ordinance: Hydatid Eradication (Dogs) Order 1981; Section 8:

Within the area of a settlement no carcass of any herbivorous animal shall be opened except in a place which is constructed in such a way as to prevent access by dogs and which has a drain constructed in such a way as to deny access to dogs, cats and birds....

Many of the farmers/owners I talked to have either not for a long time or never in their life seen a true hydatid cyst. It must be extremely difficult for them to decide what they are looking at the day they do come across a real one!

Educational efforts of the Department of Agriculture, but also the Education Department and the Medical Department have to make sure that the life cycle of hydatid disease is clearly understood, that hydatid cysts can clearly be identified on the farms, when they are encountered, or when in doubt, <u>do not cut into them</u> and send them in to the Veterinary Office for identification.

While the idea of dog inspectors has seemingly become unpopular with the split-up of the farms, I can not emphasise strongly enough the importance of, at least in the areas where many dog owners live in one settlement, having one person responsible for the administration of *Droncit*. This includes personally supervising that the drug is actually given to the dog, not just the dispensing of the tablets to individual owners.

MICHAEL P REICHEL
JUNE 1993

HYDATID DISEASE

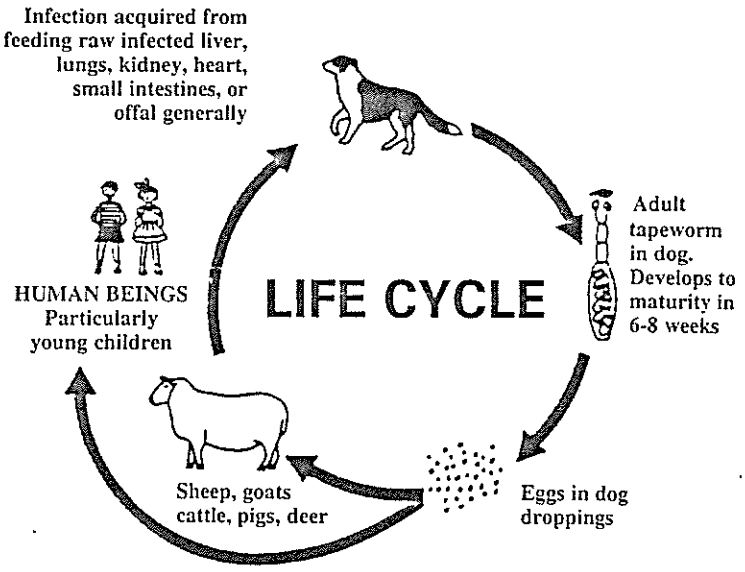
In last months issue of the WOOL PRESS I printed some extracts from the following article. In the light of the current developments in the Hydatid control campaign in the Falklands, here is the full article as printed in SHEEP FARMER (April 93).

HYDATID disease is caused by an infection with the cyst (fluid filled bladder) stage of a dog tapeworm. People and domestic animals are at risk of becoming infected with hydatid cysts. If affected, animals - sheep, cattle and horses - may be less productive. In people, enlargement of cysts, which commonly occur in the lungs and liver and occasionally in the bones and brain, can cause severe problems and require surgical removal. There is no treatment other than surgery for hydatid cysts.

THE LIFE CYCLE OF THE DISEASE

Many thousands of the tapeworms responsible for causing hydatid cysts in people and farm animals, especially sheep, may be found in the small intestines of infected dogs and hounds. Foxes may be infected to a lesser extent, with fewer worms. Eggs from the tapeworms are passed on to grass or the ground when the dogs relieve themselves, contaminating the environment. Eggs may spread to vegetables in a garden and will stick to a dog's coat and where the dog is lying.

HYDATID (Echinococcus)



Eggs swallowed by people or animals pass through into the bloodstream, to be carried to many parts of the body. Once an egg settles it can develop into a cyst, which as it grows gives rise to symptoms of hydatid disease. If offal containing hydatid cysts from an animal is eaten by dogs, the worm heads in the hydatid cysts will attach themselves to the dogs gut and grow into mature tapeworms. They produce eggs in six weeks continuing the life cycle of the disease.

It is the failure to remove sheep carcasses and allowing dogs access to infected offal which maintains the life cycle of hydatid disease in the United Kingdom.

INCIDENCE IN THE UK

Hydatid disease occurs mainly in sheep farming areas, where the sheep are the important host for hydatid cysts and dogs, particularly sheepdogs, are the main host for the tapeworm *Echinococcus Granulosus*. Nationally, abattoir surveys reveal 2-3% of sheep to be affected. Since the disease cannot be recognised in its early stages in lambs, it is surveys of slaughtered older sheep which give a more accurate indication of the level of hydatid disease. Surveys of sheep from South Wales have revealed over one third of carcases to be affected. The disease occurs to a lesser extent in other hill farming areas, on many Scottish islands and in England around abattoirs, where many sheep are held before slaughter. Hydatid disease in people is twenty times as common in South Wales as in England, where many cases occur in people living near abattoirs in the Midlands.

CONTROL OF HYDATID DISEASE

All methods of controlling hydatid disease are aimed at breaking the cycle of disease. This may be achieved either by killing the tapeworm in the small intestine of the dog or by preventing dogs becoming infected. In hill farming areas scavenging of sheep carcases is very difficult to control and there is no drug available to economically kill hydatid cysts in live sheep. Removal of sheep carcasses will help to reduce hydatid disease, but it is the regular worming of dogs which is the most effective method.

The tablets used must be given every six weeks because, if after treatment a dog again feeds on infected offal, the ingested worm heads will grow into mature worms producing eggs in six to seven weeks. It is important that the correct worming tablets are given, because whilst many of the treatments available will remove some of the worms, there may be thousands in a dog. Tables containing the drug *Praziquantel* are accepted as being the most effective and convenient.

HYDATID CONTROL PILOT SCHEME

The publicity campaign to control hydatid disease included the treatment of dogs with *Droncit* (Bayer UK) worming tablets containing praziquantel. They were issued free to farmers in South Powys every six weeks from 1983 to 1989, to dose their dogs. An abattoir survey of old sheep from the area revealed that the number of animals infected with hydatid cysts fell from 30% to 10% in six years.

An additional benefit of this regular worming programme has been the control of the tapeworm *Taenia Multiceps*. The eggs of this worm when swallowed by grazing sheep will grow in the animal's brain and spinal cord. The cyst is called *Coenurus Cerebralis*, giving rise to the disease commonly known as gid. This additional economic benefit of controlling gid, will more than pay for the regular worming of farm dogs.

BREAKING THE CYCLE CAMPAIGN

The *Breaking the Cycle Campaign* which succeeded the South Powys Hydatid Control Scheme is a publicity and educational campaign. Its aim is to reduce the level of disease caused by dog tapeworms, by informing dog owners of the lifecycle of Hydatid disease and the best method of control.

Control methods include:

Bury all dead animals or otherwise dispose of them.
Keep dogs under control when they are not working.
Do not feed offal to dogs.
Use the correct worming tablets regularly for dogs.
Ensure the best hygiene when handling dogs particularly not allowing dogs to lick you. Always wash your hands after handling dogs.

Tom Walter MVSc MRCVS qualified as a veterinary surgeon at Liverpool University in 1955. He has worked in farm animal practice and with the State Veterinary Science Service and has always had a special interest in hydatid disease. Now retired from the SVS, he works for Powys Health Authority as Hydatid Disease Campaign Co-ordinator from Bronllys Hospital, Bronllys, Brecon, Powys.

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TWIN LAMB DRENCH BOOSTS BLOOD SUGAR.

A drench from net-tex agricultural, Col-ate rapid, is claimed to have a ewe suffering twin lamb disease back on feed in about four to eight hours.

Available in five to 11 dose packs, the product is rapidly assimilated into the blood directly from the rumen or stomach, bypassing the usual digestion process. Ingredients include vitamins, amino acids and trace elements; a single treatment being claimed to be sufficient in most case.

Rapid can also be used to treat the ewes after a difficult delivery, helping them to care for their lambs sooner. It can also be used in lambs with white muscle disease (a condition of selenium deficiency). Treated lambs are said to be clinically sound 24 hours after a 10ml dose.

As with all these preparations it may not be cost effective at the price of £2.35 per 45ml dose (Price quoted from "WHAT'S NEW IN FARMING" magazine), but it is always good to keep in touch with new innovations and what is available in relation to farming and in particular, the sheep industry.

MANDY McLEOD
JULY 1993

Trace element deficiencies

Many farmers would have heard about Cobalt deficiency, the so-called "piner"-lamb syndrome, and many have been using Cobalt bullets on their lambs (PERMACO) to prevent it.

In the last few months we have seen quite a number of animals suffering from another trace element deficiency in the Falklands, swayback, which is caused by a lack of copper in the ewe resulting in the nervous system of the fetal lamb being damaged. The resultant lambs are unable to get up, or wobble around, and fall over, especially when chased or scared. Characteristically the hindlegs are more affected than the front, which has given the disease the name.

Cases can occur immediately after birth or with some delay, months later, and while there may be some clinical improvement over time, the damage of the nervous system can never completely be repaired.

Most of the cases, close to a dozen, have been observed in the lambs of the National Stud Flock, and been confirmed from samples of the spinal cord that I sent away to a laboratory. I have since learnt that lambs like the ones described above, have been seen by farmers on the odd occasion, frequency unknown. There are probably a number that are never seen, that may get cast in Camp, and die - the National Stud Flock lambs receive special attention, are seen every day, and the first signs of the clinical onset of swayback have been brought back to the house.

As said above treatment of affected lambs is usually unrewarding, and prevention is the answer - if ewes have adequate levels of Copper during the 5 months gestation period, lambs will form a functioning nervous system without any lesions.

Copper supplementation should also have another additional benefit - as Copper plays a vital part in the metallo-enzymes that regulate fertility in ruminants, fertility is depressed in the copper-deficient ewes. Add Copper and conception rates should improve.

As Cobalt is still a requirement on many farms (how many though?) a combination of Cobalt, Copper (and Selenium) as found in a product from the UK, *CoSeCure*, should prove quite helpful. Contained in a bolus these elements are embedded in a glass matrix. Rumen activity slowly wears down the matrix and releases the three trace elements at a given rate. Given a month before tupping it assures adequate copper levels for fertility and sustains these levels throughout the gestation period.

Because the bolus slowly disintegrates it will have to be replaced every season but the extra work (and cost of a bolus every year) may be well worth the effort, if Copper deficiency is a problem on your farm.

All the National Stud Flock ewes have been treated with a CoSeCure bolus this season, and I expect to see no more cases of swayback following lambing in October/November.

MICHAEL P REICHEL

BOILS — YET AGAIN

I have written a number of *Woolpress* articles on this subject, the last after last years Farmer's Week, following the graphic description of the boils problem by Ben and Ted from the Stanley Butchery.

Now there is a very good chance that you will have an abattoir that is designed to EEC standards within 18 months, and there are live exports of sheep for slaughter - but is your meat up to those high consumer standards?

While the occasional boil here may cause complaints to the butchers, one found overseas (or at MPA) will quickly give Falklands mutton a bad name and result in rejections at ports or supermarket counters. Last year saw over 20% of the sheep killed at the Butchery infected with "boils" (and that was only counting the offal boils, some talk of 50% of the carcasses), a level that is clearly unacceptable to the butchers. Such a level will certainly present a market access problem, and it will be difficult to produce mutton at a profitable level through the abattoir if that number of carcasses will have to be rejected from export (not a new problem, since the ill-fated freezer at Ajax Bay was having to condemn 25% of its production).

An effective vaccine (GLANVAC) has been around for a number of years and I described the first results of its use (in the FI's) at Goose Green in the *Woolpress* - it would seem that the benefits arising from the potentially higher survival in the vaccinated groups alone (approx. 15%), more than compensates for the outlay for vaccine and labour.

The vaccine costs less than 10p in the first year (vaccinate twice at lamb marking and weaning), and half of that again in subsequent years (four weeks before shearing). Only if sheep are re-vaccinated annually will vaccination reduce the number of "boils" in sheep. Implemented together with other sanitary measures, i.e. treating shearing cuts with antibiotics, cleaning shearing gear and reduction of dust in the shed and letting out pens (see the previous articles) such a programme will reduce the overall incidence on the farm (or the Falklands) to less than 5% in five years or so (when the old infected stock has been culled).

You have successfully eradicated *Brucella Ovis* from your national flock, surely you can do it with "Boils".

And if you are thinking of diversifying into meat production, and your farm has a high incidence of "boils" now, i.e. more than 5%, it is imperative that you make use of the two years lead-up time to the abattoir and start vaccinating this coming spring/summer. Only then will you avoid the embarrassment of having your stock turned away from the abattoir because the "boils" make it unsuitable for the butcher's purposes.

MICHAEL P REICHEL
JUNE 1993

PACKAGING

Product packaging has two functions:-

1. To protect the product,
2. To attract a buyer to purchase the goods.

Packaging plays an important role in marketing any product, whether whisky, breakfast cereals, toys or wool.

Wool is well protected if the pack is strong enough to withstand transportation to arrive at the scouring plant intact. Wool packaging NOW attracts a buyer if the pack is intact, accurately and clearly stencilled, minimises wool contamination and can be recycled.

The latest recommendations are that wool should be packed in POLYETHYLENE packs and that caps are sewn with NYLON 66 string. The reasons are that:-

1. Polyethylene and nylon 66 are generally very strong, thus protecting the product.

2. Polyethylene, being strong fibrulates much less easily than weak polypropylene.

3. If nylon 66 unfortunately gets into the wool, it dyes exactly the same colour and shade; unlike other strings.

4. Polyethylene can be recycled, in line with current EEC legislation.

Continual improvements are made to packaging; these recommendations are the best for wool today, maximising the number of potential buyers and repeat purchases of Falkland wool. All farmers are being advised to order and use polyethylene packs and nylon 66 string for next season.

ROBERT HALL
JULY 1993

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HERDWICK HEADACHE

Herdwick wool is worth nothing. Herdwicks are small tough hill sheep found on the fells of northern England, with coarse coloured wool and light weight fleeces. Such wool is not in demand at present, with the British Wool Marketing Board currently paying farmers a penny a kilo!!

AUSTRALIAN MARKET INDICATOR ?

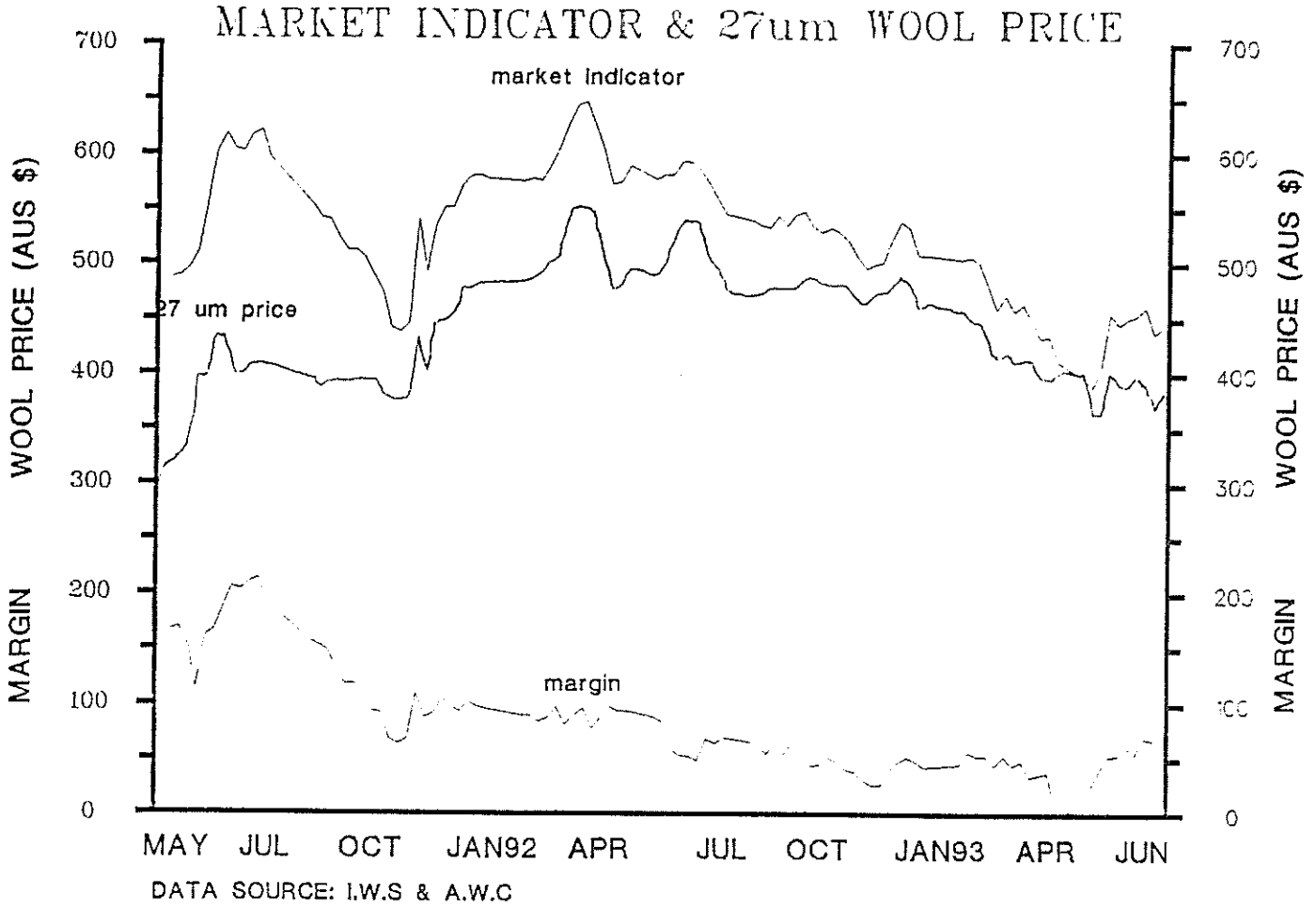
Farmers who monitor the International Wool Market will be well aware of the widespread use of the Australian Market Indicator as a gauge of the Global Wool Market. This article aims to examine how the market indicator is determined and assess it's significance to the Falkland Wool Industry.

The need to quote a single statistic to represent market conditions is obvious in an industry that produces an enormous spread of wool types. The Australian Market Indicator,for example, is based on 165 different wool types drawn from within the 19 to 31 micron categories. The concept behind formulating and quoting the indicator is that it should provide a single representative value for the spread of wool sold within these categories . In compiling the Indicator, A.W.C statisticians must continually monitor Weekly auction prices for the various represented wool types. Price movements are noted and used to update the indicator accordingly. The same methodology is used to determine market indicators for specific micron categories.

To ensure that the market indicator continues to provide an accurate quotation, it is often necessary to revise the mix of wool sampled. Such an alignment was recently carried out in Australia during the 1991/92 season and reflect continual changes in the composition of the National Clip. In this case, the sampling method reflected the increasing production and sales of finer wool. The previous change of this type occurred in the 1983/84 season.

If the concept behind the Indicator is understood, it is immediately apparent that there is an inherent danger in relying on the Australian Market Indicator as a gauge of the Falkland Wool market (a representative bale of Australian wool is simply not the same as a representative Falkland Island bale!) The Australian Market Indicator will be biased towards the 21 22 23 micron categories whereas Falkland Wool averages in 26 27 28 micron. The danger in the over-use of the A.M.I can be identified in Graph 1 which compares the Australian Market indicator with the auction price of Australian 27 micron wool. This graph shows how recent overproduction of finer wool in Australia has diminished the price advantage over cross-bred wool. This has even resulted in Australian 27 micron wool recently selling at a higher price than the Market indicator price! It seems likely that cross-bred wool will continue to perform well given the fact that 83.5% (2,705,069 bales) of the stockpile of Australian fleece wool stockpile is 24.5 micron and finer.

Regrettably, the low volume of wool traded in the United Kingdom would make the establishment of a Falkland Market Indicator unreliable. Such a Statistic could however be extremely useful in assisting farmers in decision making. It might also make a useful bench mark should a formalised income stabilisation scheme ever be introduced in the Islands. Even if currency distortions are ignored, the above analysis demonstrates the need to use caution when using the Australian Market Indicator in the Falklands context. Quoting the Australian 27 micron Indicator would perhaps be a more meaningful alternative ?



HUGH MARSDEN
JULY 1993

HOMES WANTED

Border Collie Heading Pups: Just in, 1993 versions of "Frog"/"Ness" monsters off former Teal Inlet dog "Frog" and imported "Noahs Ark" bitch "Ness", (Black & white). Good hauling potential, excellent stamina, available 8 weeks.
Phone: 31193 Meals/Evenings (keep trying!) Fax:31194

ALSO AVAILABLE from reluctantly abandoned project. Two forward control 101" 1-tonne land rovers presently stored garaged.
One is complete and runs A.1.; the other is basically complete, (some parts not yet fitted) and only small items short to finish it, both are reasonably straight and tidy, some spares inc. gearbox. Sell both for the price of one. Might consider p/ex Honda 125/195 bike, in good condition.
Phone: 31193 Meals/evenings (keep trying) Fax: 31194

SUFFOLK RAM IMPORT

12 MONTHS ON

Suffolk Ram No 295 from Kinmel, Tasmania, who has now had a full season plus in the Falklands, is hale and hearty and out working his second season. He arrived with the National Stud Flock in January 1992, was quarantined on Sea Lion Island, flew by F.I.G.A.S. to Chartres and was taken by rover to Little Chartres on the 1st May 1992.

I put a ram harness with a yellow crayon on him straight away and introduced him to his 50 Polwarth ewes in a large out side pen. He was left to "mill" for half an hour, to find his feet and to settle before being turned out in a handy paddock. In that time he covered 5 ewes..... there were certainly 5 yellow rumps so I took it he was settling in quickly. The ram was with the ewes for two full cycles. Most ewes were covered in the first cycle, that is to say they got yellow on their rumps, so it was very interesting to see what happened during the second cycle. 12 were re-covered i.e. got green rumps (blue over yellow) and there were 2 or 3 just plain blue. At the end of 34 days all the ewes appeared to have been served. The ewes were then moved to a more distant paddock and stayed there until October. In early October they were brought back near the house where they were shepherded most days. The ram stayed at the house with a mate and received supplementary feeding twice a day. There was a period of 10 consecutive days in late June/early July when these two sheep were in the shed and entirely hand fed. The Polwarth ewe adapted over night and thought it was the best winter she had ever spent!

Lambs arrived throughout October, peaking mid-month and coinciding with awful weather from the N.E. 8 lambs died in one night. Abandoned lambs were brought home and mothered-on if there was an available ewe, or reared on Lam-lac. The economics of the second option are dubious. At lamb-marking I tried to establish the number of ewes that had lambed and the number of ewes who still had their lambs. Here I made some interesting observations and I must confess rather basic. The 50 ewes were chosen from ewes culled from the main flock. They were culled for wool faults and age, so were of mixed age themselves.

I believe I chose some that were quite simply too old, and although they had had lambs in the past they were not up to sustaining another pregnancy or to rearing a lamb. It is tempting to choose these old girls but it just isn't worth it. The young sheep with wool faults, the shearlings, were a good choice but you have to be prepared for their inexperience and flightiness. It was very worth while crutching them in September. The ewes that should not have been there at any price were the 4/5 year olds who were fat in January, as they were almost certainly barren. They should have been tipped up and udder checked for; No udder, No lamb. No entry!

Criteria for this meat flock now are .....

- Good body size and good confirmation.
- Good teeth; Sound udder; Good feet.
- Black spots, horns and britchiness all welcome if the above points are in order.

The ewes were condition scored three times during tupping. The majority held their original score fairly well but some of the older ones began to loose - this is the month of May with winter coming on and a pregnancy to sustain. It is this category I feel probably did lamb but failed to rear anything.

What were the lambs like and did the Suffolk show any influence? At birth the dark colouring was marked around the head and legs but in many cases faded over 6 months. Any body colour faded even more quickly but could be seen on the skin side at killing time. Growth rate varied, some doing better than others, and what was noticeable was the lambs that "threw" towards the sire killed out heavier than what the eye expected. A solid and compact Suffolk-cross lamb killed out heavier than a similar looking Polwarth, and they appeared to have laid down meat, not excessive fat.

CONCLUSIONS

The Suffolk ram did make a positive contribution but ewe selection and nutrition play crucial roles. Quite a lot of time was spent keeping records. Most have proved really useful but there are areas which were missed and will be addressed this next season.

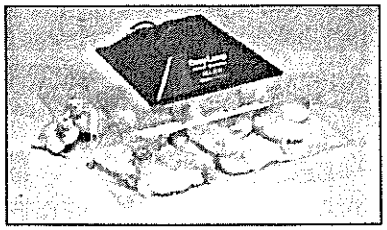
LYNN BLAKE
LITTLE CHARTRES, JULY 1993

* * * * * * * * * * *

NEW PRODUCT

CHICK BROODER

Batches of up to 50 chicks can be brooded cheaply under the Cosy-Lamp, a new, low-energy consumption, clear plastic brooder from Brinsea Products, Sandford, Avon.



The Cosy-Lamp measures 520mm x 520mm x 214mm high (21in x 21in x 8.5in) and clip-on closures allow the entrances to be adjusted for different sized chicks. It stands direct on the floor but can be suspended for rearing ducklings and goslings.

Heat is supplied by two ordinary 100W light bulbs operating at reduced voltage, and the total power requirement of only 65W means that bulbs, which are cheap to replace, have many times normal life expectancy. The double-insulated unit connects to the mains by ordinary mains plug and comes with a two year guarantee.

* * * * * * * * * * *

LETTER PAGE

I read with interest how dark fibres devastate incomes. We are aware of the problems, but if we decided to cull all sheep out with a black spot, etc., we'd only be farming a few hundred sheep. We all know that black spots are age related and more so in the breeding ewes who produce more black spots/fibres as they grow older, obviously lambing/stress play a major part. I would also question the fact that black/white sheep grazing together causes these black fibres to be transferred on to white fleeces as the only time these sheep could come into close physical contact with each other is when being drafted, and care is always taken at shearing, keeping them separate. I would be interested to know if the black spots have increased since farmers started importing and using Jacob and Suffolk sheep. I doubt it.

I disagree with the idea of emptying sheep out prior to shearing. It has nothing to do with the matter, as most sheep these days are passed through some sheds so quickly they don't have time to get dung stained. I'm sure the contractors would have something rude to say to a farmer having a shed full of empty bellied sheep, especially hoggets. It's a known fact that a full bellied sheep off the shears stands a better chance of survival than an empty one.

The problems of dung stains, dags etc., usually only occur in young sheep (hogs and shearlings) as these animals are usually shorn first therefore all the paddocks are at their best having been closed most of winter and once these sheep are put onto the rich green grass they start to scour, most farmers try to keep them on white grass paddocks because of this reason.

I believe the farmers do the best job they can, the black wool problem has been circulating for many years. I have also heard from rousies who have travelled, that Australian farmers do have black spots in the fleeces and most of them are ignored. "Nobody's perfect".

MAGGIE GOSS, HORSESHOE BAY. JULY 1993.

OBITUARY TO GLENROY 847

Born September 1987 and described following the 1989 Dubbo National Ram Sale as potentially the best ram bred by the Glenroy Poll Stud to date. Glenroy 847 was sold to Melton Mowbray (Tasmania) breeder Gerard McShane, for a record price of Aust $280,000.

At 18 months he was registered as having a 21.4 micron fleece with a 71.8% and his body weight at 24 months was 141 kg. This made him one of the largest Collinsville stud animals sold in Australia, with a soft bright fine medium style fleece.

Stuart Robertson of Robertson Livestock Services has just confirmed to me that Glewroy 847 did die suddenly at age 5 years, about 10 months ago shortly after being put out to work. Offspring have yet to be progeny tested, but I can vouch for the superior size and quality of them. A great loss.

N.PITALUGA, SALVADOR. JULY 1993.

RECIPE PAGE

We have two recipe contributors this week with some traditional recipes. PLEASE keep sending them in. We could do with a few savouries!

CLIPPING CAKE

1lb flour
12oz sugar
8oz margarine
2 teaspoon baking powder
1/2 teaspoon nutmeg
1 lemon or orange rind
1/2 pint milk
2 eggs

METHOD

Rub flour and margarine together, add sugar, mix milk and eggs together and add to the mixture with lemon rind. Bake at 325°F until cooked.

S. POLE EVANS
SAUNDERS ISLANDS.

* * * * * * * * * * *

SCORPIONS

1lb flour
8 oz soft fat
1/4 lb currants
9oz sugar
2 tsp baking powder
eggs to mix if you like

METHOD

Rub fat with flour sugar and baking powder. Add currants. Mix with egg and a little milk if needed. Roll out and cut like very thick biscuit, cook for 15 - 20 mins in hot oven.

SANDRA LANG
SPRING POINT

BUT THESE GOATS HELP FARMERS

This article in defence of goats came after a piece about the problems in a particular area of Australia with feral goats. Nevertheless, it would seem that correctly controlled herds can be run with sheep to an advantage....

Research by NSW Agriculture scientists at the Cowra Agricultural Research Station Tablelands shows goats can control some temperate pasture weeds better than herbicides.

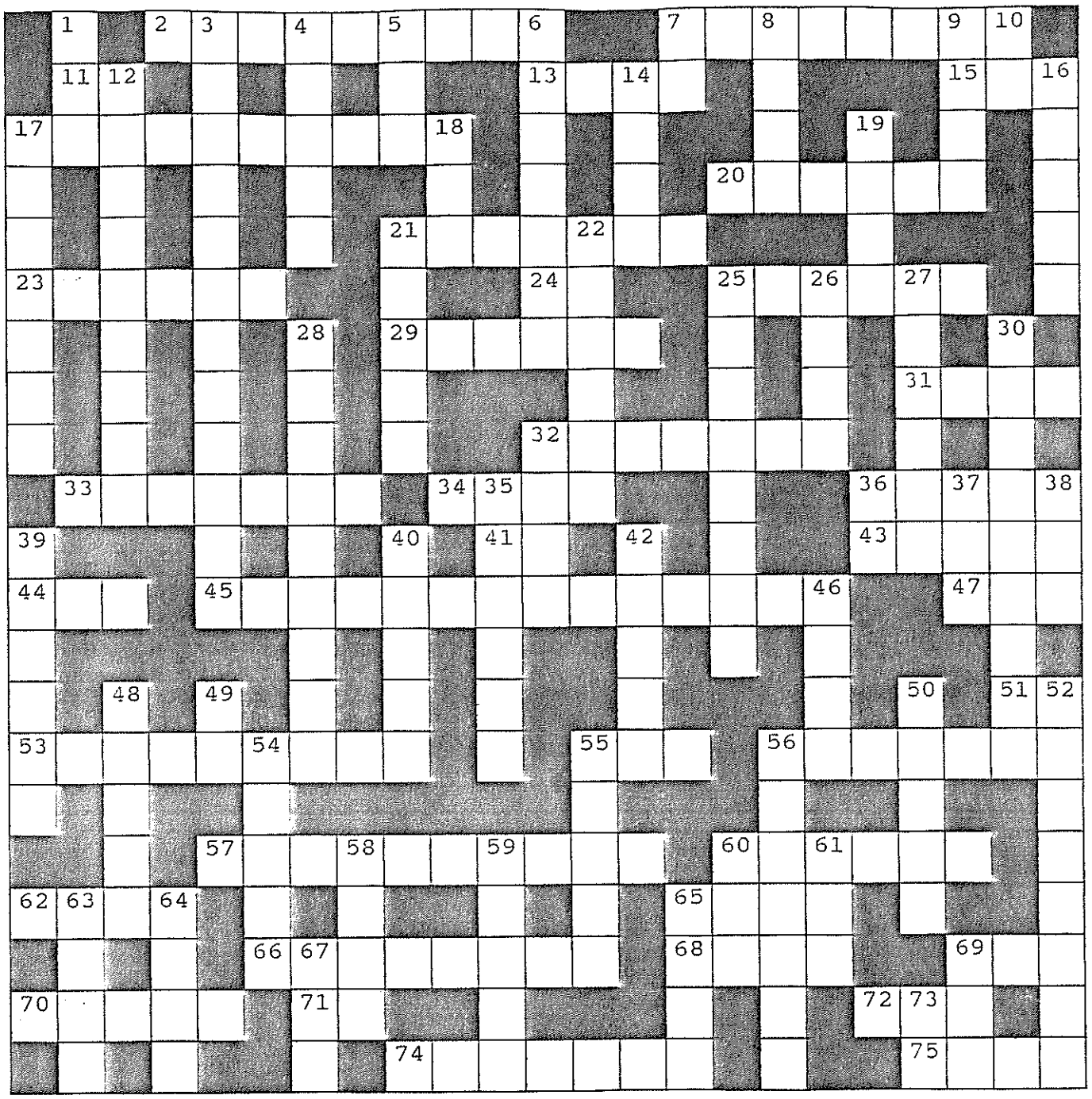
The scientists, funded through the Meat Research Corporation, are testing the effectiveness of goats in controlling common weeds of south-east Australian tablelands, such as illyrian thistle, nodding thistle and barley grass. The trials have produced strong evidence that goats prefer thistle species at crucial stages of growth, even if good pasture is available. Livestock Research Officer Cameron Allan, says this means that, at certain periods, goats are not competing with sheep for pasture, so graziers can run some goats for weed control without reducing sheep numbers. "The degree of competition between sheep and goats is related to the palatability of the weeds to goats," he says. "Goats are most effective when the weed is palatable, but the predominant pasture species, such as clover, is not. "So there is less pressure on clover, but pressure on undesirable species."

Project leader, Peter Holst, says a recent study has shown weeds cost the NSW sheep Industry about $450 million a year. Last year, grazing trials with goats running with sheep were set up on paddocks infested with illyrian thistle, scotch broom, barley grass and variegated thistle. Mr Allan says the trials showed goats preferentially ate the thistles at the rosette stage after they germinated with the autumn break, and ate the flowering seedheads in spring and early summer. "In a sheep paddock, the thistles would run up to flower and produce viable seeds," he says. "Goats graze the thistle seedheads before viable seed in produced, so no seeds are going into the soil to germinate in future years." He says thistle seeds can stay dormant in soil from five to 15 years, so a weed-control program every year must be 100% effective and stop any viable seed being produced or dispersed.

Previous trials, where grazing with all sheep, 30% goats, 60% goats and all goats has been compared, have shown the degree of weed control is directly related to goat numbers. With barley grass, a weed widespread throughout grazing and farming land in Australia, goats grazed the green seedhead to a greater extent than sheep. Goats also ate other annual grasses, such as black oats and brome grass. Mr Allan says that goats and sheep will graze the woody perennial, scotch broom, within their browse reach, but the two-metre plants continue to produce seed pods above the 1.2m browse line. However, unlike sheep, goats will break down the plants to reach higher seed pods. He says while scotch broom is not yet a problem in sheep grazing areas, it is starting to spread to the tablelands, and could become a serious threat in several years - if unchecked.

AUSTRALIAN FARM JOURNAL
JUNE 1993

JULY



A N A G R A M S

Sort out these jumbled letters to give names of places or farms in the Falklands. Answers below.

LOPIHELM SOME SAD FIRMS MONIT PAIN

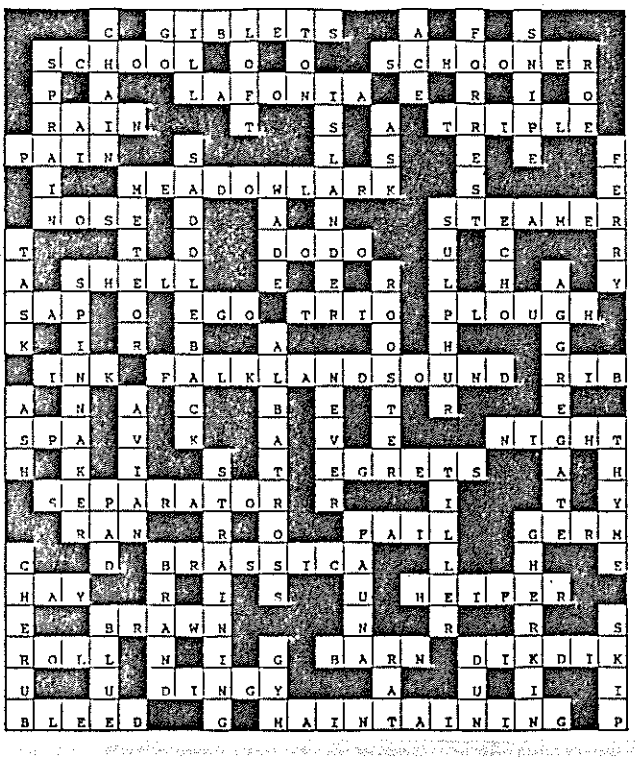
WRUANS PLAN IS GO SAND LIES LONIA

SEA LION ISLAND; SWAN ISLAND GROUP; MAIN POINT; MOSS SIDE FARM; PHILOMEL

JULY

ACROSS

2. FIDF main venue
7. obsessed
11. Physical Education
13. Dutch Cheese
15. Canine
17. Mid-winters ball attire
20. Mohair producing goats
21. Water faucet
23. Seed pod plant
24. Queens initials
25. House of worship
29. Crop
31. Grizzly animal?
32. Deer meat
33. Hard rock
34. Blemish left by a healed wound
36. Soft, sticky, slippery mud
41. Like
43. Animal bedding matter
44. Writing fluid
45. Abattoir
47. Beer
51. Perform
53. Cashmeres protective coat
55. Teachers favourite animal?
56. Axe
57. Dianthus flower
60. Antler covering
62. One of the Armed Forces
65. Own
66. Woven or needle point picture
68. Ms Blyton
69. Biblical character
70. River boat
71. Royal Engineer
72. Oriental sauce
74. Colourful talking birds
75. accommodation fee



DOWN

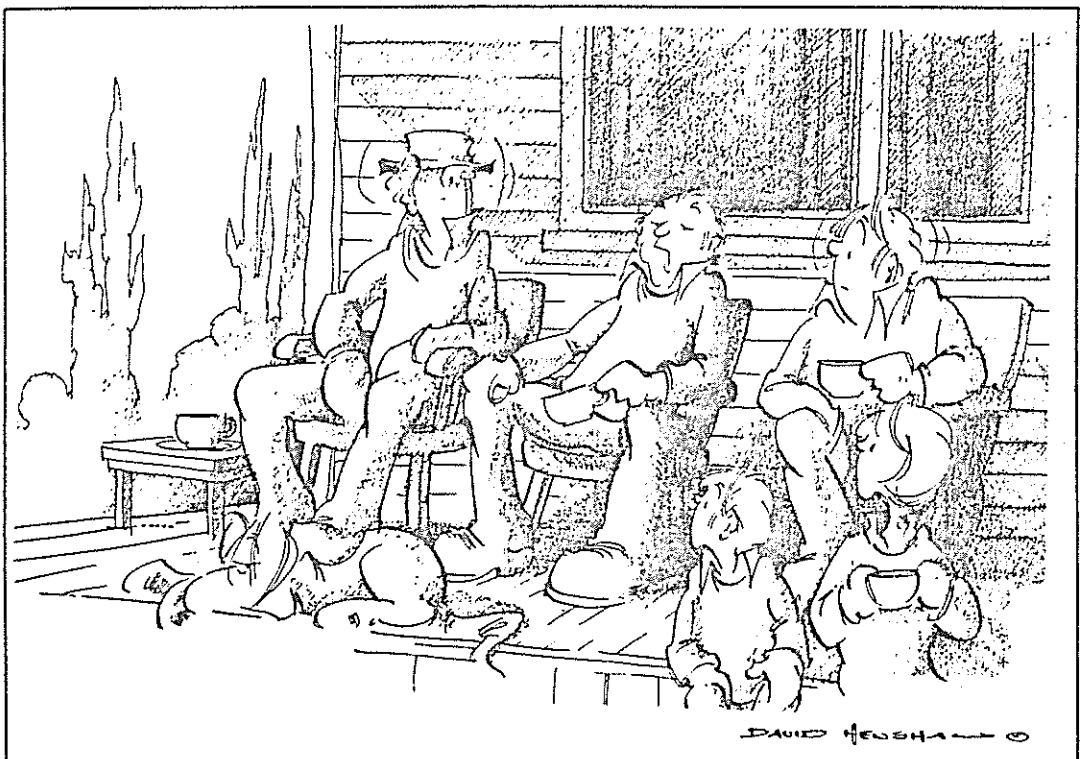
1. Mineral spring
3. These forces have the freedom of Stanley
4. Open wagon
5. possesses
6. Young hare
7. After mid-day
8. Horse of evenly mixed colours
9. Thought
10. Perform
12. Current provider for fence
14. Ugandan leader
16. Sauce made from meat juices
17. 220 yards
18. Pig house
19. Male pig
21. Sled dog
22. Bowman
25. Pepper
26. Once .... a time...
27. Deficiency attributed to "piners'
28. Large southern continent
30. Citrus preserve
32. Flower container
35. Cows, bulls and calves
36. Boat title (eg:Great Britain)
37. Terrorist organisation
38. Female sheep
39. Part fermented green fodder
40. Staring person
42. Heavy horse
46. individually
48. Polite address for lady
49. After Christ
50. Chose
52. Church musician
54. Body blood pump
55. One hundredth of a pound
56. Sheep breed
58. Back of neck
59. Bury body
60. Covered truck
61. Light Emitting Diode
63. Harvest
64. Hindu system of self dicipline
65. One of Hitler's henchmen
67. Noah's boat
69. Optical organ
73. Alternatively

JUNE

SOLUTION

SPOT THE DIFFERENCE

"I was worried once . . . . . it was a Thursday in 1958!"



