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Shearing Ewes Before Lambing

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THE practice of shearing ewes before lambing has increased to a surprising extent in the South Island during the last two years. The practice itself is not new. It has been carried out by a small number of farmers in Otago and Southland for some years, while in Australia it has been developed considerably in the areas where spring lambing is favoured, as in the Southern Tablelands. In Australia increased lambing percentage is the main advantage claimed, no disadvantages being noted except, perhaps, in the necessity for having feed available near the shed. As far as New Zealand is concerned the early shearing pioneers in Otago remained an unsupported minority until 1946. In that year considerable interest was displayed in the results being obtained in Otago. Amongst other causes the Wool Metrology Laboratory at Lincoln College was responsible, as a result of a survey made in Otago, for issuing a preliminary report on early shearing. (Canterbury Chamber of Commerce Agricultural Bulletin No. 204, July, 1946. Prepared by R. C. Blackmore). Thereafter a few farmers throughout the length of the South Island began shearing their ewes before lambing, some cautiously doing only a hundred or so, others deciding to risk everything. From these beginnings the practice has increased greatly, especially during the last year.

The main advantages of shearing ewes before lambing as claimed by the Otago pioneers and as reported in 1946, were as follows:—

(a) **Wool.**

It eliminated tenderness or break in wool, since the fleece is shorn in August through the break and not 3-4 months after the break as in normal shearing. The whole clip was sound, and much cleaner and brighter than with normal shearing. There was an absence of cotts. No difference in total weight of the wool clip occurred.

(b) **Lambing.**

There was a reduction in lambing trouble due to the greater activity and vigour of the shorn ewes. Casting was much reduced. Shepherding at lambing time was made much easier.

(c) **Mortality.**

Ewe losses due to bad weather were not increased but were, if anything, decreased. Lamb losses were reduced since the shorn ewes sought shelter for lambing in unsettled weather.

(d) **Thrift of lambs.**

The lambs did better since there was no check due to a shearing muster.

(e) **Labour.**

It eased the labour situation on the farm, since November-December shearing often coincides with cultivation, haymaking and harvesting.

The only disadvantages recorded were the limited time available for shearing necessitated by completing the shearing before lambing began, having to stop shearing earlier than usual in the afternoon and having to provide good feed immediately after shearing.

It will be appreciated that the data available in 1946 consisted solely of opinions as expressed by those few farmers in Otago. Such opinions by experienced farmers are most valuable but they lack certain desirable features. There is no strictly scientific basis of comparison

of results obtained, since the latter can be greatly influenced by factors such as environment, changes within the flock, changes in market prices and improvements in management. The observations were also restricted to the inland districts of Otago where early shearing was then conducted.

Outline of experiments and observations made.

In order to obtain further, and possibly more accurate data, the following work was done.

Firstly, trials of an accurate and strictly comparable nature were initiated and carried through for three seasons 1946-48, at the Kirwee Experimental Farm. This farm is situated in the Canterbury Plains, on flat arable country with gorse hedges and pine shelter belts as the only shelter available. Corriedale ewes mated to Southdown rams were used for the trials. In 1946 only 60 ewes were available but this number was increased to 260 in 1947 and 1948. Half of the ewes were shorn in August and half in December. At all times the early and late shorn ewes were run as one mob. Complete records of fleece weight and quality, lamb growth rates and percentage drafted fat were kept.

The Kirwee experiments, accurate and useful though they may be, were on a relatively small scale and on a limited set of environmental conditions. To widen the scope of observations, information was collected from a considerable number of farms in Canterbury and Marlborough where early shearing was being practised. In March-April, 1949, visits were paid to 16 farms on the Kaikoura coast, in the Hundalee, North Canterbury, Banks Peninsula, Canterbury foothills and Canterbury Plains. Most of these were on store sheep country carrying fine woolled ewes, though a few were carrying Romney ewes for fat lamb production. On three of the sixteen farms wool surveying had been in progress both before and after the change-over to early shearing. Visits were also paid to several wool stores to seek opinions of the brokers and classers. Further opinions were also received verbally or in writing from a number of farmers, though the farms themselves were not visited.

