

Is Creep Feeding Lambs a Profitable Undertaking?

by Dr. Donald G. Ely and Endre Fink

Creep feeding is a technique of providing feed to nursing lambs to supplement the milk they consume. Creep-fed lambs grow faster than noncreep-feds and are more aggressive in nursing ewes. This aggression stimulates greater ewe milk production which, in turn, increases creep feed intake because these lambs will be bigger at a given ages.

Typically, the creep diet is a grain-protein supplement mixture and is made available in an area constructed so lambs can enter, but ewes cannot. Some situations when it may be economical to creep feed are described below.

Lambs weaned before 90 days of age need to be creep-fed. This is especially so when producers wean at 56 to 70 days. Weaning abruptly from milk to dry feed or pasture at 56 to 90 days can result in severe weight losses for a couple of weeks after weaning. These losses will not be recovered before marketing. But, if lambs have had access to a palatable creep diet all their life, these post-weaning weight losses do not occur and, thus, allows them to reach market weights quicker than noncreep-fed lambs.

- Lambs born in late fall and winter need creep feed so they gain 0.1 to 0.2 lb/hd/day faster than noncreep-feds. Lambs need to reach 100-to 120-lb slaughter weights in April, May, and June when prices are typically higher than later in July and August. Additional benefits of rapid gains are more efficient feed utilization and less feed cost/lb of gain.
- Creep feed purebred and registered lambs to maximize gain. Lambs that are well grown (large for their age) can be put into production as replacement ewes and rams at earlier ages than those managed for less than maximum pre-weaning gains.
- Although ewes that have twins can usually produce enough milk for both lambs, creep feeding can produce at least 5-to 10-lb heavier lambs at 56 days of age. This effect is magnified for triplets. Although it is true that some ewes can raise triplets, invariably these lambs are smaller than their counterparts at weaning. Access to a palatable and nutritious creep feed from birth is required if weights of these lambs are even close to those of singles and twins at weaning.

- Lambs born late in a 6-to 8-week lambing season should be separated from older ones and creep-fed. Maintain separation after weaning and until marketing because sale value is usually higher if lambs are marketed in uniform weight lots.

- If milk-fed slaughter lambs are to be marketed at 100 to 120 lb, they should be creep-fed from birth even though they may have access to excellent spring pasture in April and May. The extra gain from creep feeding produces 100-to 120-lb market lambs 30 to 35 days earlier than the same kind of lambs that were not creep-fed. Because creep-fed lambs can be marketed sooner, there is less chance for internal parasite, foot rot, and hot weather problems to arise.

- The younger the lambs, the more efficient the conversion of feed to gain. For example, it takes only 2 to 4 lb of feed to produce each pound of gain before lambs are 120 days old. Conversely, if they stay on the farm until 6 to 7 months, it may take 6 to 8 lb of feed to produce each pound of gain. **Take advantage of lambs' feed conversion capabilities during their early life.**

CREEP FEEDING TECHNIQUES

Lambs should have access to creep feed as soon as they come out of the lambing pen. By the time lambs are a week old, they can be found chewing on a stem of bedding straw or stem of the ewes' hay. Curiosity causes them to stick their noses into creep feed, if available. If the feed is in meal form, a small amount will stick on their noses, they will lick it off, and swallow it. This process stimulates their appetite and "kick-starts" rumen development. Young lambs usually exhibit more curiosity than older ones, thus are easier to start on creep feed. If offered creep feed from the time they leave the lambing pen, lambs consume only about 1.0 lb each of total creep feed for the first 28 days, but this is enough to stimulate rumen development



Creep feeding stall system

and the habit of eating dry feed.

Creep feed intake can be influenced by the design, location, and size of the creep area as well as the type of feed provided. If ewes and lambs run in and out of the barn during the day, construct the creep in a high traffic area of the barn where lambs naturally find their way to it. This area should be dry, well-bedded, and protected from wind drafts. Ideally, the creep area should be large enough for the majority of lambs to get into it at one time.

Openings into the creep area should be wide enough for lambs to enter, but narrow enough to keep ewes out. Openings that are 4 to 6 inches will be wide enough for lambs up to 56 days of age. Creep gates with rollers allow larger lambs to enter through a smaller space (note the darker, larger roller bars in the accompanying picture). Width of the openings can present a management problem as lambs increase in weight from 40 to 50 to 60 lb and age to 56 to 70 to 90 days. In these situations, openings have to be widened to accommodate the increased size of lambs, but narrow enough to prevent thin lactating ewes from entering. If an opening is just wide enough for a ewe to squeeze through, disastrous wrecks are likely to occur – that is, the ewes cannot get back out before they are found dead from enterotoxemia! **If openings have to be wider than 7 inches, it is time to wean the lambs.**

The creep feeder can be a self-feeder or a portable trough placed in a creep area. If self-

feeding, only 4 inches of feeder space is required per lamb. Continual availability of the creep diet in a trough can also be a form of self-feeding. Make sure the trough is at least 8 to 12 inches off the ground and stable enough so it can't be overturned by the lambs. Allow 12 inches of linear trough space per lamb and assume lambs will eat from both sides.