"I was worried once . . . . . it was a Thursday in 1958!"

LAST MONTH'S DIFFERENCES

TOP PICTURE: 1.White knife and fork handles; 2.Pepper pot missing; 3.Chichen not Chicken on menu; 4.Buttons on man's cuff; 5.Leg missing on stool; 6.Apron string longer; 7.Mans tie stripes darker; 8.Woman wearing an earing; 9.Woman's hair curls different; 10.Crease on ladies apron more prominent.

Farm Questionnaire
Falkland Islands 1993

Name or ID of dog under investigation: Age:
Sex:

Name and address of property:

1. How long has farmer/owner been on the property:

2. Were any sheep bought in:

3. From where:

Size of farm

Do other farmers/dogs pass through: Yes/No

General state of property: Very tidy/Average/Untidy

How many sheep on the farm:

Dogs on the property

Number of dogs: Working: Retired:

Who does dosing:

How long has dog been on the farm:

Has dog been on other farms:

What happens if owner away gathering/town at dog dosing:

History of E.g./T.H infection:

Home killing

Who does it:

How many sheep a week/month/year:

Where is the killing done:

Is the site dog-proof:

Drain/sump present:

Offal disposal:

Dog Feeding

Who usually feeds dogs:

How often are dogs fed:

Source of dog food:

Dog Control

Any untreated dogs/pups:

Latest new dog arrival on the farm:

Dog housing:

Dogs tied up when not in use:

Loose at time of visit:

Stray dogs: Yes/No

Hydatid knowledge

Has owner ever seen hydatid cyst:

Has owner ever seen bladder cyst:

What does owner know about life cycle of E.g.:

Mass killings Yes/No

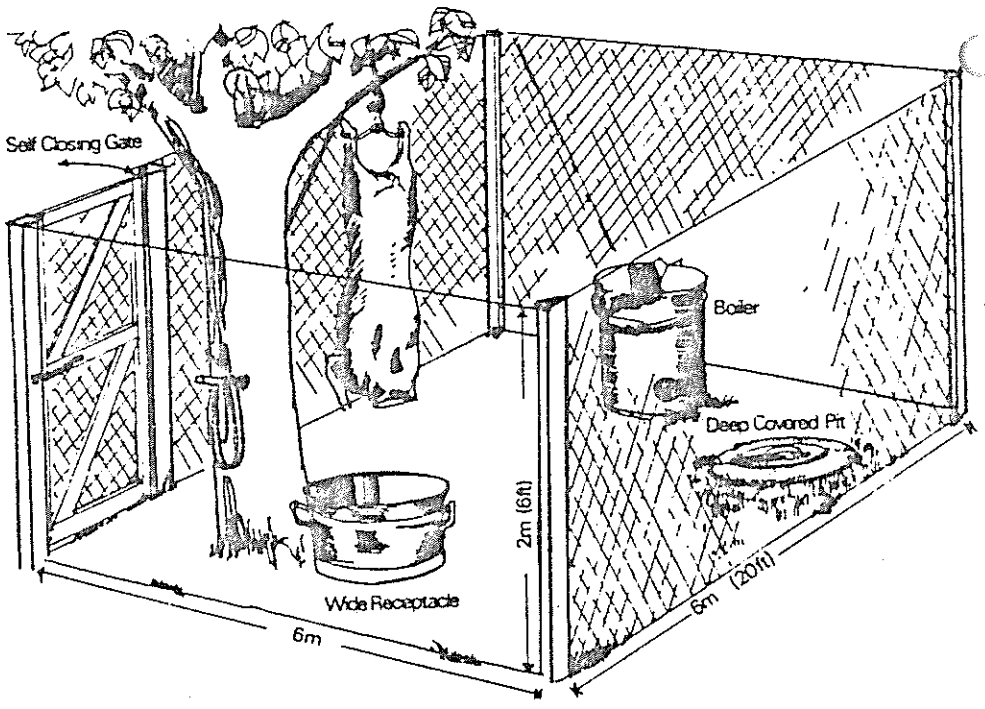
When:

How far from the settlement: Offal disposal:

Additional notes:

An example of a "Dog Proof" killing Enclosure.

The tree would be your plinky.



WOOL PRESS

retail price: £1.00

ISSUE 45 AUGUST 1993

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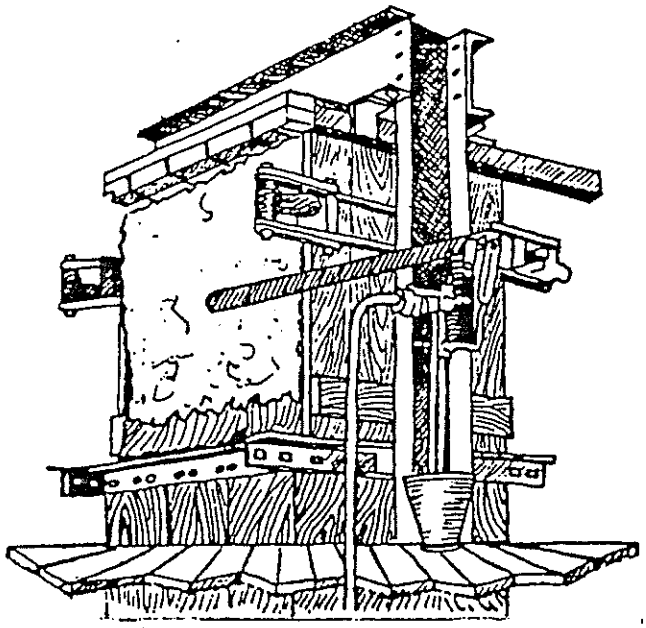
GRASS SICKNESS
an article sent in by N.Watson

CHOOSING HAND SHEARS
&
KEEPING YOUR HOUSE WARM WITH WOOL
by M.McLeod

PLUS ALL THE REGULAR FEATURES



The Wool Press is published by the Department of Agriculture
Editors : M.J. Mcleod and R.H.B. Hall.

EDITORIAL

Last month saw the departure of Micheal and Kristin from the Islands. Micheal had completed his two year contract as veterinary officer and having done two stints as locum for previous vets, has moved on to sunnier shores.

Micheal's departure has seen the arrival of a new vet. Ian Saunders has settled in well and will be joined by his family later in the year. Most of you will no doubt get to meet him over the next couple of months. Look out for his introduction in this issue.

We are now entering the period where the nights get shorter, the days get longer and the weather gets warmer. Two out of three isn't bad I suppose!!

Finally, thanks to the many people now contributing articles for the Woolpress, your contributions are always welcome, long may it continue!!

"Take the clay track to the double gates ... don't go through the left one , that's the winter track ... go through the one on the right ... follow the new grass track over the first hill ... branch of to the right at long pond ... go through the dried out ponds ... take the rocky track through the stone run ... go up over the hill ... down through the pass ... through the gate on top of the ridge and it's in the next valley. DEAD EASY TO FIND!!!"

MILL PROCESSES FIRST FALKLAND CASHMERE FALKLAND WOOL BLEND

In May, taking advantage of the visit of Philip Schofield, the Falkland Mill's technical advisor, it was decided to process the first Falkland Cashmere crop from Pebble Island at the Falkland Mill.

The total crop of around 30kgs of cashmere wool and hair was shipped to Johnsons of Elgin for dehairing. Initially it would appear disappointing that the returned cashmere weighed only 3.7kgs. However, it must be remembered that not all the goats actually produced any cashmere and only produced hair.

If only the cashmere producing fleeces were shipped for processing the actual yield may well have been considerably better. It would also be expected that the yield would improve with selective breeding.

Because the Mill Machinery is naturally set up for wool processing and because of the small amount of cashmere available it was decided to process a blend of 20% Falkland Cashmere (all colours) and 80% Falkland Polwarth.

The result is a very interesting and attractive yarn, although not of the usual beautiful white colour that we have become accustomed to with the pure Falkland Wool. The yarn was knitted up into swatches and garments which amply demonstrate the possibilities of a similar blend as a specialist commercial product.

There were certain problems experienced in the processing which would indicate that the Falkland Mill processing system may not be ideal for processing such a blend.

The first is simply the fact that Falkland wool fibres are actually very strong and do not break during processing whereas the cashmere is naturally rather tender and therefore tends to break in processing. This gives an imbalance in the length of fibres in any cross section which causes difficulty in fibre control during drafting and results in too many breaks during spinning. This problem could certainly be overcome under a different processing system.

The second problem was that due to the small amount of fibre available, it was not possible to try many machinery adjustments during processing in order to obtain the optimum settings for the type of fibre to be processed. If there was sufficient material available it may well turn out that processing could be improved considerably.

The sample knitting of the resulting yarn proved to be no problem what so ever and well within the capabilities of the various local knitting businesses. A Falkland Cashmere/Falkland Wool blend could well prove to be a viable product as long as the specialist market - which this type of product needs - can be found. There is no doubt at all that the beautiful handle of the knitted samples and the unusual source of the product could well attract interest in the right circles.

RICHARD COCKWELL
AUGUST 1993

1993 WOOL SALES
D.S. & Co. (Falkland Farming) Ltd.
Total Shipments

D.S. & Co. (Falkland Farming) Ltd	TOTALS	KG GREASY	KG CLEAN
Invoices/Contracts	123	15,465	10,142
Date	1993		
Bales	7,256		
Average Bales/Contract	59		
Average Bale Weight	264	262	172
Gross Kilos	1,917,492		
Estimated Wool Clip	2,500,000	«Estimated»	1,631,440
Percent Of FI Wool Clip	76.70%		
Tare (Base ≡ 2 Kilos/Bale)	15,357		
Percent Of Gross Weight	.80%		
Net Kilos	1,902,135		
Yield	65.58%		
Clean Kilos	1,247,450		
Average Clean Price	£1.94	Contracts »	£1.9485
Highest Price	£3.02		
Lowest Price	£1.07		
Weighted Average Micron	28.31		
Highest Micron	32.40		
Lowest Micron	22.50		
Exported	122,816	£1.3870	£2.0904
Percent Exported From UK	6.41%	£.0708	£.0510
Invoice Amount	£2,814,793.89		
Value Added Tax	£393,853.21	/KG GREASY	/KG CLEAN
GROSS SALES	£2,420,940.68	£1.27	£1.94
Adjusted Payments (Averaging)	£-13,793.40	(£.0073)	(£.0111)
Interest On VAT	£31,745.71	£.0167	£.0254
Commission @ 1.90%	£45,703.29	£.0240	£.0366
Lotting @ £25 Per Lot	£2,905.00	£.0015	£.0023
Wool Testing Services Int.	£45,581.88	£.0240	£.0365
Insurance For Shipments	£6,831.79	£.0036	£.0055
Certificates @ £15 Per Lot	£1,800.00	£.0009	£.0014
Warehousing	£44,855.01	£.0236	£.0360
Freight To Buyer	£8,690.11	£.0046	£.0070
Other Costs (i.e. Bank)	£6,964.92	£.0037	£.0056
Penalties (i.e. Late Delivery)	£.00	£.0000	£.0000
TOTAL DEDUCTIONS	£195,077.68	£.1026	£.1564
Percent Of Gross	8.06%		
NET PAYABLE TO FARM PRINCIPALS	£2,212,093.19	£1.16	£1.77
Freight Farm/UK *	£218,963.46	£.1151	£.1755
Other Deductions **	£101,361.24	£.0533	£.0813
TRANSFERRED TO BANK ACCOUNTS	£1,891,768.49	£.9946	£1.5165

* Freight Deductions to Date (FIC, HR, & Byron Marine)
Excludes Freight Paid Direct by the Farm

** Includes Repayment of Advances, Principal, Interest, Purchases on behalf of Farms, & Adjustments

1992/93 SALES CONTRACTS	(Approximately 1,533,554 Kilos	94.00% of Clip)	
Clean Weight Contracted to Date			
Gross Value	£2,988,060.80	£1.2778	£1.9485
Estimated Payment To Farms	2,747,284.98	£1.1749	£1.7914
Estimated Freight Farm/UK	491,062.46	£.2100	£.3202
Receipts Net of Freight	2,256,222.53	£.9649	£1.4712
Price Range Per Kilo Clean	£1.21 - £2.50		

"QUALITY WOOL FROM SOUTH AFRICA"

The South African wool industry is changing, however as in the Falklands, quality assurance is considered vital.

South Africa is a large wool producer and more importantly a large wool exporter. "The past few months were probably the most turbulent and difficult in many years for the South African wool industry: Wool prices fell to an all time low with auction demand far from satisfactory. As a result of the upheavals, the South African Wool Board (SAWB) is to give up the single-channel pool marketing scheme which has operated for two decades, and wool growers will be free to sell their wool to anyone at any price."

"Farmers income decreased to dangerously low levels, forcing many to slaughter part of their breeding stock to generate cash flow. South African wool production is down 10% on last season, which in itself was 23% down on the previous season. Total production for the 1992/93 season came to 69.5 million kg. the lowest since 1922". "The SAWB will continue to promote South African wool both nationally and internationally for the benefit of all South African producers. The SAWB and its remaining functions will be restructured, with greater emphasis on the development and promotion of production and markets for wool, so that the expected opportunities for increased demand in the mid-90's can be exploited for the benefit of the producer and the country as a whole."

"Production development and research will be conducted in close co-operation with the Department of Agriculture, co-operatives and other role players. Quality assurance will include the administration of the Woolmark and Woolblend mark, supervision of the preparation and baling of wool, classing and the prevention of contamination. "Our extension and field services will be undertaken with emphasis heavily on improving the general quality of the clip and the elimination of every vestige of contamination."

In short, wool producers are suffering world wide, however, wool quality assurance is not being compromised. Wool quality improvements MUST continue in the Falklands.

R.H.B. HALL
AUGUST 1993

..AND WHILE ON THE SUBJECT OF QUALITY....

...I quote the following paragraph from a fax sent to the department by D.S.& Co (Falkland Farming) Ltd.

PACKING
Ron and Iris Dickson at Kingsford Valley have the best packed bales this season. Good capless polyethelene packs, well presented and marked, a credit to the Falklands.

Other well packed and presented farm bales are Stoney Ridge, Port Edgar, Blue Beach, Greenfield and Bombilla.

POLYURETHANE BUSHES

Many people will have experienced the frustration of (expensive) bonded rubber / steel suspension bushes fitted to their leaf and coil spring Land Rovers, and particularly the front ones on coilers "dying" prematurely.

Much of the frustration comes from the fact that some are not a five minute job to replace, and those people who have tools such as the "Bushwacker" will know what an improvement it is on improvised bolts, washers and spacers, since the thread pitch enables a lot of power to be put into thrust, and the correctly sized tubes put the support where it is needed, and you will run out of breath before you strip the bolt or nut.

Polyurethane bushes are not a new innovation - the Aussies have been making them for their Range Rovers for years (available from Bearmach in the UK). These have their own peculiarities which make them differ from two other makes which one must weigh up, as have the ones available from R.K. Automotive, which are essentially made of nylon not polyurethane. The claim of the long life of the latter ones stems from the fact that they cut suspension travel on coil sprung vehicles by 40 % (which they do not tell you) and apparently have the effect of making your 5 door County feel like a clapped out Series 3. A set of these have been tried out here in the Islands and were not exactly popular !

The latest concept, from R.H. Engineering in Wales, is a two piece poly bush with side-thrust pads as part of the moulding, which are pushed into the radius arms etc by hand and a centre tube is pulled in with a simple bolt and spacer to expand the bush into place. Two vehicles have now had these bushes fitted locally with excellent results, one on the East and one on the West, and I know of one further kit going to the West and 5 on to the East. They DO NOT restrict axle travel at all, but offer excellent lateral support which decreases vehicle roll.

The price of a set compares favourably with that of genuine parts, which is pretty good because if they lasted twice as long you'd be f's up; they are reputed to last 4-5 times as long. Factory approval is being sought, 2 sets are on rig test & 2 sets are in vehicles now being tested in the South of France.

NICK PITALUGA, SALVADOR.
AUGUST 1993

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DRONCIT & DRONTAL PRICE REVIEW

New stock just in has gone up in price.

DRONCIT NOW £15.00 PER BOX OF 50

DRONTAL NOW £7.60 PER BOX OF 20

* * * * * * * *

MODIFIED CLOVER COULD CREATE SUPER SHEEP

Australian sheep may soon be growing more wool with the help of a gene from sunflowers. This would allow the same amount of wool to be produced from fewer sheep, and therefore reduce the soil erosion caused by these animal.

Tom Higgins and his team at the CSIRO's division of plant industry in Canberra inserted the sunflower gene into subterranean clover, the legume base of Australian pastures. The gene, which in sunflower seeds makes a protein with a high proportion of sulphur amino acids, creates sulphur-rich clover. The proteins of wool are rich in sulphur amino acids, which stabilise the structure of proteins, and sheep are known to produce more wool when supplied with large amount of these amino acids.

Sulphur-rich proteins have to pass untouched through a sheep's rumen in order to be nutritious, Higgins told the 17th International Grassland Congress held in Palmerston North, New Zealand. Microorganisms in the rumen normally break down plant material, but Higgins group searched for a protein that was resistant to microbial attack. They found what they wanted in sunflower seeds.

Before they transferred the gene for the sunflower protein into clover, the researchers ensured that it would be active in the leaves of the clover, not in the seed. They did this by inserting a "switch" from genes which are associated with photosynthesis and are active only in the leaves and stems of plants.

Subterranean clover containing the sunflower gene and the switch began to produce sulphur-rich protein, but it was broken down quickly within the leaf cells. The sunflower gene was modified further, this time inserting a control sequence from yeast, which directed the protein product to be stored where it was safe from destructive enzymes.

In this way, the group increased the levels of sulphur-rich protein in clover leaves by 100 times. "We've demonstrated that the system works," says Higgins, "..but to have a significant impact on wool production - an increase in wool growth of about 5 to 10 per cent - we need to boost the level of sulphur-rich protein by another ten-fold." The group is testing gene promoters which could achieve this. Higgins hopes the Australian authorities will clear the genetically modified clover for field trials in the near future. If everything goes smoothly, seed of new high-sulphur varieties of clover could be available by the end of the century.

Gene transfer systems for lucerne and peas has also been developed and these can now be used to improve the legumes in other ways, like resistance to viral diseases. The group is working with seed companies, plant breeders and the state departments of agriculture. They work on projects were it is difficult to find answers using conventional plant breeding techniques."

NEW SCIENTIST
APRIL 1993

WHAT THE CONSUMER EXPECTS FROM WOOL

To find out what consumers will want from their apparel, the International Wool Secretariat has carried out detailed research covering 10,500 consumers in major markets. Over 80 key wool processors and 38 top retailers worldwide also contributed their views on giving wool a new "product-edge".

The research clearly showed that consumers of the future are no longer interested in frivolous purchases of over-priced clothing. They want clothing which is informal, lightweight and soft. They are looking for comfort and not conformity in clothing; and they want to wear a natural product. The IWS believes that wool can meet these challenges. Consumers in both developed and developing markets strongly associate wool garments with quality, style and prestige. This positive image is based on wool's unique properties and strong promotion through Woolmark, while wool's naturalness and high quality are closely in line with the direction consumer demand is taking in the 1990s.

However, consumers also see wool as traditional compared with new synthetic fibres. Younger consumers are less aware of wool's unique benefits, such as the comfort of wearing soft fine and lightweight wool garments, and they are unaware of wool's versatility.

Wool's image and product offer must therefore be shifted from its traditional formal and expensive positioning. The IWS has identified five priorities for moving wool forward as the 1990s progress.

* Wool apparel must meet growing consumer demand for improved comfort. Lightweight wool fabric which can be worn all year round were very positive in all developed markers.

* Wool must respond to the dress codes particularly among younger consumers by becoming softer and more relaxed in styling.

* Wool garments must offer improved practicality in terms of better machine washability, crease resistance, soil resistance and easy iron.

* Quality wool garments must be sold at reasonable prices which offer good value for money.

* Wool must be heavily advertised, stressing its natural fibre benefits, and the premium quality of the Woolmark, especially to consumers aged under 35.

Consumers have more positive than negative perceptions of wool. They need a clear message: WOOL IS THE BEST FIBRE.

WOOL RECORD
JUNE 1993 EDITION

CHOOSING HAND SHEARS

Hand shears are no longer used fully for their intended purpose these days with motor shears having been around for many years now. (Did I hear someone say "Thank Goodness"). There are however still some jobs that they are used for around the farm, and I wonder how many have their hand shears in good condition to make the task easier, or do you struggle on with those rusty old blades regardless? Or were they rubbish when you bought them. Here are a few tips on choosing hand shears.

* Make sure they are double hollow ground - i.e. a full hollow grind across the inside face plus a 3/8" to 1/2" hollow grind on both outer faces. This is essential in keeping a sharp edge.

* The tips should meet when closed - important as an indicator of cutting performance along the full length of the blade and, particularly, at the tips.

* They must have a rolled bow. You can tell this by inspection - the thickness of the steel of the bow should be thinner than the shanks, indicating that it has been through a rolling mill, which gives an easier action and increases the strength of the bow.

* Listen to the shears. They should sing rather than grate when closed, indicating a good edge and that they have been set properly.

* Blade and shank (handles) should be of one piece forging and not rivetted.

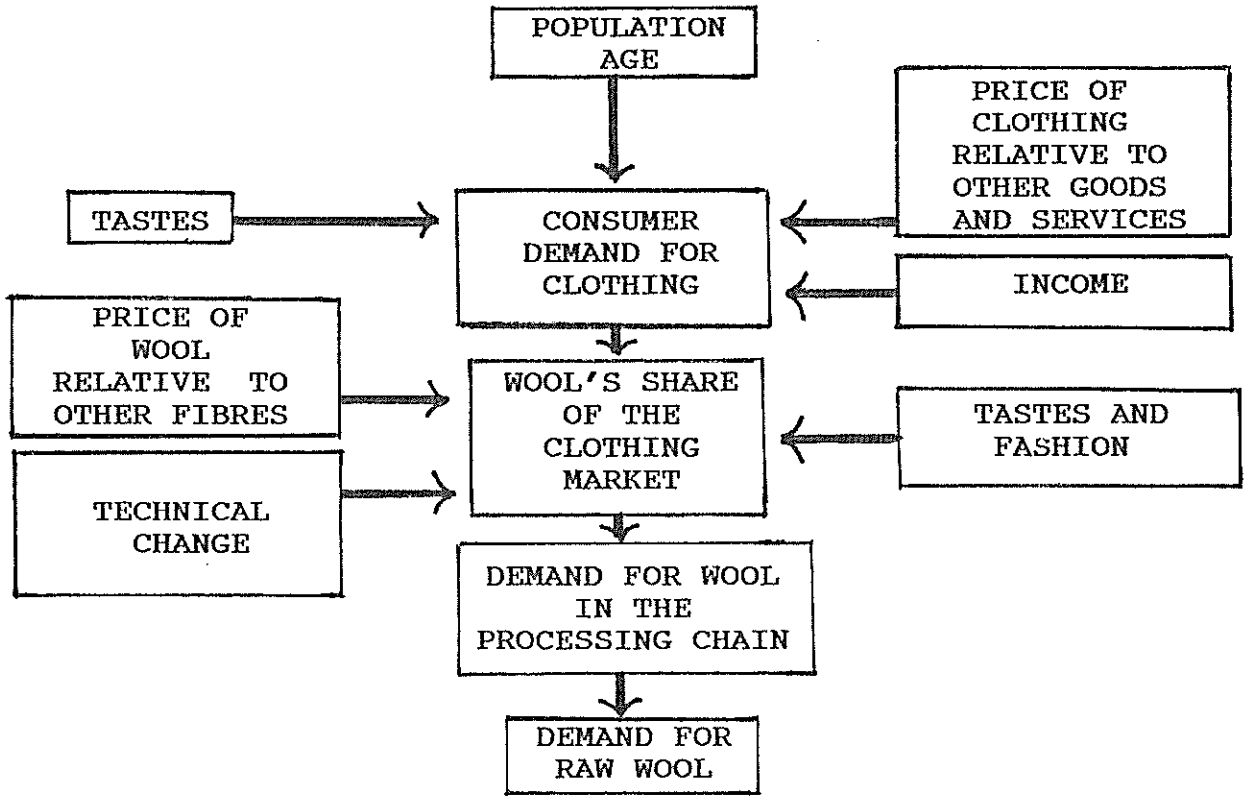
* The shanks should be forged. An indication of this are remnants of scale on their inside.

* The ground edge should be hardened and tempered to a precise hardness (56 - 58 Rockwell). This is vital for edge retention but difficult for the purchaser to check. An indication is the sweetness of the sound as the blades meet and ability to cut wool. Unfortunately, by setting blades to cut into each other - rather than just touch - it is possible to make a poor shear cut for short periods.

TIPS TAKEN FROM 'THE SHEEP FARMER'
MAY 1993

HOW DEMOGRAPHICS AFFECT WOOL

FROM CLOTHING TO RAW WOOL DEMAND



Before raw wool reaches the consumer it goes through many processes and is handled by many groups or individuals. At each of these steps in the processing chain, the demand for wool depends on subsequent demand for wool products. Ultimately, however, the consumer of the woollen-based product is the group which determines the demand for raw wool. With the majority of wool being consumed as clothing, it is the factors that affect the demand for clothing which influence the demand for wool down the processing chain.

Clothing demand is specifically influenced by:

- population
- tastes
- income, and
- price of clothing relative to other goods and services.

The influence of population, tastes and income is age specific. For example, the tastes of an adolescent are different from those of a middle-aged person, and so their demand for clothing is different. Changes in these demographic factors have a major impact on future clothing demand. Wool is only one of many fibres that can be used in clothing. The price of wool relative to other fibres, technical change and fashion determine woollen clothing's share of the clothing market. Wool's share of the clothing market, in turn, determines the demand for cloth containing wool which in turn determines the share of wool yarn and so on until we end up with the raw material - raw unprocessed wool.

RURAL TIMES (AUSTRALIAN FARM JOURNAL) FEB 1993.

GRASS SICKNESS

This article was extracted from the "Weekend Telegraph" dated 03.07.93. It was sent in by Neil Watson and will be of interest to farmers who have either experienced "Grass sickness" in their horses or just have a general interest in learning more about the subject.

"A killer stalking in the grass"

Minnie was the family's favourite pony. Twelve years old and with a wonderful nature, she was the ideal pet for John and Alison Wrangham's three children. Eearly last month Minnie went off her food and looked to be in some discomfort. "Grass sickness" was diagnosed and within four days Minnie was put down. Two hundred miles north of the Weanghmas' farm in Northumberland, Fraser, an eight-year-old pony at the Hill of Cot-town Stud near Aberdeen, fell one morning in May when his back legs went from under him during riding lessons. The stable owners knew something was seriously wrong. Once again grass sickness, which damages the nerve supply to the gut, was diagnosed and they decided to put the animal down. Then an offer of help came from the Royal (Dick) School of Veterinary Studies at Edinburgh University and Fraser went there immediately. After four weeks' treatment at the "Dick Vet" as it is known, he returned home. He is now improving. Sadly, Fraser's recovery is not typical. An estimated 400 horses, ponies and donkeys will this year die from grass sickness, so called because it mainly affects animals that are grazing.

The symptoms include depression, difficulty in swallowing, muscle tremor, patchy sweating, abdominal pain and weight loss. Sometimes grass sickness can be confused with colic and occasionally with laminitis, inflammation of the horse's foot, which can make horses go off their food, sweat and tremble with the pain. The Dick Vet team has seen a gradual increase in referrals over the past 5 to 10 years, but this is attributed to greater awareness of grass sickness rather than to an increase in the number of actual cases. So far this year it has seen some 30 cases: only two have survived. What makes the picture even gloomier is that equine vets are still puzzled by the disease, even though it was first reported more than 80 years ago. A new three-year study may provide some answers. It has begun in the past few weeks as a joint venture between Britain and Argentina, where a disease known as mal seco has striking similarities to grass sickness.

The study, funded by an EC grant of £120,000, will look at all aspects of the two diseases including nutrition and weather patterns. The centres involved are the Dick Vet and the Moredun Research Institute in Edinburgh, which investigates animal diseases, and the National Institute of Agricultural Technology in Bariloche, southern Argentina. An Argentinean vet has just spent six weeks studying grass sickness in Scotland; in the autumn, Marie Woodman, of the equine medicine department at the Dick Vet, will spend eight weeks in Argentina.

One of the prime suspects for grass sickness is a toxin in the grass, so a specialist in toxins produced by fungi will also visit Argentina later this year. Dr Elspeth Milne, senior lecturer in equine medicine at the Dick Vet, says "We think that a microscopic fungus on the grass tends to produce a toxin when

it's cold and dry, but we don't know what type of fungus it is. "She believes that the introduction of new species of pasture grass early this century may have resulted in first reports of the disease coming through in 1909.

Grass sickness is most common in Scotland and the north of England, especially on the eastern side. The frequency of cold, dry spells in this region may be part of the explanation. The peak time is spring and early summer, after the flush of spring grass. A relatively wet May this year could slightly reduce the incidence of the disease. Other factors that play a part in grass sickness might include stress in horses associated with foaling, worming, castration or a move from one pasture to another. Any kind of pasture can be affected and horses between two and seven are particularly susceptible. There have been a few cases where stabled horses have contracted the disease, buy there is no evidence that it is contagious. Whatever the cause, the effect is devastating. Grass sickness destroys the nerve tissue in the alimentary tract, leading to paralysis of the gut. Material then often builds up in the stomach, resulting in distension.

Professor Barry Edwards of Liverpool University's Veterinary School, the largest referral equine hospital in the country, recalls having once taken eight gallons of fluid from a young shire horse.

At the Dick Vet they see more cases than any other institution in Britain. This year's total so far is slightly down; by this time last year they had recorded 35. Only the chronic cases have any realistic chance of survival, but no horse is turned away. "First of all we try to get them to start eating again, offering them anything - apples, pears, oranges, carrots, treacle, bran and bread," says Marie Woodman. "Then it's just tender loving care." A young Dutch woman feeds the horses four times a day, exercises them and keeps them company.

Suitable cases are also given a week's course of Cisapride, a tablet designed to "kick-start" the horse, as Milne puts it. "This is the third year of our trial with Cisapride and we know that it does increase gut activity in chronic cases, " she adds. But horses do have to be eating something and passing dung before they can qualify, so Cisapride is seen as an aid to recovery, not a cure.

The success rate on those deemed "suitable" last year was 65%, it is still too early for this year's results. The Dick Vet says that if there are several days of cold, dry weather, with daily temperatures between 7° C and 11° C, horses should be taken inside, or given added hay or concentrates to reduce their intake of grass. Ideally, a pasture on which an animal has suffered grass sickness should not be used again, provided the horse can be moved without stress.

The advice the researchers can give is limited, and will remain so until they discover more about the causes of the disease. Meanwhile, they know they will have to break bad news to many more horse-owners.

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KEEPING YOUR HOUSE WARM WITH WOOL

With the wool market in its depressed state I am always on the lookout for information and ideas as to the various uses for wool. Having built a house to the required insulation specifications, I found this article in the March 1993 edition of SA MERINO FIELD DAYS of interest.

Wool has become very popular in Australia in recent years for the insulation of buildings, although the idea is certainly not new. Wool has been used in house insulation for many generations in Europe, especially in Switzerland. Dr Ian Russell, CSIRO Division of Wool Technology, Geelong Laboratory, reports that wool insulation installed in Australian houses more than 10 years ago was reported to be "as good as new".

The new interest appears to have several influences.

1. Consumers and unions are seeking natural insulating materials and are moving away from the use of glass fibre and rock wool products.

2. Some consumers feel they can help to reduce the Australian wool stockpile.

3. Cheap wool fibre from sheepskin off cuts became available. Since then the trade has used fibre from several sources, including processing waste and low grade scoured wool.

House owners, builders, farmers, entrepreneurs, scouring mills and house insulation companies previously installing other products have all shown an interest in wool insulation.

The CSIRO Division of Wool Technology has been evaluating the thermal insulating properties of wool for several years. In particular it has looked at ways in which wool can be used to give warmth without weight such as the CSIRO developed woolrich quilt.

The short and long of it is that wool, not surprisingly, appears ideal as an insulating material. The insulation properties of wool are dependent on the depth and density of the insulation, with a layer of wool 110 mm thick having similar insulating properties to other materials used at the same thickness.

Wool is not subject to natural deterioration provided it is dry and protected from sunlight and from attack by clothes moths and carpet beetles. If the wool is treated with appropriate protective products, the wool insulation should last the lifetime of the house. Wool that has been specially scoured and treated for use in insulation will soon be recognisable by the Woolmark quality label.

Wool can be used for insulation in two forms, as loose fibre or as a batt. There are at least 20 companies in Australia installing loose wool fibre in house roofs for insulation. Sheepskin off cuts are commonly used and can be recognised by the presence of small leather fragments. Unfortunately, because of cost, the use of wool for insulation will probably do little for the Australian stockpile of high grade fibre. Clean wool insulation may use lower grade wool such as bellies, skirtings, coloured locks, or short fibre processing waste such as noil. Consumers should be wary of the use of dyed and reclaimed products, as it is difficult to ensure that reclaimed fibre will be 100 per cent wool and the fire safety of other natural and synthetic textile fibres is invariably inferior to wool. Several business groups are manufacturing wool batts for insulation and the batts will soon be available for commercial and domestic use.

A manufactured wool batt uses less wool than the chopped, blown fibre used in many current house treatments, which reduces raw fibre costs and weight for a given insulation factor.

Batt manufacturers are also interested in the possibility of developing export markets. Because wool is a natural biological product, it is important that it is treated to resist attack by clothes moths and carpet beetles. Although wool-digesting insects are killed at temperatures above 50°C, tests have shown that clothes moths can survive by burrowing to the bottom of wool insulation. Treatment to prevent insect attack is especially important in air-conditioned buildings.

CSIRO research has identified safe treatments to prevent insects breeding; these can be applied to the wool before installation, during wool scouring, or by spraying. Wool is resistant to wetting, but if wool is wet from a leaking roof, water will run through the insulation and the wool will take on a limited amount of additional surface water and weight. And while wool possesses good resistance to rotting and development of mildew, it can be eventually damaged if it stays wet for prolonged periods.

Rats and mice cannot digest clean wool and obtain no nourishment from it. While they would find wool a most attractive material for nest building, they also build nests in fibre glass insulation. Wool is naturally fire resistant and test results indicate wool insulation has a fire performance rating better than other natural insulating materials, but not as good as glass or mineral fibre.

MANDY McLEOD
JULY 1993

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I found this 'snippet' on the Editorial desk!

"GOD ONLY CREATED WOMEN
BECAUSE SHEEP CAN'T COOK"

Any replies from the 'cooks' are welcome and will be printed (providing they are clean and printable).

NEW VET

I appear in the veterinary surgeons' register as John Saunders but am known as Ian. This is a Scottish Custom whereby a person is called the Gaelic version of his/her christened name which even happens when the family can't speak Gaelic. However I always sign official documents as John Saunders.

I spent most of my childhood and nearly all my schooling took place in Lockerbie which most people hadn't heard of prior to Christmas 1988. I went to Glasgow University Veterinary College. My first job after qualifying was in Croftamie, a small village near the southern end of Loch Lomond. After approximately three years there I moved to Barnsley in South Yorkshire where I was in a large mixed practice for thirteen years. Before coming to the Falklands I was in charge of Meat Hygiene at probably the largest cattle abattoir in Western Europe, obviously E.E.C. approved with an annual throughput of approximately 160,000 cattle, 50% of which were cast cows.

I have had experience of all types of animals/livestock and class myself as a general allrounder. I have no definite preference and find all sorts of patients interesting. My knowledge of E.E.C. meat hygiene legislation and the "meat trade" may be useful if the proposals to build a new abattoir come to fruition.

I at present have a four year old daughter "Sophie", and a two year old son "Alexander". My wife "Liz" is pregnant and having the baby in the U.K. on medical advice in mid September. I am hoping that the family will join me by early November at the latest.

I look forward to meeting you all and will see most people in Camp at some time in the future.

IAN SAUNDERS
AUGUST 1993

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* * * FOR SALE * * *

ENGLISH GENERAL PURPOSE SADDLE

WITH CINCH

£175.00

Contact Susie on 41008

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NEW PRODUCT

'FLY RESCUE'

The shearing shed is claimed to be one area where a new fly control system from America could find a niche.

The Rescue Fly Control Trap contains an attractant, not a pesticide. Flies of many species are lured into a non-escape plastic bag full of water where they drown. The trap comes complete with attractant so you just add the water and hang it up. One trap is claimed to capture 15,000 - 20,000 flies.

When it is full you close the cap and put it out with the rubbish. Avoids sticky tapes and electrocuted bodies. It is also handy around dog kennels, sheep yards, stables, poultry sheds and rubbish areas.

The current price is £5.95 for 1 - 4 units, or £4.95 for order of 5 or over. Available direct from STV International, 9 Ajax House, Old Bethnal Green Road, London E2 6QY.

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NOT A HAPPY THOUGHT

According to figures from THE SAMARITANS in U.K. farmers are twice as likely to commit suicide than the average member of the public. Amongst farmers aged 15 - 45 years, suicide is now the second most common form of death. Out of 160 occupational categories, farmers have the second highest suicide rate. (They don't state the occupation of the highest).