RESULTS AND OBSERVATIONS OBTAINED

I. Wool Quantity:

At Kirwee total wool production has been unaltered by early shearing. Greasy wool production was reduced by 1—2%, but this was compensated for by a corresponding increase in yield. Most farmers would not venture an opinion as to whether early shearing has influenced fleece weights, and considering the influence which changing seasons and flock compositions can have, such caution is understandable. However, four farmers are quite certain that they were losing up to 10% in average fleece weight even in the good seasons. Some, if not all of this loss, can be attributed to early shorn wool being about 5% higher yielding. This being the case, the loss in greasy weight should, in theory, be compensated for by a higher price. The possible loss in weight is also partly offset by the fact that one shears more sheep, even those which die later at lambing.

II. Wool Quality:

Everyone is unanimous that a marked improvement in wool quality is achieved. The wool is cleaner, brighter and perfectly sound. Tender fleeces and cotts are to all intents and purposes completely eliminated. In one Romney clip of 100 bales the amount of cotted wool has been reduced from 6 bales to zero. The reduction in the amount of tender wool is also spectacular. At Kirwee it was reduced from 30—50% to less than 5%. On two North Canterbury farms from which accurate data is available from wool survey, the percentage of tender fleeces has been reduced from an average of 10% to less than 1% on one farm and from 60% to 4% on the other. In addition, at Kirwee the character

grading of the early shorn wool has been higher than that of the late shorn.

All effects of early shearing are not beneficial. In general, fleeces do not hang together as well as December shorn fleeces. This necessitates greater care in handling in the shed and causes the wool to hang more loosely when opened for inspection at the wool stores. In a few cases where a break has occurred after lambing the fleeces have $\frac{1}{2}$ to $\frac{1}{4}$ -inch of poor matted wool at the tip.

An important feature of early shearing is the marked effect it has on the amount of dirt, fern and bidi bidi in the wool. On one property the incidence of sandy backs, once high, has been much reduced. Though fern and bidi bidi in wool are normally minimised by shearing in November rather than in December, shearing before lambing has eliminated it on those properties where it existed. Seedy necks, due to grass seed, are also avoided. One clip in the Hundalee previously graded in the wool stores as a D wool, as a result of dirt and charcoal from spring burning, has been converted to a good B wool by shearing in August. On the other hand on another property where the sheep had sought shelter in manuka during the summer heat, the amount of manuka leaf in the wool has been increased.

III. Wool Prices:

It might reasonably be expected that such a marked improvement in wool quality and in yield would result in an increase in the prices obtained for such wool. It is disappointing to record that such is not the case. Most farmers are certain that up till the present they have obtained no premium for their early shorn wool. The early shorn wool from Kirwee, reclassified and sold in the same sale as the late shorn, has averaged 1—2 pence more per lb. Wool prices are notoriously bad as a reliable index to quality, but the fact must be faced that the wool buyers seem to be paying little if any premium for the extra quality of early shorn wool.

IV. Lamb Growth.

Almost all farmers considered that their lambs are better as a result of early shearing of the ewes. As nearly all farmers sold store sheep there is no yard-stick of comparison. It may be significant that on those farms producing fat lambs (Bank's Peninsula), the percentage of lambs drafted fat in the first draft has increased since early shearing began, whereas it has not increased in the same years on neighbouring farms. At Kirwee a statistically significant improvement has been obtained to the extent of 3—4lb. live-weight, or 1—2lb. carcass weight, together with a higher percentage drafted fat. One would expect the improvement in lamb growth to be greater on hill-country than on Kirwee, since one of the major benefits of early shearing is that the lambs are not knocked about or mismothered by a shearing muster. It is very likely therefore that early shearing does improve the lambs on all classes of country, to at least the extent obtained at Kirwee.

V. Lambing Percentage:

On the data available one cannot be dogmatic about the effect of early shearing on lambing percentage. Most farmers believe that it has improved, even allowing for 1948 being a good season. Where it has been possible to examine figures quoted, it does appear that some farmers have had increases of up to 10% relative to their neighbours, and attributable to early shearing. Certainly shorn ewes seek shelter to lamb in bad weather and this, together with lower ewe losses, leads one to believe that the increased lambing percentage is real.

