



Management of tripletting ewes

MEAT & WOOL NZ

Sheep Council

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The following information has particular relevance to ewes carrying triplet lambs, the lactation of those ewes and the requirements of the lambs for survival.

It has been built around information provided by sheep farmers and a review of research findings by Jenny Burton, for the Northern North Island Sheep Council.

PRE-MATING - A good milk supply and a good level of body reserves are particularly important for tripletting ewes. To achieve this start at weaning, by culling ewes with defective udders and setting targets for ewe condition or weight to be achieved at mating. Monitor ewe body condition or weight from weaning and adjust feeding to achieve targets by joining time. Good condition at mating is a more reliable means of achieving good lambing percentages than short-term flushing. Allocate scarce feed to the lightest ewes - they will respond better than ewes that are already fat.

Ewes that are about to start their breeding season can be induced to mate early by the introduction of rams. Early in the season, the use of teasers prior to putting out fertile rams can increase the number of ewes lambing in the 1st round.

MATING - Select joining dates that result in lambing corresponding with the spring flush, to minimise the need for feed supplements. Use of a ram harness with coloured crayon allows spring feed to be rationed according to lambing date. Assess feed available for winter and plan to supply the best quality feed to tripletting ewes during late pregnancy and early lactation.

Feed to increase liveweight to at least the end of the first cycle of mating by when the majority of ewes will have mated.

EARLY PREGNANCY - Avoid a rapid reduction in feeding level so as to reduce the risk of embryo losses. Maintain good body condition during early pregnancy to achieve the good placental development that is important for foetal growth and lamb birth weight. A liveweight loss as small as 2.5 kg over the first 60 days (approx. 40g/day) may restrict placental development and foetal growth.

It emphasises the importance of providing the high levels of feeding needed by the tripletting ewe to achieve good levels of performance of her and her lambs.

MID PREGNANCY - Continue to maintain good condition and body weight. Monitor the condition score of ewes to identify light ewes and over-fat ewes for differential feeding. Good pregnancy scanners can accurately identify tripletting ewes (and some identify late lambers) for preferential treatment.

LATE PREGNANCY - Ewe energy requirements are increasing markedly. The foetuses grow about 70% in the last third of pregnancy. At birth the gravid uterus of a tripletting ewe weighs around 20 kg (7-12 kg of foetuses plus placenta and fluids) so if they are not 20 kg heavier at lambing they will have lost body reserves. Tripletting ewes have difficulty in eating enough in late pregnancy to meet the demands for foetal growth and maintenance of their own body condition, so the need to be fed high quality feed (e.g good pasture rather than hay or silage). Ewe feeding levels during the last 6 weeks of pregnancy can influence lamb birth weight. To increase birth weights, the ewe must be able to increase her food intake, and she has to put the extra nutrients into the foetuses rather than her own body. This is less likely in tripletting ewes than in those with single or twin lambs but does occur.

Feeding levels of Romney ewes in the last half of pregnancy and the birth weight of their twin and triplet lambs in an experiment of Steve Morris and Paul Kenyon at Massey University were as follows -

Pasture mass (kg DM / ha)	800	1200	1600	2000
Sward height (cm)	2	4	6	8
Birth weight (kg)	3.8	4.2	4.1	4.3



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They show that birth weights were lighter at the lowest feeding level than at 1200 kg DM/ha and there was no increase from higher feeding levels, in this instance.

Don't tighten the feed levels. This does not reduce birth difficulties or bearings. It may result in sleepy sickness, there may be more stillborn and weak lambs at birth, and can decrease colostrum and milk production. A common comment is that fat ewes are more susceptible to underfeeding.

Good feeding at this time has certainly been shown to increase colostrum and milk production and improve maternal behaviour, all of which are particularly important for tripletting ewes. Feed must be of high energy content because ewe intake is limited at this time. Winter pasture with low levels of dead material is suitable but the feeding of average or low quality hay, silage or straw is not recommended because of high bulk. The intake of supplements like nuts or grains (e.g. barley) is less limited by feed bulk. Ewes familiar with feed supplements will take to supplements more readily and there will be less variation in intake of individual ewes. A high protein supplement increase lamb survival though on-farm trial results with well-fed tripletting ewes showed no advantage.

There may be large variation in the total weight of triplet lambs born. In one study the range was 6kg - 18.5kg (per set). Frequently one lamb is markedly smaller than the other two, a good reason for it receiving preferential care from the shepherd.

Tripletting ewes have limited ability to increase food intake in late pregnancy so they need high quality feed at that time.

LAMBING - Opinions differ on the value of intensive versus extensive lambing of tripletting ewes. The use of mating marks and pregnancy scanning to select mobs of ewes that will give birth to triplets over a short period allows them to be given preferential use of scarce feed, shelter and labour. It also creates a high density of ewes lambing triplets at the same time, leading to concerns over mismothering. Intensive management of tripletting ewes would appear to be best suited to small mobs. Alternatively, in larger paddocks with good levels of feed (1200 kg DM/ha or more) that allow ewes to spread out and find sheltered birth sites away from other ewes, a less intensive approach may be as effective.

Farmer comments indicate that ewe-lamb separation can be more prevalent when pasture cover is low and when supplements are fed. It is

not an issue for some. The risk of mismothering will be minimised if ewes are familiar with supplementary feeding and are in small mobs. Supplements may be fed to ewes with singles so that more good quality pasture can be fed to the ewes with triplets. All ewes require access to water and this is particularly important for those fed concentrate supplements.