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RECIPE

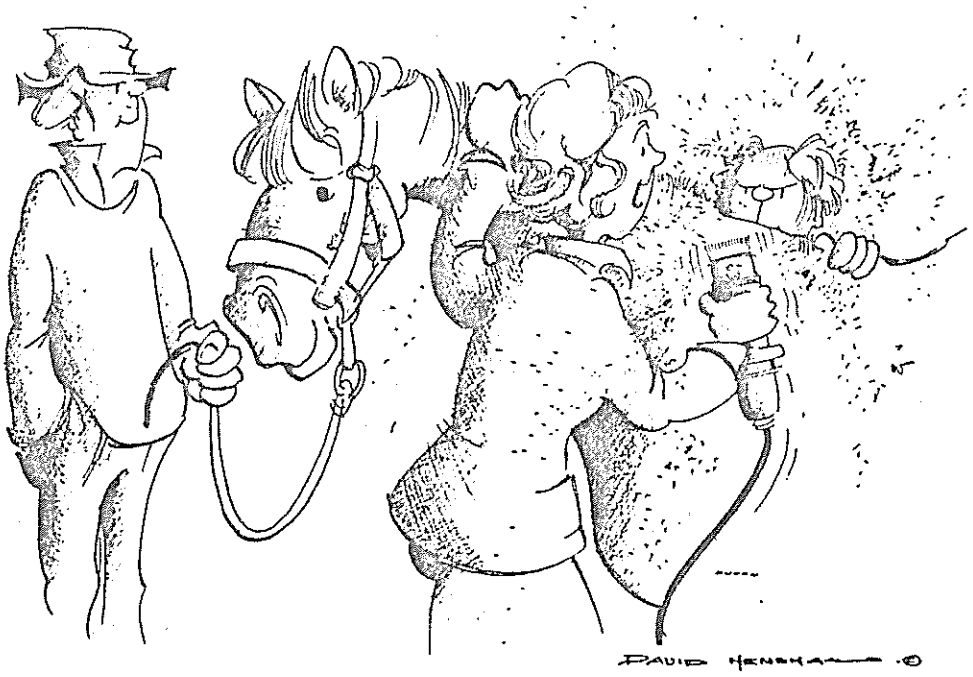
BARLEY SUGAR

1 lb sugar (castor preferably)
½ pint water
A pinch of cream of tartar
6 drops of lemon essence

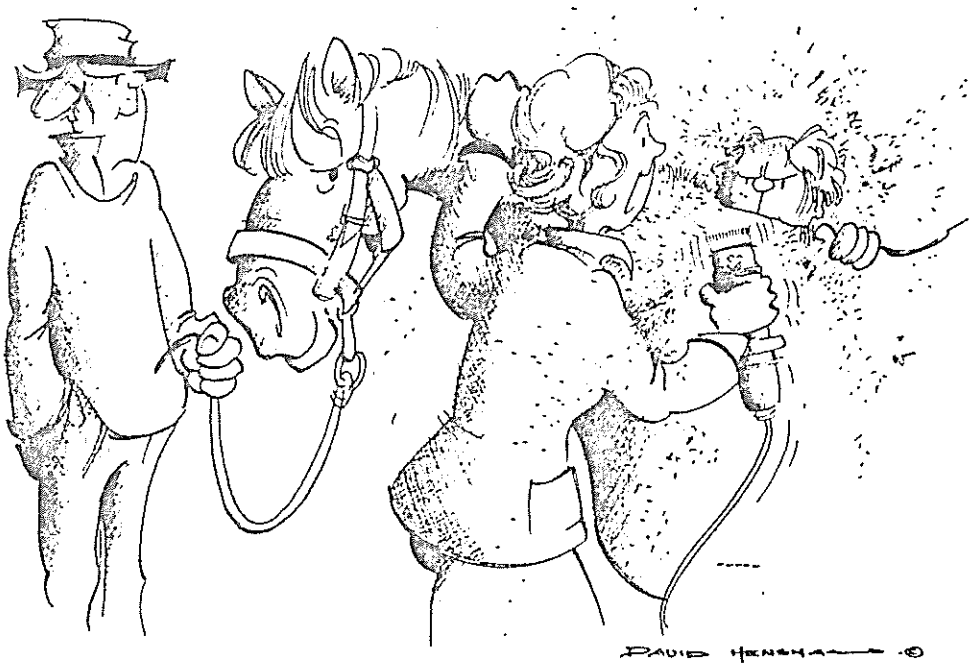
Lightly oil a working surface, preferably marble or enamel, although plastic laminate (formica) is satisfactory. Put the sugar, water and cream of tartar in a large heavy-based saucepan. Heat until sugar has dissolved and then boil to 155 C / 315 F or until the syrup has turned a pale amber colour. Add the lemon essence. Pour the mixture onto the oiled surface and leave to cool a little. Fold the sides to the middle and cut into strips with scissors and twist slightly. Note: To avoid recrystallisation of the syrup avoid the heat coming up the sides of the pan (i.e by having the flames too high if you use gas). Do not stir once the syrup is boiling.

Store barley sugar in an air tight tin or jars as these sweets go sticky very quickly when exposed to air.

SPOT THE DIFFERENCE



"Look on the bright side . . . I coulda been clipping his belly!"



"Look on the bright side . . . I coulda been clipping his belly!"

LAST MONTH'S DIFFERENCES

1.Top picture cup has no saucer; 2.Bottom picture has a tree missing; 3.Bottom picture middle man is holding a cup; 4.Top picture middle man has bow on shoe; 5.Dog in bottom picture has no nose; 6. Middle chair leg black in top picture; 7.Movement marks by left man, top picture have disappeared; 8.Right man in top picture has a finger; 9.Girl has no mouth in bottom picture; 10. Top picture right man has full neck on his shirt.

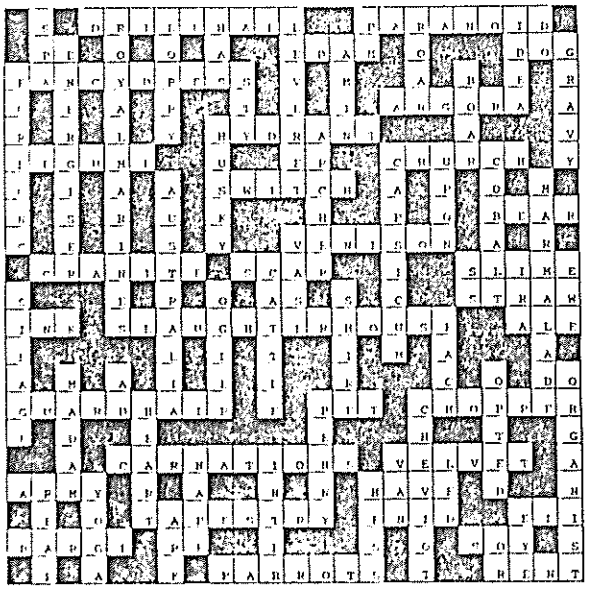
AUGUST

ACROSS

4. OLD, RURAL
10. SCIENTIFIC STUDY OF ALL ANIMALS
11. ABOVE
13. KNOCK OUT
14. MENS HAIRDRESSER
15. FRAGMENT OF A METEOR
18. BROWNISH GREY COLOUR (HORSES)
19. SHARP TAPERED END
20. NONFUNCTIONAL TOES ON DOGS
23. BLIZZARDS SHOE SHOP
24. GOLF BALL REST
25. CHEESY SOMERSET VILLAGE
30. PROFESSIONAL
31. OPEN VALLEYS (YORKSHIRE ESP.)
32. UNTAME
35. REAR, AS IN MEAT
37. FEMALE SWAN
38. METAL USED EXTENSIVELY IN ALLOYS
39. WARM WATERPROOF ESKIMO JACKET
40. SODDEN
41. AS A DOG DOES ITS TAIL
42. TRADITIONALLY EATEN WITH BEEF
45. MAKES A GREAT HOT TODDY
48. TEAM LEADER OR CAPTAIN
52. PROTEIN ACID
53. SPECIFIED FOOD
56. NOSTRIL AREA OF BEAK
57. TOOTHED CUTTING TOOL
59. ENTERTAIN GUESTS
60. SHOOTING IMPLEMENT
61. PECULIAR
64. THE SCIENCE OF INSECTS
66. PLIERS OR SMALL CHILDREN
67. GARFUNKELS NAME
68. AREA SET ASIDE FOR CONSERVATION
69. ELECTRICALLY CHARGED ATOM
71. SLEEPING PLACE
72. UPPER BODY GARMENT
73. STRUCTURE YOUR HEAD SITS ON
74. FLUID FILLED SAC OF HYDATID
75. BROWN COATED ERMINE

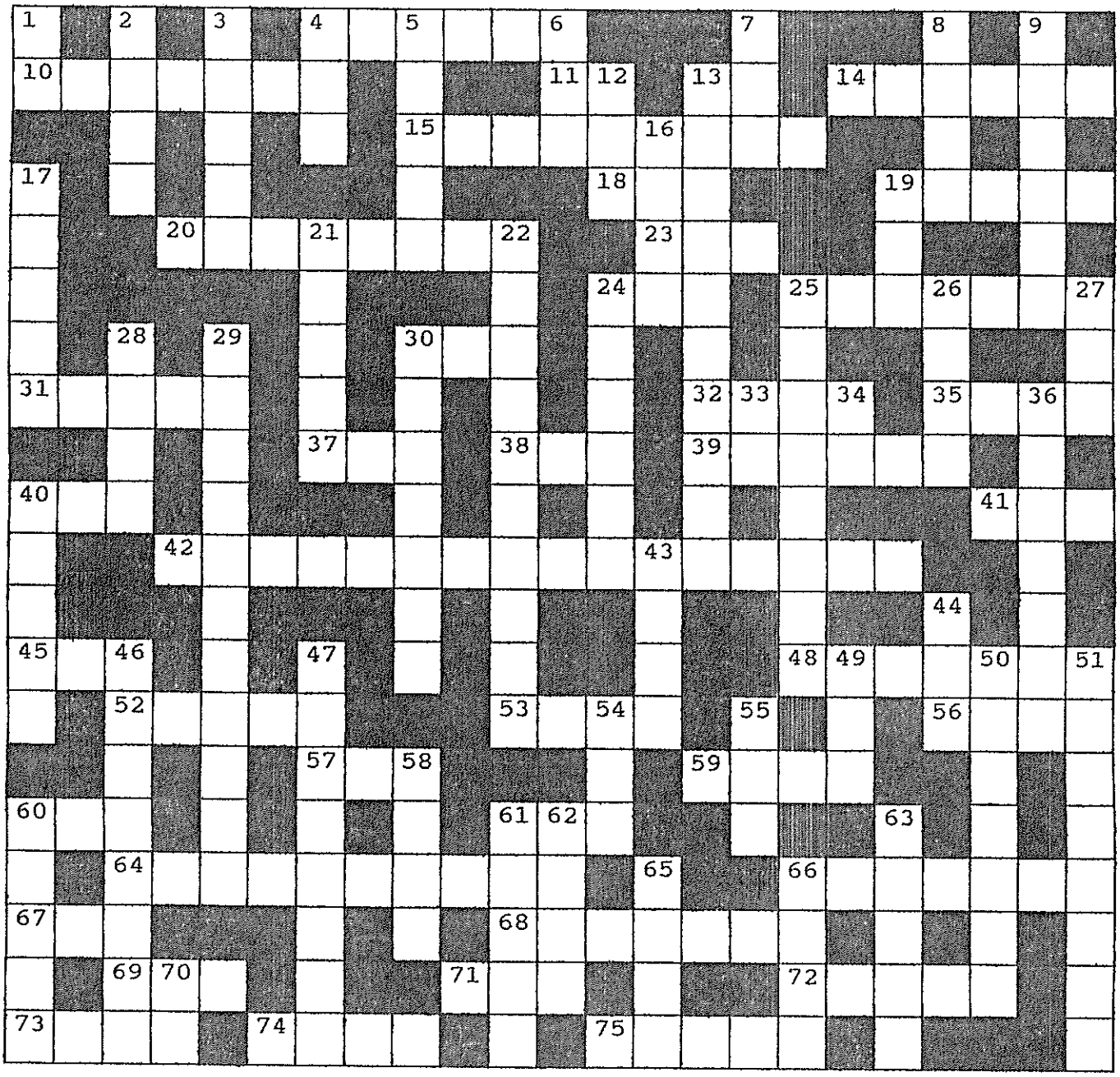
DOWN

1. WIZARD'S CITY
2. A PRODUCT OF SHEEP
3. SMALL RODENT
4. CEREAL GRAIN
5. BRAZILIAN DANCE
6. SIGNAL TO PROCEED
7. DECAY
8. GROUP OF THREE
9. RUPTURE
12. PEA SHELL
13. HOSPITAL NAMESAKE IN STANLEY
16. REGULATION
17. CONCEDE OR GIVE WAY
19. SWEET OR SAVOURY FILLED PASTRY
21. A WOOL QUALITY
22. TRADITIONAL BISCUIT
24. BULBOUS ROOT VEGETABLE
25. DIETERS COUNT THESE
26. NO LIGHT
27. A QUICK SHARP KNOCK
28. LEVEL
29. GAMES VENUE
30. LEOPARD (USUALLY BLACK)
33. AT HOME
34. MEDICINE MAN
36. FOLLOW A WINDING COURSE
40. STRANGE
43. SINGLE COMPONENT OR PART
44. FEMALE POLICE OFFICER
46. POWERFUL ATTRACTION
47. FEMININE HERB
49. MILITARY CLOTHING
50. DEFECT FREE
51. INTENSE PRE-EXAM STUDY
54. BOMB DISPOSAL UNIT
55. BRICK CARRIER
58. LARGE WILD CANINE
60. TINY PARTICLE OR EDIBLE SEED
61. FAIRY TALE ONE-EYED MONSTERS
62. COLOURED
63. CLEAVE LENGTHWISE
65. SINGLET
66. ANIMAL OR BIRDS HOME
70. GUNFIGHTING CORRAL



LAST MONTHS SOLUTION

AUGUST



ANAGRAMS

Re-arrange the following to find the names of five farms.
(ANSWERS BELOW)

CODLE VOB

CLONED ROKETI

PONG STRIPIN

TORN THROP

CHILD DAPPOE

BOLD COVE; CROOKED INLET; SPRING POINT; PORT NORTH; CAPE DOLPHIN.

WOOL PRESS

retail price: £1.00

ISSUE 46 SEPTEMBER 1993

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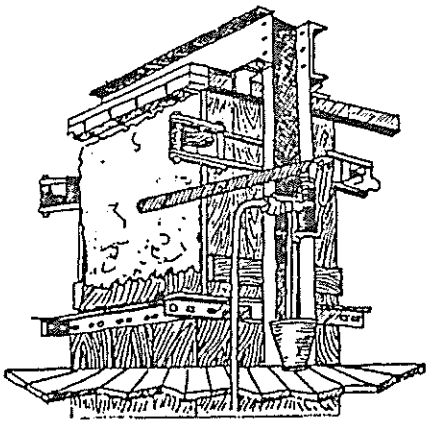

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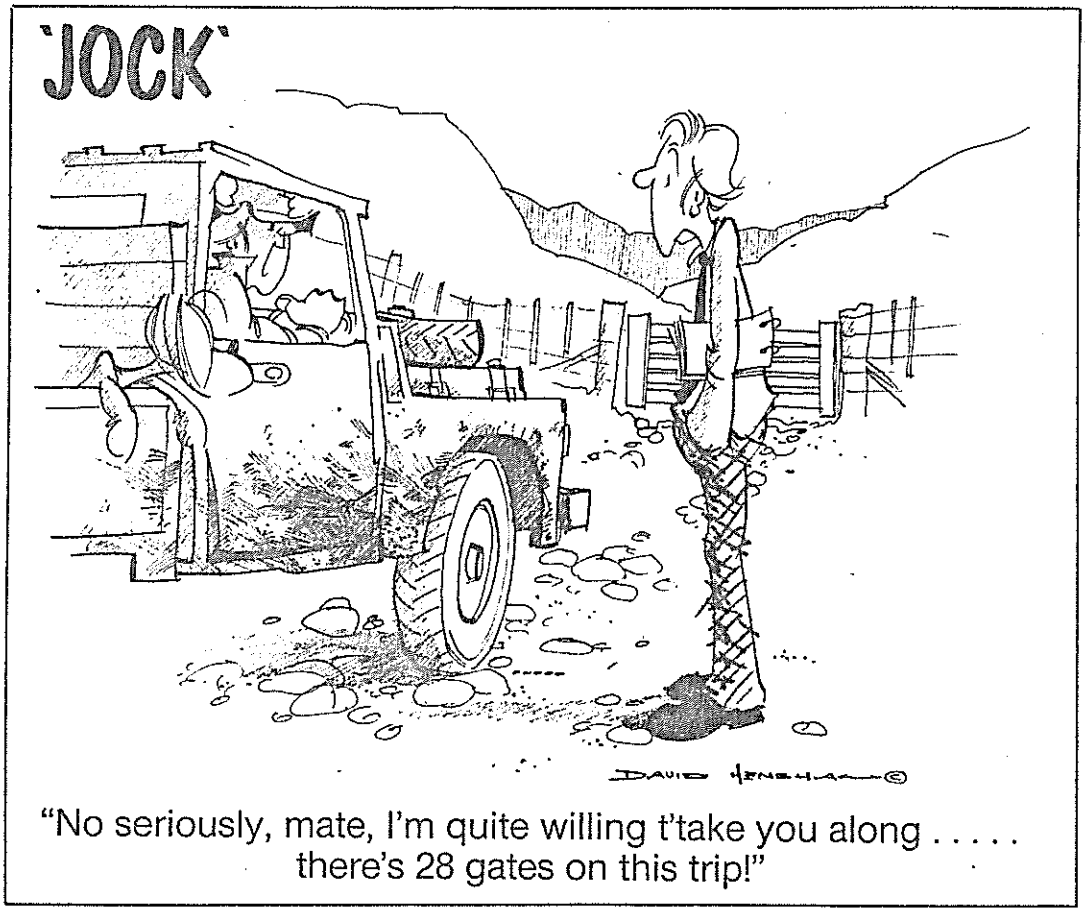
Editors : M.J. Mcleod and R.H.B. Hall.

EDITORIAL.

September is the last decent period of time before lambing and shearing again monopolise farm time and effort. Maintenance and book-keeping are obvious things to bring up-to-date this month.....and another thing.....What are this year's farm objectives? What will make your farm a better business by this time next year? Now is the time to give it some thought!!

Enjoy another varied Woolpress.



"No seriously, mate, I'm quite willing t'take you along . . . . . there's 28 gates on this trip!"

N.S.F. BALLOT

Would any farmers interested in being included in the ballot for a N.S.F. ram, who have not yet registered with the Director of Agriculture by returning their slips, please be reminded that they should do so as soon as possible.

* * * * * * * * * * *

DUAL PURPOSE SHEEP.

Contrary to some speculation, it is unlikely that the Falklands will embark on widespread development of a meat flock, should a new abattoir demand large supplies of sheep for slaughter. If farmers perceive an increase in farm income by producing additional sheep for slaughter, it is much more likely that "dual-purpose flocks" or "wool-ewe flocks crossed by terminal sires" will be used for such production.

Wool is the source of nearly all agricultural income in the Falklands. In New Zealand, where there is a well established meat industry based on dual-purpose sheep, 40 to 60 percent of sheep farm income stems from wool; thus the great importance of future wool revenue should not be ignored. This being the case, there would still be the need to produce well skirted, DARK FIBRE FREE and preferably finer wools. The choice of sheep breed is very important in achieving these requirements.

DUAL PURPOSE BREEDS:
The Cheviot, Corriedale, Perendale and Romney are renowned as dual purpose sheep in New Zealand, whilst the North Country Cheviot and Romney have a similar status in Britain. These breeds are already involved in the Falklands wool industry and are thus obvious sheep to involve in sheep meat production. Pure bred use of these sheep would minimise ewe flock replacement difficulties.

TERMINAL SIRE BREEDS:
The Southdown, Ryeland and prolific Poll Dorset are well known terminal sires, with reasonable quality, short "Down-type" wools; these breeds could be considered, however more likely choices of terminal sire are the Texel or British Charollais.

The Charollais came from the same region of France as the celebrated cattle. It is used primarily for siring top quality crossbred lamb carcasses, with good post weaning growth rates and slaughter conformation scores, but with lambs being fatter than Texel lambs. The wool is short and fine "Down-type", with a lightweight fleece suitable for hosiery, knitting wool, dress fabrics and flannel.

The Texel originated in Holland and spread to France, Britain, South America, South Africa and in 1986 to New Zealand. The leanness and good hind quarter development have made it popular for crossing. Texel carcasses have had the highest killing out percentages in recent trials. The Texel produces a good fleece of medium quality white wool which is used for hoisery yarns and knitting wool.

The Suffolks from Tasmania have usefully demonstrated production from a terminal sire breed in the Falklands, however sadly because their Down wool contains black pigmented fibre, Suffolks do not meet the standards required for dual-purpose production. Texel and Charollais sheep are not bred in Tasmania.

In summary, any changes to the Falklands sheep population should note the extreme importance of sheep breed when considering dual purpose enterprises.

ROBERT HALL.
SEPTEMBER 1993.

The Whitegrass Trial
The End Of The Story?

The Whitegrass Summer Grazing Trial based at Fox Bay, has been running since 1985. This year (the 1992-93 grazing season) it was decided to finish the trial in the format it has been run over the last 7 grazing seasons, and remove the grazing animals. This is to allow the plots to enter a recovery phase, which will be monitored over the next few years.

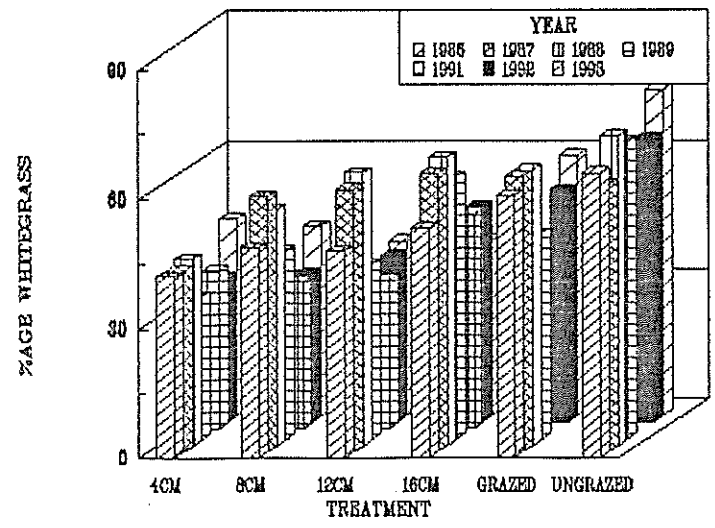
At the end of this years season, the absence of grazing has already brought about several changes, which have emerged from the usual recorded measurements. The annual botanical analysis estimates the percentage of species present across the different treatments (4,8,12, and 16 cms heights). This measurement is insensitive to short term fluctuations and is therefore ideal for this trial.

The following graphs illustrate the changes in some of the species levels that have occurred over the trial period (1985-1993) for each of the four height treatments. Two other areas were measured for comparison: An ungrazed area around the trial, and a traditionally stocked area adjacent to the trial.

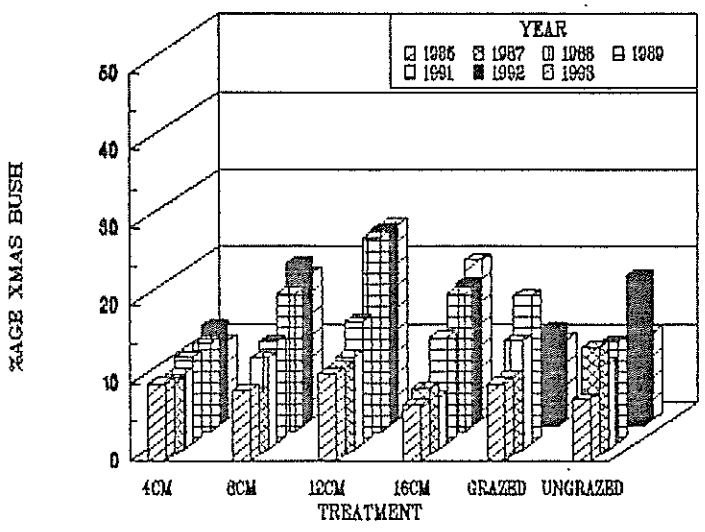
From the Whitegrass graph:
1. Whitegrass cover is now increasing on the shorter plots (plants are growing srtongly to recover).
2. Little change occurs on the 12cm, and a drop in cover on the 16cm plots.

From the Xmas bush graph:
1. Levels are increasing on the 8,12, and 16cm plots, with the 12cm being the worst affected.
2. Levels are controlled on the 4cm plots.

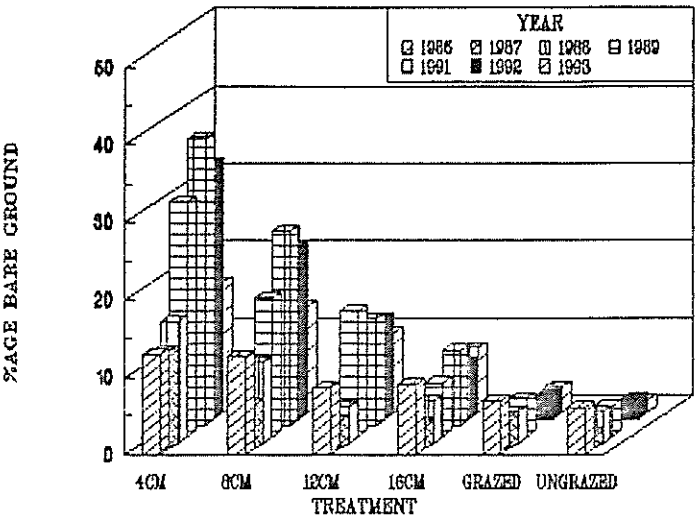
PERCENTAGE WHITEGRASS
FIRST HIT
AWG/2



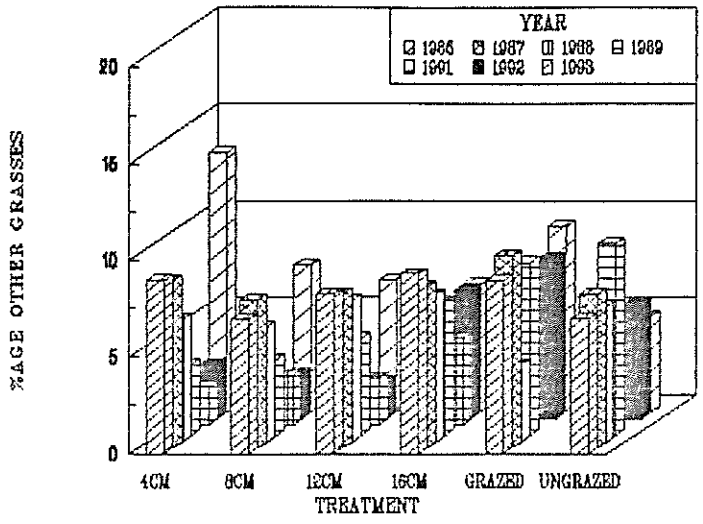
PERCENTAGE XMAS BUSH
FIRST HIT
AWG/2



PERCENTAGE BARE GROUND
FIRST HIT
AWG/2



PERCENTAGE OTHER GRASSES
FIRST HIT
AWG/2



From the Bare ground Graph:
1. The amount of bare ground is now decreasing rapidly on the 4 and 8cm plots, from a previous annual increase.
2. The 12 and 16cm levels are fairly static.

From the Other grasses graph:
1. The slow decline in the numbers of finer grasses in all treatments except the 16cm plots, has been reversed dramatically.
2. Levels on the 4cm plots have increased to 13% cover from 3% the year before.

The most interesting occurrence is the levels of finer grasses establishing and colonising the areas of bare ground on the shorter plots. Seeds from plants established in a rotavated strip around the trial (the initial fire-break for the trial area) appear to have blown in, grown, and with the absence of grazing this year, have themselves set seed.

THE FUTURE

1. It is hoped to graze down the longer plots by mob-stocking for short bursts over several years, to try to produce some of the desirable characteristics of the shorter plots (high no. of tillers/plant; controlled Xmas bush; increased bare ground for colonisation by more desirable species).
2. To try to encourage the finer grasses already established on the shorter plots.

3. To continue to monitor the recovery.

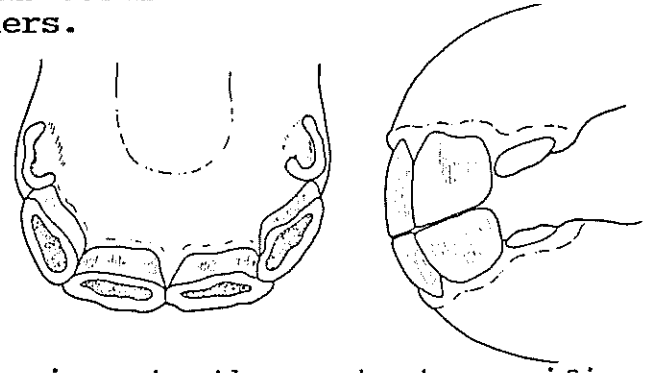
The closure of the Sub-centre at Fox Bay does not mean the end of the story for the Whitegrass Trial.

STEVE HOWLETT
AUGUST 1993

HORSE DENTITION

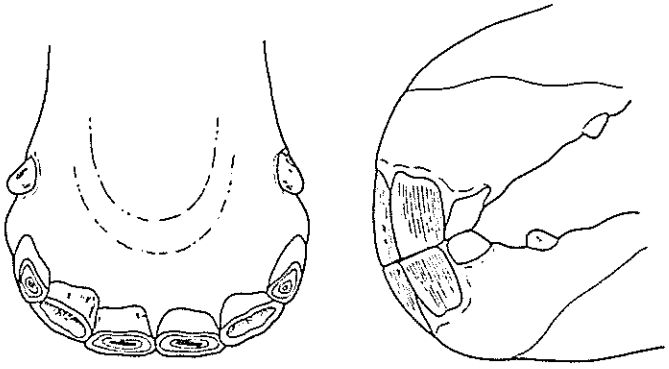
When a foal reaches 9 months of age, it will have a full set of milk or temporary teeth. These consist of 6 incisor (front) teeth and 6 premolar teeth in the upper (maxilla) and lower (mandible) jaws. The space between the incisors and cheek teeth is the interdental space or bars of the mouth. The temporary incisors are rounder at the gum margin, very small and pearly white. The middle two incisors are the centrals, the tooth on either side is the lateral tooth and the ones on the outside of the laterals are the corners.

Dentition of a nine month old foal.

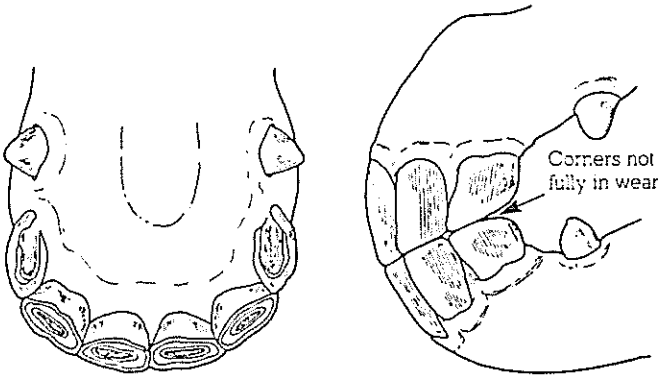


The permanent or adult incisor teeth erupt at specific ages in most horses. The central incisors erupt at 2 1/2 years of age, the laterals at 3 1/2years and the corners at 4 1/2 years. The teeth in the upper jaw usually erupt before those in the lower jaw and are larger. They are in wear with the incisors on the opposite jaw approximately 6 months after erupting: at 3 years, 4 years and 5 years respectively. The permanent incisors are square at the gum margin, large and creamy yellow. There are 6 cheek teeth on each side of the upper and lower jaw, making 24 cheek teeth in the permanent dentition.

Dentition of a four year old.



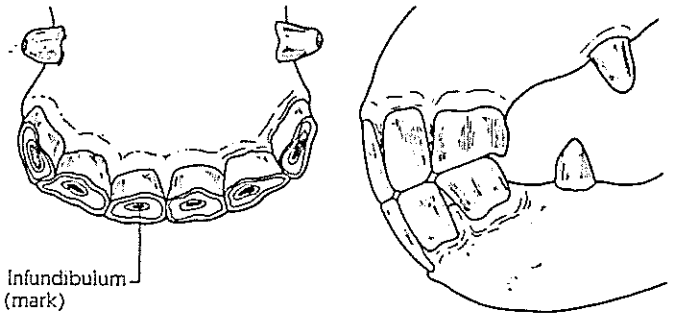
At five years of age all the permanent incisors have erupted, and in the male horses tushes are present.



When the first 3 permanent cheek teeth erupt they may have the remains (caps) of the temporary premolar teeth stuck on top of them. The cheek teeth are numbered 1 to 6 from the bars to the angle of the jaw. They erupt at 2 1/2 years, 3 years, 4 years, 1 year, 2 years and 3 1/2 years of age.

Male horses and the occasional mare have canine teeth (tushes) which erupt, around 4 years of age, in each interdental space. Some horses, especially mares, only have 2 canines instead of 4.

A seven year old.

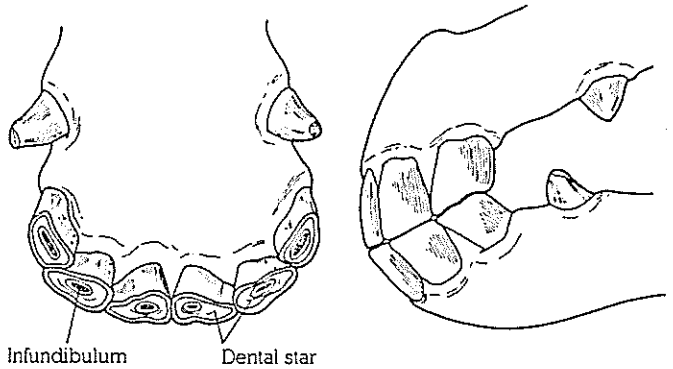


Some horses have a very small vestigial tooth (wolf tooth) just in front of the upper cheek teeth. These may be present on one or both sides. Occasionally they interfere with the bit and may cause the horse to shake its head. In a few cases they have to be removed, although some wolf teeth are removed to 'treat' the owner, with no benefit to the horses!

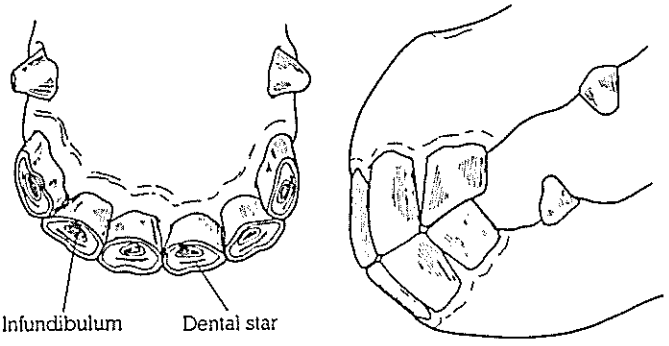
Hooks appear on the corner incisor teeth at 7 years and 13 years. Around 10 years of age a discoloured groove (Galayne's groove) appears at the gum margin on the middle of the corner incisor tooth and at 20 years it has reached the biting edge of the tooth. The incisor teeth are used for tearing and the cheek teeth for grinding food as the jaws move from side to side. These actions gradually wear away the surface of the teeth. The permanent teeth continue to erupt throughout the horses's life. Below the visible crown of the tooth is a reserve crown and below this is the tooth root. About 2 mm (1/8in) of tooth erupts each year, and as the tooth is 8.5cm (3 1/2in) long it takes about 28 years for the whole of the reserve crown to appear.

The life expectancy of the horse is related to the life span of the teeth. It is possible to age a horse by examining the incisor teeth. First note the number and type of teeth present, then the angle at which the upper and lower teeth meet, which becomes more acute with age. The shape of the tables, the presence and size of the mark (infundibulum) and dental star (pulp cavity), hooks and galvayne's grooves are all used in accurate aging by dentition. Both sides of the mouth are examined.

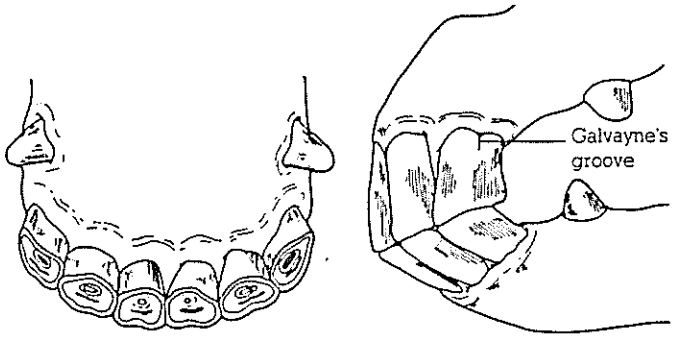
Eight year old. Note the shape of the tables, the position of the infundibulum, and the dental star.



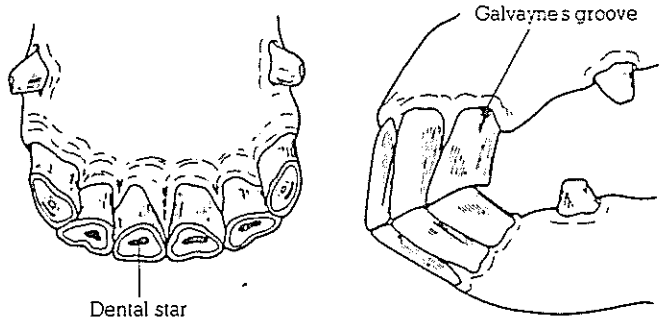
Nine year old.



Ten year old.



Thirteen year old.



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FELTING — 10 SIMPLE STAGES

Follow these simple steps to make your own felt. Something for the younger people to have a go at perhaps!

1. Take one piece of calico, fold in half lengthwise. Crease fold then open up again.
2. Cover one half of the calico with a thin layer of carded wool. Fibres running in one direction. Leave about 5cm around edge free of wool.
3. Spread a second layer of carded wool over the first with fibres in opposite direction.
4. Repeat until you have six layers.
5. Fold calico over to cover the wool and hand sew together.
6. Place in sink of warm water, add soap and wash.
7. Roll up tightly then unroll. Repeat last two steps four times.
8. Pour hot water over it then rinse in cold water. Repeat twice.
9. Roll up, squeeze tightly to remove excess water.
10. Remove stitches and calico. Leave felt to dry.

* * * * * * * * * * *

ELECTRIC FOOD DEHYDRATOR

AN ALTERNATIVE TO FREEZING

A food preservation method which is as old as time - or as new as the 1990s. That's the combination provided by the electric Food Dehydrator. The Dehydrator eliminates the hit and miss element, by providing a gentle, controlled, low temperature heated air flow, which is fanned evenly through scientifically designed circular trays. The process removes moisture from the food, whilst retaining and concentrating the natural sugars, sealing in the characteristic flavours of the produce and leaving a high nutrient value.

The whole process is simple and entirely natural: slice the produce, place on the trays (no additives or preservatives required), and when the process is finished the dehydrated food can be stored in any air-tight container. To reconstitute the food, just add water. The result is excellent. Indeed the Good Housekeeping Institute said that it was difficult to taste any difference between the reconstituted and the original product.

The Dehydrator will also produce wonderful dried flowers and pot-pourri. it comes with four drying trays, stands 9 1/2ins high and weighs approx 10lbs. Cost £99.95.

This dehydrator was on offer in a recent edition of the Farmers Weekly magazine and the offer only applies to U.K and Channel Islands, but if anyone is interested I am sure you could get more information if you write to: Farmers Weekly, P.O. Box 261, Slough, Berks SL2 3RU.

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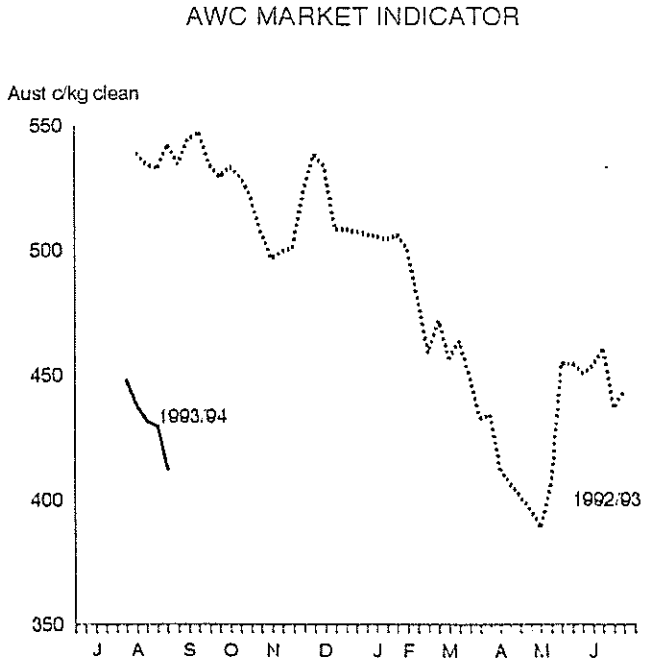
AUSTRALIAN WOOL MARKET INDICATOR.