VI. Ewe Mortality:

The reduction in ewe mortality from lambing to tailing is one of the most significant features of early shearing. The following situation is typical. Where previously 40-50 ewes were lost in a flock of 2,500 ewes, the losses are now less than 10. Admittedly part of this may be due to recent good seasons, but where it has been possible to check losses, those on late shearing farms have been as high as ever. Lambing troubles are very greatly reduced, to the extent that some farmers have ceased going round their ewes during lambing. A significant feature, which has been very noticeable and which is commented on by nearly all farmers, is the reduction in incidence of bearing trouble. On Banks Peninsula where bearing trouble is fairly bad, affecting usually 1—3 per cent. of ewes, early shearing has reduced the incidence to less than a quarter of this figure. This is not due to season, since the incidence on those farms with late shearing has been just as high in 1946-48 as in other years. Probably this reduction in lambing trouble in particular, results from the greater exercise taken by the shorn ewes.

VII. Sale of Cull Ewes.

This is influenced by early shearing since at the time of sale the ewes have about 7 months' wool. With high prices for wool one might have anticipated a keen demand for these ewes, but this has not been the case. There has been no premium for the extra wool and prices have been on a par with December shorn ewes. This is due to the fat lamb producers who buy these ewes not being early shearers themselves, for it would be a risk to carry such ewes through to December without shearing. In the long run the problem will solve itself as early shearing becomes more general, even on the Plains. In the meantime certain temporary expedients are being practised. One of these is to shear the ewes again before the sale which gives the vendor his due, but the wool stores are in some doubt as to how to class the wool. Some fat lamb producers have cashed in on the situation by shearing immediately after purchase and so getting 4—5lb. of wool for nothing. At present this represents a real, though not a major disadvantage for early shearing.

VIII. Dipping:

Dipping may cause some worry since it is carried out in January-March when the sheep have 5—7 months' wool and therefore necessitates greater care and slower working. The ewes take out much more dip and consequently the cost of dip is greater (about double). Two farmers have found that the dipping has caused a stain in the wool and some loss of character extending to half the length of the staple. This stain scours out but the greasy wool loses much of its attractiveness and must suffer some loss in price as a consequence. Whether this can be attributed to the particular brand of dip used, the amount of dirt in the dip, or to dust collected at dipping is not known. A possible solution to this problem is to spray dip off shears. This should certainly overcome the difficulty, but what effect it would have on the sheep and how effective the dip would be have still to be determined.

IX. Fly-Strike:

In Banks Peninsula and the Plains, fly-strike in ewes is not common and early shearing has had no noticeable effect on it. In Marlborough and North Canterbury, however, fly-strike is often serious. Most farmers in the fly-strike districts have not had trouble since early shearing but a few isolated cases have arisen in December through the ewes becoming dirty. After shearing in August ewes and lambs are not brought in to the yards until weaning in January or February. It may, therefore, become necessary, as a precautionary measure, to dag ewes and lambs on their blocks in November-December.

X. Casting:

Casting of ewes from August to weaning is almost eliminated by early shearing. As the wool grows longer some casting may occur in hot autumn months and again shortly before shearing, but as the feed is hard and the ewe neither milking nor heavy in lamb, such ewes can survive many days of being cast.

XI. The Effect on Management:

Early shearers are unanimous that the greatest advantage of shearing before lambing lies in the management of the farm and the saving of labour, and that from this point alone early shearing is worth while. Shearers are easier to obtain in August than in December. Though shearing itself is a little harder and slower than in December, and special provision of a paddock of good feed near the shed is necessary, the whole organisation of shearing is very much easier since there are no lambs. This means that:

- (a) Mustering is much easier.
- (b) There is no drafting of lambs from ewes.
- (c) No holding of lambs round the homestead.
- (d) The ewes can be held longer in the shed before or after shearing.
- (e) Different mobs of ewes do not have to be kept separate.

This represents an important saving in labour and management.

From tailing to weaning no sheep work is required apart from riding round the stock and perhaps some digging. On properties where ewes were ring-crutched before tupping and crutched again in the winter, the latter operation is now unnecessary. But the biggest advantage lies with the farmer who has cultivation and haymaking to do. Normally these coincide with shearing so that one or all suffer, but with early shearing the farmer is free to concentrate on each separately.