CREEP DIETS

Young lambs find soybean meal to be very palatable. Other feeds high on the palatability scale include ground shelled corn, cracked corn, alfalfa hay, and molasses. Soybean meal is a great source of protein. Corn is a superb source of energy. Alfalfa is a highly palatable fiber source that lambs love. It provides protein and maximum amounts of calcium. Molasses is a source of energy relished by lambs. It is effective in decreasing the dust associated with diets fed in a meal form, but it is an expensive source of energy.

Creep diets need not be complex. In fact, lamb performance is usually as good with "simple" creeps as with "complex" ones. The creep diet that has been used most successfully by Kentucky producers contains 90% ground or cracked corn and 10% soybean meal or pellets. Adding 1.0 lb of Aureomycin-50 crumbles/ton of this mix allows lambs to consume between 10 and 25 milligrams of antibiotic activity per pound of daily feed. Research has shown this is the optimum level of antibiotic for lamb growth promotion. If the shelled corn is to be fed in ground form, mix it with soybean meal. If cracked corn is fed, mix it with soybean meal in pelleted form. To get lambs started, it is best to feed the diet in meal form. Then, as they reach 4 to 6 weeks of age, coarser diets become more palatable (cracked corn and soybean meal pellets). However, if corn is cracked and the soybean meal is pelleted, the cost of the diet will increase. Any extra gain obtained usually does

Table 1. Performance of Lambs Creep-Fed a Lactating Ewe Grain Mix (Meal) and a Commercial, Pelleted Creep Diet

Item	Diet	
	Ewe Grain Mix	Pellet
Number of lambs	120	120
Initial weight, lb	21.8	20.6
Weaning weight, lb	52.9	56.2
Total gain, lb	31.1	35.6
Number days (average)	39.1	40.6
ADG, lb ^a	0.80	0.88
DCFI, lb ^a	0.87	1.04
F/G, lb/lb ^a	1.09	1.18
CF cost/hd/d, cents ^a	13.00	26.00
CF cost/lb gain ^a	16.00	30.00

^a ADG = average daily gain; DCFI = daily creep feed intake; F/G = feed/gain; CF = creep feed.

Ingredient	%	lb/ton
Ground/cracked shelled corn ^a	81.1	1636
Soybean meal ^b	10.0	200
Distillers dried grains with solubles	5.0	100
Complete mineral mix ^c	2.5	50
Ammonium chloride ^d	0.5	10
Vitamin E ^e	0.12	2.4
Vitamin A, D, E premix ^f	0.05	1.0

^a Ground through a hammer mill without screen.
^b 48% crude protein.
^c Composed of 22.25% calcium; 6.00% phosphorus; 23.50% salt; 1.00% magnesium; 1.00% sulfur; 30 ppm iodine; 6 ppm cobalt; 32 ppm selenium; 1,800 ppm zinc; 1,500 ppm manganese; 302,000 IU vitamin A/lb; 25,000 IU vitamin D3/lb; and 200 IU vitamin E/lb.
^d For preventing urinary calculi in wether and ram lambs.
^e 20,000 IU/lb.
^f Vitamin A = 4,000,000 IU/lb; vitamin D3 = 800,000 IU/lb; and vitamin E = 500 IU/lb.

An example of a grain mix that can be fed to both creep-fed lambs and their lactating mothers.

not pay for the extra cost of the cracked corn and pellets.

The 90:10 diet contains 12.5% crude protein. This may seem low, but it should be remembered the main reason for creep feeding is to provide lambs with energy above that supplied through the ewes' milk. There may be times when it is more convenient to feed the lactating ewe grain mix as a creep feed rather than mixing a separate diet just for creep-fed lambs. An example of a grain mix that can be fed to both creep-fed lambs and their lactating mothers is shown above.

Even though using this mix as a creep diet may be handy, in practice it may be "over-kill", especially if the main reason for creep feeding is to provide supplemental energy. An illustration of creep feeding the same grain mix as fed to lactating ewes or a specific creep pellet is presented in Table 1. Lambs that consumed the pelleted creep diet had a higher ADG and

DCFI than those fed the ewe grain mix. However, lambs consuming the ewe grain mix

were 8% more efficient in converting feed into gain and resultant cost per pound of lamb gain was only 53% of that of the pelleted creep diet. This example shows commercial creep diets can be loaded with nutrients that promote maximum gains from maximum feed intakes. However, costs of ingredients used in these diets may be prohibitive. Another benefit of creep feeding with a ewe grain mix is that it can serve as a post-weaning growing/finishing diet. In this scenario, the transition of lambs from pre-weaning to post-weaning phases should proceed smoothly.

SUMMARY

Creep feeding can be beneficial in many different production situations. One of the greatest benefits is obtained when lambs are to be weaned at 56 days. Lambs weaned this early must be creep-fed to reduce weaning stress. Numerous creep diets with many ingredient combinations are available in different forms with varying costs. It should be remembered that the main reason to creep feed is to supply energy to nursing lambs. Simple diets based on corn and soybean will usually be the most cost efficient.

If a marketing goal is to produce 100-to 120-lb lambs 30 to 35 days earlier than those not creep-fed, creep feeding may not make ewes' jobs any easier, but it will make the sheep enterprise more profitable.

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