The A.W.C. All Market Indicator has fallen throughout the August holiday month, as shown in the graph. At the end of July the indicator was at 448 cents/kg clean; it closed August at 413 cents/kg clean.

The A.W.C. 27 micron indicator ended July at 394 cents/kg clean; it now stands at 368 cents/kg clean, down 26 cents/kg clean.

R.H.B.HALL
SEPTEMBER 1993



LEAD-ACID BATTERIES FOR HOME POWER STORAGE

This article has been sent to the Wool Press by Clive Wilkinson of Dunnose Head who has been successful in the installation of his inverter system. Over the next few months Clive is going to do a series of articles to help the rest of us to understand how each part of the system works and the correct ways to maintain it. Richard Perez (the author of the following) is somewhat of an expert in this field through trial and error, and his explanation of 'Lead Acid Batteries for Home Power Storage' is the starting point of the series.

In 1970, we moved to the Mountains, the only desirable property we could afford was in the outback. Everything was many miles down a rough dirt road, far from civilised conveniences like electricity. We conquered the bad roads with a 4WE truck and countless hours of mechanical maintenance. The electrical power problem was not so easy to solve. We had to content ourselves with kerosene lighting and using hand tools. The best solution the marketplace could then offer was an engine driven generator. This required constant operation in order to supply power, in other words, expensive. It seemed that in America one either had power or one didn't.

We needed inexpensive home power and we needed it to be there 24 hours a day without constantly running a noisy, gasoline eating, engine. At that time, NASA was about the only folks who could afford PVs. We started using lead-acid batteries to store the electricity produced by a small gas engine/generator. We'd withdraw energy from the batteries until they were empty and then refill them by running a lawn mower engine and car alternator. Since we stored enough energy to last about 4 days, we discharged and recharged the batteries about 100 times a year. Over years of this type service, we have learned much about lead-acid batteries - how they work and how to best use them. The following info has been hard won: we've made many expensive mistakes. We've also discovered how to efficiently and effectively coexist with the batteries that store our energy. Batteries are like many things in life, mysterious until understood.

Before we can effectively communicate about batteries, we must have a common set of terms. Batteries and electricity, like many technical subjects, have their own particular jargon. Understanding these electrical terms is the first step to understanding your batteries.

ELECTRICAL TERMS

Voltage: Voltage is electronic pressure. Electricity is electrons in motion. Voltage is the amount of pressure behind these electrons. Voltage is very similar to pressure in a water system. Consider a water hose. Water pressure forces the water through the hose. This situation is the same for an electron moving through a wire. A car uses 12 Volts, from a battery for starting. Commercial household power has a voltage of 120 volts. Batteries for renewable energy are usually assembled into pack of 12, 24,32 or 48 volts.

Current: Current is the flow of electrons. The unit of electron flow in relation to time is called the Ampere. Consider the water hose analogy once again. If voltage is like water pressure, then current is like FLOW. Flow in water systems is measured in gallons per minute, while electron flow is measured in Amperes. A car tail light bulb consumes about 1 to 2 Amperes of electrical current. The headlights on a car consume about 8 Amperes each. The starter used about 200 to 300 Amperes. Electrical current comes in two forms - direct current (DC) and alternating current (AC). In DC circuits the electrons flow in one direction ONLY. In AC circuits the electrons can flow in both directions. Regular household power is AC. Batteries store

electrical power as direct current (DC).
Power: Power is the amount of energy that is being used or generated. The unit of power is the Watt. In the water hose analogy, power can be compared to the total gallons of water transferred by the hose. Mathematically, power is the product of Voltage and Current. To find Power simply multiply Volts times Amperes. The amounts of power being used and generated determine the amount of energy that the battery must store.

BATTERY TERMS
A Cell: The cell is the basic building block of all elctro-chemical batteries. The cell contains two active materials which react chemically to release free electrons (electrical energy). These active materials are usually solid and immersed in a liquid called the "electrolyte". The electrolyte is an electrically conductive liquid which acts as an electron transfer medium. In a lead acid cell, one of the active materials is lead dioxide (PbO_2) and forms the Positive pole (Anode) of the cell. The other active material is lead and forms the negative pole (Cathode) of the cell. The lead acid cell uses an electrolyte composed of sulphuric acid (H_2SO_4).

During discharge, the cell's active materials undergo chemical reactions which release free electrons. These free electrons are available for our use at the cells electrical terminals or "poles". During discharge the actual chemical compositions of the active materials change. When all the active materials have undergone reaction, then the cell will produce no more free electrons. The cell is now completely discharged or in battery lingo "dead".

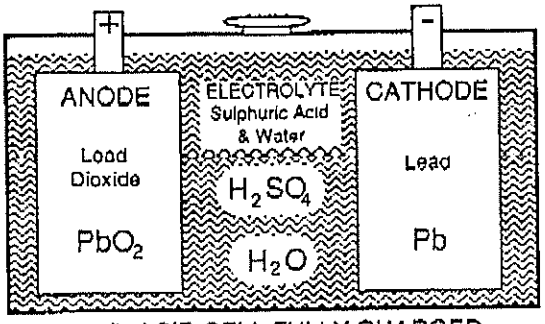
Some cells, like the lead-acid cell, are rechargeable. This means that we can reverse the discharge chemical reaction by forcing electrons backwards through the cell. During the recharging process the active materials are gradually restored to their original, fully charged, chemical composition. The voltage of an electrochemical cell is determined by the active materials used in its construction. The lead-acid cell develops a voltage of around 2 Volts DC. The voltage of a cell has no relationship to its physical size. All lead acid cells produce about 2 VDC regardless of size.

In the lead acid cell, the sulphuric acid electrolyte actually participates in the cell's electrochemical reaction. In most other battery technologies, like the nickel-cadmium cells, the electrolyte merely transfers electrons and does not change chemically as the cell discharges. In the lead-acid system, however, the electrolyte participates in the cell's reaction and the H_2SO_4 content of the electrolyte changes as the cell is discharged or charged. Typically the electrolyte in a fully charged cell is about 25% sulphuric acid with the remaining 75% being water. In the fully discharged lead-acid cell, the electrolyte is composed of less that 5% sulphuric acid with the remaining 95% being water. This happy fact allows us to determine how much energy a lead-acid cell contains by measuring the amount of acid remaining in its electrolyte.

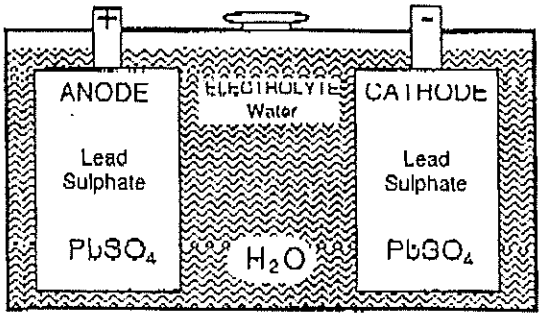
A Battery: A battery is a group of electrochemical cells. Individual cells are collected into batteries to either increase the voltage or the electrical capacity of the resulting battery pack. For example, an automotive electrical system requires 12 VDC for operation. How is this accomplished with a basic 2 VDC lead-acid cell? The cells are wired together in series, this makes a battery that has the combined voltages of the cells. A 12 Volt lead-acid battery has six (6) cells, each wired anode to cathode (in series) to produce 12 VDC. Cells are combined in series for a voltage increase or in parallel for an electrical capacity increase. Figure 1 illustrates electrochemical cells assembled into batteries.

$$PbO_2 + Pb + 2H_2SO_4 \underset{\text{DISCHARGE}}{\overset{\text{CHARGE}}{\rightleftharpoons}} 2PbSO_4 + 2H_2O$$

Figure 1



LEAD-ACID CELL FULLY CHARGED



LEAD-ACID CELL FULLY DISCHARGED

Battery Capacity: Battery capacity is the amount of energy a battery contains. Battery capacity is usually rated in Ampere-hours (A-h) at a given voltage. Watt-hours (W-h) is another unit used to quantify battery capacity. While a single cell is limited in voltage by its materials, the electrical capacity of a cell is limited only by its size. The larger the cell, the more reactive materials contained within it, and the larger the electrical capacity of the cell in Ampere-hours. A battery rated at 100 Ampere-hours will deliver 100 Amperes of current for 1 hour. It can also deliver 10 Amperes for 10 hours, or 1 Ampere for 100 hours. The average car battery has a capacity of about 60 Ampere-hours. Renewable energy battery packs contain from 350 to 4,900 Ampere-hours. The specified capacity of a battery pack is determined by two factors - how much energy is needed and how long the battery must supply this energy. Renewable energy systems work best with between 4 and 21 days of storage potential.

A battery is similar to a bucket. It will only contain so much electrical energy, just as the bucket will only contain so much water. The amount of capacity a battery has is roughly determined by its size and weight, just as a bucket's capacity is determined by its size. It is difficult to water a very large garden with one small bucket, it is also difficult to run a homestead on an undersized battery. If a battery based renewable energy system is to really work, it is essential that the battery have enough capacity to do the job. Undersized batteries are one of the major reasons that some folks are not happy with their renewable energy systems.

Battery capacity is a very important factor in sizing renewable energy systems. The size of the battery is determined by the amount of energy you need and how long you wish to go between battery rechargings. The capacity of the battery then determines the size of the charge source. Everything must be balanced if the systems is to be efficient and long-lived.

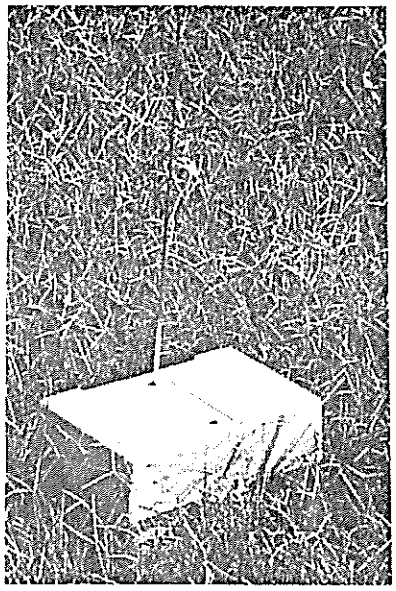
State of Charge (SOC). A battery's state of charge is a percentage figure giving the amount of energy remaining in the battery. A 300 Ampere-hour battery at a 90% state of charge will contain 270 Amperes-hours of energy. At a 50% state of charge the same battery will contain 150 Ampere-hours. A battery which is discharged to a 20% or less state of charge is aid to be "deep cycled". Shallow cycle service withdraws less than 10% of the battery's energy per cycle.

Lead-Acid Batteries. Lead-acid batteries are really the only type to consider for home energy storage at the present time. Other types of batteries, such as nickel-cadmium, are being made and sold, but they are simply too expensive to fit into low budget electrical schemes. We started out using car batteries.

NEXT MONTH: AUTOMOTIVE STARTING BATTERIES (an explanation)
and CHARGING DEEP CYCLE BATTERIES.

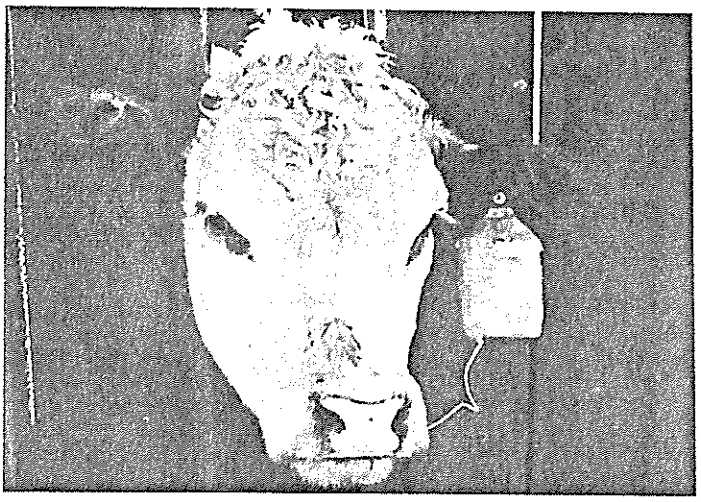
NO-POST, NO-WIRE ELECTRONIC FENCE

Researchers are still working out the bugs, but it initial technological prototypes pan out, livestock producers may have an alternative for fencing in the not-too distant future. The device is the brainchild of United States Department of Agriculture (USDA) researchers Tom Quigley and Art Tiedemann, La Grande, Oregon. Their idea takes its cue from the electronic dog-controller collars.



The invention combines high-tech electronics with animal behavioural psychology in training them to stay within the perimeter of the movable transmitters. At this stage the reusable electronic ear tags are expensive - $US10-20 each. High volume production could lower the cost and make them more durable.

FM transmitters with a variable range of up to 305 metres are placed around the perimeter of the grazing area. Each animal in the area wears a small ear-tag receiver. When an animal enters a forbidden zone, the transmitter triggers a tone, then a 2.5volt shock (much less than that of an electric fence). The tones and electrical stimuli are repeated three more times at two second intervals until the animal turns around. If the animal hasn't responded, a safety device in the system locks up the unit to prevent the animal from being continuously shocked. A special device near the water source unlocks the system.



For two weeks last summer, Texas A & M range specialist Larry White tested the innovative fencing approach. Fifteen steers were equipped with ear tags. Different topography, vegetation and time of day or night affected transmitters differently. Transmitter signal distances varied from Nevada to Texas.

The bugs in the system appear to be making the transmitters more resistant to environmental effects and adjustable by location. A grant has been obtained that will enable researchers to check and ensure animal welfare and safety too. "We don't look for the idea to replace traditional fencing overnight, buy we were pleased with our trials," says Mr White. "It could work for rotational or strip grazing or in large expanses where cattlemen don't want to put up permanent fencing. The invisible boundary theory would offer easy access to the rancher," he says. Other advantages include the savings of post and wire for permanent fencing, and the constant repairs. Forest Service managers see it as a way of excluding animals from protected areas.

THIS ARTICLE WAS PUBLISHED IN
THE AUSTRALIAN FARM JOURNAL (AUGUST 1993 edition)

WORKING IN THE SUN

In view of the UVA rays that we have been exposed to due to the "hole" in the ozone layer, it is worth taking some precautions while working outdoors. The following article was written for the benefit of people in U.K., but the same principles apply here.

More than 30,000 Britons develop skin cancers every year, many of them as young adults due to over-exposure to the sun when they were children. Many more are outdoor workers who are unaware of the dangers of the sun. Skin cancers are treatable if they are caught early, but a few simple precautions can help to avoid the disease.

* Always wear a wide brimmed hat - specially if you are bald or your hair is thinning.

* Use a high SPF sunscreen - factor 15 or above.

* Cover up with a shirt.

* Avoid exposure whenever possible, especially between 11am and 2pm when the sun is at its strongest.

* If you work outside during the week, reduce exposure at the weekends and on holiday.

This advice comes from the makers of Sun E45, a non-chemical sunscreen.

* * * * * * * * * * *

PAWS FOR THOUGHT

It is estimated, according to the Cats Protection League, that in five years a female cat can be responsible for 20,000 descendants if none are spayed or castrated!

* * * * * * * * * * *

ORGANIC WOOL

Organic Farmers and Growers Ltd has been carrying out research into a possible market for wool from organic flocks. The difficulties encountered have been of both quantity and quality.

It must be concluded that there is no major marketing opportunity for organic wool at present, but producers may find an outlet for a small number of fleeces through hand spinners who may wish to avoid any contact with organophosphorus pesticides.

HYDATID DOG SURVEY

A LABORATORY UPDATE

Now that the dust has settled from the first phase of the results and the debate at Farmers week, I thought it was time to inform people of the situation in regard to results, current and future proposed plans.

Michael was able to sample all the priority one suspect dogs and also a cross section of low suspect positives from all the farms that were indicated from the first sampling results, plus the bloods that had leaked in transit to Australia. I am awaiting the arrival of these test results from Melbourne, Australia, anytime now.

On my recent visit to UK I was able to establish a contact with another working group at Salford University who are willing to assist us in the further testing of the dog faeces that were collected. This test which they have developed can detect the presence of the tapeworm in the faeces collected, which has an added advantage in being able to say whether that dog has a current live tapeworm, the blood test can only say that the dog has experienced infection which may or may not be currently present. I hope to be sending these off in the next 2-3 weeks.

To ensure that we have the correct approach and strategy in controlling and eradicating this disease there is in process the setting up of a Hydatids Working Group, with overall responsibility of providing Agricultural Advisory Committee with specialist advice on this disease, one such person being a representative from K.E.M.H. to cover the obvious human public health implications. They will review the current dog ordinance and make recommendations on any ammendment if thought necessary. It is hoped that from this we can put in place procedures which will ensure that the further threat from hydatid disease is quickly contained and finally removed.

Complete eradication is possible!.

DAVID BABER
SEPTEMBER 1993

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WORMS IN SHEEP — PAST, PRESENT AND FUTURE STRATEGY

Wormers or anthelmintics are very much part of modern livestock farming. They are used widely in the control of a variety of diseases associated with roundworms, fluke and tapeworms.

Over the past few decades wormers have evolved into highly effective and safer products with an ever increasing range of activity against many parasites affecting livestock and domestic animals.

Within the last year there has been a considerable amount of research and investigation into the emerging problem of parasite drug resistance. This coupled with the improvement of current products and the research and development of new anthelmintics has led to an emerging new approach and understanding. However, the established traditional methods and routines that are practised in the Falklands still have as much relevance now as when they were first introduced.

Part 1 - "The Past", I am re-publishing an article from Neil Pullen, a Veterinarian/Parasitologist present here in the Falklands from 1983-87, to remind farmers what they should know and what they should be practising. In the following issues of the Wool Press I will be telling the rest of the story, which will be covering the present understanding of worm control in the Falklands and the final episode explaining the current concerns about the rising parasite resistance against many of the popular drenches in common use and the strategy in defeating this problem.

THE PAST

All sheep raising countries have worms in their animals but the magnitude of the problem differs depending on many factors. Sheep management, stocking rates and climate are all contributing factors. One of the most important points is the growth rate expected of young sheep. The breeding of adequate replacement young sheep which also have the highest quality wool is very important when it is this age group that are most affected by parasites and the control must be of paramount importance. During winter nutrition of young sheep is particularly poor.

With a stocking rate of one sheep to every 4-5 acres there should not be any difficulty experienced with parasites. However, sheep congregate in valley and coastal green areas and with maybe 15-20 or even more sheep per acre, which is a very high stocking rate.

Two types of worms are found in the stomach and intestines of sheep, small roundworms in the true stomach and intestine and large tapeworms in the small intestine. There are also a few roundworms found in the lungs.

TAPEWORMS

These produce white moving segments often seen on lamb droppings during the summer and autumn and are found as very large segmented worms in the small intestines. They are of little significance and seldom seen in lambs more than 6 - 7 months.

ROUNDWORMS

Several types of roundworms are found in different parts of the stomach and gut. Mostly they cannot be seen but their presence results in loss of condition and sometimes scouring. This is especially so in the hoggets in the autumn and late winter/early spring.

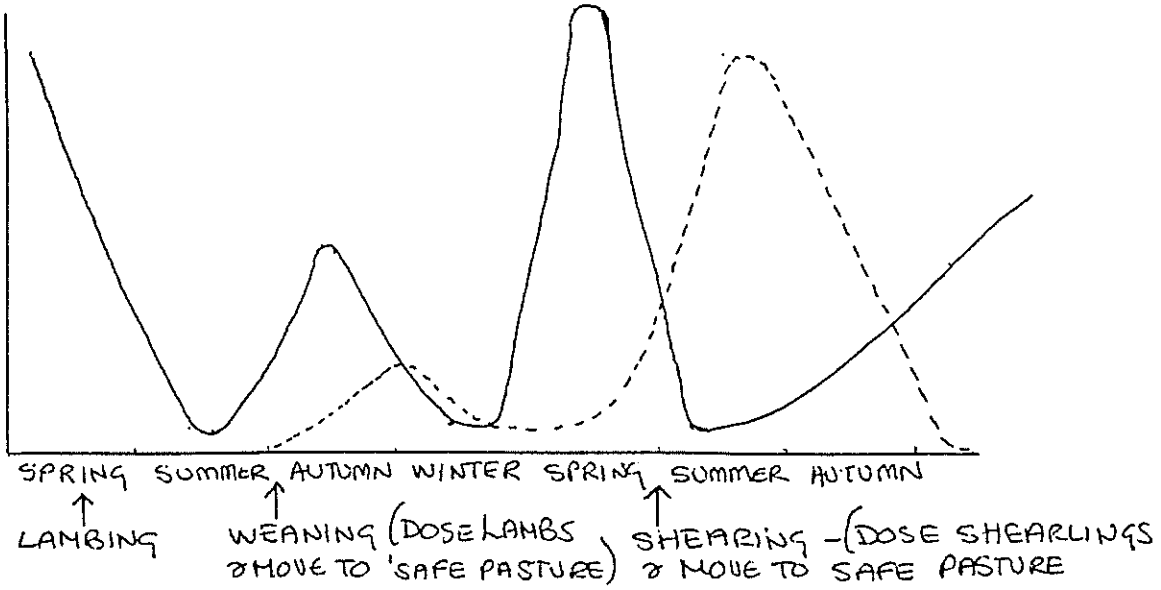
Worms do not multiply in the sheep but produce enormous numbers of eggs. These pass out in the faeces and undergo development on the pasture before becoming infective for sheep. The rate of this development depends on the weather. This is the stage when pasture management is so very important. Properly managed, most of the larvae will die and the pasture made safe for young stock. The other class of animal which contributes to contaminating the pasture is the lactating ewe. They infect the grass in the spring for their lambs in the autumn. So the young animal and the lactating ewe are the contaminators of the pasture but it is the young animal, up to say 19 months, that is most affected.

In the figure below it can be seen that there are peaks of availability of infective larvae of roundworms on the pasture in the autumn and a much larger one in the spring. In late pregnancy and especially during lactation, the worms in the ewe produce large numbers of eggs which develop during the summer to produce the infective larvae of the autumn peak for their lambs.

The higher the stocking rate in the autumn, the greater the pick up of worms at this time. For instance, if lambs are weaned on to reseeds they can pick up very high burdens indeed. Many of the eggs, especially from the worm Ostertagia, passed out in the droppings of lambs in the late summer/autumn do not develop to infective larvae until temperatures start to rise in the late winter. This accounts for the very high spring peak in infective larvae on the pasture, especially on the greens. This is also a time of nutritional stress for the hogg, so the pick-up of large numbers of larvae at this time will be very important.

The infective larvae die off very quickly as the summer comes on with higher temperatures and drying winds. However, the infection in the sheep lasts until the autumn to be a source of infection for the following spring (see figure). Autumn and spring/summer are the dangerous times of the year for the young growing sheep, say of up to 18 months of age. Older sheep tend to be more resistant to worms.

WORMS ON PASTURE & IN SHEEP
SUGGESTED MEAN OF CONTROL



The problem in the Falklands is that camps tend to be used for the same class of animal every year and the camps used for hoggs

and shearlings become grossly contaminated and this contamination lasts from year to year. To break this vicious circle requires a basic change in young sheep management. This may be much easier to achieve on the smaller farms where there is greater sub-division of the camp. Ideally these young sheep camps should be spelled - used for alternative animals like cattle or, as in other countries, used for arable cropping. However this is not possible in the Falklands. Ewes cannot be used on these camps as they are gross contaminators of camps in the spring. Therefore the only animal we can use which will not contaminate the camps to any great extent is the mature wether.

The time necessary to spell camps to make them 'safe' for young stock would appear to be at least a year. Adopting this change in management will require an alteration in the allocation of camps to different classes of stock. But basically the camps which are used for young sheep (hoggs and shearlings) should be 'cleaned up' by mature wethers for at least a year.

Before sheep are put onto a camp, which has been 'cleaned up' and made 'safe', they should be dosed with an anthelmintic. Most of the modern anthelmintics are very effective but the more efficient ones tend to be slightly more expensive.

A practical programme for the control of parasites in young sheep should include the following strategic dosing and movement to 'safe' pasture. Lambs, when they are weaned, should be dosed and then put on to 'safe' camp. It is also suggested that when they are shorn as hoggs in November they are dosed again and put on to 'safe' pasture. This may be more difficult than finding safe pasture for lambs but in the light of the large pick-up of worms in the sheep's second summer it would seem desirable. Where worms were removed from hoggs in an experiment during the six weeks before shearing in November, this resulted in a 1.5 kilogram weight advantage over controls.

It has been proved that there is little point in using reseeds for lambs immediately after weaning, with stocking rates of over say five lambs to the acre, without worm control. Any weight advantage they gain from the reseed is lost during the winter. In an experiment where lambs were weaned on to a reseed for eight weeks and worms were controlled, they put on about six kilograms more than controls on traditional camp. At shearing this advantage was reduced to about two kilograms but more dosed reseed fed lambs survived.

Reseeds, immediately after they have been made, are free of infective larvae. Therefore any stock, and this includes lactating ewes, put on them must be dosed with an anthelmintic.

The economic benefits of dosing and changing the management is still being tested, but from the information available there is a definite benefit to be gained from the control of worms in our young sheep.

Next month 'THE PRESENT' will explain the current methods that should be used in the Falklands in the effective control of intestinal parasites.

DAVID BABER
SEPTEMBER 1993

WOOL GOES BACK TO NATURE

Following the article in the last Wool Press about using wool as insulation for houses, I though this article from the Australian Farm Journal interesting as it uses wool in a similar conformation (rolls) but for a completely different purpose. Yet another diverse use for wool!

The environment is rightly of great concern to all kinds of industries, and many are trying to find ways to be 'green'. Researchers at the International Wool Secretariat in northern England, for example, include in their work projects research into other uses for this most natural of products.

In the picture on the right a technician is laying 100% wool 'mulch mats' around plants at an experimental horticultural area at the secretariat's land in Ilkley, West Yorkshire. The non-woven wool matting, specifically engineered for use as a natural mulch, can help in the suppression and control of weeds - which are a menace to horticulturists as the weeds compete for space, light, water and nutrients. Wool is a biodegradable protein fibre containing nitrogen, potassium, sulphur and other trace elements essential for healthy plant growth. The rate of degradation can be controlled to a certain extent by fabric weight, but in general, wool has been found to biodegrade over a three to five-year period.

As a "hygroscopic" fibre, wool absorbs up to 40% of its own weight of water, and unlike black plastic - allows water to pass through to the soil and yet acts as a barrier to reduce soil desiccation during drought periods. It is also useful for insulation.

Wool is a highly absorbent fibre and has better insulating properties under moist conditions than polypropylene and cellulosic materials, so protecting both soil and germinating seed from damage by a ground frost.

There can be earlier sowing and therefore a longer growing season. As wool is naturally pigmented it looks more attractive on the ground than other materials, blending in with the surrounding area.

The secretariat, with headquarters in London, was formed in 1937 by southern hemisphere woolgrowers. Research at the Ilkley development centre also involves developing new processes for the production of wool which are kinder to the environment.

Contact: International Wool Secretariat Development Centre, Valley Drive, Ilkley, West Yorkshire, England, LS29 8PB. Telephone contact is (+44) 943 601555; fax (+) 943 601521

NEW PRODUCT

SALVE FOR A SORE SEAT

Here's something for you farmers that still use horses for those long drives and gathers that may help to make a day in the saddle a little more comfortable

The Seatbone Saver was designed by a professional horse woman who had suffered from bruising and bursal enlargement of the seatbones in her pursuit of the "classical seat". It is a sort of over-saddle made from visco-elastic foam which was developed for US military pilots' seats to absorb the shock of seat ejection.

The material is claimed to sink under pressure, moulding to the shape of the saddle and the rider. It takes a few seconds to return, unlike plastic or latex foams which spring back making the rider bounce.

Covered in natural suede, the Seatbone Saver fits all makes and sizes of saddle and is attached by adjustable webbing straps looped under the saddle flaps. Designed initially with dressage riders in mind, it is suited to all types of riding and is said to improve the comfort and security of novice and disabled riders as it makes the saddle seat non-slip.

The Seatbone Saver, available in brown or black, costs £45.95 plus postage from Sleepy Hollow, Avon Mill, Woodleigh Rd, Loddiswell, S Devon TQ& 4DD.

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TORCH POWER FENCING

Two replaceable torch batteries are all that is needed to power the smallest of the new Drivall electric fence energisers. The PEL Micro is less than 150mm high but will energise 800 metres of single wire or 50 metres of netting for eight weeks without attention. RRP is £45 ex VAT. A more powerful version, which can use rechargeable 12 volt batteries, the PE7 costs around £60 ex VAT. Top of the range, the PE618 mains powered unit, can power up to 170 km of wire and claims to be the first in the world with intelligent power control. A computer constantly monitors the current and if there is an abnormal load it will push out more power to maintain the current on the line. RRP is around £350 ex VAT.

Details from Drivall Ltd, Narrow Lane, Halesowen, West Middlands B61 9PA.

SELF-SHEDDING WOOL MEANS NO NEED FOR THE SHEARING SHED

I know that this article taken from a recent Farmers Weekly doesn't have much relevance to us as we are not meat producers (yet) and it would be a bit inconvenient to say the least if our flocks dropped their fleeces all over the place, nevertheless, it makes quite interesting reading.

Annual wool cheques once made a valuable contribution to farm income but the slump in prices means they won't cover shearing costs on many units this year (U.K.). While others struggle to meet contractors' shearing charges averaging about 45p a ewe, the 3,000 ewes that Iolo Owen runs with this son and nephew will not go near a shearing shed.

Mr Owen jokes that the birds on Anglesey have the best lined nests in Britain thanks to the self-shedding fleeces of the Easy Care sheep he has been developing since 1960.

The stable hybrid is based on the Wiltshire Horn, still a popular breed in the area, but contains a cocktail of genes from the Nelson-type Welsh Mountain, Southdown and Charollais breeds. The result is a polled, keen-foraging, medium-sized ewe of about 53kg and capable of a 175% lambing average. She is essentially a grassland ewe that does better on set-stocking than indoors but can rear a 17kg good conformation finished lamb in 12 to 16 weeks.

Mr Owen, who judged the Royal Welsh's supreme sheep championship in 1992 and had to take fleece quality into account, began developing his woolless breed after a Nuffield Scholarship visit to New Zealand, where he admired the minimum shepherding management system used. "I liked the idea of selecting for easy births, lively lambs and good mothering but wanted to take things a step further." Mr Owen recalls, "I reckoned 50% of the cost of shepherding was linked to wool. The components include shearing, dagging and crutching, dipping and making sure sheep are not caught up in hedges and fences."

"I had experience of the Wiltshire Horn's natural relative lack of wool and decided to exploit this trait by creating a no-hassle sheep that looses its kempy winter coat naturally in April and May. "I have been reported to the veterinary authorities many times over the years because people suspected the flock had scab.

What the Easy Care sheep does is natural, while other breeds have been bred to retain their wool longer. "The winter coat is 3.5cm long and gives first-class protection against bad weather. It is shed to leave a 1.5cm summer coat."

Four separately run 30-ewe nucleus elite flocks are used to produce foundation stock hybrids and Easy Care sheep can now be found on more than 200 UK farms. Mr Owen believes the rundown in wool price will increase interest. He sold 300 of this season's ewe lambs for £45 a head before they were born.

"More people are going to buy replacements less frequently to cut costs and avoid buying in disease. When they produce their own

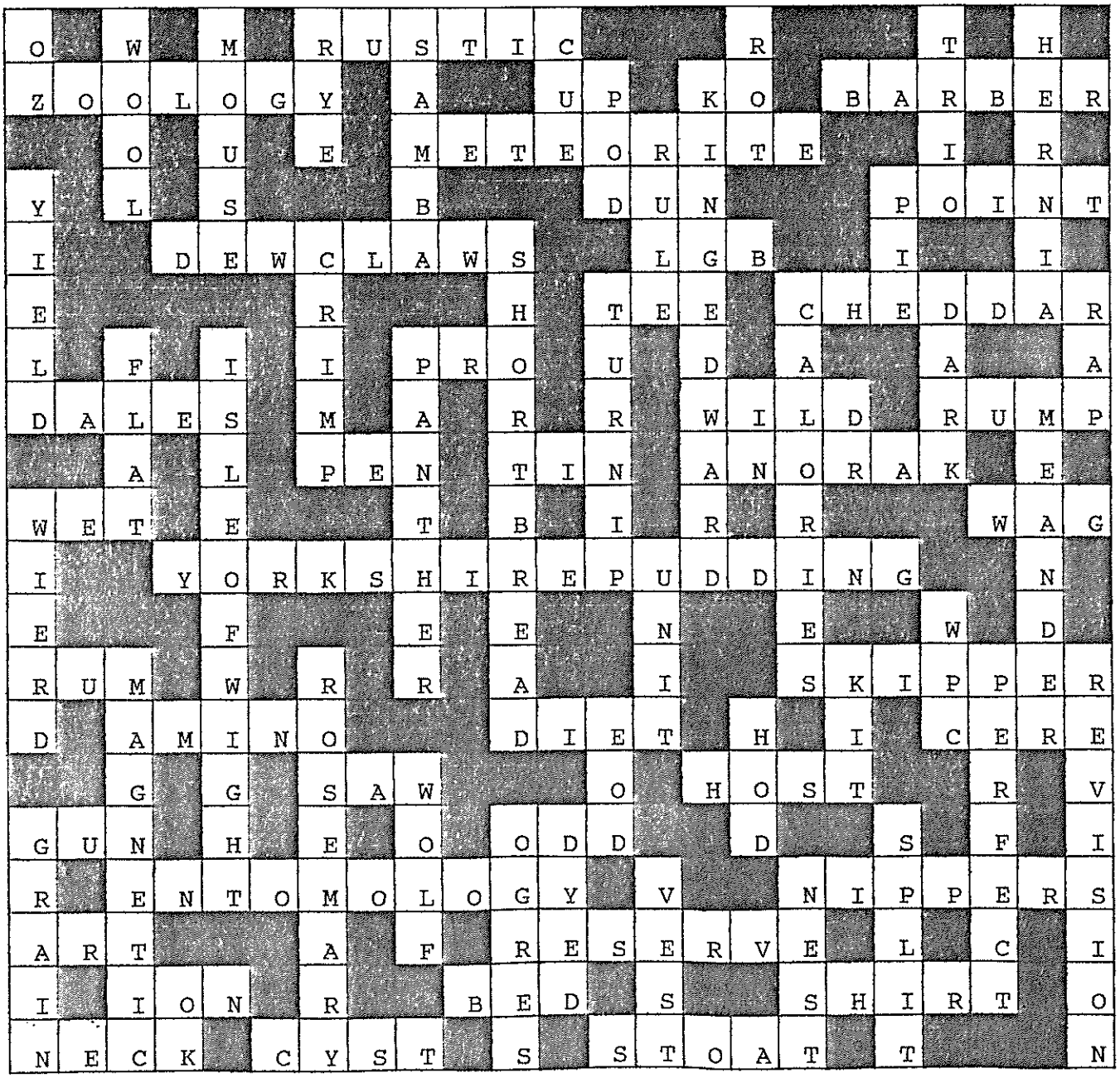
replacements they can tailor them to their requirements, which might include not paying the costs associated with wool. The Easy Care sheep crosses well with all the main terminal sires to produce a prolific modern crossbred ewe that does not need shearing every summer."

The hybrid has also been exported to Holland and several African countries, as has stock from his 30-ewe Wiltshire Horn flock.

MANDY McLEOD
SEPTEMBER 1993

CROSSWORD SOLUTION

AUGUST



MARKING PRODUCT MANUFACTURERS

Listed below are the trade names of manufacturers' products for sheep identification which are approved by the Board as scourable. However, this applies only if the producer follows the instructions and the product is applied sparingly. **Excessive application increases your costs and will reduce the value of the fleece**

APPROVED SPRAYS

TRADE NAME	COLOUR
Agrimark Alfa Supplies Antec Sheepmarker Battle Aerosol Marker Spray Denimark Downmark Dry Marker Aerosol Shearwell Stock Marker Stockshop-Wolseley Stop On Standard Marker	Red/Blue/Green
Dazzle Fluorescent Marker Aerosol	Pink/Green/Orange
Bright & Light MSF Stockmarker Multi-Marker Fluorescents Spotlight Stock Care 'Spray-Marker'	Red/Blue/Green/Orange
Cox Sheepmarker Downland Sheepmarker L.M.A. Shearmark L.M.A. Stockmarker Marksman II Multi-Marker Original Ritchey Super Sprayline Spalding Multimarker Trumark	Red/Blue/Green/Orange/Black/Yellow/Purple

APPROVED MARKING FLUIDS

All Purpose Marking Fluid Downland Marking Fluid	Scarlet/Basic Red/Black
Denimex Marking Fluid Mara-Mark Youngs Marking Fluid	Red/Blue/Green/Black

APPROVED RADDLE CRAYONS

Denimex Ram Harness Crayons Marabou Ram Harness Crayons	Red/Blue/Green/Yellow
Stafix Ram Crayon	Red/Blue/Green/Orange/Yellow/Black

SEPTEMBER

ACROSS

1. Pig House
7. Cut-grass fodder
11. Young bear
13. Idle person
14. Newspapers, radio, T.V. etc.
16. United Nations
17. A rope with a lariat
19. Acute infectious viral disease (esp. of dogs). Zoonotic.
20. Hearing organs
21. Hinged metal clasp
23. Umbilical for example
25. Garden protector
27. Unwanted seepage
29. Maim
32. Physical Education
33. Speaks Violently.
36. Pasture
37. Animal doctor
39. Fowl
40. Foot gear for snow gliding
41. Type of pig
45. Too
46. Choose
47. Grunting farm animal
48. Secondhand
49. Stanley Sports Association
51. The first garden
52. We hope the lambing ones are good
55. Large rodent
58. Bovine Ruminants
59. Batchelor of Arts
60. Iron / Steel attractant
62. Small stick off tree or shrub
63. Hailing call from a ship
64. Baking space
66. Immediate medical assistance given in an emergency
69. Los Angeles
70. Director of Agriculture
72. Period of isolation
75. Nerve centre mass
77. Bags
78. Most computers take a floppy one
79. Not a Towny

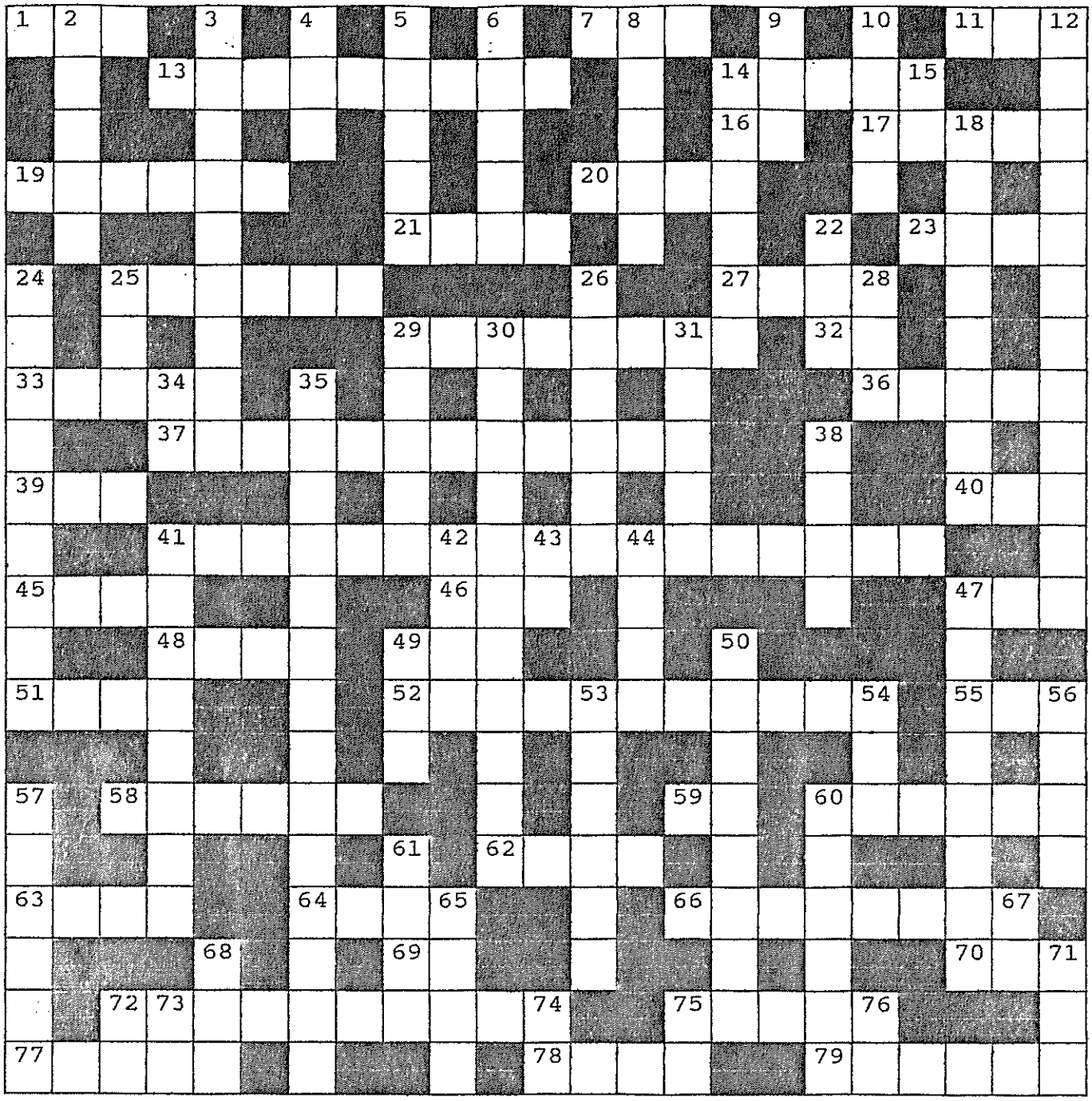
DOWN

2. Coastal cargo vessel
3. Large storage distribution shed
4. Grass or cereal crop
5. Expel air from lungs suddenly
6. Micro-organisims (Bacterium)
8. Aquatic floating plant life.
9. Fowl
10. The basic mammal food
12. Transmit by Radio/ Television
14. flexible/elastic tissue fibre
15. Alcoholics Anonymous
18. Snow covered peaks of mountains.
22. Vital plant fluids
24. Could be as mad as this creature
25. Metal container
26. Joined
28. Small barrel
29. Domestic help
30. See through
31. Weight of 2000lbs
34. Television.
35. Black and white "saddle" cattle
38. Young Horse
41. Perimeter.
42. Stockings
43. There
44. Fine soft feathers
47. To have unfounded suspicions or fears of persecution
49. Undercover agent
50. Supercilious supporter of Charles I
53. Of horses
54. Ocean
56. Short Ballerina Skirt
57. Planks of wood
60. A design or picture of inlaid ceramic chips
61. Reduce to a liquid
65. Protective plate on digit
67. Perform
68. Possess
71. Atmosphere
72. Queens Counsel
73. United Kingdom.
74. Editor: abbrev:
75. Before Christ
76. Not Available

SHEARING RECORD

A new Uk sheep shearing record has been set by Welsh shearer Nicky Benyon, Canon Farm, Llanerfyl, Powys. Working over a 12-hour period Mr Benyon raised the record to 625 sheep in nine hours.

