

The influence and prevention of weaning shock in lambs

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Weaning is a stressful event for both the ewe and her lamb. Producers can limit weaning shock and economic losses

by following a few guidelines. Weaning shock means lambs grow more slowly, stop growing, or even lose weight at weaning.

Lambs are normally weaned from 100 to 120 days of age; in extensive systems, lambs are weaned at 150 days of age. Some producers forego weaning altogether, instead marketing lambs directly from their mothers at four to seven months of age. Early weaning is applied at around 64 days in systems with more than one lambing period per year (e.g. eight-month lambing systems). However, for early weaning to be successful, management and nutrition must be spot on.

Weaning weight is crucial

The weaning weight of lambs is more important than their age. Lambs that are heavier at weaning tend to exhibit good post-wean growth. Lambs that are being weaned must weigh at least 45% (preferably 50%) of the ewes' mating weight – a weaning weight of 25kg should be the minimum.

Lambs that are weaned too light, too young or on substandard nutrition often experience weaning shock, only showing an improvement once they have regained their weaning weight.

Benefits of creep feed

Lambs in both intensive and extensive systems can greatly benefit from creep feed as a source of nutrition. Producers and feedlots can also benefit from this practice.

Initially the ewe's colostrum and then milk is sufficient to satisfy the lamb's nutritional requirements. At that age its rumen is still underdeveloped – the papillae must lengthen, and the rumen needs to grow in size in order to store and digest roughage.

Beneficial microbes must populate the rumen as they will digest crude fibre and starch, converting it into compounds the lamb can utilise as nutrients. The correct feed will assist in establishing the correct rumen microbes. For example, if lambs ingest only milk and roughage, roughage-digesting microbes will be present but there won't be any starch-digesting microbes.

Creep feed can be used with great success to stimulate rumen development. By correctly managing lambs' rumen development, growth can be optimised and weaning shock avoided during weaning.

Providing creep feed makes it possible to shorten the weaning period by 28 days or more in extensive systems and under all nutritional conditions. Lambs that successfully ingest creep feed can weigh 10 to 20% more at weaning. A lamb ingests 15 to 25kg of creep feed up to weaning age and can have up to a 6kg weight advantage compared to lambs that did not ingest creep feed, measured under veld conditions with lambs weaned at around 120 days of age.

Favourable feed conversion

By giving lambs creep feed, it is possible to harness their full growth potential because of their excellent feed conversion ability. The feed conversion ratios of lambs at different ages are presented in *Table 1*. From these figures it is evident that younger lambs are more efficient at converting feed to live weight. A creep ration therefore makes economic sense as it is utilised very efficiently.

Positive impact on ewes

Creep feed has other benefits in that it alleviates the stress lactating ewes experience, thereby improving condition and conception, especially in accelerated lambing systems.

The ewe's milk production peaks at around four to six weeks of lactation, after which it declines while the lamb's

Table 1: Typical feed conversion ratio of lambs at different ages.

Age	Feed conversion
10 days	2:1
1 month	2,6:1
2 months	3,4:1
3 months	4,2:1
4 months	4,7 tot 5:1
8 months	7,6 tot 8:1

nutritional requirements increase. The milk the ewe supplies is therefore not enough to meet the fast-growing lamb's nutritional needs. This is especially the case when ewes have multiple lambs.

The best results in terms of rumen development and growth are achieved when lambs are given a creep ration from the age of two to three weeks. Lambs must therefore have access to the creep ration as early as two weeks post lambing. By the time they are four to six weeks old, the lambs that are used to ingesting creep feed will be able to efficiently utilise around 50% of their nutrients from sources other than milk.

Growth and production

Creep feed promotes post-wean growth, thus maximising the lifetime production and reproduction potential of ewe lambs. Giving a creep ration prior to weaning and maintaining it for 14 days post weaning will effectively eliminate any growth setback. In fact, most lambs continue to grow. Keep in mind that the growth of lambs that had no access to a creep ration might be impaired for up to a month post weaning, due to weaning shock.

Creep feed is also able to support lambs' successful adaptation in a feedlot, which makes finishing lambs more profitable. However, take note that starch-digesting microbes will perish if there is no starch for them to live on. If you put weaned lambs that previously had access to creep feed in



Creep feed can be used with great success to stimulate rumen development while optimising growth and assisting to avoid weaning shock.

a feedlot pen for a week or more without providing a ration that contains starch, you will effectively undo all the adaptation work done beforehand.

Managing ewes at weaning

Ewe preparation before commencement of the weaning process is essential,

especially if early weaning is practiced. Their access to concentrates or lick supplements can be restricted a few days before weaning, so provide only low-quality roughage and water.

The removal of protein and energy reduces milk production. Ewes should remain on a low-quality roughage diet until their udders start shrinking and drying off. However, be sure to check udders for signs of redness and swelling for the first few days post weaning, and treat ewes with mastitis. If a ewe is experiencing extreme discomfort, milk out the udder but only a little bit as the milk that is left will stimulate milk production.

A good health programme

Follow a veterinarian prescribed vaccination and deworming programme to prevent post-weaning mortalities. Lambs should receive most of their vaccinations before weaning. Deworming, castration and marking of lambs should be completed well before weaning, as these practices add extra stress during the weaning process.

If you need to leave some of these practices for after weaning, make sure the lambs are already adapted and no longer reliant on their mothers. The first three weeks post weaning is crucial to help lambs through any potential weaning shock. Their immune systems are under pressure during this time because of a higher external pathogen load and reduced immune response. Monitor their health for a few weeks and treat any illness immediately.

Remove the ewes

It is best to rather remove the ewes from the lambs at weaning and not the other way around, so that lambs remain in a familiar environment. Keeping lambs in the same groups as before will reduce loneliness and promote social interaction. This reduces stress and prevents weaning shock. **SF**

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