## GRASS WINTERINGOF EWES IN COASTAL SOUTHLAND

## D. G. WATSON

Farmer, Roslyn Bush

## Abstract

A description is given of the farm, soil type, stock numbers, etc., together with an account of the management policy followed. The various methods available for providing feed for periods of insufficient growth, and the reasons for a change from the traditional methods to an all-grass system for wintering ewes, are stated. An analysis is given of the advantages and disadvantages of such a system, together with the methods of easing its planning and adoption. Reasons are given for a small area of swedes or choumoellier still being grown for wintering the ewe hoggets, rather than the complete adoption of an all-grass wintering for all stock. Reference is made to peat swamp development and the use of Roundup (glyphosate) in cutty-grass control.

**OUR FARM** is 187.5 ha (463 acres) and is situated 13 km northeast of Invercargill. Included in this area are 141 ha (348 acres) of Waikiwi silt loam and 46.4 ha (115 acres) developed out of the original peat swamp. The rainfall is a reliable 101.6 cm (40 in.) a year, the winters are cold, and some supplementary feeding is needed from the middle of May until the middle of August.

Stock carried consists of 2400 ewes, 850 ewe hoggets, and 70 cattle. In addition, there is usually 4 to 8 ha in wheat,

The methods available for wintering stock in our area of Southland would include (1) swedes and choumoellier plus hay; (2) self-fed silage – rarely used: (3) pads or wintering barns with hay and grain feeding; (4) all-grass systems. Any of these systems can be efficient, but, along with many other Southland farmers, I changed to an all-grass system for wintering my ewe flock several years ago, for the following reasons:

- Better control of feed intake it is very simple to increase or decrease it at will.
- 2. Low labour content it takes only about one hour a day.
- 3. Low cost the grass is growing; it may as well be used.
- 4. Simple to plan.
- Good pasture utilization tends to improve both the content and the production of the pastures – the poorer species tend to be eliminated by treading and grazing.

- 6. The even distribution of dung and urine over the whole area avoids the transfer of fertility to areas within the paddocks such as stockcamps under trees, or away from busy roads.
  - It may be said that the system has some disadvantages:
- 1. Perhaps more forward planning is necessary, and a psychological breakthrough is needed on the part of the farmer, especially in wet weather when break size must be kept small and *not* increased in order to avoid excessive mud.
- 2. Daily supervision is always needed the breaks are best shifted daily.
- 3. Insect damage such as caused by grass grub, and more especially porina caterpillar; can be a problem on regrowth areas.

However, these problems are easily coped with if the following methods are used:

- (I) It is essential to have a good map of the farm.
- (2) Calculate the area of grass available and divide by the number of ewes for example, with 152 ha (375 acres) available for 2500 ewes, daily shifts at a stocking rate of 500 ewes/0.405 ha (1 acre) and break size 2.03 ha (5 acres) would give a rotation of 75 days.

The rotation should then be adjusted to last at least 90 days, and this can be done very easily by keeping the break size at 2.03 ha (5 acres), and when conditions are dry enough – early in the winter – extra days can be gained by leaving the ewes on the break for a second day and feeding them hay; *i.e.*, 15 days' hay feeding at 40 bales per day would take 600 bales of hay to extend the rotation from 75 to 90 days. The alternative, which I now prefer, is to use smaller breaks and supplement the available pasture by feeding out hay on the new break each day before moving the ewes; i.e., 152 ha (375 acres) divided by 1.36 ha (3.3 acres) gives 112 days' rotation at a stocking rate of 750 ewes per 0.405 ha (1 acre) per day, so room is left to increase the break size and feed level before lambing.

If labour is employed and quite a lot of hay fed, I think the second method of daily shifting is the easier, but if you have to depend on your wife and family it may be easier to get much of the hay-feeding over in the May school holidays and gain the extra days then. It is important to gain some extra days early in the rotation or to keep some paddocks aside for the extra feed that is always needed for crutching, fattening

up the thin sheep, and feeding the freezer ewes that you cannot get killed.

- (3) Scales can be a help. It is an easy matter to increase or decrease the feed level either by the amount of hay fed or by the size of the breaks of grass given. If at any stage you become concerned about the stock, it is a simple matter to weigh a few ewes at fortnightly intervals to check whether feed levels are adequate.
- (4) Simply erected fences for adequate subdivision are essential, and enough electric fencing to last a week should be able to be erected quickly in good weather. Break fencing then ceases to be a nuisance and more time is left for other essential jobs.

For grass wintering to be successful I think some preparation of the pastures is necessary, and for this reason I have listed what I consider to be the main points to follow.