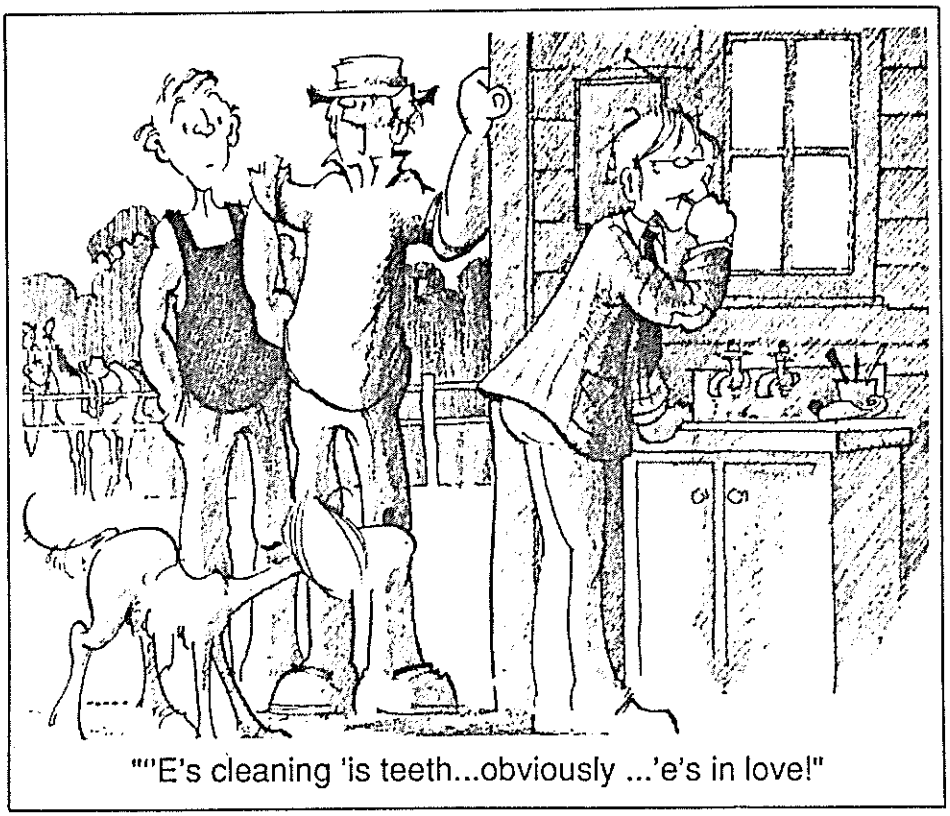
SEPTEMBER



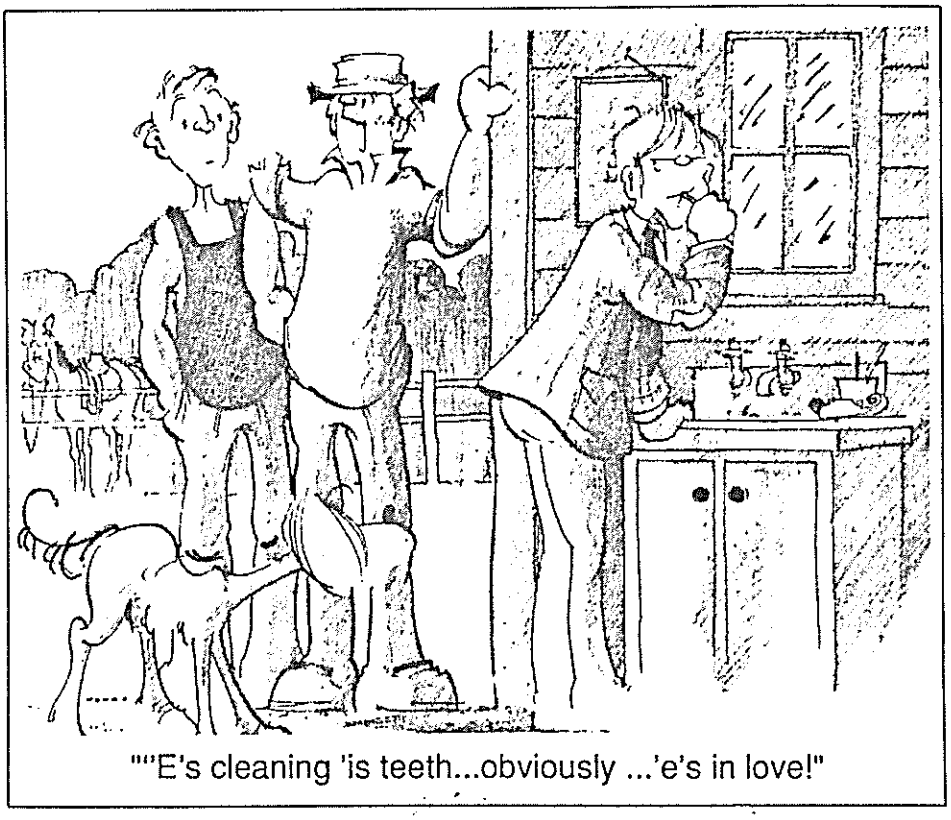
PLEASE SEND IN ANY OF YOUR FAVOURITE TRIED AND TESTED RECIPES OR COOKING TIPS.

A SELECTION OF SALT MEAT (PICKLE) RECIPES WOULD BE NICE.

SPOT THE DIFFERENCE



""E's cleaning 'is teeth...obviously ...'e's in love!"



""E's cleaning 'is teeth...obviously ...'e's in love!"

LAST MONTH'S DIFFERENCES

BOTTOM PICTURE: 1.Lead rein in man's hand is shorter; 2.Man's hat band dark; 3.Man's left collar gone; 4.Halter has a buckle; 5.Horse's pupil looking 'back'; 6.Ladies left cuff dark; 7.Ladies mouth open wider; 8.Ladies pocket has extra line; 9.Cable dark; 10.Shaved man has deeper frown lines on forehead.

WOOL PRESS

retail price: £1.00

ISSUE 47 OCTOBER 1993

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by R.H.B.Hall

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by S.Howlett

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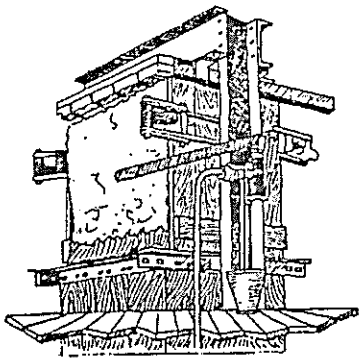
By C.Wilkinson

WORMS IN SHEEP PAST, PRESENT & FUTURE STRATEGY (part 2)
by D.Baber

TOXOPLASMOSIS IN PREGNANCY / WORKING IN THE SUN
by Dr Diggle CMO

FARMING STATISTICS / FARM ACCOUNT BOOKS
by H.Marsden

PLUS ALL THE REGULAR FEATURES



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Editors : M.J. Mcleod and R.H.B. Hall.

EDITORIAL

Spring is here, or so it should be with all the lambs arriving. Not the best weather to greet them into the big wide world is it?

Apologies for the lack of a "SPOT THE DIFFERENCE" this month. Solutions to the last one will be in the next WOOL PRESS.

This month will see all those last minute jobs being done in preparation for the season and shearing. All vehicles having been serviced during the winter months and dogs carrying that extra fat ready to burn of on those long drives.

HAPPY GATHERING!

WORMS IN SHEEP
PAST, PRESENT AND FUTURE STRATEGY

PART 2. PRESENT

Last month I attempted to refresh farmers memories in respect to the studies carried out in the Falklands on internal parasites in sheep. This month covers the current understanding from 1988 to the present time. In general there are three broad groups of parasites that can be considered as causes of general loss of condition etc. amongst sheep. The most important and relevant group are Helminths, which can be further divided into three very different groups of worms.

Nematodes - the round worms, mainly found in the gut and lungs.
Cestodes - tapeworms normally found in the gut as adults, but in some species found as juveniles in the lungs, liver etc.
Trematodes - flukes found in a variety of locations in the body. eg. the liverfluke.

NEMATODES.
The most important group which has immediate impact in the general loss of condition in sheep in the Falklands is the typical, gut dwelling Nematode. They are found throughout the main temperate sheep-rearing areas of the world. Reports vary slightly on the species present in the Falklands and as there is very little movement of sheep between farms, it is very likely that different species may be present on neighbouring farms, and that few farms harbour all the species.

Fifteen species of worms have been found, of which fourteen are Nematodes. Thirteen of these infect the gastrointestinal tract. From this it is obvious that at least numerically, the gastrointestinal Nematodes are the most significant of the sheep parasites found in the islands. In large numbers, these species cause the condition known as Parasitic Gastroenteritis (PGE). This is normally seen in younger animals where the clinical signs are diarrhoea and rapid weight loss, leading to emaciation and death. Lower levels of infection cause poor growth rates and can be accompanied by softer faeces and occasional bouts of diarrhoea causing the stained hindquarters which are an important sign of infection.

Throughout all the studies conducted in the islands the overriding findings indicate that although these gut parasites are present, it does not necessarily follow that infection rates are sufficiently high for production losses to occur. Indeed Whitley (1983) took into account the climate and reckoned that the "life" for these worms must be a precarious matter in the harsh island environment. In 1987 Pullen re-assessed the situation in regard to the likelihood of more intensive management of sheep, particularly using reseeded pastures. Whitley's observation correctly realised the over-riding influence on the degree of parasitism was in fact climate. The other important influences are the system of husbandry/management and the immunity of the stock.

Nematode eggs passed out in sheep's faeces must hatch and undergo development through three larval stages before they become infective to other grazing sheep, and these pre-parasitic stages are vulnerable to adverse conditions while on the pasture.

CLIMATE

The eggs and the larvae are able to survive occasional slight freezing and while some may be killed by repeated frosts, the majority are likely to survive the minimum temperatures encountered in the Falklands. The optimum temperature for hatching infected larvae is around 25°C, even in Summer such temperatures are rarely reached. At lower temperatures development is even slower and ceases below 5°C. During Winter, temperature's will rise above the crucial 5°C level for a few hours a day each month therefore allowing slow development. In late August this rate increases. The eggs passed out in early Spring develop in a few weeks. As Spring advances the temperature ceases to become the most important constraint in development and humidity emerges as the factor which affects the survival of infective larvae. Over much of the Falklands it would appear that the ground surface becomes too dry in summer to permit larval development, but lush damp valleys and greens have high relative humidity to allow survival and hatching.

MANAGEMENT

Due to the relatively poor nutritional nature of the natural pastures, the stocking rates tend to be around 4 - 5 acres/sheep. At such low stocking rates the potential parasitic contamination would naturally be very low. However, sheep have a tendency to congregate in certain 'lusher' areas where the parasite larvae can survive and build up a higher burden than elsewhere. This combined with the 'easycare' basis of management allows an emerging parasite problem to be missed. In practice this style of husbandry and its effects on the sheep are as follows.

1. The sheep are set stocked. They do not get a chance to get away from contaminated grazing.
2. Any particular class of stock are nearly always kept on the same area year after year. Hoggs follow hoggs and the lambing area is fixed.

CONTROL

The only classes of stock where parasite control is likely to be considered are the younger animals in their first year of life. The other classes of stock are liable to have gained a significant degree of immunity. In fact the relative acquired immunity of wethers can be valuable in grazing control as they can be safely put onto contaminated pasture.

HOGGS

The period of maximum risk of infection is the weeks immediately preceding shearing. The aim of any control programme must be to reduce the worm burden from mid-winter and prevent the animals ingesting the large numbers of spring larvae. The strategy best adopted is that the camp that the Hoggs are to go onto at weaning should have been empty of hoggs from the Hogg shearing in late spring onwards over the summer.

1. ALTERNATE GRAZING

The easiest way is to have the hoggs alternate year about with the wethers on any specific camp. In this regard the camp should be clean as possible when the hoggs are put onto it at weaning. another variant is alternate grazing areas between Hoggs and Wethers as before but to make the change over at Mid-Winter instead of at weaning.

2. ALTERNATE GRAZING WITH STRATEGIC DOSING

To maximise the benefit the Hoggs can be dosed with a suitable wormer at the point when they are moved onto a clean area.

EWES

Like Hoggs the aim is to keep the Ewes as free of worms as possible at the time of year when they are vulnerable, in the Spring around lambing time. There are fewer options likely to be open for worm control in Ewes. It must be assumed that most farms have limited areas that are suitable for lambing, and alternatives do not exist. If it is possible then alternating lambing camps would be the best solution. An attractive proposition would be to retain a portion of the Ewe camp solely as a lambing ground. If such an area could be kept free of susceptible stock (Ewes, Lambs and Hoggs) for the rest of the year and used for the Ewes from September to December, the opportunity for a rise in pasture contamination and hence a rise in infection rates in Ewes and early grazed lambs would be minimised. This should also reduce the level of infection in the lambs at weaning and consequently the carry over from the ewe camp to the Hogg camp.

CONCLUSION

On many farms it may be decided that parasitism is not a sufficient problem to make any changes in the management pattern worthwhile. However it would be very rash that the issue of parasite control be completely neglected. The simple expedient of regularly checking the state of the stock and having a supply of suitable wormer handy may be sufficient. A serious worm burden can only be seen by the effects on the host. Poor pellet formation or severe diarrhoea, emaciation and dullness. The presence of "Daggy" sheep can be a result of the animals being on a rich pasture in the early spring after poor winter grazing. If a large proportion of the flock is very "daggy" and the animals appear in poor condition, it is most likely that worming them will do a lot of good. If possible not to return them to the same camp after they have been wormed. At present the most common wormer available here in the Falklands is Panacur (Hoechst). This anthelmintic is classified in group 1 of anthelmintics, coming under the chemical constitute name of a Benzimidazole. The other groups being: Group 2 - Imidazothiazoles eg. Levamisole. Group 3 - Avermectin eg. Ivermectin. This grouping indicates the chemical type of drench and each are distinctly different in their mode of attack and to their spectrum of efficiency.

LABORATORY SUPPORT

1. If a proprietary brand of anthelmintic is being used or is planned to be used it is advisable to send into the laboratory faecal samples from the stock to be drenched for larval egg counts to be carried out. Also to resubmit 7 - 10 days i.e. after drenching, faecal samples to establish the efficiency of the drench being used.
2. Ensure that the gun is accurate and working properly.
3. Check the live-weight of the heaviest animal and select this dose as the dose being administered - often weights that are guessed are under, and the incorrect dose is administered.

Next month I will be writing about the emerging picture of parasite drug resistance being encountered in Australia, New Zealand and the U.K. through mis-managed and over drenching programmes.

DAVID BABER
OCTOBER 1993

OUT GOES THE STENCIL

Following on from previous articles on new labelling and bar coding of bales, I thought this article on how the system works was of interest. It would seem that this is the way things are going in New Zealand and Australia. Trial results seem to be favourable.

This year sees the start of a full season's trial of labelled woolpacks.

All imported packs will carry a plastic label on the top flap. Instead of branding the bale with a stencil and boot brush, the presser will fill in the label, using a spirit-based felt pen. If the farm or station wants a little more style, they can print the name with a rubber stamp and permanent ink pad or have a pre-printed stick-down label to fit the space provided.

The system, developed by Globe Print of Wellington and the Wool Board, has been several years on the way and was trialled in Otago last year. The labels proved easier to write and easier to read.

The labels, sewn down, are very tough and resist to almost any rough handling. In the shed, it will probably be easier for the presser to complete the label and the wool book at the same time, thereby avoiding mistakes.

A felt pen may be rather easily lost; if there is a box for pack clips on the side of the press, that might be a good place for it.

But the advantages of the label go much further than this. Each label carries a unique number and bar code. At Globe Print they will show you how in time, wool bales could be traced through the marketing system.

When the bale reaches the wool store, the bar code is read with a portable scanner, like groceries in a supermarket. Weight, contents and other details are tapped into a keypad on the scanner and the information is radioed to a nearby computer. From there on, reading the bar code will bring up the information about contents, ownership etc on a small screen on the scanner. Any misplaced bale can be quickly spotted.

When the wool store receives shipping instruction from the exporter, a new label is printed out and stuck on the basic label. If at the mill overseas there is any question about a bale, a scan of the bar code will bring up its history, right back to the farm or scours.

All this is still to come. It promises a cleaner, faster and more accurate way of handling the wool clip - provided the wool presser gets the description right!

SHEARING MAGAZINE
1993

A SURVEY OF WOOL PREPARATION, CLASSING AND HANDLING.

The following summary, recommendations and postscript are extracts from my 1990/91 Wool preparation, classing and handling survey report. The full 32 page report is available upon request to all farmers who contact me at the Department. My thanks again to all those who assisted with this extremely useful survey.

SUMMARY.

A telephone survey questionnaire collected objective data and information for sheep management and wool preparation, classing, and handling, from 81 Falkland farms, during the 1990/91 season.

A wide variation in farming practices was discovered, both in terms of region and farm size, the influence of farm size on the characteristics of "Falkland" wool was noted and various problems in the local wool industry were highlighted.

The survey demonstrated general problems in data collection and survey analysis, particularly with nomenclature. The results, however are a valuable base from which to guide wool extension for some time, as adoption of improved and standard practices is invariably slow. The report concludes with 12 recommendations and a postscript detailing recent work which has endeavoured to meet many of the recommendations.

RECOMMENDATIONS.

The following recommendations are made:

1. That the farmer demand for more specialised wool-sheep breeds, is facilitated, by continuing the Department of Agriculture's A.I. scheme and by considering animal and embryo importation.

2. That the interpretation of "wool" jargon is clarified by the production of a technical glossary.

3. That fleece preparation is standardised at the highest possible quality level.

4. That extension encourages "faults" being classed into AA, BB or CC lines for fleeces with standard categories of problem.

5. That all classing is undertaken by one classer per farm.

6. That press replacement is by machines of one press-box size, throughout the Falklands.

7. That all wool sheds ensure they have at least one rubbish bin.

8. That sheep breeders are encouraged to weigh fleeces as part of their selection process.

9. That sheep breeders are encouraged to use fibre diameter testing of mid-side samples, as part of an objective sheep selection process.

10. That both farmers and scientists review the timing of lamb marking and weaning, in terms of practical farm organisation, lamb welfare, and lamb growth and development.

11. That the on-going demand for contract shearers is noted.

12. That a similar survey is undertaken in about 1998/99, to quantify sheep and wool changes and to help target further wool extension.

POSTSCRIPT.

Since this survey was undertaken, the A.I. scheme has occurred annually and a National Stud Flock (NSF) was imported in January 1992. These survey results support the choice of Polwarths, given the current breed status and planned Polwarth expansion. Private sheep were imported with the NSF; it should be noted that some farms which had recorded, for example a planned move to Comebacks in this survey, imported Cormos etc.. Three Suffolk rams were imported for meat production; such imports were not anticipated at the time of this survey.

Wool as a traded commodity must increasingly lend itself to standard specification. This survey highlighted the variety of skirting and classing practices amongst the 81 farms surveyed. Since this survey, wool extension has attempted to both improve and standardise Falklands wool preparation and classing practices.

Given the nomenclature problems highlighted by this survey a standard wool glossary was drawn-up during 1991. The glossary was based on the terms and definitions used most frequently in the Falklands, combined with definitions from Australia and New Zealand.

To assist standardising wool preparation of the highest quality, an advisory film titled "A Guide to the Handling and Preparation of Falkland Wool" was made and distributed to all farms in the Falklands, by January 1992. The Department also lends wool extension videos sourced in Australasia to all farmers on request. Wool shed posters are planned for the 1993/94 season.

The variety of skirting and classing practices precipitated the design and publication of a "Guide To Clip Preparation" in 1992. This was based on similar publications in Australia and New Zealand and was adapted to the Falklands situation, through discussion with farmers and U.K. marketing personnel.

The problem of having more than one classer per farm has been frequently discouraged during farm visits and in Woolpress articles, with a partial response.

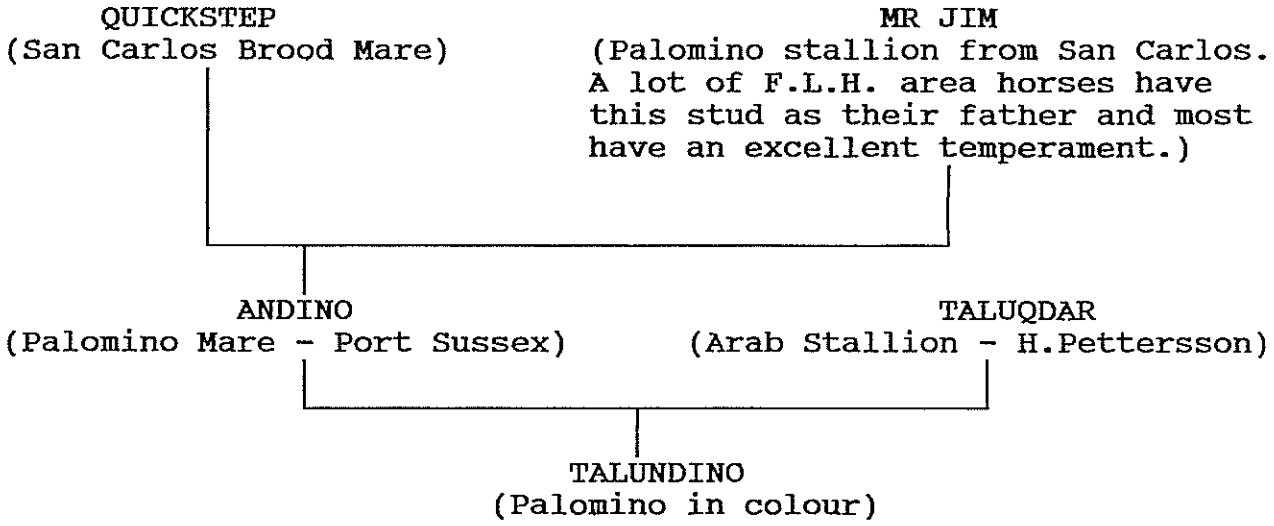
The interest in capless packs was generated by the Department of Agriculture in 1990 as a result of New Zealand following Australia into this packing system. This interest was encouraged during the farm open day run by the Department at Horseshoe Bay in 1991.

Rubbish bins, fleece weighing and mid-side sampling have all been encouraged in many Woolpress articles, at the Goose Green Open Day in 1992 and during farm advisory visits. Unfortunately the huge early interest in mid-side sampling has subsided due to the Department's laboratory replacement problems delaying the offer of a full service.

ROBERT H. B. HALL.

PALOMINO STUD

Richard and Toni Stevens have at Port Sussex, a nine month old colt (born 08.12.92). If enough interest is shown in this animal they will keep him as a stallion for a year or two. His breeding is as follows



In this case, Palomino refers only to the horse colour, not the breed as I believe Palomino is now a registered breed! He is quiet but yet to be broken to the head collar. If no interest is shown by the end of December we shall have him gelded. Interested persons should contact Toni or Richard at Port Sussex by phone (32203) or letter.

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FARMING STATISTICS 93

Hopefully all farmers and other interested parties will have received their 1993 Annual Farming Statistics with last months edition of the Wool Press. We are grateful to all who submitted returns in a prompt and precise manner. Before the Farming Statistics are removed from the coffee table to the depths of the office cupboard it is worth reinforcing the importance of the Farming Statistics to the industry as a whole. They are used in a wide variety of ways, the principal ones being:

1. To assist the determination of the market value and true potential of individual farms.

2. To asses the implication of policy changes at farm and industry level. The Meat and Livestock Commission (as an example,) have recently been sent back-dated copies to assist them in their appraisal of the abattoir project.

3. To gauge shifts in the level and composition of stock.

4. To meet international obligations to supply data to such organisations as the United Nations, Commonwealth Secretariat and other official bodies.

5. To evaluate the performance of individual farms in Key areas such as lambing, mortality and wool weight statistics.

6. For veterinary and other "in house" research purposes such as F.I.S.A.P. , the Hydatid Programme etc.

7. To provide external bodies (such as the military) with background information on Falkland Island Agriculture.

In order to gain the maximum benefit from the returns annual data has recently been compiled on an individual farm basis. For some of the more established farms, this has meant that 20 years of data has been collated. It is hoped that the "farm" statistics will be updated annually in conjunction with the annual "farming" statistics.

With the possibility of the abattoir being updated, the Department would be grateful if farmers could be as precise as possible in the acquisitions and disposals section of the forms. With the possibility of a greatly increased Beef Market, cattle related statistics will become increasingly important. Acquisitions and disposals should be entered as beef under "other Stock". For 1994 we plan to make a few minor adjustments to the layout of the form to improve accuracy and hopefully reduce errors. Such errors are almost inevitable, 1993's statistics have been no exception. Please note the following amendments.

1. Stoney Ridge Greasy Wool Weight: 18,867 kg
2. Home Farm Total Sheep Shorn : 3,920
   Other Sheep Shorn : 1,010

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FARM ACCOUNT BOOKS

The Department have at last managed to update and reprint the Farm Account Books 1 and 3. Draft copies of these books have been circulated to a wide cross section of the industry in an attempt to iron out as many potential problems as possible. We are particularly grateful to those individuals who have offered constructive suggestions. Thanks must also go to the Printing Office who have put a considerable amount of effort into printing the books (the original series were printed in the U.K.)
Modifications have been made with the following objectives:

1. To make the original series more user friendly.
2. To adhere to the old format as closely as possible.
2. To enable entries to be made with greater precision
3. To enhance the value of the book for management purposes.
4. To enable farmers to submit their own accounts for taxation purposes.
5. To provide a degree of flexibility in the layout of the books and to cater for farms with alternative enterprises.

As always, if any farmers experience difficulties with the new format, please don't hesitate to contact the Department. Further comments regarding their use and application would also be welcome.

These books in conjunction with the Green Account Book 2 (Livestock and Wool Records) are now available from the Department at the existing price of £2.00 per book.

HUGH MARSDEN, OCTOBER 1993

3. Use high factor suncream preparations especially on the face, nose, lips, ears, hands and around the neck where the skin is very sensitive.

I am looking into the possibility of measuring ultraviolet radiation levels in Stanley in collaboration with the National Radiological Protection Board. Whether this will be a viable project or not remains to be seen but it would certainly help if we could monitor the situation daily and issue warnings when radiation levels are high.

Remember - this is a real problem - it could happen to you. We do see quite a lot of skin cancers in the Falklands and most could be prevented very simply.

DR DIGGLE, CMO
OCTOBER 1993

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RECIPE PAGE?

Due to the absence of recipes again, We have decided to fill the "space" with the following information. While interesting to some and obvious to others, it would be nice to have a bit of what this "space" is really for, so SEND IN THOSE RECIPES!

FORMULA FOR COOKING A PERFECT POTATO

$$T = \frac{r^2}{c}$$

The equation above is for cooking the perfect potato, part of a project by a Bristol University physicist that might overturn cook-book dogma.

T is the cooking time, R is the radius of the potato and C is the constant that depends upon the heat capacity of water and the contact surface of the potato.

Dr Peter Barham developed the equation after experimentation in the kitchen in his spare time, research which showed many conventional cook-books to be wrong. "If you bother to think about science in the kitchen, you will be a better cook," he said. "A bit of basic physics can show you how to calculate cooking times. Cookery books say you do it according to weight, which is completely wrong." The square root of the dimension is the key.

Anyone who doesn't know how to cook a potato might find this useful!?!

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WHITEGRASS SYMPOSIUM REVIEW

This publication, at just over 100 pages, details the papers given at the First International Symposium on Whitegrass, held in the Faculty of Agriculture and Food Science in Queen's University, Belfast, on the 1st August 1990. Contributions to the symposium have been collated and edited by Dr.Jim McAdam.

The contents represent the current state of research on Whitegrass, covering what is already known, what is presently going on, and the route that future work should take. The book, reflecting the symposium, is divided into four sessions and the resulting discussions from each offered paper are well documented.

An extremely interesting review of Falkland's agriculture was presented by Rupert Haydock, comparing farming statistics from the Falklands and Northern Ireland, to initiate Session 1. Jim McAdam gave a review of Whitegrass research, and David Walton presented the growth and form of Whitegrass. Gerry Hoppé and Fiona Wilson gave a variety of papers in Sessions 2 and 3, with work carried out both in the Falklands and at Queen's University. The effects of temperature and defoliation (G.H. and F.W.), and winter defoliation (G.H.) were given in Session 2, and the effects of the nitrogen source and also root waterlogging on Whitegrass growth (both F.W.) were given in Session 3.

The Ecology and Management of Whitegrass were covered in Session 4, producing two papers; one from Steve Howlett on the Whitegrass summer grazing trial, and the other from Jim McAdam, Margaret Burkett and Steve Howlett on the Whitegrass response to overgrazing and burning.

The last chapter lists the current research programmes and future research priorities. The book closes with an appendices of 4 papers published on Whitegrass in major journals.

In all, an extremely interesting and informative book on all aspects of Whitegrass research and imperative reading for anyone interested and involved with Whitegrass management.

The books cost £10.00 each, which merely covers the cost of production, and are available from the Department of Agriculture. Several copies will also be available from the DOA library on a loan basis. Anyone interested please contact Steve Howlett, Robert Hall or Mandy McLeod.

STEVE HOWLETT
SEPTEMBER 1993

Whitegrass: Proceedings of the 1st International Symposium (1992); Ed. J. H. McAdam. ISBN:-0 85389 454 X

The following two articles have been submitted by the Chief Medical Officer, Dr Diggle as general health warnings and precautionary steps to take, to protect ourselves from ultraviolet radiation and Toxoplasma in pregnancy.

TOXOPLASMOSIS IN PREGNANCY

Toxoplasmosis is a world-wide infection of man and animals caused by a protozoan Toxoplasma Gondii.

In humans the vast majority of infections cause no harm at all and often are never recognised. However, it can cause problems in 2 situations, firstly, when a person's immune system is not working properly eg: AIDS, Leukemia, Chemotherapy for cancer, when it can cause a severe infection. Secondly, in pregnancy; if the mother is infected during pregnancy about half the babies will be affected and 1 in 10 seriously. Congenital toxoplasmosis causes damage to the brain, eyes and ears. The damage can vary from very mild damage to the eyes to very severe effects including severe brain damage, convulsions, spasticity, mental retardation, deafness and visual problems.

PREVENTION

Unfortunately, there is no immunisation that can be given, but people who have been exposed to toxoplasma in the past are immune. However, there are some simple measures that can be taken to minimise your risk of acquiring toxoplasma in pregnancy.

Toxoplasma is acquired either from the meat or faeces of an infected animal. ALL mammals can be affected buy the main problem for humans are cats and sheep as we tend to have much closer contact with these.

When pregnant avoid contact with sheep and cats as much as possible.

If avoidance of cats and sheep is impossible then wear rubber gloves and wash your hands with hot water and soap.

If your cat uses a litter tray - empty it every 24 hours to avoid any toxoplasma eggs maturing - incinerate the contents or flush it down the toilet - sterilise the litter tray with boiling water. - Remember to use rubber gloves.

If you are pregnant do not eat any raw or under cooked meat.

CHILDREN AND TOXOPLASMA

There is some evidence to show that young children are at greater risk from toxoplasma. The main source of this problem is sand pits that children play in and then cats defecate in. If your child has a sand pit make sure it is covered over when not in use.

TOXOPLASMA IN THE FALKLANDS

During the last Hydatid Survey everyone was also tested for toxoplasma as well. The results show that just over 40% of the

population had been exposed to Toxoplasma. This compares with the UK figures of 10% aged 10, 20% aged 20 and 50% aged 70 have been exposed. In France over 80% of the population aged 20 have been exposed to Toxoplasma - this is probably because they eat more raw and under cooked meat.

There has never been a case of a baby in the Falklands being seriously affected.

FINALLY
Key points:

1. Toxoplasma is not serious unless you are pregnant.

2. If you are pregnant avoid contact with sheep and cats if possible, if not wear rubber gloves and wash your hands in hot water and soap after contact.

3. If you are pregnant do not eat raw or undercooked meat.

IF YOU ARE HAVING PROBLEMS WITH ABORTIONS IN YOUR FLOCK, THEN REPORT IT TO THE VETERINARY OFFICER WHO WILL BE ABLE TO ADVISE YOU.

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WORKING IN THE SUN

This is the time of year when you will start to spend large amounts of time outside and therefore I think it is a good time to remind everyone of the hazards of sunlight.

Basically the situation can be summarised very briefly - ultraviolet radiation in sunlight seriously damages skin, it causes skin cancers and premature aging of the skin. People who are most at risk are fair or ginger haired people with freckles and anyone who sunburns easily. However, everyone is at risk.

The risks of exposure to UV light are worse than you might imagine in the Falkland for several reasons.

Firstly, the hole in the ozone layer sometimes includes the Falklands - this is usually in late September/early October. The ozone layer filters out harmful UV light so when the hole is present much greater quantities of UV light get through.

Secondly, the lack of atmospheric pollution also means more UV light gets through.

Thirdly, because the air temperatures are relatively low it is easy to forget about the risk which is obvious if you are in a hot climate.

PRECAUTIONS
Simple precautions will lessen you risk of exposure.

1. Wear a hat - preferably with a wide brim - if it will stay on in the wind!

2. Don't roll you sleeves up unless essential.

BATTERIES (continued)

Continuing last months' article on batteries, the following information is quoted by permission of the author, Richard Perez.

AUTOMOTIVE STARTING BATTERIES

The main thing we learned from using car batteries in deep cycle service is: DON'T!!! These batteries are not designed for deep cycle service. Although they are cheaper they are more expensive to use over a period of time as they wear out very quickly.

The plates of a car battery are made from lead sponge. The idea is to expose the maximum plate surface area for chemical reaction. Using lead sponge makes the battery able to deliver high currents and still be as light and cheap as possible. Their sponge type plates do not have the mechanical ruggedness necessary for repeated deep cycling over a period of years. They simply crumble with age. Car batteries are designed to provide up to 300 amperes plus of current for very short periods of time (less than ten seconds). In this use the battery is usually discharged less than one per cent of its rated capacity, and it is designed for this very shallow cycle service. Experience has shown us that car batteries last less than two years in deep cycle service. Due to their short life span in home energy systems, they are more than three times as expensive as a true deep cycle battery (DCB).

BEWARE OF ERSATZ DEEP CYCLE BATTERIES

You can spot these imitation DCBs by their small size and light weight. They are cased with automotive type cases. Their plates are more rugged than the car battery but still not tough enough for the long haul, lasting about 400 cycles.

TRUE DEEP CYCLE BATTERIES

The plates of a real DCB are made of scored sheet lead. These plates are many times thicker than the plates in car batteries, and they are solid lead, not sponge lead. This lead is alloyed with antimony to make the plates harder and more durable. The cell cases are large; a typical DCB is over three times the size of a car battery and weighs 120 to 400 lb. These batteries are designed to have 80% of their capacity withdrawn repeatedly over many cycles. They are optimised for longevity. If you are using battery-stored energy for your home, this is the only type of lead acid battery to use. Deep cycle batteries are also used for motive power. In fact many more are used in fork lifts and standby emergency services than in renewable energy systems.

LIFE EXPECTANCY

A DCB will last at least five years. In many cases, batteries last over ten years and give over 1500 deep cycles. In order to get maximum life from a DCB, it must be cycled properly. All chemical batteries can be ruined very quickly if they are improperly used.

PERFORMANCE

The following information applies to high antimony, lead acid DCBs used in a home renewable energy system. An accurate volt meter is the best source of information about a battery's performance. It is essential for answering two basic questions: When to charge, and when to stop charging.

A battery's voltage is affected by three factors - state of charge, current and temperature. State of charge is what we are trying to find out so let's deal with current and temperature. Current is the rate of flow through the battery caused by either charge or discharge. As current moves through a cell, the cell's voltage changes because of internal resistance. When recharging, the current flow causes the cell voltage to rise. The higher the recharging current, the higher the voltage rise. As the cell is discharged, the discharging current causes the cell's voltage to drop. The higher the discharging current, the greater the battery's depression.

This holds true for all electro-chemical cells, regardless of type, size or environment. Values may differ between acid and alkaline technologies, but the relationship between current flow and cell voltage remains the same.
The graphs show a variety of recharge and discharge rates from C/5 to C/100.

RATE OF CHARGE
Rates of charge and discharge are expressed as the ratio of a battery's capacity in relation to time. If a discharged battery is totally recharged in ten hours, this is called a C/10 rate. For example, with a 350 Ampere hour battery a C/10 rate of charge or discharge is 35 Amps; a C/20 is 17.5 Amps. The most efficient rate of charge for DCBs for long life is between C/10 and C/20. If charged at the C/5 rate continually, electrical energy is lost as heat. Charging a battery above manufacturer's recommended rates and temperatures causes heat and mechanical stress which breaks down the plates and shortens the life of the battery. A battery should be completely refilled each time it is cycled, making all materials participate in the chemical reaction.

TEMPERATURE
As a battery cools, its internal resistance increases. This means that voltage must be increased for recharging in cold weather. The same internal resistance increase produces increased voltage depressions during cold weather when discharged. At freezing point the capacity as well as voltage will be depressed, by as much as 0.5 volts and 20% capacity. Always use a battery charger with automatic temperature compensation facility.

