

## **OUT-OF-SEASON LAMB: SUMMARY OF WORKSHOP DISCUSSION**

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### **Out-of-season lambing**

**The optimum time** This depends on feed supply. Considerable planning and feed supply management are required. Because pasture is the cheapest source, northern regions are likely to be more suited to out-of-season lambing.

Livestock problems would need consideration, including getting ewes to cycle by drug use or by natural means. Climate and weather changes were seen as being a physical constraint with regular extremes of drought, flood and cold spells, and the long term possibility of the greenhouse effect upsetting climate patterns. The market was seen as being the major constraint, and the current state of the market makes it financially unattractive for farmers to take on additional risks and costs.

**Effects on overall management** The major points identified were: obtaining a contract price; identifying major charges required; preparation of a feed and financial budget; deciding whether to proceed.

Even a small proportion of a flock on early/late lambing would affect all aspects of farm management. Major implications were seen for income from wool and cattle, especially if stocking rate declined. There was general scepticism about the potential of different pasture species or autumn nitrogen, to fill the winter feed gap. Breed changes in the flock need to be considered (larger terminal sire; proportion of exotic genes in the ewe flock).

**The advantages and disadvantages** Out-of-season lambing defined as lambing outside the 'normal' for the region. Three main options identified: winter lambing (June-July), autumn lambing (April-May) and late lambing (late Oct-Nov). Winter and late lambing should be possible within normal patterns of reproductive behaviour, but autumn lambing would require hormone treatment or change of breed.

Main drawback seen as the lack of a sufficient premium to provide a viable alternative to standard lambing practice in South Otago. The disadvantages identified were:

1. need to use hormones to manipulate reproductive physiology, particularly for autumn lambing;
2. problems with heavy soil in winter;
3. less ability to control the spring flush of pasture production.

Potential marketing problems were foreseen, associated with consumer attitudes to the use of hormone preparations in the production of food for human consumption.

The local soils are heavy and clay based. In winter it becomes wet and susceptible to treading damage; stock become dirty and less attractive to buyers.

Southland has a strongly seasonal pattern of feed supply. Out-of-season lambing would exacerbate the current difficulty of effectively controlling the spring flush.

Farmers felt that methods to overcome these technical limitations were available. Adoption could be fast if an adequate premium could be guaranteed. Agreed that variations in climate provided the opportunity for vertical integration, not only within the region but also between regions. For example, lambs born early in Canterbury could be trucked to Southland to be finished.

The required feed profile and supplementary crops and **herbage** cultivars The normal wintering allowance in South Otago/Southland of 100 kg per ewe would need to be increased by another 150 kg if lambing were in May. This could be supplied by silage, a forage crop or pasture receiving N fertiliser in autumn. Any of these would cost about 10 c/kg, or \$15 per ewe. The premium for out-of-season lambs would need to be at least \$15 for this to be economic.

Use of cool-season active species such as Matua prairie grass may raise the base pasture production by up to 20% for little extra cost.

Moving animal requirements away from the regular and pronounced pasture production curve would make lamb production very difficult in South Otago/Southland. It was concluded that the costs would be high and management problems considerable in this region. It was agreed that out-of-season lambing would much easier in drier eastern areas such as Canterbury. It may be more economic to produce out-of-season lambs in Canterbury and truck them south for finishing than to produce them here.

Potential livestock problems and disorders Imbalance between feed supply and demand ('empty gut disease') was seen as the main problem. Traditional cross-bred ewes need stimulation of oestrus to lamb in autumn. Warm, moist conditions are ideal for parasitic nematodes, so lambing would occur at the most dangerous time for this disorder. Flyblow after docking could also become a problem. Other potential problems include: foot scald, caused by lambs grazing damp, winter-grown forage crops; calcium deficiency (on cereal forages); goitre (on brassicas), and overfat lambs (especially in grain-fed animals).

#### **Providing killable lambs year-round (from traditional September lambing)**

The advantages and disadvantages The desirability of year-round killable lambs was considered by trying to define the term 'lamb' as being affected by lambing date, breed type, weight and maturity times.

It was felt that a 40-50% price advantage was needed, with adequate lead time and contracts. Other factors influencing diversion from traditional production would include the type of product needed (fresh, chilled or frozen), the quality standards required in future, and the live export trade.

**Effects on overall farm stock management** The management adopted will depend on the system used, for example one farm could provide lambs all year or different farms could each provide lambs for different months.

The present definition of a lamb as a pre-2 tooth animal makes the handling of older lambs difficult — a calendar date would make management easier.

Because of the value of wool, wool breeds should be used. Shearing needs to be careful as good pelts are valuable.

The grazing management will depend on the region. Generally felt that lambs should be raised on all-grass pastures (including specialist pasture), with use of N fertiliser. Ewes may need supplementary feed.

Ewe numbers would probably fall, lambing would be in early spring, and store lambs would be bought from hill farms to provide later lambs. Early-born ram lambs would be kept entire but most ram lambs would be cryptorchids.

**Lambing time and proportion of ewes used (in summer-wet regions)** Late lambing could be used to provide marketable lambs from late August to early October in cold regions (e.g. South Otago) and from June to October in warmer regions. Up to 20% of ewes could lamb in late October or November with no decrease in stocking rate. An alternative method of producing late lambs is to mate ewe hoggets late and then return them to conventional lambing time the following year.

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Lambs would be weaned about February, rotationally grazed with restricted intake in winter, then finished in late winter and early spring. Probably only ram lambs would be suitable as other classes of lamb become too fat when finished. The use of only ram lambs and the drop in lambing percentage (20-40% less) from June/July mating means that late lambs would need to generate compensatory financial returns. Any change that would decrease income from wool was viewed unfavourably.

Required changes in pasture seasonal growth pattern, and supplementary cultivars and crops Any move from the normal matching of feed demand with supply involves not only risk but also cost, and makes the farm more vulnerable. The farm must carry extra reserves of "backup" feed.

The number of ewes lambing should probably be reduced. More information required on the possibility of getting close to target weights in late autumn, then growing them slowly until slaughter. Many questions remain about feeding for growth rather than fat.

Specialist plant species clearly have a place, for example, brassicas and Italian ryegrass (perhaps direct drilled into pasture or after a brassica crop, or with brassicas). Do annual legumes have a role outside the usual summer-dry regions? Strategic N can greatly enhance autumn/winter/early-spring growth and its use is likely to be important in out-of-season systems.

The emphasis in any system must be on quality rather than bulk. Greater quality is needed for growing animals than for pregnant ewes. Autumn-saved pasture loses quality, particularly after frosting.

Many farms may be able to carry a few lambs for late killing just by running a small mob ahead of the ewes.

Animal health and physiological problems The main solution to providing out-of-season lamb would be two lambing periods: June-July and November-February.

With early lambing the main problems were seen as: lack of feed, with attendant metabolic problems; stress due to cold weather or lack of shelter, sleeping sickness from protein/energy shortage; lung disorders; abortion; trace element problems compounded by soil intake; poor ewe milk quality; frost-damaged pastures of lower nutritional quality coinciding with increased metabolic demand; fungal and bacterial problems with silage.

With late lambing the problems were seen as: overfeeding of ewes leading to (a) bearing problems and (b) lambing difficulties; metabolic disorders; possibility of drought; feed shortage in winter for flushing ewes; cobalt marginal deficiency in dry conditions.