- 1. After weaning, clean up the pastures by rotationally grazing the paddocks, using the main mob of ewes at high stocking rates (1200 or more per hectare) behind the electric fence.
- 2. Clean up all the lamb-fattening or cattle blocks that have been lightly or selectively grazed, by late summer or early autumn.
- 3. Flush the ewes by using adequate subdivision and moving the mobs every day and just taking the top off.
- 4. Three weeks after tupping commences I take the Coopworth rams out and put all the ewes in one mob with the Southdown rams and start the rotation. For the first 2 weeks it is important not to be too hard on the sheep and to give them plenty of feed and keep a special watch on the two-tooths. I have found it a good idea to block-graze the-ewe hoggets behind the electric fence in the spring; they are then used to the system and settle down more quickly as two-tooths the following winter.
- 5. Do the planning early and adjust the rotation to 90 or more days. If it is dry early in the winter, feed hay and gain the extra days early, rather than late in the rotation. When there has been a drought and feed is short, feed hay or barley straw early and stick to the same rotation as usual, and the feed will come away when it rains.
- 6. Draft off the thin ewes at least three times during the winter and graze them on their own until they fatten up, and then return them to the main mob.
- 7. Increase the feed quantity and quality as lambing approaches, but keep the ewes in one mob until the first lambs appear. Avoid

spreading the ewes out in early August thinking that spring has arrived early - it seldom does, so keep the feed for lambing.

8. Never, even if part of the break is under water, give in. If it snows, keep to the rotation and feed hay. Control the sheep: do not let them control you. Some people advocate putting the ewes on stubble when the weather is bad, but in my opinion more mud is usually made by taking them there and back than by staying with the rotation.

Although many Southland farmers successfully winter all their stock on grass, I still grow about 4 ha of swedes or choumoellier for the ewe hoggets. While I would agree that growing a small area of winter feed is not absolutely necessary, it does, together with supplementary hay feeding early in the rotation, give a built-in safety factor, and takes care of such problems as late killing of ewes and cattle, insect damage, or unusual weather conditions. It also avoids the necessity for grazing the paddocks a second time in the late winter/early spring, which can cause mud problems at lambing in wet years. Most importantly, however, it avoids the slightest possibility of a shortage of feed for the young breeding stock.

The rotation is swedes/choumoellier/wheat/wheat/grass; and because the pasture is not ploughed for swedes until weaning time, and the wheat stubble is used as a pad for wintering cattle, it fits in well with our present farming policy.

In the early days of grass wintering in Southland in 1972, the Department of Agriculture published a supplement in the South-land Times in an effort to encourage the method. Unfortunately, it coincided with the wettest winter in memory, which did much to slow down farmer acceptance.

In those days many of the advocates of the method suggested that, to save work, large breaks, or whole paddocks, could be used and 3 days' grazing obtained from them-no hay the first day, some hay the second day, and more hay the third day. In a winter when it rained every day and hay-feeding on the second and third days was impossible because of the mud, the system broke down, and many farmers had problems. Anyone, however, who stuck to the rotation, subdivided closely, shifted daily, and fed the hay out on the new breaks, before the ewes were let on, was successful. Provided the stock are shifted every day, wet weather is not a problem and the regrowth will in fact be better than in dry frosty weather.

The regrowth by spring shows little difference on breaks that have been grazed 2 days (under reasonable conditions) compared

with 1 day, according to the measurements taken by K. F. Thompson of Woodlands Research Station on our farm in 1977. I would, however, be in favour of using mainly daily shifts, and I feel that any time longer than 2 days on a break should be avoided.

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Since using this system of wintering I have found that pasture growth in spring is much better and pastures themselves have improved. It is an easy, cheap system that has much to commend it, and it should have wide application in other parts of the country.

At this time of the year it is difficult to show the system working as the ewes and lambs have been set-stocked since lambing time and, apart from the ewe hoggets being rotationally grazed, there is little to see.

At the field day however, we will be visiting the farm, and for this reason I feel some information about control of cutty grass (rautahi) may be of interest.

As I mentioned earlier, 46.6 ha has been developed out of peat swamp, and cutty grass has been a problem. There is a great deal of timber to be picked up and extensive tile-drainage has been necessary, but control has been achieved by five ploughings. The usual rotation is swedes/choumoellier/wheat/wheat/grass.

In January 1977, on 7.3 ha which is very bad with timber and where the cutty grass was, in the worst patches, up to the top of the bonnet of the Land Rover, it was sprayed with Roundup (glyphosate) .

The paddock was burnt off on 8 March, and then direct-drilled with 29 kg/ha of grass seed, and 375 kg/ha of reverted super on 10 March. Before sowing, 1 tonne of lime per 0.405 ha had been applied.

This year my son and I, using hand-sprayers, took 2 days to spray seedlings and patches that had been missed, and we now have complete control and good pasture, as will be seen on the field trip. Cost of spraying was \$157/ha for material and application by contractor.