HYDROMETER READINGS
Battery electrolyte is approximately a 25% solution of sulphuric acid. The density of the electrolyte is an accurate indicator of a battery's state of charge; however, electrolyte expands or contracts with temperature changes so corrections have to be made to get an accurate reading.

EQUALISATION CHARGE
After several months of use, individual cells in a battery may differ in their state of charge. On a fully charged battery, if there is a difference greater than 0.05 volts between cells this indicates that it is time to equalise. An equalising charge is a controlled over-charge of an already full battery. There are no hard and fast rules about this, but experience has shown that the best results are from equalised charging at the C/20 rate for 5 hours. A guide is to equalise every 5 deep cycles or every 3 months.

AGE

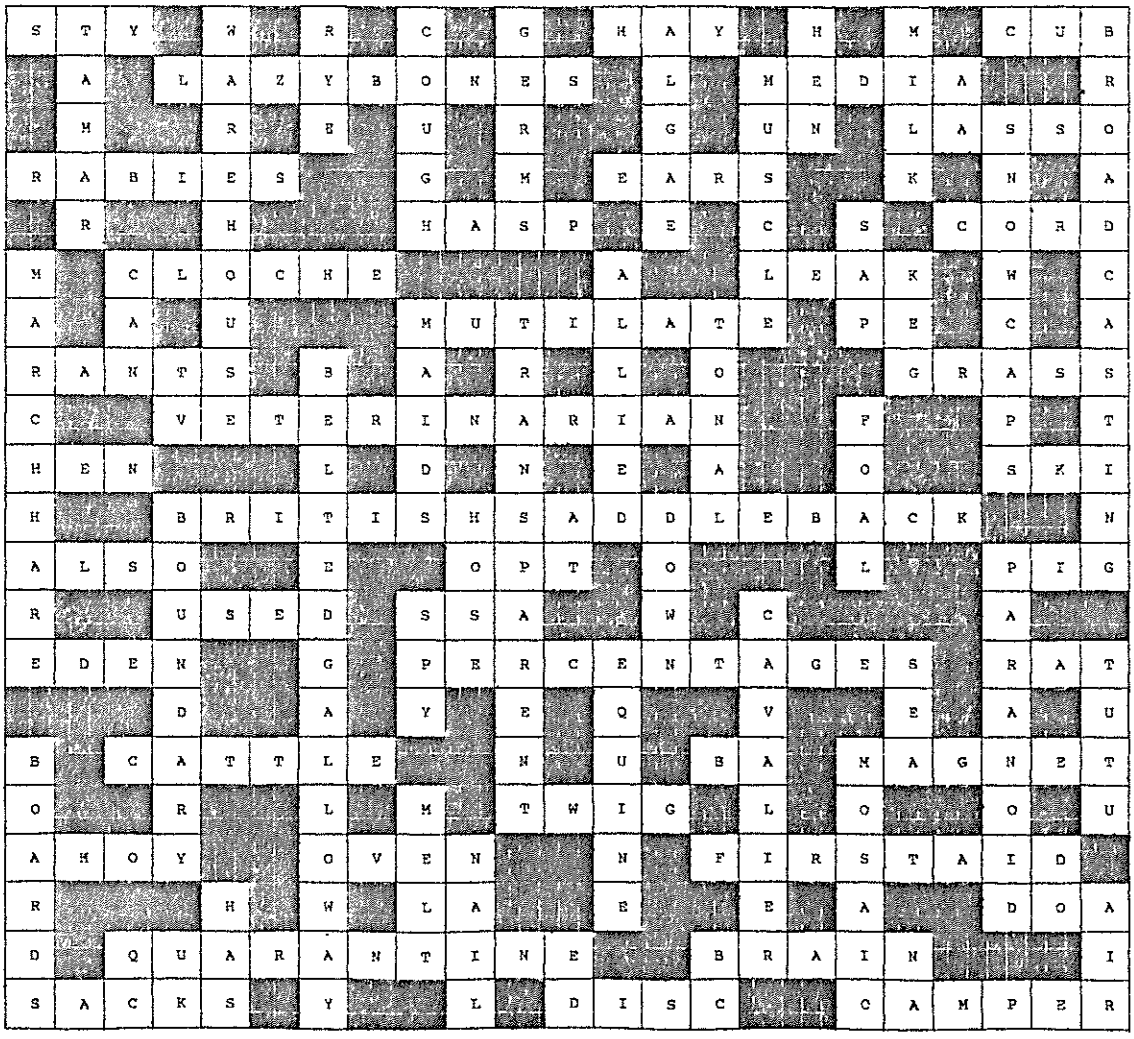
All batteries lose some of their capacity as they age. Manufacturers' claims mean that the battery will hold 80% of its original capacity after, for example, 5 years of PROPER USE. Too rapid charging or discharging, and under charging, are examples of improper use.

MAINTENANCE/SAFETY

1. Always keep pets and children away from batteries.
2. Keep batteries in a frost-free well-ventilated place, and separate from inverters.
3. Avoid discharging beyond 50% of capacity.
4. Use only distilled water to replenish electrolyte.
5. Make sure your battery is big enough to do the job.
6. Obey manufacturers' recommendations at all times.
7. Keep connections clean and corrosion free.

CLIVE WILKINSON
OCTOBER 1993

LAST MONTHS SOLUTION.



GOOD HOMES WANTED

FOR SEVERAL PAIRS OF PIGEONS

Contact: Susie or Simon Bonner at Pickthorne Farm.

"GRINDING" IS NOT THE WORD

Some tips and hints on grinding and sharpening your gear from "SHEARING" magazine.

"Grinding" is the wrong word; when you put a comb on the emery you want to "sharpen" it. "Grinding" means wearing away metal like cleaning up a weld. It requires a very robust abrasive. If you looked at it under a microscope, you would see grains of a heavy wedge shape, the material is very tough and hard. Sharpening calls for grains of a much sharper wedge shape. The material, though similar, is not as tough or hard; in fact it is designed to fracture so that it presents new sharp edges.

"Emery" is not the right word either. It is another name for "corundum" which is a natural crystal, second cousin to rubies and sapphires. Your modern-day emery uses aluminium oxide. And if you thought aluminium was soft, well aluminium oxide when it comes out the blast furnace is almost as hard as diamonds. Getting the grain evenly spread on the backing cloth is a high voltage miracle. The cloth and a conveyor carrying the grains run between charged plates. The charge attracts the grains across the gap to the cloth, which has been coated with the bonding agent. The system not only "stands" the grains with the sharp edges uppermost but it spaces them equidistant from each other, giving a very uniform coverage. The distance can be controlled. For shearing squares you need a high grain density. So what are the lessons from this: The main one is to remember you are "sharpening", not "grinding", which means you use the least pressure needed to do the job. (David Fagan's recommendation is 1kg. He suggested at seminars last year that shearers should practise pushing the kitchen scales.)

David Ewin, the product manager of Norton in Sydney, says his company's emeries are specifically made for shearing. You don't sharpen chisels or smooth welds with them. Some so-called long-life emeries are really the grinding sort, better suited to thinning your gear than sharpening it. Technique is important too, he says: The way you position the comb or cutter and how you move it. (Not enough movement and you produce "tyre tracks" on the disc.) Gluing is also important. some shearers apply glue "like kids spreading jam with their fingers", says David. With today's softer "wetter" glues, an uneven spread means that where there is a gap you will get a bump in the cloth. Your comb knocks the grain off that, creating a flat spot.

Keep your emeries clean. Grease, dust, sneezing over them, spilling tea on them - it all gunks up the grain. You then need more pressure, which creates more heat, which can affect the temper.

How to tell when an emery needs replacing? Three signs: A drop in the spark flow, the pressure you need, the feel of the surface.

David Ewin says there are always new uses for abrasives and the search for better technology never stops. With branches all over the world, his company is constantly exchanging new information - but the Australia branch is the authority on shearing squares.

MEDITERRANEAN DIET BEATS HEARTY FARE

With our diet of nice fat mutton which we eat to our hearts (and stomachs) content, it might be worth thinking about this diet.

Cardiologists have now proved clinically what the Provencal peasant has known for generations and trendy dieticians have advised more recently: a "Mediterranean" diet of bread, fish, vegetables and fruit is the best preventative against heart disease.

And a beaker full of the warm South - preferably rouge - to wash it down makes it even better.

A world conference of heart specialists in Nice heard the results of a clinical trial in which 200 Finns were fed on a Mediterranean diet and the same number of Italians given a Nordic one for several months.

Marked changes in cholesterol and hypertension (blood pressure) levels were noted. The southern regime brought them down while the Northern sent them soaring.

In another trial, conducted in Lyons, 289 heart patients were placed on the Mediterranean diet while other patients had their food intake unchanged, continuing to eat meat, salt and animal fats. After 27 months, there had been 13 heart attacks among the second group and only eight in the first.

Doctors noted the change brought down the cholesterol levels in patients within months whereas drugs took years to produce the same result. At the conference, Prof Felix Gutwiller, of Zurich, called for the promotion of a healthy way of life throughout the EC. Butter and cream should be eliminated from the diet, experts agree, and olive oil used instead. Salt also increases blood pressure.

Wine, however, is and excellent aid to the reduction of cholesterol. "It is," one doctor remarked over a Mediterranean lunch, "the oldest and best medicine in the world." Wine guzzling France has the lowest level of death from heart disease in Europe, with 70 deaths out of 100,000. In the rest of the EC it is 150.

Scandinavian and other Northern countries are the worst affected, largely due to their greedy intake of animal fats and red meat. Finland holds the record with 500 per 100,000 and Britain is not much better with 367.

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CROSSWORD

ACROSS

1. The object.
4. Crustacean.
7. Second stomach.
9. Mechanical cream filtering device.
13. Knockout.
15. Like.
16. Wood-eating insect.
17. Tissue conecting muscle to bone.
18. Lightest of all metals.
19. Military kit used for carrying ammo etc.
21. Native of Asia.
23. Male chicken.
26. Horses have four of these.
30. Frenzied state.
31. Used to line stable floor.
33. Dinkum docker.
35. Exchange Rate Mechanism.
38. Male Cattle.
40. Egg laying mammal.
42. Organ of smell.
44. Untilled as in land.
46. Living dead.
48. God-like figure.
49. French cattle.
54. Farmyard animal.
55. Long, thin inlets.
56. Breed of dairy cow.
58. Half a Red Indian's house.
59. Direct cattle?
62. Painfull toenail.
64. One only.
66. Type of English cheese.
67. Wild dog of Australia.
69. Large land mammal.
70. Precious stones.
71. Precious metal.

DOWN

2. Loyalty & Fidelity promise in a marriage.
3. Mountainous country in Europe.
5. Place of residence.
6. Ill-mannered child.
8. Large black Falkland bird.
9. Ballad.
10. Casting and recording of votes.
11. Fire remains.
12. Memory jogger.
14. Hair tuft above a horses hoof.
20. Curved line.
22. Hockey on Horse-back.
24. Mexican alcoholic drink.
25. Movable barrier at an entrance.
27. Goal scoring footballer.
28. Persons standing for election.
29. Young sheep.
32. Rolls Royce.
33. Part of the eye.
34. Milk sac on cow.
36. Event coming shortly.
37. Served with goose.
39. Terra-firma.
41. Type of tinned dog food.
43. Measurements.
45. Common contagious disease.
47. Place where Jackass lives.
50. Taking the wool off.
51. Of pigs.
52. Donkey.
53. Squid fishing boat.
54. Dignified, haughty.
57. Leer.
58. Fibrous cord in candle.
59. Male parent.
60. Some hairs have split ones.
61. Swimming place.
63. Lives in a convent.
65. Horse.
68. Set off.

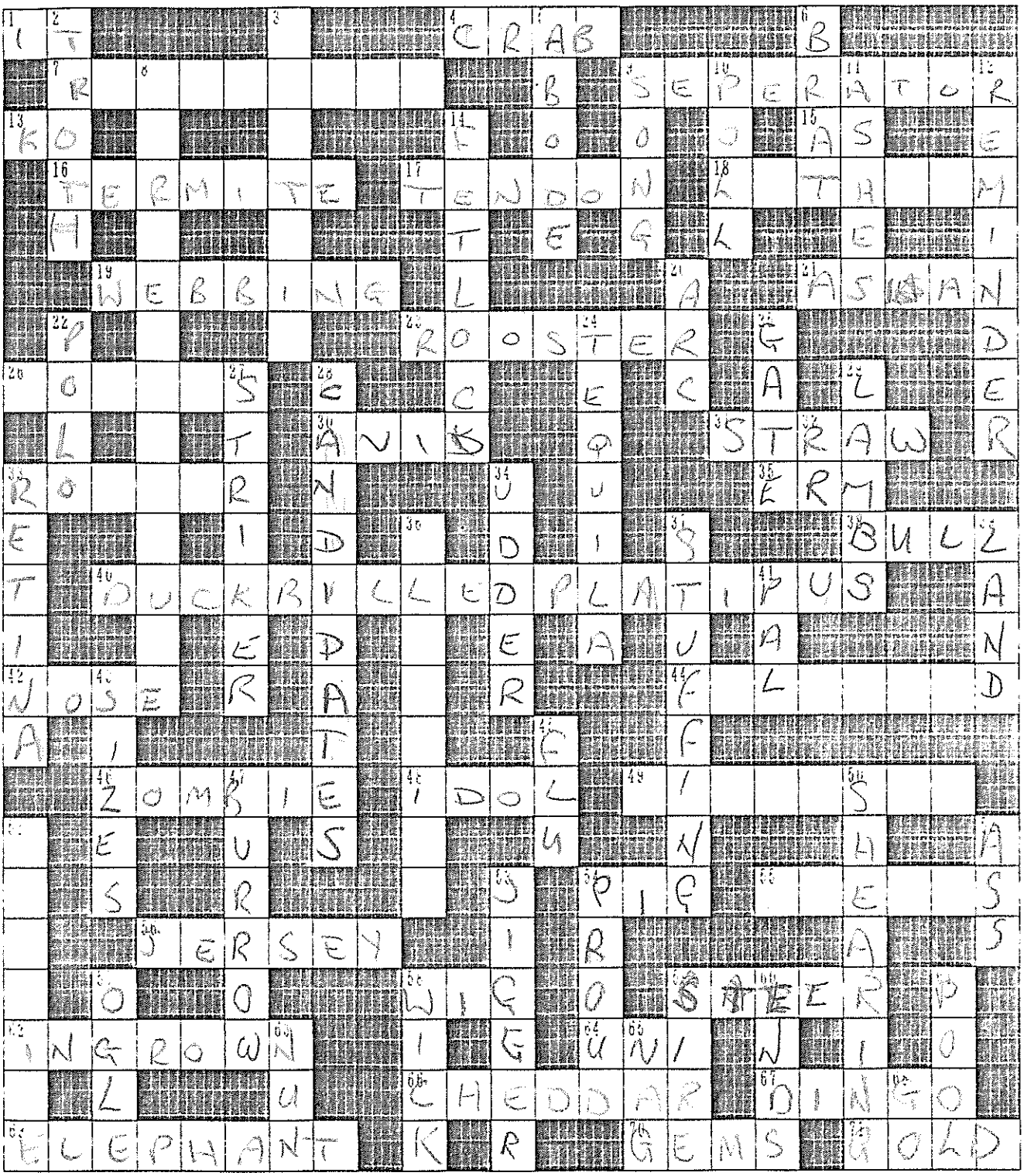
NEW VIDEOS

POULTRY AT HOME

Interesting viewing - all you need to know about keeping poultry. Lots of different breeds. It all looks so simple and efficient. Running time approximately 90 minutes.

PRACTICAL OUTDOOR PIG PRODUCTION

Interesting viewing with lots of tips on keeping and breeding pigs outdoors. Duration 40 minutes.



NEW VIDEO

LAMB SURVIVAL

This has arrived a bit late for this year, but good viewing and well put together by David C.Henderson (author of The Veterinary Book for Sheep Farmers). Running time 84 mins.

A DIFFERENT SHEARING STYLE THE CZECH WAY!

Older shearers in Austria, Germany and Czechoslovakia have their own style, with the sheep placed on a low bench. They say it avoids deep bending as for our long blow, or kneeling on the sheep, which is forbidden in Czechoslovakia.

At the World Camps in Britain last year, two Czech shearers, Daniel Stanek and Miroslav Ripan competed, lifting the sheep onto the small bench. They were both big men which suggested a lot of strength is needed, but at home, they said, there was no lifting required.

Time required was about 90 seconds. The two shear Soviet merinos nine months of the year - about 12,000 sheep. Flocks average 400-500 and a gang of four shearers travels around by car. They use Sunbeam or Lister gear.

Godfrey Bowen, who watched, had not doubt about the style. "Look at the effort; they won't be shearing that way at the next championships."

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NEW SONIC SHEARING COMB GOES WELL

New robot-controlled grinders are behind the reshaped Sunbeam Sonic comb. One machine has made the bevels identical over all teeth. The thinning of the teeth is also more consistent, the machine working to finer tolerances. Finally, the outside rider has been lengthened so that the inside top tooth does not protrude further.

Ray Dunick of sunbeam says the comb was adapted with the help of leading fine wool shearers over four months. The magazine "Shearing" which this article comes from, arranged to send a comb to a contractor. He reported back that his shearers were rapt with it. It went straight out of the packet. It combed well and rode the wrinkles without marking the sheep.

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DID YOU KNOW?

Hens with white ear patches lay white eggs!

The best way to sex young birds is by the shape of the feathers growing between the shoulders. Roosters have pointed feathers, pullets have round feathers.

This information is contained in a New Video in our library called "Poultry at home".

WOOL PRESS

retail price: £1.00

ISSUE 48 NOVEMBER 1993

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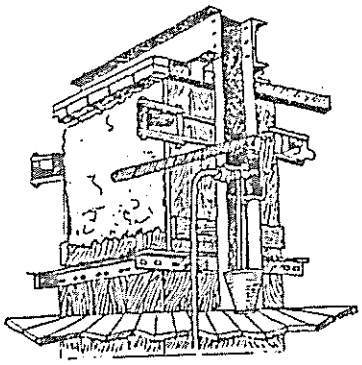
PLUS ALL THE REGULAR FEATURES



The Wool Press is published by the Department of Agriculture
Editors : M.J. Mcleod and R.H.B. Hall.

EDITORIAL.

The shearing season starts again in earnest; this is the harvesting of twelve months wool growth and every effort must be made to ensure that this product, with a gross value of £3,000,000, is exported to the highest standard. "Quality control" must be the over riding theme for the next four months. Falkland wool has a reputation, make sure that reputation keeps up with the competition.

Our best wishes and thanks go to Jo Baughan (of the intriguing nose stud), who left the Department and the Falklands at the end of October. Jo organised and undertook the goat trial at Goose Green, concluded a hogget trial at Fitzroy, coordinated FISAP & did the data collection work at Blue Beach, ran the mating condition score/lamb rearing ability research at Horseshoe Bay and a did recent literature review. We wish her well for the future.

A progressive Falklands farmer at work!!

THE ARTICLES IN THE WOOL PRESS DO NOT NECESSARILY REPRESENT THE VIEWS OF THE DEPARTMENT OF AGRICULTURE.

BOILS

In Australia boils or caseous lymphadenitis to give it its scientific name has been shown from abattoir figures to be the leading cause of economic loss to the sheep industry. In recent years, things have been particularly difficult for the Australian meat export industry. Chemical residues in meat have caused countries world wide to turn a critical eye on Australian meat shipments.

Boils in Australian sheepmeat has led both Canada and the United Kingdom to impose stringent guidelines that virtually preclude the export of sheepmeat to these lucrative markets. Whilst other markets continue to accept Australian Sheepmeat, affected carcasses must either be trimmed or condemned at the abattoir.

Boils accounts for around 50% of all sheep carcase condemnations and costs the sheep industry more than $15 million each year. It's a cost that is borne by the Australian sheep farmer.

In the U.S.A. it is an important cause of total condemnation at slaughter. For every carcase condemned ten are passed after trimming. However, while not a total loss, the downgraded carcases due to poor marketability also represents a serious financial loss to the farmer.

Any potential trade in sheep for slaughter whether it be at an EEC abattoir in Stanley or to Chile will be seriously affected if a similar level of boils to that seen by the Department of Agriculture staff at Stanley abattoir at present persists Island wide.

ARE YOU BEING FLEECED BY BOILS? Recent research in Western Australia suggests another hidden cost to farmers as a result of boils infection. These trials found that boils affected sheep produced 0.25kg less wool per year than animals not infected with boils. If further research proves a consistently higher wool yield in vaccinated sheep then the current wool loss could be around $10 million annually.

THE DISEASE. Two forms:

a) Superficial. Swellings seen and felt. Usually in flanks and in front of the shoulders. Sometimes they burst themselves and discharge. They can often be lanced at shearing. The released infection has been shown to be able to persist for 5 months in shearing sheds and 8 months in soil.

b) Visceral. The boils are found in the lungs and liver and may occasionally cause death although usually leading to ill-thrift with the usual sequels of poor flesh cover and poor fleece weight.

Infection of sheep is due to infection establishing in shearing cuts and there is evidence that breathing in dust in the shearing shed environment produces the visceral form of the disease.

PREVENTION
Whether any animal succumbs to any disease or not depends on the weight of infection and its own resistance, therefore prevention has two routes:-

1) Reduce infection
2) Increase the animal's resistance by vaccination.

In practice the combination of both is likely to give the best result.

Since wound infection at shearing time is regarded as the commonest means by which sheep contract boils the main attention should be directed to preventive measures in the shearing yards and shed. When precautionary measures are taken to prevent infection with the organism responsible for boils, the risk of infection of wounds with organisms responsible for other disease, such as blood poisoning, is also reduced. The following preventive measures are recommended:

1. The highest possible degree of cleanliness should be maintained in the shearing shed and all places where sheep are handled. Disinfectants such as phenyl or other carbolic preparations should be used in washing down. The use of hot water and washing soda (½-1 pound of washing soda to a gallon of eater) and a hard broom in the shearing shed, before the use of a disinfectant fluid, is a distinct advantage as it removes the wool grease on the floor and gives the disinfectant full scope. A bucket spray pump is useful for the walls of the shed. Before cleaning the shed start up the machinery and run it for a while to dislodge the dust. The chutes leading to the counting-out pens require special attention. These should be scrubbed with hot water and soda and then with disinfectant solution.

2. Cleanliness in the counting-out pens, where sheep go straight after being shorn, is of the greatest importance. Accumulation of wool and droppings should be removed and replaced with clean soil or gravel. The concreting of these pens is recommended, as it facilitates cleaning. If sheep-droppings are allowed to accumulate in these pens, they dry and are then ground to powder by the sheep's feet, and may blow onto open wounds.

3. Whenever possible the sheep yards should be watered while sheep are being worked, to prevent contaminating dust blowing onto wounds or being inhaled.

4. Sheep should be kept in pens and yards as short a time as possible after shearing.

5. Combs and cutters should be frequently cleansed and disinfected. For this purpose a 2% caustic soda solution (1 ounce to 2½ pints of water) is very good, but dettol or a similar disinfectant can be used. Whenever it is known that combs and cutters have been contaminated they should not be used again until they have been sterilised.

6. Disinfect as many shear cuts as possible preferably with an atomizer or antibiotic spray.

7. Any animal with discharging abscesses should be shorn last.

8. Every effort should be made to reduce the wounding of sheep. This largely depends on the shearer.

9. Lamb-marking should be carried out in temporary yards and lambs dropped straight onto grass. Knives should be sterilised by boiling for 10 minutes before use and dipped in disinfectant from time to time during use.

VACCINATION

An effective vaccine is now available. The initial course is two shots at approx. 4 weeks apart.

The first is given at marking and the second at weaning. In subsequent years a shot 4 weeks before shearing is required.

STATISTICS

Offal examination records should be completed on each farm as this will not only keep a record of any hydatids found but will enable the severity of boils to be monitored.

The Department of Agriculture is currently carrying out a vaccine trial at Goose Green. When results are finally worked out they will be published in the Woolpress.

It is possible that we may be looking for an additional farm who would be willing to take part in another trial. Anyone interested please contact the Veterinary Officer.

IAN (JOHN) SAUNDERS
VETERINARY OFFICER
NOVEMBER 1993

WOOL.

Enclosed with farmer's copies of this Woolpress, is a free summary guide for pressers called "Press-on"! I hope this will be of value to all farms and further help us export well pressed bales with standard wool description brands. Please pin this chart near your wool press and make use of it!

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During the shearing season, I hope to visit many farms when shearing. I am particularly keen to visit those farms which have not had a "wool visit". Such visits are meant to be mutually beneficial. I invariably learn of new problems to solve within our sheep and wool industry, and the farmer hopefully learns of improvements that may be made to his sheep breeding and wool operations. I am usually given a job on the wool table (from where one can see the whole wool handling operation) and discussions are extremely rewarding. Anyone who would like a "wool visit" should contact myself or Mandy at the Department.

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Copies of the report "A survey of wool preparation, classing and handling in the Falkland Islands during 1990/91" are still available at the Department.

ROBERT HALL.

ANAEMIA IN YOUNG LAMBS

As pressure on farmers to do everything they can to save special lambs from superior ewes increases, there is often a need for a substitute to be found for ewe colostrum - essential to the newborn lamb for energy and antibodies.

There is no doubt that the real thing can't be beaten, but fresh or frozen/thawed cow colostrum is a very valuable thing to have access to at lambing.

Those farmers who have ever used cow colostrum and subsequently cows milk to rear lambs will, no doubt, have had great success but on the odd occasion may have had a lamb go off its feed and die for seemingly no apparent reason. One problem that can be encountered with lambs fed cows colostrum and cows milk is anaemia. Lambs suffering from anaemia are generally not recognised by the farmer as ill until they cease to feed voluntarily, by which time they can be severely anaemic. Severely affected lambs are dull but able to stand. They have increased heart and respiratory rates and the mucous membranes are white. Lambs showing signs of anaemia are generally eight to twelve days old. After ceasing to feed, lambs die within 2 or 3 days. The most significant post mortem finding is the abnormal appearance of the bone marrow which instead of being healthy red colour was a creamy white.

Farm investigations carried out in the U.K. have indicated that the condition is almost certainly linked to the colostrum of certain individual cows.

The explanation of this phenomena is that in the cows colostrum there are important substances which programme the infant animals immune system to produce antibodies against certain life threatening infections etc., but also there are other components in the colostrum which can cross react with the lambs normal tissue components. These in turn can cause the lambs blood cells to stick together and in doing so, the animal's immune system is fooled into thinking it is a strange and therefore dangerous substance, and sets out to destroy the lamb's normal blood cells. This destruction of the lambs blood cells continues until all the bone marrow which is the centre of blood cell production becomes exhausted and severe anaemia finally develops, leading to eventual death.

These killer components present in the cows colostrum are only present in certain cows from certain breeds or in closely related inbred colonies. The explanation being that the genetic nucleic acid (DNA) in the donor cow has a certain coded sequence which is the killer message to destroy substances which have an identical code, which in this case is the unfortunate lambs blood cells leading to an irreversible reaction and death.

DAVID BABER
JO BAUGHAN
NOVEMBER 1993

A LOOK AT RESEARCH

The aims of agricultural research undertaken by the Department are:

1. To carry out an agreed programme of research to increase the output of wool and the efficiency with which it is produced.

2. To explore the potential of other agricultural enterprises.

3. To support and participate in the Department's extension and statutory work.

The future acceleration of the rate of agricultural development depends upon the efficient application of agricultural research. This depends on acquiring the correct priorities and level of funding invested for research. By seriously reducing this level, the Department research aims 1 and 3 above will be stretched and 2 will have to be written off. At this juncture, it may help to review departmental research since FIG took over funding. During the last 5 years a large number of experiments have been carried out. These are pointed below with appropriate comments.

WHITEGRASS

AWG/4- The effects of winter grazing on the productivity of Whitegrass. A small trial situated at Fox Bay examining the effects of grazing Whitegrass at different intensities during different periods throughout the winter. Further investigations are necessary, but hard grazing any time during the winter appears to be beneficial in spring growth.

AWG/2- The utilisation of whitegrass dominant communities by grazing sheep (The Summer Whitegrass trial), showed the effects of heavy grazing on leaf and tiller production and on pasture composition. The trial is to continue, to monitor recovery of the plots and to encourage colonization by more desirable species.

AWC/4 A preliminary investigation into the response of Whitegrass to monitor defoliation. This experiment provided information on plant response to winter defoliation and subsequent morphological data throughout the year.

AWN/2 Carbohydrate reserves of Whitegrass: seasonal variation in levels, pools size and distribution. This trial supplemented previous work carried out at Queens University to determine the fate of food reserves in the whitegrass plant, and when they are utilized.

AWN/3 Whitegrass quality: seasonal trends in the level pool size and distribution in various plant fractions. This trial determined the seasonal patterns of plant quality.

TUSSAC

AWT10 An investigation into methods of tussac establishment. This determined the best time of year, and type of planting material for tussac establishment.

ANT11 Observation of tussac spore rust types. Spores that provided positive identification of the fungus were not found. Identification is awaited from the International Mycological Institute.

ANT 12 Investigation of the major pests of tussac grass. Still underway, complementing the work of Jenny Fuller.

ANT 14 Time of first grazing of tussac grass. Plants have been established and are awaiting the onset of grazing.

ANT 15 Large scale grazing trial (Port Harriet). Plants will take several years to mature before onset of grazing.

ANT 16 The effect of sea water spraying on rust disease of tussac. Sea water was shown to halve rust levels on mature plants and decrease levels on seedlings.

SHEEP

SN4 The improvement of the productivity of hoggets. This trial defined the optimum period for winter feeding of hoggs on a reseed.

SN6 Effects of plane of nutrition on hogget growth and wool production. Fleece and bodyweights were compared between sheep on a reseed and in whitegrass camp.

SS3 Falkland Islands Sheep Assessment Project.
An ongoing trial to produce a database for Falkland flocks, from assessments of three forms.

SS4 Modelling the dynamics of wool production. To produce a computer model from data obtained in SS3.

SS5 A year round sheep systems trial, which failed due to a number of reasons.

SN7 The relationship between condition score at mating and lamb rearing ability. This trial is still underway at Horseshoe Bay Farm.

GOATS

SG1 Diet selection of Cashmere goats. To determine what goats eat using alkane pellets.

Several others trials, mainly climatological have been started, and will continue to be monitored for many years.

The 4 research staff along with 2 Stanley based field assistants have carried out this work, along with other statutory and extension work that has arisen over the period. The future plan is to cut this number to one full time agronomist and one half time Sheep Husbandryman, with the same field assistant quota. This of course, also means the closure of the Fox Bay Sub-centre.

S.HOWLETT
NOVEMBER 1993

WORMS IN SHEEP
PAST, PRESENT AND FUTURE STRATEGY

Part 3. FUTURE

Last month I covered the current understanding in regard to the parasites found to be present in the Falklands and the kind of precautions that should be taken in ensuring that these are reduced to manageable levels.

This month I am writing about the considerable problems that are being encountered in the emerging drug resistance in the control of these internal parasites in Australia, New Zealand and U.K.

In many intensive livestock enterprises, the regular use of anthelminthics is essential for maintaining an acceptable level of production. Over the last decade there has been an increasing awareness of the development of anthelminthic resistance in nematodes of grazing ruminants, and it now constitutes a major problem in sheep rearing areas in the southern hemisphere. Currently antihelminthic resistance is not widespread in Europe, there being limited reports from Britain, France, Germany, Switzerland and Holland, and is not a problem in the Falklands.

In a three county survey carried out in the south of England - 45% of sheep farms in Oxfordshire, 37% in East Sussex and 74% in West Sussex had evidence of worms resistant to benzimidazole for 'white drench wormers'. The situation in Scotland was a subject of a limited study by the Scottish Veterinary investigation service and the Moredun Research Institute in which 37 sheep farms throughout the country were screened in the summer of 1991 for evidence of antihelminthic resistance.

From these farms 24% showed evidence of benzimidazole resistance with the predominant nematode being of the same species as one of the most common worms found in the Falklands.

One word of warning is that on a farm which grazed both sheep and goats also had this high resistance in the goats which confirmed previous findings, in that when mixed ranching of sheep and goats is carried out strict precautions on parasite control must be understood. This cross over of resistance from one species to another can bring about a long term parasite problem.

Farmers, Researchers, Drug Companies and Veterinary Surgeons are working closely together to prevent the build up and spread of drug resistant nematode worms. As stated earlier, experience in Australia and New Zealand has shown that antihelminthic resistance rapidly develops until most farms harbour drug resistant strains of worms. Correct diagnosis and adoption of an effective worming programme may be the only way to manage antihelminthics and curb resistance.

In the early stages resistant nematodes may not cause clinical problems, but steps to control resistance is vital before these problems are diagnosed. The experts currently advise the following - " Use safe grazing, pasture management and if in any doubt consult your Veterinary Surgeon". Very simple advice and the slogan in use is 'lets put the Vet back in worm control'.

In purchasing new sheep, on arrival dose with ivermectin or ivermectin and evamisoles, and hold for 24hrs before turning out to pasture.

Only dose if necessary because the more you treat, the more likely it is that antihelminthic nematodes will develop. Increased use of antihelminthics is associated with increased prevalence of resistant worms. The selection pressure will increase as the dosing interval approaches the period as the susceptible free living larvae ingested from the pasture will only have a very limited period to lay eggs before the next treatment is given. This increased drenching over ever decreasing periods has led to the problems being encountered in the S. Hemisphere.

Timing of the treatment is also very important. Doses given at a time of year when a large proportion of the worm population is present within the host will, in general exert a higher selection pressure than treatment when most of the population is present as free living larvae, where the progeny of resistant worms will be rapidly diluted by the susceptible population on the pasture.

Each year change the antihelminthic used. As I stated last month there are three types of broad spectrum antihelminthics available: Benzimadazole, Levamisole and Ivermectin.

Strains of resistant nematodes have been reported to all main broadspectrum chemical groups which is of major concern to both livestock and pharmaceutical industries. In sheep the majority of cases of resistance have involved the benzimidazoles whereas in goats the spectrum is generally broader with reports of higher levels of resistance to both benzamidazoles and levamisoles/morantel.

Have your farm checked for antihelminthic resistance by your Vet. Keep a record of when lambs are born and when they reach their optimal weight each year to monitor possible resistance build up. Do not keep both sheep and goats on the same pastures as they suffer from the same species of worms, resistance is more common in goats than in sheep, goats require higher doses of antihelminthics than sheep and do not develop immunity, so will require treatment more often.

Traditional parasite control strategies rely on removing adult worms in the host by antihelminthic treatments, usually when signs of worms are present, such as scouring or coughing. Despite the high effectiveness of most wormers, the period of protection against reinfection is limited, and a treated animal grazing on heavily contaminated pasture will soon have its worm burden restored and the treatment will have little overall effect on production benefits.

Finally, research is continuing in the greater refinement in the formulation of new antihelminthics, which encompass the manufacture of new chemical forms of treatment and the quest in the greater understanding of parasite structure, which will lead to vaccines being able to be produced against specific worms. The research into the development of anti-parasite vaccines is a long uphill battle, and is of considerable complexity, due to the remarkable level of evolution this particular group of parasites have managed to achieve in such an hostile environment within the host. Their present continuation amply demonstrates how complex their structure and life cycles are, and how they manage to 'fool' the hosts immune mechanisms which in turn brings about the biggest problem to the vaccine researcher to overcome.

DAVID BABER, NOVEMBER 1993

THE WELFARE OF SHEEP AT SLAUGHTER

Everyone who knows me has probably realised that the care of animals and how they are treated are very important to me, from the most hairy britched, black spotted lamb in camp, to the commercially valuable A.I. and imported stock. They all have basic feelings and welfare rights. They have no European Court of Justice to take their complaints to and it is up to us, the farmers and shepherds, to do our best for them.

During my last trip back to lamb my parents flock in Devon, I began some research into humane methods of killing sheep. The close contact with breeding lambs for meat in the U.K. and the weekly kill for mutton and dog tucker and end of season sort up kills here, left me wanting some answers.

I spoke to our local vets, to the meat Research Institute at Bristol University, to several Abattoir Equipment Suppliers and finally to the Compassion in World Farming Trust who in August 1993, drew up a report into the welfare of pigs, cattle and sheep at slaughter. This is a respected trust, not a crank organisation. They have kindly given me permission to quote from this report, by Peter Stevenson, with a foreword by Professor R. S. Anderson, B.V.M.S., PhD, M.R.C.V.S., Professor of Animal Husbandry, Faculty of Veterinary Science, University of Liverpool.

FOREWORD. "All animals are equal, but some animals are more equal than others". There is more than a little irony in this declaration by Orwell's pigs when we consider our relationship with domestic animals - particularly their death. We euthanase some, we slaughter others. We grieve over the deaths of some, we don't even think about the deaths of others, or prefer not to. And yet, for the animals, the main participants in the action, the event itself has the same potential for pain, stress and fear, whether it is a companion or a farm animal. We owe them each a similar obligation to minimise that stress, regardless of their species. The fact that the killing of farm livestock is on such a large scale, that it is considered as a system, inevitably obscures concern for the individual animal, but there is no reason to suppose that the individual animal is not as vulnerable to the pain associated with a botch job, as if it were being killed as an isolated act. The system will never by its nature be perfect, but imperfections which are due to inadequate equipment, traditional misconceptions, cheeseparing on costs and insufficient concern for suffering are inexcusable."

In the U.K., sheep are either electrically stunned before having their throats cut or a captive bolt is used. Obviously this report is not about the method used on most farms out here, of just cutting sheeps throats and breaking their necks, as this would be illegal in the U.K. where except in certain exception, animals must be stunned before killing, rendering the animal instantaneously insensible to pain until death supervenes.

But one of the areas of the trusts' research, has been into the period of time the sheep is unconscious after stunning, to when brain responsiveness is lost after throat sticking. This obviously has great relevance for the Islands, as well as needing improving on, in the U.K.

"In the correct method of sticking, severing both carotid arteries and both jugular veins, on average it takes 14 seconds to induce loss of brain responsiveness, but can be up to 27 seconds."

"However, if only one carotid artery and one jugular vein were cut, this time rises to 70 seconds, before no brain response."

"When only the jugular veins were cut, it took 5 whole minutes for the sheep to be brain unresponsive".

I have done 2 static line parachute jumps from 2,500 feet. One falls for 4 seconds before the line is stretched enough to open ones chute, and they felt like an eternity, so it is worth bearing in mind when killing a sheep, how essential the above method of sticking is to make the last few seconds of its life as painless as possible.

In spite of all the modern technology and the easy access to 24 hour power in the U.K., the Trust finds that using a Captive bolt gun correctly positioned, is a very effective method of stunning sheep before sticking and involves a much lower welfare risk than electrical stunning, but stress the importance of correct positioning, as it is the energy that the bolt imparts to the head, as it strikes, that stuns the animal, not the penetration of the bolt into the head, and this is why it is also vital that the correct cartridges are used.

We rely on sheep for our livelihoods, from their wool for most of their lives and finally for food for our families and our dogs. They have a hard life in camp, negotiating the hazards of inclement weather, lambing, worms, turkeys, caranchos and ponds and ditches. They at least deserve as easy a parting from this life as we can give them.

ANNIE BENDYSHE
SALVADOR

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SHEEP PRODUCTION REVIEW OF LITERATURE 1975 - 1993

Jo Baughan has just summarised 50 Falklands sheep trials, of the last 13 years, into an easy to read and extremely useful 47 page report. The review includes:

Diet Selection
Young Sheep Nutrition
Ewe Nutrition
Whitegrass Utilisation
Wind Chill Factor
Trace Element Supplementation
Reproductive Parameters
Nutritive Value of Grasses
Wool
Internal Parasites

This review is available free from the Department upon request.

CAMP DECLINE?

Having been employed by the Falkland Islands Government for exactly five years, I just missed joining the electoral roll for the recent elections, however, I followed the candidate speeches with great interest.