LACTATION - Ewes rearing 3 lambs produce more milk than those rearing 2 lambs and so require more feed. Daily milk yield peaks after 10 - 14 days or more, with a slow decline after that as lambs consume increasing amounts of pasture. There is no doubt that ewes in good condition fed generously over lactation can support high triplet growth rates. The average growth rate in one trial was 380 g/d to 12 weeks. While that potential for exists, financial analysis questions the profitability of highly preferential treatment of ewes with triplets under more normal conditions.

SHEPHERDING - As already indicated, opinions differ on the wisdom of intensive shepherding versus minimising disturbance. For sheep not used to close attention and lambing on large hill blocks where they can spread out and find sheltered birth sites, intensive shepherding may be counter-productive. Where sheep are used to humans, benefits of close shepherding will be greater. Farm survey data indicate that effects of shepherding intensity on survival are small.

SPACE - Achieving a low density of newborn lambs to minimise mismothering is especially difficult with tripletting ewes. Means that have been suggested to reduce the number of lambs born per hectare each day include a low stocking rate (5 - 10 ewes per hectare) in small paddocks (small mob size) and modest pasture feeding levels (to encourage ewes to spread out). Some people advise against separating tripletting ewes from other ewes and some suggest mixing with cattle to reduce the density of newborn lambs.

LAMBING DATES - Separating ewes into different lambing date groups based on tup marks will assist allocation of scarce feed but will increase the number of ewes in the mob that are lambing at any one time.

SLOPE - When ewes lamb on steep slopes, many lambs slip from their birth sites. Ewes giving birth to triplets may not follow a new born lamb down a hill when another lamb is due to be born. The newborn lamb is unlikely to climb back to the mother.



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SHELTER - The benefits of shelter at lambing are expected to be more important for small triplets than bigger lambs. Farmer observation indicates that some paddocks have a consistent history of good lamb survival and these would be first choice for lambing of ewes with triplets. Paddocks that provide sheltered and separated birth sites would seem most suitable.

TRIPLET EWES/LAMBS ALONE OR COMBINED WITH OTHERS? - Some trial work and the experience of farmers with high weaning percentages suggest that tripletting ewes and their lambs are best by themselves. However data from one trial suggests that twin and triplet ewes do not need to be separated to achieve good lamb production (triplet lamb weaning weight = 23 kg; twin lamb weaning weight = 27 kg). Lamb losses (in this trial) to weaning were 14% in twin born lambs and 32% in triplet born lambs.

HEALTH - Checklist

Selenium - deficiency results in white muscle disease in lambs

Toxoplasmosis - vaccine available

Campylobacteriosis - vaccine available

Clostridial Diseases - 5 in 1 and 10 in 1 vaccines are available

Salmonella Brandenburg - vaccine available (South Island)

Leptospirosis - serovar pomona from wild pigs causes death of lambs where infected pigs move through lambing paddocks. Vaccine is available.

Brucella ovis - ensure rams have been checked and are free of disease.

Iodine - supplementation prevents goitre in iodine deficient areas and in areas where goitrogens in pastures/crops (esp. kale) prevent inorganic iodide uptake by the thyroid gland. Subclinical iodine deficiency may be present on some farms. A mean thyroid to bodyweight ratio of more than 0.4g/kg (10 lambs or more) and high perinatal mortality suggests subclinical iodine deficiency

Bearings - these occur more in ewes carrying triplets. Avoid steep slopes in last month of pregnancy, sudden change from short to long dairy cow type pasture, swedes, and possibly salt licks.

HETEROSIS - Improved lamb survival is a feature of many crossbreeding studies. Hybrid vigour can increase lamb birth weight by 6% so crossbred triplet lambs are likely to be heavier than purebred triplets.

SHEARING - Mid-pregnancy shearing can increase the birth weights of lambs when the lambs would otherwise have been small and the ewe is in sufficiently good condition to put any extra nutrients into the foetuses. Use a cover comb when there is a risk of cold weather, and provide shelter and extra feed. Removal of a long fleece may lessen the chance of a ewe becoming cast. Pre-lamb crutching or bellying makes it easier for the lamb to find the teat and decreases the chance of lambs ingesting infectious bacteria on dirty wool while trying to find a teat (this may result in Watery Mouth in lambs).

WATER - A source of water should not be too far away. There is considerable variation among individual ewes, in the amount of water drunk. Ewes will leave their lambs to get a drink.

CLEAN ENVIRONMENT - Soil is source of disease-causing bacteria so infections are more common in bare and muddy areas. This may lead to navel infection or watery mouth. Good clean grass is best.

LAMB INSULATION - Increases in birthcoat and skin thickness provides more insulation against the cold, and therefore reduce the chance of death due to cold. Lamb covers made of wool and plastic provide insulation but may interfere with ewe-lamb bonding. Small lambs are more susceptible to exposure so are more likely to benefit from covers.

COLD TOLERANCE - Breeding for this has been done overseas in the Scottish Blackface, and is being researched in NZ. It is believed that one of the genes involved has been identified.

BEHAVIOUR - Triplet lambs are slower to progress through the normal sequence of neonatal behaviours and are slower if ewes are not well fed during pregnancy, particularly late pregnancy.

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