Conclusion:

Though shearing before lambing has some definite disadvantages these are outweighed by the convenience of August shearing from a farm management point of view, the improvement in wool and lambs produced and in reduced ewe and lamb losses. Some of the disadvantages will no doubt be rectified as more experience is gained and as the practice of early shearing spreads. Though ultimately the availability of shearers must set a limit to the number of sheep shorn before lambing there is firm ground for confidence that the practice will continue to increase. It would be fairly safe to say that early shearing could be carried out to advantage in many more districts and on a larger scale than at present. There seems no obvious reason why farmers in the North Island in particular should be so slow in adopting this practice. It should be stressed that the advantages and disadvantages experienced on any one farm may not necessarily conform to all of those discussed above, since environmental conditions and management vary from farm to farm. But sufficient is now known to be able to judge with fair accuracy the conditions under which most benefit is likely to be obtained.

Discussion on Professor Coop's and Mr. Drake's Paper

Mr. DUNCAN: I would like to congratulate Professor Coop on his very able summing up of the position and would like to ask him one or two questions. I think possibly one of the reasons for North Island farmers not tackling early shearing may be that in the past people have been caught by storms and have had heavy losses at the normal time of shearing in November. There have been rumours of heavy losses in the South Island. They say there have been one or two cases where people have lost quite heavily by August shearing. Another question I would like to ask is with regard to the monetary loss on the first clip when early shearing is first commenced. I understand from the wool buyers that the first clip is abnormally short and the farmers may suffer quite a loss. I would be interested to know if you have any figures there. The third point is a comment in regard to dipping. The method mentioned by Professor Coop is to spray dip off shears. Unfortunately as the Stock Act stands at the moment that would hardly be legal.

Professor COOP: If I could start with your third question. We are not greatly worried about the Stock Act in the South Island. We have sufficient influential farmers down there. We have had losses in the South Island just as big as you have, in November, December, and January, probably bigger. I can quote you cases. On my father's farm we lost 500 one year in December, and up the Rakaia I know places where they lost over 1,000 in February. Such figures are common all over the country. But that is not a deterrent, in fact it is one of the reasons why early shearing is to be preferred. There are several reasons why I think the sheep do not suffer as much in August as one might think. The first is that the ewes are in lamb and I understand that pregnant animals do not suffer so much from the cold. Further, I believe the winter skin is thicker than the summer one. The decrease in temperature after removing the wool is no greater in August than in December. Whatever the system I think you will agree that there will be ewe losses in rain and wind. With rain plus wind in August at Lincoln, the temperature does not drop by more than five degrees below the mean temperature for the month, whereas in November and December there is a 10-20 degree drop in temperature when a storm occurs.

Mr. DUNCAN: The losses in August then are actually low. You have had no heavy losses in August at all.

Professor COOP: In general losses are low but there have been authenticated cases where some farmers have lost quite a lot. Some publicity has been given to a farmer in Otago who shorn 1,500 and lost 1,400. Most of those were drowned as there was a terrific rain storm. The unshorn ewes lost from it would have been just as great. He is still shearing in August. Referring to your other question we have no evidence that the price of the eight months' fleece is any less than that of the twelve months! There are some people in Christchurch who are even investigating whether there is not something to be said for shearing twice a year, as some are doing that on the West Coast to considerable advantage.

Mr. L. C. FIELD: I would like to ask whether it is necessary to shed these sheep after they are shorn. If a storm is brewing are the sheep put in the shed?

Professor COOP: You do want to ensure that the ewes get a good feed before nightfall. We have shorn right up to dark, 6.30, at Kirwee. We have had good feed to put them on afterwards. We have put them into a paddock where there is good shelter, and have never resorted to shedding.

Dr. McMEEKAN: There is just one question I would like to ask Professor Coop with reference to the tardiness of farmers in taking up this early shearing practice. We would like to know how to do it in the Auckland Province where we would have to do it in the month of July when it rains 30 days out of 31. Our worry is how to get the job done under heavy rainfall conditions. Am I right in assuming that in most areas in the South where early shearing is progressing the rainfall picture is quite different from that of the majority of the North Island?

Professor COOP: I think you are quite right but there is a fair area, I understand, in the Wairarapa and Hawke's Bay where the climate is supposedly even more favourable than it is in Canterbury and Marlborough. If we can shear our sheep in August throughout the whole of the South Island I can see no reason why it cannot be done on the East Coast of the North Island. I would start in Hawke's Bay and Wairarapa. If in the Waikato you have 30 days of rain you just cannot do it.