Common themes in many of the speeches were unemployment, diversification and the declining job opportunities in camp. These themes overlap and largely relate to camp labour and production or output. Since the beginning of time, production per unit labour has gradually increased; thus to keep employment levels static, output must gradually increase and to create new job opportunities output must greatly increase.

Increased camp output can take the form of more wool, better quality wool or income from alternative enterprises such as cashmere, tourism, beef, lamb, home industries, vegetable production etc, etc.

Many Agricultural increases in camp output will require capital investment generally preceeded by some kind of research and development. Research is risky, slow and expensive. Research can be done by the individual, company or Government. From a company or farmer's viewpoint, it is better that someone else pays for and undertakes the research, yet publishes the results; then successful schemes can be put into practice and unsuccessful schemes avoided.

With the employment concerns expressed in the elections, it is thus ironic that earlier this year large cuts in the Department of Agriculture budget resulted in a massive cut in Agricultural Research, with the loss of two and a half scientific posts and the closure next month (December) of Fox Bay Sub-Centre. Such research was a potentially large indirect benefit to farms, which has gone with barely a murmur of protest!!

F.I.G. has funded Agricultural research for only five and a half years, in which time much research that was requested by the industry was done and more. That research has certainly not been an unqualified success, yet nor has it been a complete disaster. Camp needs jobs, camp needs to increase production and camp may thus live to regret the demise of research. Rather than axing most research, improving research might have been more rewarding e.g. by more coordinated research - goal targeting with greater farmer interaction and involvement. We still need about 3½ acres to keep a sheep alive, lamb marking percentages rarely reach 80%, mortality rates are huge, we've no idea of average beef cow calving intervals, nor fat lamb or cattle growth rates and farm incomes desperately need to be improved.

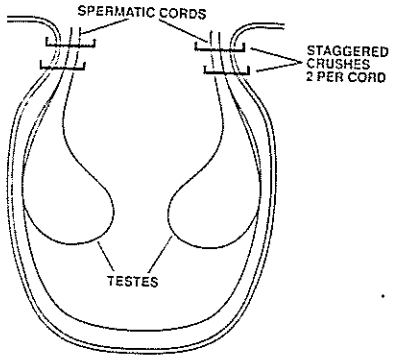
If output is to be increased, if jobs are to be created, I'd keep research and make it work, make it solve more problems, make better research increase your production, create employment and earn extra income.

ROBERT H.B. HALL
NOVEMBER 1993.

NEW PRODUCT

THE NIPPER BLOODLESS CASTRATOR

Developed by "RITCHEY" specifically for lambs, this 'BURDIZZO' method castrator has been designed for easier use and one hand operation. The jaws are small to reduce risk of injury to the scrotum therefore reducing the likelihood of infection. There is a timer with an audible alarm for accuracy on every operation and it simplifies location of the spermatic cords reducing the possibility of crushing teats or restricting blood flow. The following notes come with the "NIPPER":

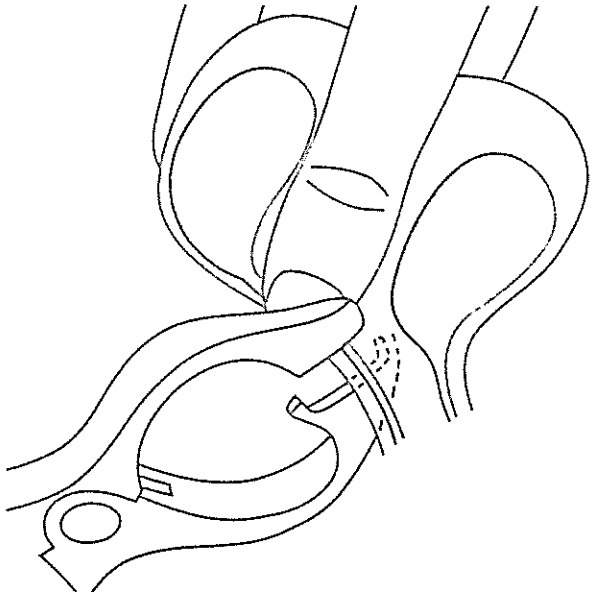


Male lambs are best castrated between 4 and 6 weeks of age. By U.K. law, lambs must be castrated by 3 months. Only castrate healthy animals and do not attempt to castrate lambs with only one testicle or with a hernia in the scrotum. This diagram shows the present procedure for the crushing of the spermatic cord using a bloodless castrator.

The castrator comprises of two jaws operated through a series of levers by two handles. A wire connects the handles to an alarm which sounds once the jaws are applied for 10 seconds. The castrator can be used by left or right handed operators and should be tested before use each season. A strip of nylon with a reference indentation is provided for this purpose.

The nipper is designed to be used from the side - not between the back legs. Holding open the castrator in one hand, use the other hand to palpate the scrotum of the lamb presented. If the testicles appear normal, using your left hand (right handed operator), pull the lambs left testicle down into the scrotum and press the spermatic cord against the skin on the left side of the scrotum.

Place the lower jaw of the castrator under the spermatic cord so that the inner lug is clearly visible and that the outer lug is on the inner side of the spermatic cord which lies across the jaw. Apply the upper jaw. The levers will click shut. Pull gently but firmly on the testicle to check that the spermatic cord is held by the castrator. Release the castrator when the alarm sounds. Reapply a short distance down the cord and nearer the testicle.



Three different methods can be used when operating on the 2nd testicle, these are all detailed in the booklet that comes with the castrator. If the spermatic cord is not firmly held by the castrator during any of its four applications the castrator should be opened immediately and the spermatic cord repositioned.

INVERTERS EXPLAINED

Put simply, an inverter is a means of converting battery (DC) power into 240v (AC) power. Inverters come in a range of sizes, from little gadgets which will let you watch TV by using an ordinary old vehicle battery, to jumbo electronic marvels which will put out 20kw or more. The amount of power you can get from an inverter is determined by its size together with the battery storage capacity you are prepared to buy; the battery is equivalent to a fuel tank, in that a large capacity one will last a lot longer than a small one once filled (charged).

You don't need a wind charger to run an inverter satisfactorily, and you don't even need a battery charger with the larger models as these are available in SB (stand-by) models which automatically go into charger mode and start to recharge the battery once your generator power is switched on. When the generator goes off, these inverters then supply mains power at a superbly steady rate of 50 hz. No more flickering lights!

Many appliances are available in 12v versions for DC use, of course, but these tend to be more expensive than standard mains powered appliances. You are also restricted to using them relatively close to the battery itself, whereas inverter power can run through your normal power circuit and is available at every power socket or light fitting. Inverters are available in various input voltages, ranging from 12v to 120v, with 12v or 24v being the norm for ordinary domestic use. 48v to 120v models cater for larger applications e.g. settlement use.

An inverter makes one of three alternating current wave forms. There are sine wave, modified or quasi sine wave, and square wave. Most of the older inverters already in use in the Falkland will be square wave or inefficient rotary models, which are adequate for basic applications. The modified (quasi) sine wave inverter is fine for most general applications, and is the 'norm'. For use with sophisticated computers, some printers and other applications however, the pure sine wave inverter is preferable, as it provides the 'smoothest' power, equivalent to that provided by a power station. Pure sine wave inverters are more expensive than modified sine wave, but remove the slight 'buzz' experienced with some appliances when run on the other inverters. They are necessary to run any equipment which is sensitive to 'spikes' and surges in the power supply, e.g. some makes of laser printer and some heating/fuel pumps that use Silicon Controlled Rectifiers or Triacs to filter incoming power.

Most modern inverters have a surge capacity, meaning that appliances with a high start-up power demand can be operated without problems. (A gadget requiring 250 watts for normal running may need several kilowatts while starting up, for example a deep freeze.) There are various add-ons available, such as Low Battery Cutout switches and Digital Voltmeters, also Interface Modules to allow inverters to be parallelled. This latter option means that two inverters can be used together to produce double the output power.

Synchroneous inverters work in phase with diesel generators; they are designed to provide extra capacity so that when the generator

is overloaded by an abnormal demand for power the inverter automatically stops charging the battery and provides auxiliary power while the demand lasts. During normal use when the generator is off the synchroneous inverter simply provides power up to its continuous load rating. It has a surge capacity, as with most other inverters, but should an excessive demand for power exceed the time allowed (e.g. ten seconds) the generator will start up and take over the power supply. Thus the inverter and the generator work together to ensure a reliable 24 hour power supply, without using any more diesel than before the inverter was installed.

Choosing the right inverter for your particular needs is a matter of horses for courses. If you just want to be able to leave a fax or answering machine on overnight then a 120 to 400 watt inverter will do the job in conjunction with a vehicle battery (though a deep cycle battery would provide far better service). If you want to have 24 hour power to run any of your small to medium household appliances at any time but without huge fuel bills, you need a 2000 watt inverter and good deep cycle battery bank sized to meet your energy requirements. You can then run your generator for a few hours each day, which will charge your battery, during which time larger appliances such as automatic washing machines can be used. It's simply a case of organising your heavier power requirements to fit in with generator running time.

Life with an inverter is great! It means you can tape TV programmes to watch when <u>you</u> want to watch them. It means you can leave lights on at night for visitors or small children. It means you can do any of a number of jobs at any time without putting the generator on (hoovering, making toast, sending faxes, etc,etc.). It means saving up to half your fuel bill even more if you have a wind charger.

But the biggest bonus of all is the quality of life that alternative energy provides.

Next month: Sizing and installing an alternative energy system.

CLIVE WILKINSON
DUNNOSE HEAD. NOVEMBER 1993

* * * * * * * * * * *

WE WISH TO CONGRATULATE ALL THOSE
WHO WERE SUCCESSFULLY VOTED TO COUNCIL
IN THE RECENT ELECTIONS.

ALL THE BEST FOR THE NEXT FOUR YEARS IN OFFICE.

* * * * * * * * * * *

CASH FLOW BUDGETING

If there is just one good thing that has stemmed from the Wool Market recession, it must surely be that it has enhanced accounting skills. Although many will try to deny this, every farmer in the Islands, albeit subconsciously, carry out quite sophisticated "brain powered" budgeting exercises. Some will even have resorted to the pen and calculator and produced written ones on the back of envelopes. But for those farms that are in more sensitive financial positions, Cash Flow budgeting can offer a more scientific and precise alternative. The main objective of brain or even computer powered budgeting is to assist farm decision making. This may be achieved in the following ways:

A. By predicting a farm bank balance at a specific time in the future.

B. Assisting in the planning of banking arrangements for the farm. This could include negotiating the level of an overdraft/mortgage facility (or even making the most effective use of a SCB interest earning savings account!!)

C. Scheduling farm transactions. (Determining the optimum time to sell the farm's wool clip or make a major farm purchases.)

D. Preventing financial difficulties (by taking corrective measures before a serious problem develops.)

A Cash flow statement is different from a normal set of farm accounts. Farm accounts are a historical statement of the actual transactions that have occurred on the farm. The cash flow budget is a forecasted statement of future transactions.

To prepare a cash flow it is therefore necessary to make financial projections for the period covered by the cash flow. These projections will be based on a number of assumptions:

1. HISTORICAL FACTORS

Perhaps the best start in preparing a cash flow budget is by carefully examining expenditure and revenue patterns in previous years. This is useful in that historical data provides a bench mark to work from. In the Falklands, farm expenditures are usually quite fixed from one year to another although income is obviously highly dependent on the prevailing Wool Market.

2. PLANNED CHANGES TO FARMING PRACTICES

As with any business, farming is subject to innovation and change and this affects farm expenditures. Such changes should always be incorporated in any cash flow analysis. The decision to purchase a Stud Flock ram in April would, for example increase projected expenditure under livestock purchases. Conversely, purchase of an inverter or smaller generator might result in a lower projection for the monthly fuel bill.

3. CHANGES TO FARM PRICES

The price of all commodities bought and sold on the farm can never be fixed, it is therefore essential that price changes are incorporated into the cash flow. The price of some inputs are relatively fixed and are therefore quite easy to forecast eg fuel. For other inputs, a simple allowance for inflation can be made. The farm gate price of wool is however extremely difficult to forecast and it is strongly recommended that conservative prices are used.

4. SEASONALITY

Farming is by nature an extremely seasonal business. This seasonality should be reflected on the cash flow sheet. Many of the farm's transactions are carried out during specific months of the year. Recent trends towards the sale of wool earlier on in the year need to be incorporated into the cash flow.

A cash flow is usually prepared for a 12 month period and is often based on the financial (accounting) year. Farms that operate under a Development Plan will appreciate just how difficult it is to make wool income projections beyond 1 - 2 years. The cash flow form currently used by the Department is based on the headings printed in the updated account books. This form should be used on a monthly basis. The first month of the period covered should be put in the top left hand corner (see example sheet)

ENTERING INCOME

Estimates of monthly income should then be entered under the relevant month. If available, use last years accounts to ensure that all sources of income have been entered. Remember to include sales of capital items and the receipt of government grants and subsidies. Always enter the payment under the month that you actually receive the payment (not under the month that the produce leaves the farm. As with all entries made on the cash flow, it is usually better to err on the pessimistic side. A cash flow will soon become meaningless if over-optimistic assumptions are made. As computer programmers often quote it's a case of "garbage in, garbage out". Once you are satisfied with the entries, total up the receipts for each month and enter in the Sub Total A column.

ENTERING EXPENDITURE

As with income, it is vitally important to enter payments under the actual month that the payment is made for the goods. This is essential for farms that are operating under the constraints of an overdraft facility ceiling. In the Falklands, payments are often very related to the coastal shipping service. Projections should therefore be made on this basis. Remember to allow realistic allowances for private drawings (sundry items) and also for fixed bank charges. During periods of favourable wool prices an allowance for income tax demands should be made.

WOOL PRESS

retail price: £1.00

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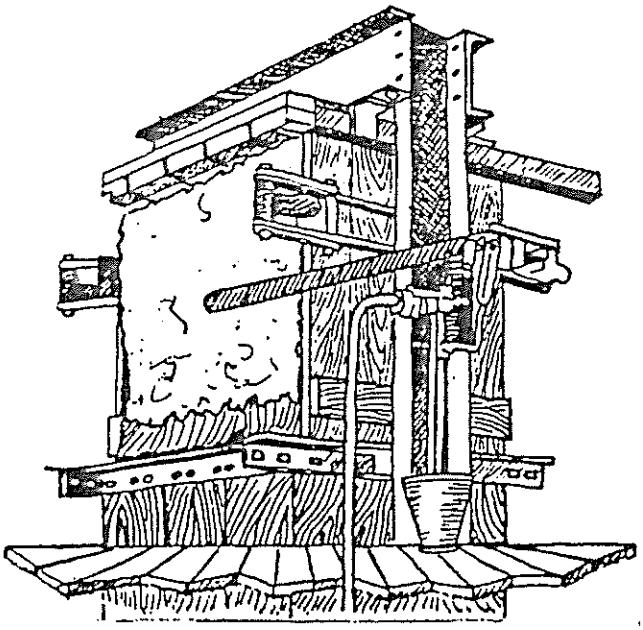
PLUS ALL THE REGULAR FEATURES



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EDITORIAL

Welcome to the December and Christmas edition of the Woolpress, in which we have a varied selection of articles. Christmas is a time of celebration and good will - we trust all our readers have a Happy Christmas. If people are short of Christmas present ideas how about a contribution towards the purchase of a N.S.F. ram, or help our industry by giving locally produced jerseys etc. I challenge you to only give Falkland Island produced presents this year!!

We hope you enjoy the West Falkland Ram & Fleece Show, the Stanley Sports and the Estancia Shearing Competition.

DECEMBER 1993.

Merry Christmas

CAMP DECLINE

I am prompted by Robert's article in last months 'Woolpress' to write to you with my concerns on the same subject.

I agree with Robert's views and would add that apart from a small amount of diversification into other areas such as crops, meat sales and tourism the Camp will still depend on Wool Production for it's continued existence.

Fox Bay Village was an ambitious initiative in 1984 to diversify in Camp. Crab Fishing, Salmon Farming were both tested successfully but were regrettably unsustainable. The Falkland Mill, a bold venture to add on value to a locally produced product continues to function only with assistance. The Ag-Department Sub-Centre will also close next month. The decision to close this centre was in my opinion short sighted, and a retrograde step which the agricultural community will regret in future years. The scientists based here were aware of Camp life-style, particularly West Falklands communication problems, and had large scale grazing trials set up within close proximity to their base. They were thus able to concentrate on the job in hand without distractions inherent in a Stanley based operation.

The devastating cuts in the Ag-Departments Budget and the subsequent consequences were brought to the attention of many of the decision makers i.e. senior members of the administration and all Councillors when they were all invited to a meeting during Farmers Week, regrettably not one Camp Councillor attended this meeting.

To provide more jobs in Camp it requires more income and more intensive farming. Overall falkland sheep numbers peaked at 807,211 in 1898, since then they have dropped quite considerably to a low of 584,062 in 1952 and then rose again to 721,252 in 1992. Some farms have increased numbers significantly, whilst others cannot sustain present numbers, overall the number is fairly static.

I can think of no other country where sheep numbers have stagnated so dramatically and unintentionally.

I can see no great improvements or initiatives in Falkland Agriculture without research. What farmer is going to gamble his livelihood on some risky project. Far better for the scientist to try it out for the common good. What the scientist needs from the farmer is policy decisions and direction.

To reverse Camp decline and increase Farm Income, farms need far more help from a dynamic and well motivated Agricultural Department, at the moment prospects for the future are not encouraging.

N.A.KNIGHT
NOVEMBER 1993

NEW ZEALAND SHEARING INSTRUCTOR VISITS THE FALKLANDS

Murray Christie, a New Zealand Wool Board Shearing Instructor, arrived in the Falklands on the 19th November. So far he has visited Estancia, Salvador, Fitzroy and Port San Carlos. Reports back from those he has instructed so far are very favourable. Even the most 'professional' of our local shearers have learnt something new and have been given food for thought in their shearing techniques. He has also got a few tips on judging at shearing competitions. It is hoped that Murray will give us a report on his visit to cover his travels, trials, tribulations disappointments and his recommendations for future instruction within the Islands.

Murray has been instructing for about ten years now. Prior to that he was shearing on the contract circuit. His shearing tallies then were in excess of 600 a day and I am sure that although he no longer shears full time he would still give anyone a run for their money if he was in the shed for a full day.

I would advise anyone who has an interest in shearing to make the time to see him and get some instruction. Some of the main comments heard are based on how much easier it is on the back and legs if you hold the sheep correctly and have your feet in the right place! If anyone would like an update of his itinerary until his departure on the 24th December, please contact me either at the Department on 27355 or at home on 21025.

* * * * * * * * * * *

SHEARING TRAINEES

Chris Hawksworth, Critta Lee and Paul Phillips have all now completed their first month in Neil McKay's contract shearing gang. I dare say they found a few muscles they didn't know existed!

Reports back from Neil and his shearers are that they are generally doing well and progressing steadily. Initially they were all at Goose Green but have moved on since to other places including Beaver Island, Saunders Island and Walker Creek. They will meet up with Murray Christie for a week at Goose Green just prior to his departure. It is hoped that the timing of their instruction with Murray will enable them to eliminate any outdated techniques or bad habits and therefore have the latter half of the season to work on their improved style.

MANDY McLEOD

WEST FALKLAND RAM & FLEECE SHOW 1993

This will be held in Coast Ridge Farm woolshed at Fox Bay Village on 29th December 1993.

Entries may be sent to Fox Bay c/o N. Knight, Coast Ridge Farm, before the event or brought to the woolshed on the day between 9.00am - 1.00pm.

Judging will commence at 2.30pm - 4.00pm and be by public ballot.

Prizes will be presented at 6.00pm in the woolshed.

Prize List

Class 1 Full Wool Ram Hoggett

1st. prize Engraved Challence Shield presented by Mr & Mrs Austin Davies & Miniature donated by B.T. Construction.

2nd. prize £50.00 donated by Standard Chartered Bank.

3rd. prize £25.00 also donated by Standard Chartered Bank.

4th. prize £10.00 donated by R.M. Pitaluga & Family.

Class 2 Full Wool Shearling Ram

1st. prize Silver Cup presented by Dunnose Head Farm & Miniature & £60.00 donated by Cable & Wireless plc.

2nd. prize £50.00 presented by the Saddle Farm.

3rd. prize £25.00 presented by the Farmers Association.

4th. prize £10.00 presented by Stanley Electrical.

Class 3 Full Wool Mature Ram

1st. prize Falkland (Woolsales) Challenge Cup & Replica & £40.00 presented by Falklands Landholdings Ltd.

2nd. prize £75.00 Donated by the Southern Cross Social Club.

3rd. prize £50.00 Presented by Port Howard Farm.

4th. prize £25.00 Presented by the Southern Cross Social Club.

Class 4 Hoggett Fleece

1st. prize Silver Cup & Replica presented by Meridith Fishing Company & Falkland Hydrocarbon Development Ltd.

2nd. prize £60.00 Voucher donated by Falkland Farmers.

3rd. prize £40.00 Voucher also donated by Falkland Farmers.

4th. prize £15.00 Fuel voucher presented by Stanley Services.

Class 5 Any fine wool fleece other than hoggett

1st. prize 'Governors Cup' Challenge Cup presented by H.E. the Governor & Replica donated by the Falkland Islands Development Corporation.

2nd. prize Lead Crystal Decanter presented by the Falkland Islands Company.

3rd. prize £35.00 also presented F.I.D.C.

4th. prize £15.00 also presented by Stanley Electrical.

Class 6 any 'B' Type Wether Fleece

1st. prize Engraved Challenge Cup presented by Coast Ridge Farm & Replica presented by Ursula Wanglin.

2nd. prize £50.00 donated by F.I. Sheepowners Association.

3rd. prize £25.00 donated by Little Chartres Farm.

4th. prize £10.00 also donated by R.M. Pitaluga & Family.

Additional prizes

The champion ram wins a Tankard & £50.00 from the Luxton Family, Chartres.

Rosettes will be presented for 1st., 2nd., 3rd & 4th prize winners in all six classes. A Supreme Champion Rosette is also given to the champion ram. These were all provided by Jim McAdam, Department of Agriculture, Northern Ireland.

For 1st, 2nd & 3rd. prize winners in Class 3 Trophies are donated by Peter Short, Falkland Supplies.

A Challenge Cup for the farm with most points in all classes is donated by Mr Owen Summers.

Additional Competitions

Frazzlle will be again appearing in the 'Guess the Weight Competition' by kind permission of Mrs J. Halliday. Prize for the 'Best Guess' from Lakelands Farm.

The winner of the 'Fleece Weight' competition will receive £25.00 from Lake Sulivan Farm, whilst the winner of the 'Micron Estimate' competition will receive £25.00 from the Argos Fishing Company.

The Department of Agriculture will be sponsoring a Sheep Judging Competition for the under 21's.

The Falkland Mill, Mrs Griz Cockwell and Mrs Rosemary Wilkinson have all kindly knitted sweaters, these items will be auctioned for the show funds after the prize giving.

F.I.G.A.S. have once again generously agreed to fly fleeces free of charge.

Please note the fleece entries, would be skirted fleeces only. All neck belly and stained wool should be removed before the fleece is rolled.

N.A. Knight
Chairman W.F.R.& F.S.
DECEMBER 1993

TURKEY BAKE

This is a good recipe for using up some of that left over turkey that's becoming a bit dry

Ingredients:

12 oz cooked turkey (chopped)
2 medium potatoes (cooked & diced)
1 onion (grated)
1/4 pint milk
1 egg (beaten)
1 teaspoon grated lemon rind
salt & pepper to taste
8 water biscuits (finely crushed)
1/2 oz melted butter

Method

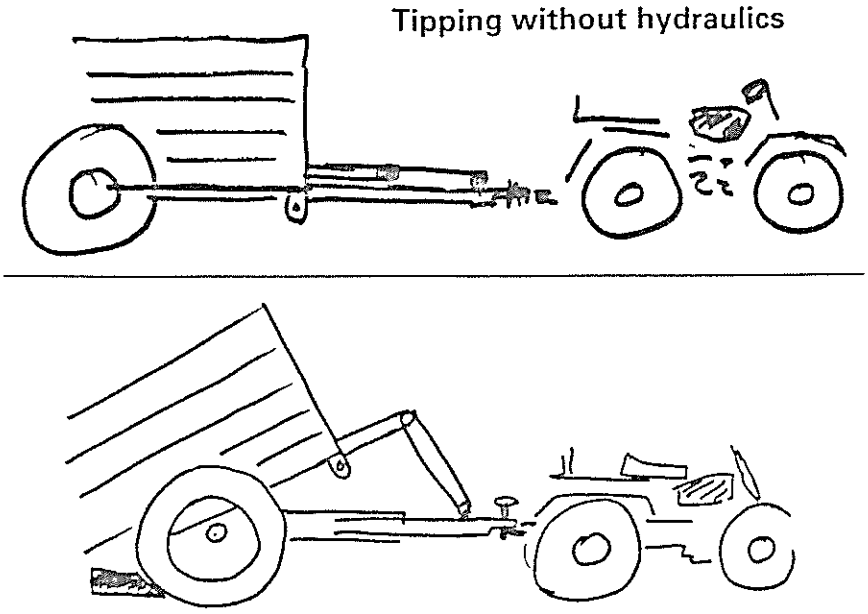
Mix together the turkey, potatoes, onion, milk, egg, lemon rind, salt & pepper. Turn into a greased casserole. Combine the crushed biscuits and melted butter and sprinkle over the top.

Cook in a moderate oven (180° - 350° F) for about 30 minutes.

N.B.
I suppose it would work well with lamb or pork too.

TIPPING WITHOUT HYDRAULICS

A system for tipping a light ATV trailer has been designed by New Zealand farmer Maurice Devane from Taihape.



The system works by chocking the wheels of the trailer to stop it rolling backwards and then reversing the ATV to activate the double jointed drawbar. The diagrams show the principle. The drawbar is in two parts, a top section has a part which is welded to the front of the trailer body and this connects via a joint to a second piece which is jointed at both ends. The other end is jointed to the lower part of the drawbar. This piece is made from two sections of angle, with their flanges facing outwards.

The second, lower, section of the drawbar attaches rigidly to the axle of the trailer and is made from two lengths of box section steel with one fitting inside the other. As the ATV is reversed, the one section is pushed into the other. As the effective length of the drawbar becomes less, so the jointed section is forced upwards, tipping the trailer at the same time.

The body of the trailer need not pivot about the axle, but can do so further back if the trailer chassis is extended rearwards. To stop the trailer tipping when it is being reversed normally, two small spurs can be fitted to the bottom edge of the body. A pin put through these effectively disarms the folding top section of the drawbar.

The system is effective and cheap but it does have its drawbacks. To provide a really effective angle of tip would need an unacceptably long drawbar.

EXTRACTED FROM 'THE SHEEP FARMER' MAGAZINE
SEPTEMBER 1993 EDITION

TASMANIA IN FOUR DAYS

A TRAVEL NOTE

I have just returned from an exhausting trip around Tasmania, which was organised by Dr Rowena Bell, the fast talking Vet whom some of you may still remember from two years ago when the Falkland Islands imported live sheep from Tasmania. Rowena was the Vet who accompanied the animals on their arduous journey from Hobart to MPA and then spent a fortnight in the Island, which gave her a chance to visit some of the settlements.

During the four days I visited several farms that had supplied sheep for that shipment, including Dungrove near Bothwell (Peter Downie), Pleasant Place (Dean Zantuck), Willow Vale and Rockthorpe (R. Lawrence) and found a tremendous amount of interest amongst those farmers, and the livestock agents who had organised the shipment (R. Perkins and R. Munro) as to how the sheep were doing in the Falkland Islands. Everyone I met was interested to see the video of the transfer to Sea Lion Island, and to learn about the breeding success of the past two years. Most appeared a little bit disappointed that there had been no feedback at all from the Falkland Island, particularly for the sheep that went to private purchasers and it would be nice if some information could be fed back to Tasmania.

Times are just as hard for Tasmanian farmers as they are for Falkland ones, and several farmers there, are forced to supplement their farm income from off-farm work. I found several husband and wife teams where one partner was holding down another job off-farm (and that was not always the wife). Some have started to market their own wool actively on overseas markets, while others are working as agents for a Tasmanian wool mill. The last winter hasn't been too kind, in fact it's been rather too dry and put some strain on the farm management. Many farms have gone into cropping (to improve the cash flow situation) and fat lamb production was practised on almost every farm I visited.

Polwarth sheep are still plentiful, but Comebacks and Cormos are seemingly gaining ground in the state. Recently there has also been a large influx of South Australian merinos, which are of a huge size compared to the local merinos I could see during my visit.

The last day of my quick trip was spent in the Department of Agriculture laboratories at Mount Pleasant!, discussing hydatid campaign. It would seem that Tasmania is at a similar point in the campaign as the Falklands, but relies more on abattoir surveillance of infected properties. These are quarantined and can only send in stock for slaughter, not sell it to other farmers (unless the vendor is prepared to be quarantined as well)! Serology has been used, just as in the Falklands, to identify infected properties in three recent outbreaks, one on King Island, which had not seen hydatids for 17 years. Seemingly hunters had re-introduced the parasite with their dogs and caused an infection of sheep and cattle.

MICHAEL REICHEL, TASMANIA.
DECEMBER 1993.

LETTER PAGE

THE FOLLOWING LETTER WAS RECEIVED RECENTLY BY THE DIRECTOR OF AGRICULTURE AND PASSED ON FOR PUBLICATION IN THE WOOL PRESS.

Dear Sir,

I wish to repay a great favour received years ago from a citizen of the Falklands. I am an industrial chemist on holiday in Italy (my country of origin) but I live in Australia where I hope to return, god permitting, by the end of this year. I wish to teach, whose willing to learn in the Falklands & Dependencies, how to obtain useful household products from raw material usually discarded.

I specialise in Foods & Beverages (alcoholic & non-alcoholic) as well as in Agriculture in temperate and cold climates. I know the maximum temperature of the Falklands hardly goes over 10 C in summer so the agriculture is very limited. Still, with the development of new techniques it is possible to produce more.

With the fishing products it is possible to obtain, together with the help of some of the vegetables produced there - a range of delicacies even for export to the U.K. and European Communities as a rare product of the Falklands with the co-operation of my many friends chemists and technicians in many activities I hope to help solve the problems facing those willing to start themselves in small industries in the range of foods, drinks & other products from detergents to hydrogenated fats (from sheep) and many others.

Those interested should simply write to my Australian address giving as many details as possible of the kind of products they wish to obtain and of the raw material available to them, I will tell them, then, in a plain way what is the best way to achieve the desired purpose.

Please give this letter as wide circulation as possible so that many could take advantage of this totally free, good will offer. Thanking you kindly in advance for your help I take this opportunity to wish you and the people of the Falkland all the best, with peace and prosperity and God blessings.

Your truly,

Frank Fiori
4 Jessup Pass
Joondalug 6027
Western Australia

INFORMATION TECHNOLOGY IN FARMING!

Computers have become very much cheaper yet more powerful in recent years. At the same time, they have also become more user-friendly. Other than the obvious use of a wordprocessing program as a typewriter replacement, the computer can be used for what-if? analysis using a spreadsheet, storage of records in a database, project management, keeping accounting records etc. Using a modem to connect to the phone line, your computer can also act as a fax machine - type up the letter in the wordprocessor and send it straight from there - no need to print it first. Incoming faxes go straight onto your disk - only print them out if you want to.

The modem makes the connection from your computer to the telephone line, translating the signals into a form capable of being sent down the line, and vice versa for the incoming signals. Telephone connection opens the door to a huge range of information. There are databases all over the world holding information on practically every subject, both for the hobby user who wants info on say...stamp collecting...and for the more serious users in business and science.

The following extract describes one such database in U.K. which is especially for farmers. If you are interested, the address for Farmbase Services can be obtained by contacting Janet Mcleod (Tel 20866 - evenings, or 20872 during the day).

Farmbase Services was set up in June 1991, having formerly operated as Unifarm Services within the NFU from 1980 providing a member service. Subscribers access the service via a PC plus modem. Information can be printed from screen to give the user a hard copy.

The Farmbase system offers a Closed User Group option, for organisations/groups of farmers wishing to operate a confidential videotex service, with a communication link whereby they can contact all, some or individual customers by a single input.

Since June 1991, Farmbase has not been impeded by political pressures and with the development of its own PVS in July 1992 is well placed to offer its service to the rapidly changing farming industry. The successful surviving farmer/grower will need to change to meet the new demands placed on his husbandry methods and trading practices. Farmbase believes IT (Information Technology) will have a more important role to play in the farm business and the experience gained in videotex services in the 80's will be beneficial to farmers and growers alike.

Farmbase collects news and business information from many sources, the data is edited and input on a daily basis. The customer can access the service 24 hours a day, 7 days a week and information is updated on the system Monday to Friday.

The Farmbase Service offers:-

Daily News - This sector is updated throughout the day, covering regional, national and international farming news. In addition to farming news it carries information on Environment, Food Chain, Forestry and EC issues.

Specialist News - Up-to-date reports from NFU headquarters specialist committees, and other authoritative sources, show development, thinking and policy affecting key issues.

Business Information - The business information is the core of the database, covering most agricultural and horticultural enterprises under the headings: livestock, poultry, cereals, arable and set-aside.

The operational costs for the Farmbase service are £25 + VAT a quarter (payable in advance), together with a telephone call charge at the appropriate band rate to access the service. There are no computer or time charges.

The cost to set up and run a Closed User Group will depend on the facilities required and the size of the database.

JANET McLEOD
DECEMBER 1993

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NEW PRODUCT

HARNESS FOR TUPPING

I KNOW THIS SEEMS THE WRONG TIME OF YEAR TO HAVE AN ARTICLE ON RAM HARNESSES, BUT TAKING INTO ACCOUNT THE LENGTH OF TIME IT TAKES TO PURCHASE AND RECEIVE GOODS FORM U.K. YOU MIGHT JUST AS WELL BE THINKING OF ORDERS NOW TO ENSURE THAT HARNESSES ARE HERE IN TIME FOR TUPPING IN 1994!

Ram harnesses can have two major faults. They chafe and they fall off. Two new models from Mastermark attempt to correct these problems at affordable prices.

The top of the range *Super Red* at £12-£13 features 2" wide nylon straps sheathed in ultra-soft leather where they pass between the ram's legs. To help avoid the annual IQ test when fitting the harnesses, this model has large plastic snap-in buckles which, if they remain snapped in, is a big improvement on metal clips. Slightly cheaper at £9-£10.50 the *New 2000* incorporates a unique, wide padded breastplate to reduce pressure on the brisket. Read the instructions carefully and the serrated buckles grip well to eliminate the risk of ram and harness parting company.

Both models have the considerable advantage of being fully stitched - thus avoiding the use of rivets which can corrode and shear off. British designed, tested and made.

Details from Mastermark, David Hall Associates. Challabrook Lane, Bovey Tracey, Devon TQ13 9DF. Tel 0626-832602

* * * * * * * * * * *

WOOL NOTES

1. Dags are not Stained pieces. Dags should be put in the rubbish bin.

2. Similarly, dried wether hogget testicles should be binned!!

3. Good table hands remove locks from their table, skirt using their "fingers" and remove all stained wool from fleeces.

4. Skin pieces should be removed from all wools; a special bag at the end of each wool table is the best collection point for such contaminants.

5. The best cure for marking fluid and marking spray wool contamination is not to use such substances. Marking fluids are generally unscourable. Only scourable sprays should be used, and sparingly. Why do cull sheep etc need a spray or raddle mark from their neck to tail - they don't, a small mark would do!!

6. Getting shearers to leave "socks" on the sheep, solves another potential fleece contamination problem, as socks are full of kemp fibres.

7. Berol Magnum pens are being used as an effective alternative to stencil inks etc. (Bold Cove).

8. Dust free pens & dust-free sheep driving routes might increase your wool yields and reduce freight expenses.

9. Thin bale packs are being successfully held in press boxes by a variety of methods including 1) running a line of weld along the holding bar (Hope Cottage) 2) wrapping a length of bale string along the holding bar (New House) 3) doubling the pack over.

10. The acid test:-

    "If you were a wool textile manufacturer, would you repeat a purchase of your farm's wool??

ROBERT H.B. HALL
DECEMBER 1993.

WATCH YOUR BACK!

GETTING TO GRIPS WITH MANUAL HANDLING

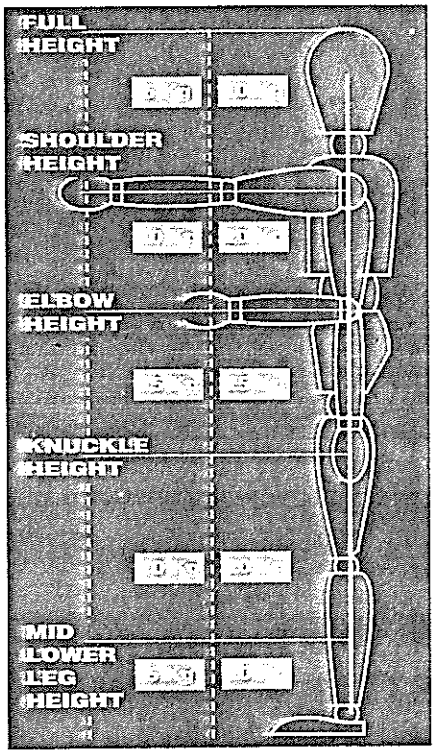
Most of the time we take manual handling for granted - until we over do it and slip a disc or pull a muscle, which lays us up for a while. Inevitably these thing always happen when you could most do without it and there is a lot of work to be done.

Once you have suffered with back pain it seems to be something that never leaves you for good, but you could avoid back injury or aggravating an old problem by lifting and handling heavy items correctly.

There are some general guidelines to follow, but you also know your own capabilities and must therefore think before you lift or carry anything heavy.

Each box in the following diagram shows guideline weights for lifting and lowering. The weights assume that the load is readily grasped with both hands; and the operation takes place in reasonable working conditions with the lifter in a stable body position.

If the lifter's hands enter more than one box during the operation, use the smallest weight. Use an in-between weight if the hands are close to a boundary between boxes. If the operation must take place with the hands beyond the boxes, make a more detailed assessment.



Frequent Lifting and Lowering

The guideline weights are for infrequent operations - up to about 30 operations per hour - where the pace of work is not forced, adequate pauses to rest or use different muscles are possible, and the load is not supported for any length of time. Reduce the weights if the operation is repeated more often. As a rough guide, reduce the weights by 30% if the operation is repeated once or twice per minute; by 50% where the operation is repeated five to eight times per minute; and by 80% where the operation is repeated more than 12 times per minute.

Twisting

Reduce the guideline weights if the lifter twists to the side during the operation. As a rough guide, reduce them by 10% if the handler twists through 45°, and by 20% if the handler twists through 90°.

Individual Capability

For the working population the guideline weights will give reasonable protection to nearly all men and between one-half and two-thirds of women . To provide similar protection to nearly all working women, reduce the guideline weights by about a third.

Any operation involving more than twice the guideline weights should be rigorously assessed - even for very fit, well trained individuals working under favourable conditions.

THIS INFORMATION WAS TAKEN FROM A RECENT PUBLICATION BY THE U.K. HEALTH AND SAFETY EXECUTIVE

TENDER

MANAGEMENT OF THE NATIONAL STUD FLOCK

The Falkland Island Government invites tenders for the management of the national Stud Flock (NSF). Interested persons are invited to put forward proposals for the management of the N.S.F. in the form of a management package. Such packages may be anything from continued operation of the NSF on Sea Lion island, to moving the NSF to an alternative site with expansion potential.

The tender is designed to accommodate a variety of costings and proposals, therefore all proposals should clearly state which costs the tenderer will cover, and which costs they expect FIG to meet. Physical farm management plans are to be included.

Prospective tenderers will need to consider costs associated with management, labour, machinery fuel & repairs, building & fence repairs, rent, insurance etc.

The Department of Agriculture will fund: sheep transport to the successful tenderer's farm, sheep removal to sale locations, veterinary drugs, tags, and also the Departments management, administration, assistance, travel, and laboratory costs.

Consideration will be given to a split tender, whereby weaned lamb production is undertaken at one location and shorn hoggets with the necessary data are produced at another location, perhaps under different management.

