

## Nutrient Requirements of Lambs

### **Colostrum**

It is important that lambs on receive at least 170 ml (6 oz) of fresh or frozen colostrum as soon as possible after birth. Lambs that do not receive colostrum will generally die. Colostrum is yellow and thick in appearance compared to milk that is produced later during lactation. Ewes will have a limited amount of colostrum that will gradually be depleted by the lambs during the first day after birth. Colostrum may be saved and frozen for up to a year for emergencies. Colostrum contains antibodies from the ewe, which will help protect the newborns from various diseases. Colostrum is also higher in energy than milk. As lambs are born with few body reserves, it is essential that they need energy soon after birth.

### **Feeding lambs on milk replacer**

Orphan lambs or lambs that have been removed from ewes with multiple births (e.g. triplets), will either have to be fostered onto other ewes or raised on milk replacer. Lambs less than four weeks of age that are being bottle fed, require a replacer that is high in milk fat and good quality protein. Since lambs at this age are essentially non-ruminants, it is the quality of protein, not the quantity that is important. Remember that the lamb actually has to suckle to prevent the milk from entering the rumen. Therefore, ensure that the nipple opening on the bottle is small enough to force the lamb to suck, otherwise the lamb will not be able to digest the milk properly and will become bloated

### **Pre-weaning**

During the first weeks of life, lamb growth and development is dependent upon the ewe's milk production. Lambs not receiving adequate milk during the first month of life are more prone to contracting infectious diseases and will show a poor overall growth performance. Although they will start nibbling on feeds within a few days of birth, lambs less than four weeks of age are non-ruminants; and will consume high levels of milk and very little in terms of dry matter. Although feed intake is minimal during these first weeks, it is important to introduce creep feed to the lambs at roughly 10 days of age. If using a commercial creep feed, it is best to begin with an 18% crude protein ration. Having lambs adapted to eating creep feed will greatly lessen the stress of weaning. Always offer the creep free choice to the lambs, but devise a means of preventing ewes access to the ration (creep feeder). It is also advisable to provide lambs with good quality hay that is leafy and tender. Lambs can compensate for inadequate milk supply to some extent by increasing consumption of solid feed. However, they cannot consume significant amounts of feed during the first two to three weeks of life. As lambs consume more dry feed their digestive systems develop further so they are better able to digest and utilize dry feed. Once lambs are consuming at least ½ pound per day of dry feed weaning can be considered. Weaning usually occurs anywhere from 8 to 20 weeks of age, depending on the type of reproductive management system (e.g. once per year spring lambing operations will generally weaning as animals come off pasture, whereas those with accelerated lambing need to rebreed sooner).



Lambs at a creep feeder

### **Weaning**

Weaning can be a stressful time for the lambs and may lead to a decrease in feed intake. To minimize stress it is recommended that the lambs are left in the same pens and that the ewes be removed so that they are out of sight and hearing range. Continue to feed the lambs the same creep ration. Any changes in the ration should be done gradually and over several days.

### Post-weaning (feeder lambs)

Dry matter intake for feeder lambs varies between 3.5% and 4% of their body weight. Actual intake, however, depends on several factors, including.

- Age
- Size and condition
- Growth rate
- Amount of feed offered
- Competition for available feed
- Palatability
- Physical form of feed (long, chopped, rolled, pelleted, etc.)
- Energy and fibre content of feed
- Ambient temperature and humidity
- Availability and quality of water

Lambs may be marketed at weaning (new crop lambs), as light weaned lambs or as heavy finished lambs (>95lbs). Your marketing strategy will determine how quickly you will want the lambs to grow (rate of gain) and how soon they will finish. For some producers the answer is easy, the lambs are left on pasture until the fall and marketed straight from the field. Rate of gain in these lambs will be slow, but the feed costs will be minimal. Many producers supplement a forage diet with concentrates to improve the rate of gain. In some cases, concentrates will total 50% of the ration. If you are pushing lambs for very fast growth, know the signs of rumen acidosis, and take precautions when making feed changes. Table 2 shows examples of diets for two rates of gains.

The nutrient requirements for lambs will not only be influenced by the desired rate of gain, but also by the weaning weight of the lambs, their sex and their breed. In terms of weight, lambs weaned at 11 – 16 kg (25-35 lbs) tend to gain at an accelerating rate with increased weight. At a practical level, this means it is much more efficient to feed a pound of grain to a two-month-old lamb than to a six-month-old lamb.

Ewe lambs have lower voluntary feed intakes than either ram lambs or wethers and tend to deposit more fat than males. As a result they grow slower and are less efficient converters of feed to live weight gain.

Marked variability has been seen in the growth rates between breeds. The differences are partially due to differences in feed consumption and efficiencies in feed utilization for fat and lean deposition. Breeds also vary in their mature weights. Breeds with low adult weights will mature at a lighter body weight than large breeds. Therefore, light breeds will tend to fatten (finish) at lighter weights.

Table 2: Feeder lambs rations (**Please note: the following are examples only – contact your OMAFRA specialist or consult with a nutrition company representative to develop balanced, cost effective rations for you farm**)

Lamb Weight	Average Daily Gain	
	0.9 lbs gain/day	0.6 lbs gain/day
66 lbs	Barley grain (2.4 lb) Canola meal (0.2 lb) Alfalfa hay (1.0 lb) Limestone (0.02 lb)	Barley grain (1.6 lb) Canola meal (0.4 lb) Grass hay (1.7 lb) Limestone (0.02)
88 lbs	Barely grain (2.8 lb) 32 % protein supplement (0.4 lb) Alfalfa hay (0.6 lb)	Barley grain (3.0 lb) Alfalfa hay (1.0 lb) Limestone (0.02)

## **Growing Replacement Ewe Lambs**

Once replacement ewes have been selected from the lamb crop, they should be fed a high quality forage-based ration. The end goal is to have them at 75% of the mature body weight, with a body condition score of 3.5 at the time of their first mating. Although the diet must be sufficient to allow for optimal growth, it is not advisable to feed ewe lambs on high-energy rations. Very fast growth may decrease longevity and there are indications that high body fat during development may decrease milking ability later in life.