Mr. CLARKE: I understood Professor Coop to say there was no premium for the winter-shorn wool. This is rather hard to understand if there is no real difference in the quality. You suggest that in one case the wool was raised from D grade to B grade. Was there no recognition in that case of the quality?

Professor COOP: There was, in that case because it was so outstanding. In the main they might have got a penny or twopence increase but certainly not the 6d or 9d per pound one might expect from the great improvement in quality.

Mr. HUNT: How many days prior to the commencement of lambing did shearing commence?

Professor COOP: One doesn't want to shear earlier than six weeks before, otherwise the ewes get accustomed to the cold before they start lambing. We shear any time from six weeks up to lambing. We have had instances where the ewes have been lambing in the pens while being shorn. It wants to be somewhere about two weeks before lambing commences.

Mr. HOW: Have you any data on the percentage of losses in lambs through abortions or dead lambs through shearing early?

Professor COOP: No, we have asked all the people who have done early shearing and they have reported no losses. At Kirwee over three years we did lose two which might have been due to rough handling.

Mr. SIMPSON: I would like to ask Professor Coop whether he would think shearing before lambing was warranted in the North Island where our feed conditions are probably better than in the South Island as we do not get this break in the wool.

Professor COOP: If you do not get a break in the wool in the North Island you are much better farmers than I think you are.

Dr. WALLACE: Has this practice of early shearing been associated with any increase in trouble such as sleepy-sickness? It seems to me that the recommendation of shearing close to lambing is one that would quite easily lead to an increase in that trouble. I think it is fairly well recognised that if there is a likelihood of sleepy-sickness, the practice of shedding the sheep to reduce the losses due to inclement

weather could easily result in an increased incidence of that trouble. The other point I would like to mention is this: I was following the requirements for maintenance of sheep during cold weather prior to and after shearing and I found that the feed requirements for maintenance increased in the order of about 25 per cent. as a result of shearing in cold weather. I wondered whether the practice of shearing close to lambing at a time when the feed supply situation is normally difficult meant a severe difference in that respect.

Professor COOP: We have no figures on the incidence of sleepy-sickness. Certainly I think it is a possibility but these men who are doing early shearing are all good farmers and make a point of providing good feed for the ewes. That is also the answer to the second point. If you have not the feed for them, then don't shear early. In order to be able to withstand the early cold the ewes must have the early feed.

Mr. FORDE: A friend of mine in the East Coast did try shearing six weeks before lambing. At that particular period, even on the coast in the sunny Hawke's Bay there is a period of dormancy for grass and in this case where 2,700 ewes were involved, there was difficulty in providing that extra bit of essential feed by cropping.

Mr. CRAWFORD: I would like to ask the speaker if it is necessary to make provision for a certain amount of extra feed—whether there has been any reduction in carrying capacity on farms undertaking early shearing?

Professor COOP: There isn't, because you only provide this extra feed for a couple of days, immediately after shearing. The Hawke's Bay men should be able to provide some feed for the first night after shearing.

Mr. CRAWFORD: I understood from Professor Coop that this extra feed would probably offset any chance of sleepy-sickness, but if it is only for a couple of days I do not think that can be maintained.

Professor COOP: The point is this, that you do want the feed near the homestead. The question is how best to use it. If the weather is fine don't bother about it. However, if they are in the shed each day turn them out each morning and give them half an hour or an hour on the feed and put them back in again.

Mr. MITCHELL: The point I had in mind was raised by Dr. McMeekan. I was in the Manawatu and during June and July our sheep were never dry. I had thought about trying it. However, we might shear one year and the following year just not be able to do it.

Professor COOP: I think that is in agreement with my conclusion. If we are going to shear early in a big way we have to decide when it is best done. We obviously can only shear about 25 per cent. of the total ewes in New Zealand in June, July and August. In the North Island I think it can best be tackled on the East Coast.

Dr. DRY: If a farmer is breeding his own two-tooth ewes does he make any alteration in the time of shearing the ewe hoggets?

Professor COOP: That has been a bit variable. I think most have been left until about October, although some have been shorn in August. Even stud breeders in the South Island are now doing it. I understand a prominent Corriedale breeder is going to shear his stud ewes early this year. I think we are inclined to exaggerate the possibility of getting ewe losses in August.