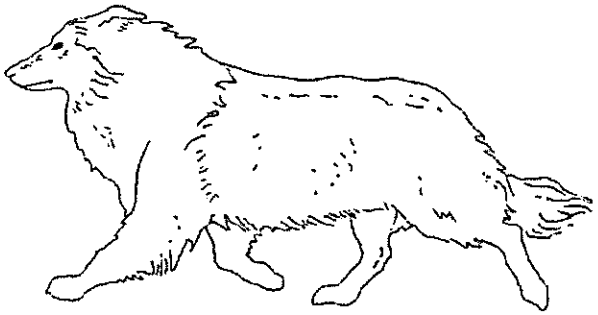
Short-term proposals are not required. Tenderers should aim for a long-term plan which should be for a minimum of five years.

Prospective tenderers can obtain more details by contacting the Director of Agriculture, Stanley.

The Falkland Islands Government does not bind itself to accept the lowest or any tender and will, in any event, when considering tenders give priority to those proposals which in the opinion of the Tender Board are most likely to achieve the National Stud Flock Objectives (which form part of this tender document). The Government also reserves the right to publish for general information if it considers appropriate, the details of any tenders which it received for the Management of the National Stud Flock.

Further details and tender documents may be obtained by contacting the Director of Agriculture during normal working hours. Completed tenders should be lodged with the Director of Agriculture in a sealed envelope marked NSF Tender no later than Tuesday 7th December 1993.

NOTICE TO ALL DOG OWNERS



DUE TO THE NEXT DOG DOSING DAY BEING SCHEDULED TO FALL DURING THE CHRISTMAS WEEK (27th), IT HAS BEEN BROUGHT FORWARD TO

MONDAY 20TH DECEMBER

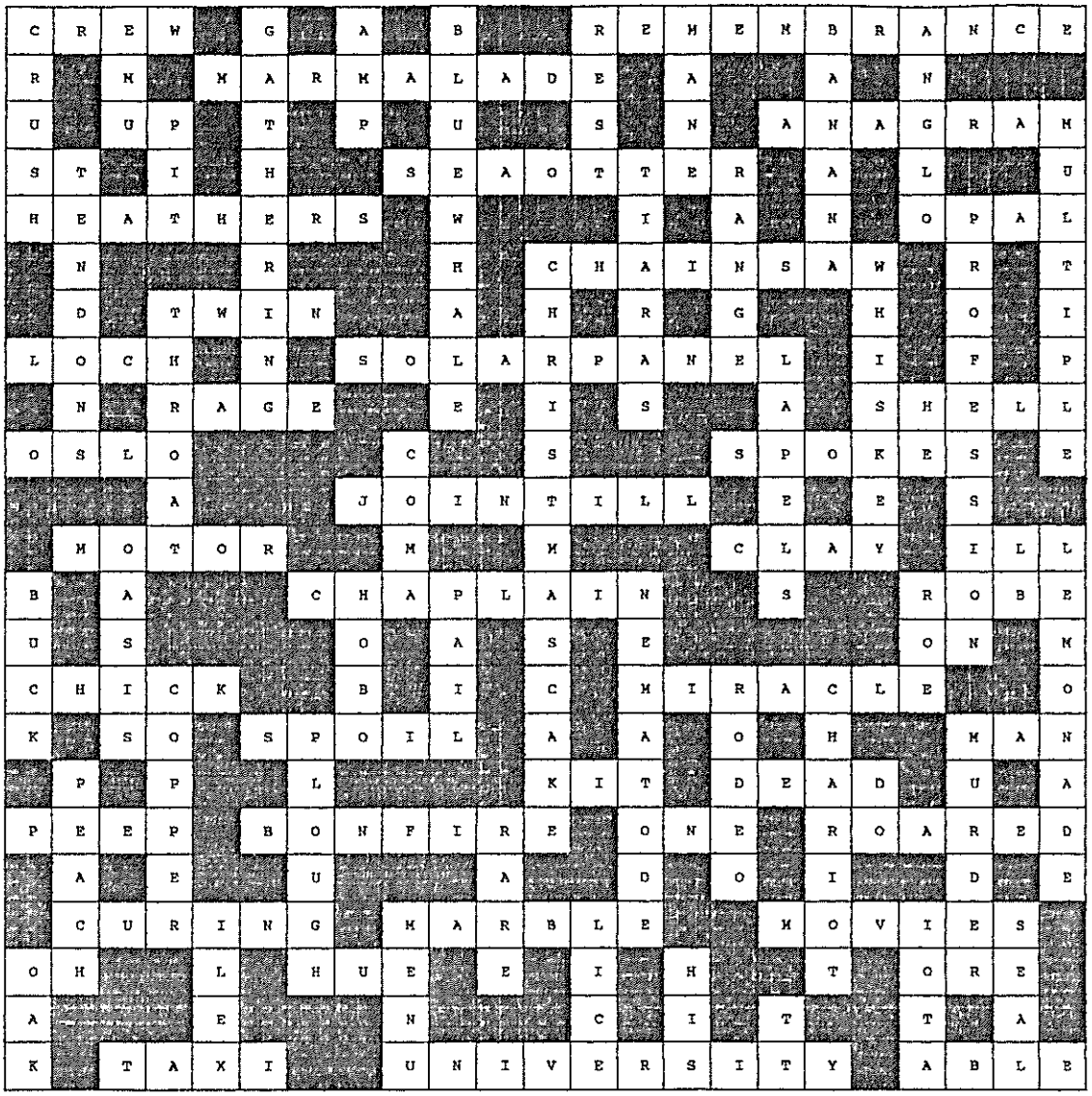
Future dosing dates for 1994 will start six weeks from that date and are listed below.

* *

DOG DOSING DATES
WITH DRONCIT OR DRONTAL

MONDAY 31st JANUARY
MONDAY 14th MARCH
MONDAY 25th APRIL
MONDAY 6th JUNE
MONDAY 18th JULY
MONDAY 29th AUGUST
MONDAY 10th OCTOBER
MONDAY 21st NOVEMBER

NOVEMBER CROSSWORD SOLUTION



WATERY ANAGRAMS

RONBY NOSUD

TROP LIMWALI

THAMGRAN DUSON

COOLROAD ABY

LEGGRUS YAB

KREBLEYE SNOUD

TORP VISPUR

CLODGERKUG DONP

VEREBA BOURRAH

SMARTSICH HOURBRA

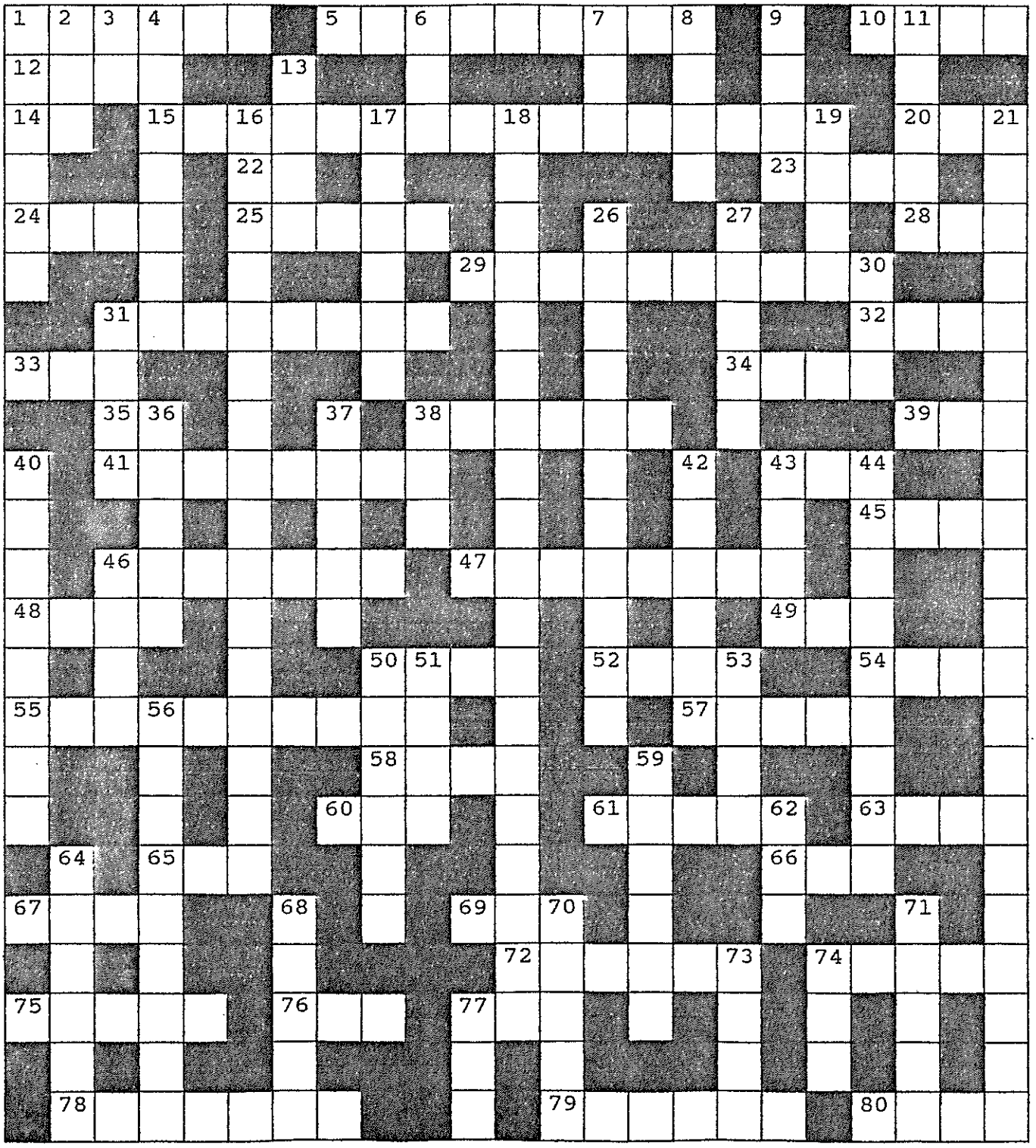
Unjumble these to name some areas of water in and around the Falklands!

Answers below.

BYRON SOUND; PORT WILLIAM; GRANTHAM SOUND; COLORADO BAY; RUGGLES BAY; BERKELY SOUND;
PORT PURVIS; BEAVER HARBOUR; CHRISTMAS HARBOUR; LOGGERDUCK POND.

CHRISTMAS CROSSWORD

DECEMBER



DECEMBER

ACROSS

1. Santa's vehicle.
5. Simple in substance.
10. The first of Scrooge's ghosts.
12. Sea bird.
14. After Christ.
15. Seasonal sounding stretch of water near Chartres.
20. Podded vegetable.
22. Place or time.
23. Tablet.
24. Proud cat?
25. One of 27 downs gifts.
28. Time.
29. Tree decoration.
31. Rudolph.
32. Direction of star.
33. Large expanse of water.
34. Another gift from 27 down.
35. Something remembered at the end of a letter.
38. Lightweight roof or cover.
39. Three.
41. Stanley Sports Association have had one given.
43. Bar.
45. In a state of great expectation or curiosity.
46. A chocolate covered Xmas cake.
47. Foot place at entrance.
48. You put shoes on them.
49. rest in chair.
50. Goldfish.
52. Elephants have big ones.
54. Prime chops.
55. Powder used for covering cakes.
57. Large bird og prey.
58. Floating platform.
60. Short chain attached to watch.
61. Hair.
62. Dull constant pain.
65. Pull.
66. Set.
67. Poultry special bone to pull.
69. Long spare bone?
72. Where 27 down came from.
74. Card game played in drives.
75. Bend.
76. Sphere.
77. Large African antelope.
78. Another of Scrooge's ghosts.
79. Thin, glittery, strips.
80. Veronica.

DOWN

1. Steady equine house?
2. Light-emitting-diode.
3. Royal initials.
4. Another gift of 27 down.
6. Tree.
7. Beverage.
8. Flesh of the ear.
9. An illegal seizure of government.
11. Plenty.
13. Feel sorry for.
16. West Falkland event.
17. Christmas bird.
18. Estancia event after Christmas.
19. Wealthy.
21. A gift on the 1st day of Xmas.
26. Gymkhana race.
27. Three royal nativity visitors.
30. Edward.
31. Sharp knocks.
36. Pompous walk.
37. Narrow minded person.
38. Soldiering insect.
40. Table-bird filling.
42. The final ghost of Ebenezer.
43. Apple seeds.
44. 8th December.
46. Tibetan snowman.
50. Seasonal songs.
51. Horse.
53. Bag.
56. Father Christmas's home.
59. Ass.
62. Like a fox.
64. Best condition.
68. Sheep after being 'clipped'.
70. Main shock of an attack.
71. Bishops hat.
73. Christmas ornament.
74. Conflict.
77. Weapon.

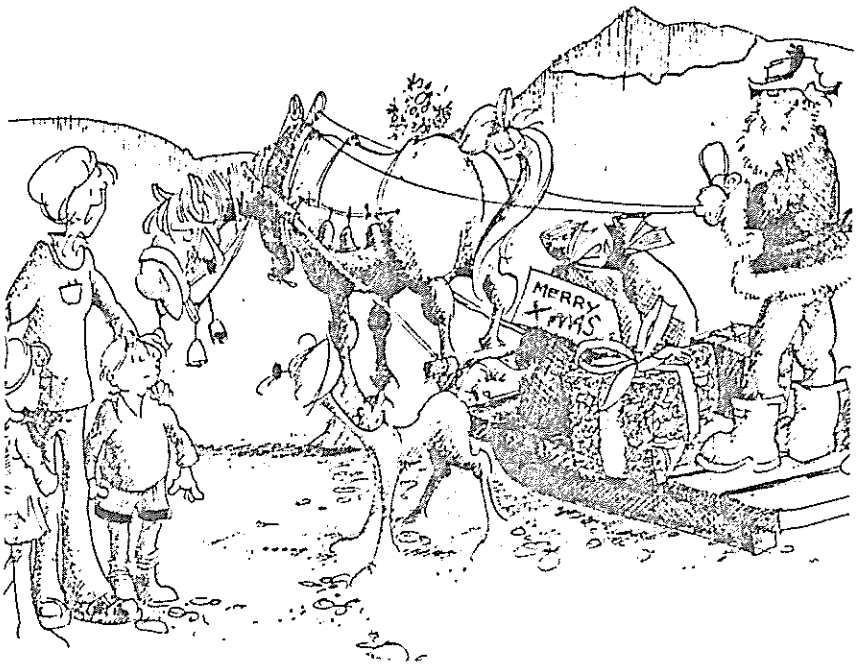
SOLUTION IN THE

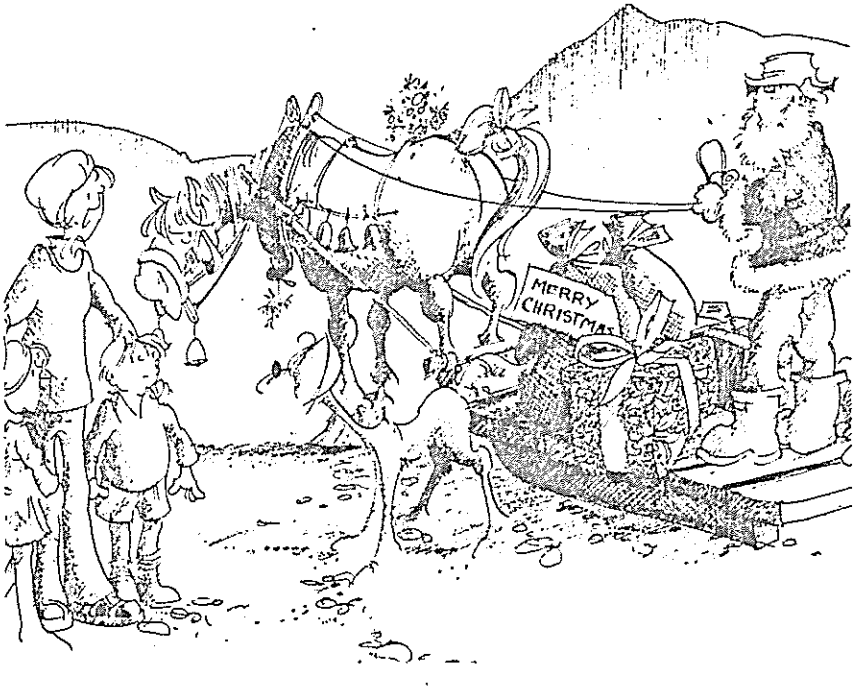
JANUARY EDITION

OF THE

WOOL PRESS

SPOT THE DIFFERENCE





LAST MONTH'S DIFFERENCES

1.Left man has shirt button missing; 2.Sheep's cane has a black end; 3.Dog's harness is missing a strap; 4.Dog has a white tip to it's tail; 5.Right man's trouser zip is missing; 6.One strand of top fence wire missing; 7.Sheep's hoof is missing; 8. Second strand of fence is not barbed; 9.Left man has pupils; 10.Extra tuft of grass.

As with many financial records (such as Gross Margins), a cash flow becomes increasingly useful with time and experience. It is essential that the accuracy of the cash flow projections are compared with actual figures as recorded in the farm account books. It is only by carrying out this type of evaluation exercise, that the reliability of future cash flows will be increased.

COMPUTER CASH FLOWS

As with all projections, the cash flow is not unique in that it inevitably goes off target. Such discrepancies may often be caused by factors that are beyond the farmers control and not easily predicted (such as a change in the duty imposed on fuel.) Where there is a need for precision, a cash flow may have to be frequently updated. In such circumstances there are obvious advantages in preparing the cash flow by computer. A computer enables alterations to be made in specific areas without upsetting other entries. Monthly totals are automatically calculated.

If any farmers require additional advice on preparing a farm cash flow or require cash flow forms please get in contact with the Department.

HUGH MARSDEN
NOVEMBER 1993

28-10-93 BYRON ISLAND CASH FLOW ANALYSIS 1993-1994

RECEIPTS	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTAL
WOOL SALES													0
MUTTON & BEEF													0
GRANTS AND SUBSIDIES													0
OTHER													0
SUB - TOTAL A	0	0	0	0	0	0	0	0	0	0	0	0	0
BUSINESS PAYMENTS													0
MACH SPARES & REPAIRS													0
FUEL & OILS													0
FENCING REPAIRS													0
BUILDING REPAIRS													0
MISC MATERIALS													0
VET REQUISITES													0
SHEARING CHARGES													0
SHEARING SUPPLIES													0
WOOL MARKETING													0
PASSAGES AND FREIGHT													0
LICENCES AND INSURANCE													0
POST AND TELEPHONE													0
WAGES													0
BANK CHARGES													0
MORTGAGE PAYMENT													0
LIVESTOCK PURCHASES													0
CAPITAL ITEMS													0
SUNDRIES													0
INTEREST ON OVERDRAFT	0	0	0	0	0	0	0	0	0	0	0	0	0
SUB TOTAL B	0	0	0	0	0	0	0	0	0	0	0	0	0
CASH FLOW	0	0	0	0	0	0	0	0	0	0	0	0	
BANK BALANCE $	0	0	0	0	0	0	0	0	0	0	0	0	

A.T.S. UPDATE

The Agricultural Training Scheme is on the move with a vengeance at the moment with a big emphasis on shearing.

Three shearing trainees are just undergoing two days preliminary instruction from Tony Heathman and Michael Clarke, prior to setting off to Lafonia to shear some of the F.L.H. sheep. The training scheme will be monitoring their progress and organising more instruction and assessment for them throughout the season. The three new-comers to the shearing circuit are Critta Lee. Paul Phillips and Chris Hawksworth. We wish them well in their new venture.

As you will all know by now, we have a shearing instructor (Murray Christie) from New Zealand arriving in the Falklands on the 19th of November. He will be instructing at seven different venues throughout the Islands while he is here, and hope that as many people as possible will take good advantage of his presence. He will fly back to New Zealand on the 17th December.

If you are interested in having some instruction from him then don't forget to send those slips back to me as soon as possible!

In the New Year Ian Ashworth will be starting a year with the ATS working in several garages around the camp and Stanley, learning some of the basics of Agricultural mechanics and engineering, including working on generators and some heavy plant vehicles.

Steven Dickson has returned from his exchange trip to Australia and I hope to have an article from him for the next Wool Press. From the conversations we have had and the heap of photographs that we ploughed through, I think it is a foregone conclusion that it was an experience of a lifetime for him.

Throughout the winter several First Aid courses were run and all who participated must have benefited by feeling a little more confident should they be required to administer First Aid in an emergency situation.

Robert Hall has had some very informative posters made, all emphasising the need for less contamination by taking care when skirting and pressing. We hope to see them displayed well in your shearing sheds for all to benefit from. The first of these you will have received with this Wool Press.

I know this is a busy time so courses at the moment are out of the question (apart from shearing shed related ones), but if you have any requests for courses after the season please let me know.

MANDY McLEOD
NOVEMBER 1993

WEST FALKLAND RAM & FLEECE SHOW

TO ALL FALKLAND FARMERS

The 'seventh' West Falkland Ram & Fleece Show will be held this year on Wednesday 29th December 1993 in Fox Bay Village.

This notice is to remind Farms before the start of shearing to save Rams and Fleeces for the following classes.

CLASS 1	FULL WOOLED RAM HOGGETT
CLASS 2	FULL WOOLED SHEARLING RAM
CLASS 3	FULL WOOLED MATURE RAM
CLASS 4	HOGGETT FLEECE
CLASS 5	ANY FINE WOOL FLEECE OTHER THAN HOGGETT
CLASS 6	ANY 'B' WETHER TYPE FLEECE

With the large number of high class sheep imported last year we expect to see some outstanding rams and fleeces.

Most of the West flocked to Fox Bay last year, but there were still a few who were a bit sheepish.

We will keep you all up to date on details of prizes and sponsors as the event approaches.

This is all for now. Good Luck with the start of shearing.

Yours sincerely

N.A.KNIGHT
CHAIRMAN W.F.R.&.F.S.

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AMAZING FACT

An eight year old horse called TRAPALANTA belonging to Andrea Turner, recently turned up at Dunnose Head after swimming about 1½ miles from Letterbox Point (Spring Point Farm) through an expanse of water known to have a 9 knot tide and many kelp beds.

The horse was being looked after by Ron Rozee, but decided it would rather go for a swim than board a boat for a trip to Stanley ready for the Christmas races. It must have looked a strange sight when seen at Dunnose Head with kelp strewn over its body.

The horse doesn't seem to be any the worse for its adventure!

N.S.F. STOCK SALE.

Exco. have just approved recommendations for the sale of N.S.F. stock. Later this summer there will be approximately the following sheep for sale:-

1) 100 superior Polwarth shearling rams

2) 30 superior Polwarth shearling ewes

3) 20 Polwarth ewes

4) 20 Polwarth x Comeback hoggets

5) 20 Polwarth shearling wethers.

Shearling rams - these will all be first class breeding stock. In order that every farmer has the chance to purchase at least one ram, sixty rams will be sold by ballot with prices ranging from £250 to £350. The top forty rams will be sold by auction with a reserve price of £360.

To date 24 farmers have been asked to be included in the ballot. If other farmers wish to be included in the ballot, they should contact the Department fairly soon.

The ballot will operate as follows: Details of the 60 ballot rams will be put in a hat, and drawn out for those farmers wishing the opportunity of such rams. If a farmer does not wish his allocated ram, that ram returns to the draw and the farmer is out of the ballot having spent nothing. If a farmer accepts his allocated ram, then another ram will be offered to that farmer from the ballot, if he buys that ram as well, he will be offered yet another ballot ram and so on until the ballot rams are sold. At the stage when a farmer declines an additional ballot ram he leaves the ballot, having bought those rams he had previously accepted.

The animals of categories 2 to 5 will all be sold by auction subject to a reserve price being achieved.

Animals not making their reserve price, will be withdrawn from sale and offered for export, with Chile as the obvious market.

For general interest it should be noted that in January 1992 similar high quality Polwarth and Comeback rams were priced at A$1,500 each in Tasmania, and cost A$2,227.11 (£905.33 at today's exchange rate) landed Mount Pleasant Airport.

RHBH.

N.S.F. NEWS.

459 N.S.F. ewes were successfully pre-lamb shorn by Steve Jennings between 27.9.93 and 1.10.93. The ewes appeared to be in good condition; very much better than they had been last year.

All fleeces were weighed (unskirted + belly), a mid-side sample was taken from each fleece, all ewes received a Panacure drench and were re-marked according to anticipated time of lambing. The ewes then went into the tussac, until 12.10.93.

459 unskirted fleeces + belly weighed 2776 kg = an average of 6.05 Kg. If the 29 sandy fleeces are omitted 430 unskirted fleeces + belly weighed 2490.6 kg = an average of 5.79 Kg.

These 3rd shearing ewe fleece weights are for exactly 12 months growth and compare favourably with a colony average of perhaps 4.0 kg for unskirted fleeces + belly. To obtain a skirted fleece weight subtract about 0.8 kg..

Lambing started in mid -October and to date over 200 live lambs have been turned into the tussac. In spite of some rough weather days, things appear to be operating much better than last year.

RHBH.

WIND CHILL FACTOR.

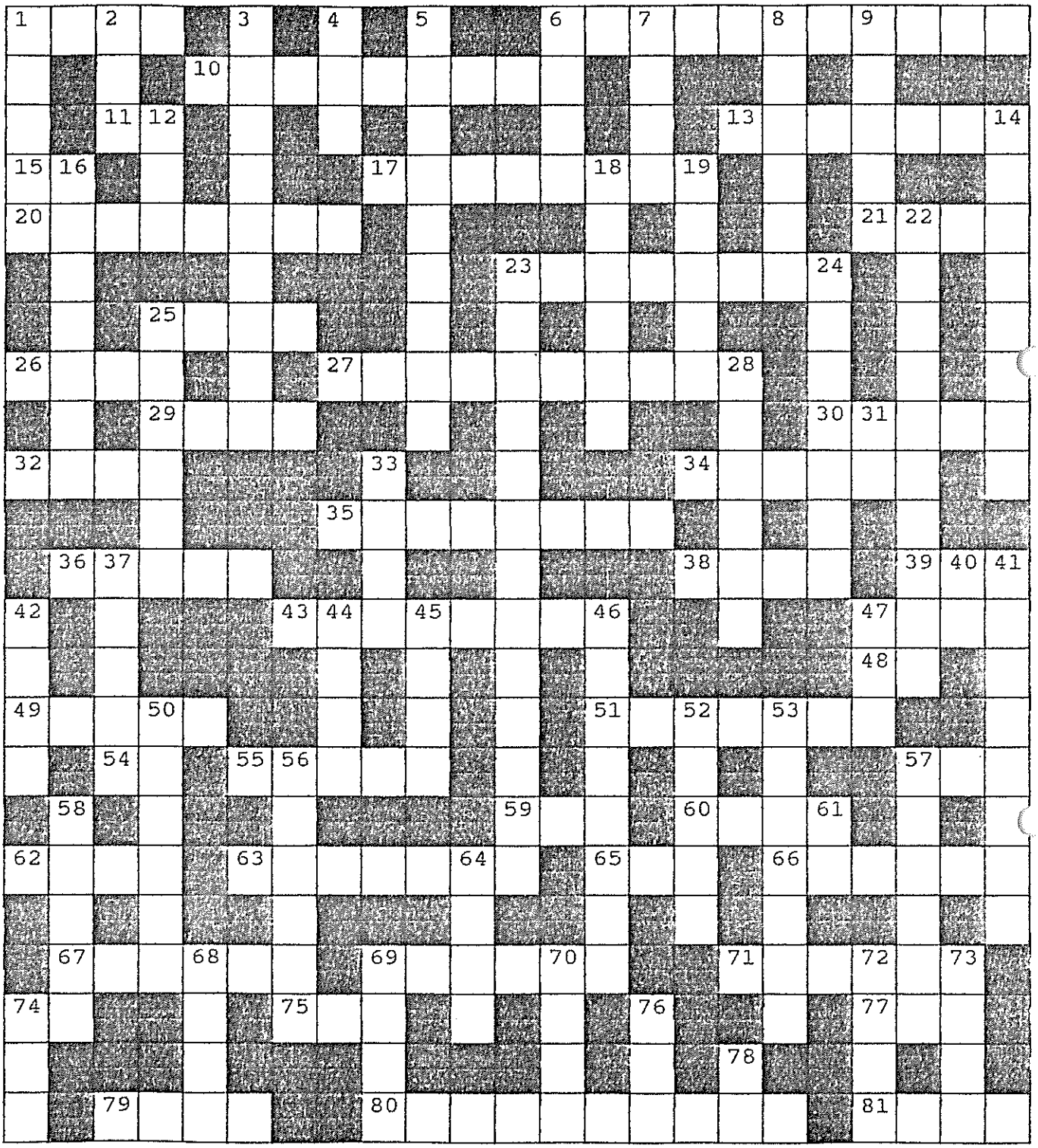
The Meteorological Office at M.P.A. generously predict a wind chill prediction index throughout the summer months, which is broadcast on F.I.B.S./B.F.B.S.. Wind chill factors are composed from three elements of the weather, namely wind, temperature and rain. The index is numerical and is broadcast only if it falls between 60 and 120, where the effect on newly shorn sheep is:

Below 70 = No danger
70 - 79 = Warning
80 - 90 = Danger
and Above 90 = Critical.

Remember newly shorn sheep are particularly vulnerable to wind chill for the 72 hours after shearing. Shorn sheep are usually dehydrated, cold and hungry; they must have immediate access to water and shelter, and prompt access to grazing. This year's shorn sheep produce 85% of next year's income; so look after them well.

RHBH.

NOVEMBER CROSSWORD



NOVEMBER CROSSWORD CLUES

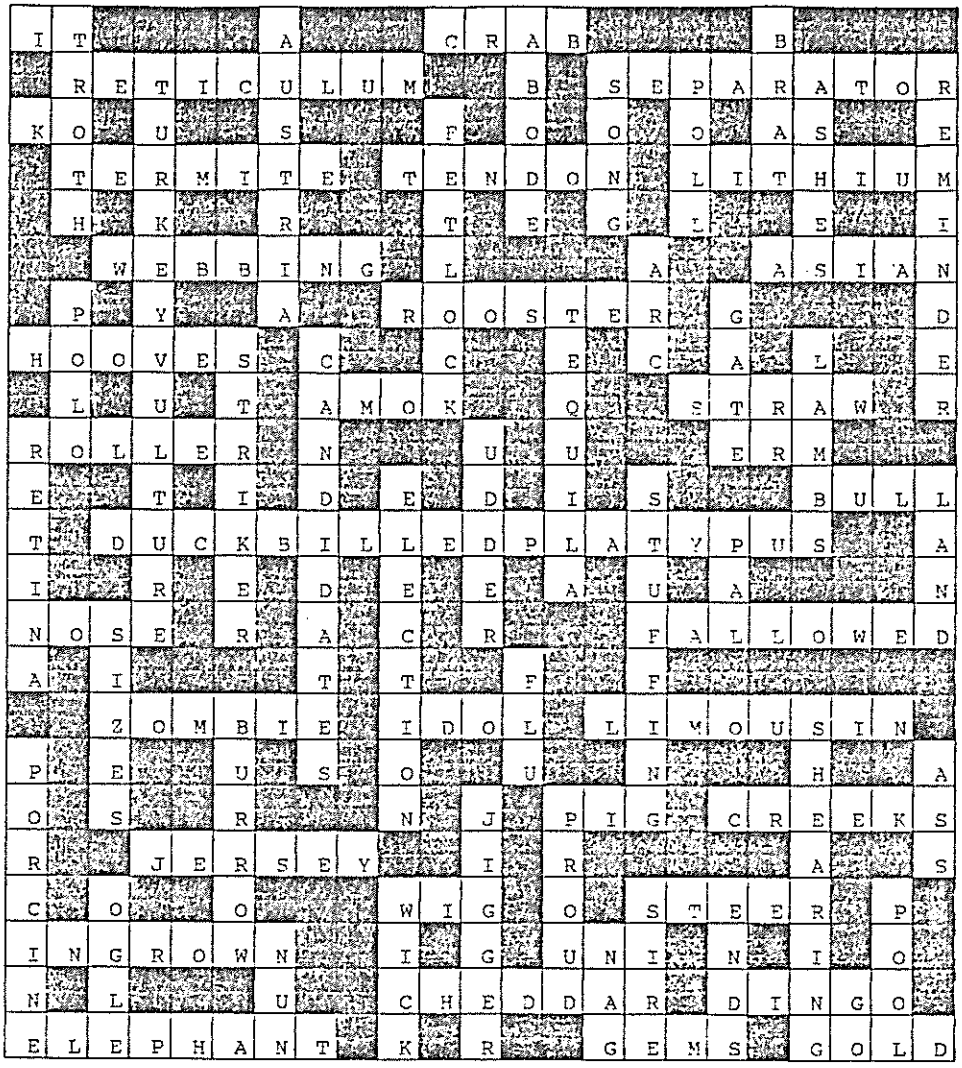
ACROSS

1. Ships gang
6. One Sunday each year is dedicated to those lost.
10. Orange preserve
11. Ascending
13. Jumbled word puzzle
15. Saint or street
17. Aquatic mammal
20. Heathland shrubs
21. Semi precious stone
23. A forester would use one
25. One of two
26. Scottish lake
27. An arrangement for collecting energy from the sun
29. Anger
30. Hard outer coat
32. A Scandinavian capital
34. Parts of a bycicle wheel
35. Disease of lambs contracted through the umbilical cord
36. Engine
38. Sticky earth material sometimes used for modelling
39. Poorly
43. Clergyman
47. Gown
48. Connected to the power
49. Young bird
51. A wonderful or supernatural event
54. Indignant questioning reply
55. Give in to a damaging level
57. Male human
59. Tools or equipment
60. Not living
62. Little BO ....
63. November 5th night
65. First number
66. Loud noise that a lion made
67. Healing
69. Round glass bead
71. Films
74. Exclamation of suprise
75. Shade of colour
77. Raw metal
79. Cab
80. Place of higher level of learning
81. Competent

DOWN

1. Cattle restrainer
2. Very big flightless bird
3. Collecting the sheep
4. Unit of electrical current
5. Largest mammal
6. Remainder
7. Horses neck hair
8. Long fruit
9. Denoting English
12. Mine
14. Many
16. Bone to muscle connective tissu
18. Fancy glittery headwear
19. Mountain area
22. Career
23. You should be thinking about making this now
24. Grain alcohol liquor
25. Front area of neck
28. Part of a collar
31. Male
33. Deep unconsciousness
37. Watering hole at MPA
40. Pounds
41. Soft citrus drink
42. Male rabbit
44. Wanderer / vagabond
45. Bucket
46. Worm
47. Fish eggs
50. Policeman
52. Exhibition of cowboy skills
53. Two wheeled horse-drawn cart
56. Soil breaking implement
57. Homicide
58. Fuzzy skinned fruit
61. Perform
64. Scarce
68. Squid species
69. List of what is available
70. Ectoparasites on horses
72. Ninth greek letter
73. Close up marine mammal?
74. Large tree
76. Belonging to him
78. Isle of Man race initials

OCTOBER CROSSWORD SOLUTION



RECIPE

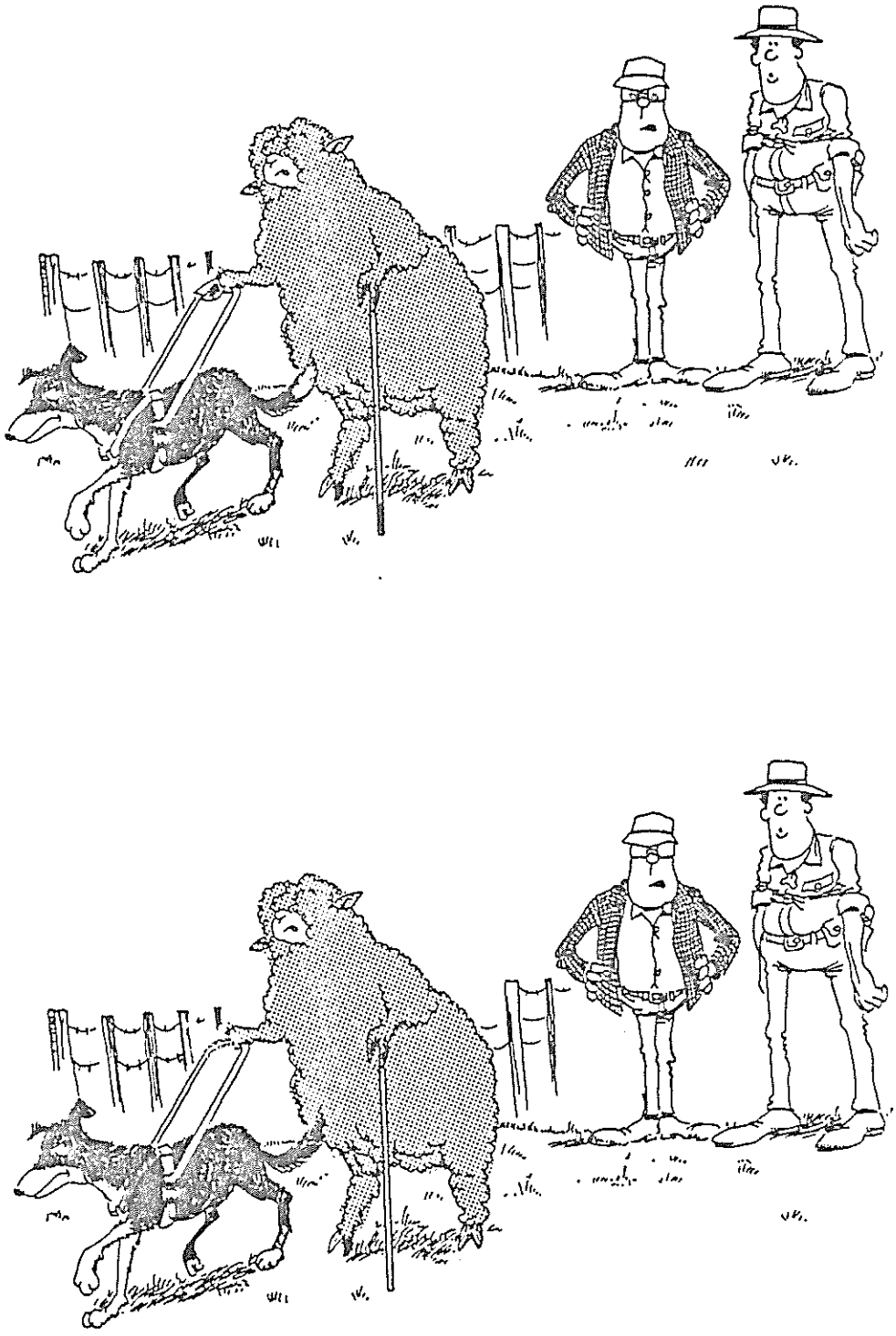
JENNY'S GINGER CAKE

INGREDIENTS

3 oz butter
3 oz sugar
4 oz treacle
1 teaspoon bicarbonate of soda
7 fluid oz milk
1 egg
6 oz flour
1 teaspoon ground ginger

Melt the butter, sugar and tracle on a low heat. Dissolve soda in the warmed milk and add the beaten egg. Seive together the flour and ginger. Make a well in the centre and add all he liquids. Beat well and pour into a greased and lined loaf tin (2 lb). Bake in a moderate oven untill cooked.

SPOT THE DIFFERENCE



SEPTEMBER'S DIFFERENCES

TOP PICTURE: 1. Extra clump on trees; 2. Man has a thumbnail; 3. Window is clear; 4. Cupboard door knobs are white; 5. Right side of cupboard door is missing; 6. Young man's foot showing; 7.Dog's tail is shorter and thinner; 8.Extra toothbrush in cup; 9.Left tap showing; 10.Man has no crease mark under one knee;

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U.K.	Wheat (feed)	£10.00
U.K.	Pollard (bran)	£10.90
U.K.	Mixed poultry grit	£ 9.00
U.K.	Oyster shell grit (100%)	£12.00
CHILE	Whole corn (50 kilo bags)	£25.75
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