



LIBRARY

JUN 17 1983

UNIVERSITY OF IDAHO



Sheep Management — Prelambing

J. J. Dahmen, Ed Duren and Pete South

Your profit in the sheep business is measured in pounds of lamb marketed per ewe bred. Flock management is critical during these three periods:

1. Prelambing (last 6 weeks of gestation)
2. Lambing
3. Postlambing (first 6 weeks of lactation)

High death losses can be attributed to management failure.

Prelambing Management

About 70 percent of fetal growth occurs during the last 6 weeks of gestation. This period is critical in ewe nutrition because of energy deficiency in ewes with multiple fetal development. If twins are present, the total weight is considerable (Fig. 1).

Ewes require 50 percent more feed if bearing a single lamb. Ewes with twins or triplets will need 75 percent more energy for fetal development and to maintain body condition. This amount of feed may exceed their capacity unless grain is substituted for part of the ration.

- **Ewe Body Condition.** Feed ewes to provide for fetal growth and for them to remain in a thrifty condition. Extremely fat or thin ewes contribute to a higher incidence of lamb death losses. Pregnant ewe lambs, "first lambers," should be managed separately from the mature flock. Young, growing ewes require a higher nutritional level than mature ewes. Thin ewes (especially those with multiple fetuses) will require a higher energy level. Older and timid ewes should be culled and sold at the earliest opportunity or fed separately until they have lambed.

- **Ewe Nutrition.** Green leafy alfalfa hay fed at a daily rate of 4½ to 5½ pounds per ewe can easily meet the daily nutrient requirements of energy and protein for pregnant ewes until the last 4 to 6 weeks before lambing. The alfalfa hay quality should have a crude or total protein content of at least 14 percent.

Hay feeding to pregnant ewes is relative to quality and quantity. In fact, high quality alfalfa can actually be used to supplement low quality forage or aftermath. Alfalfa hay can be considered the base diet in feeding ewes.

You can determine the need for feed supplements by variation in hay quality or forage aftermath or changes in animal stress, body condition, nutrient availability and other factors. Nutritional stress, shown by extreme variation in body flesh condition, may indicate a need for adjustment in the early feeding regime. Fat ewes may need to be placed on restricted daily diets. Thin ewes may require additional energy supplementation.

Good judgment is essential in supplemental feeding before lambing because of the danger of

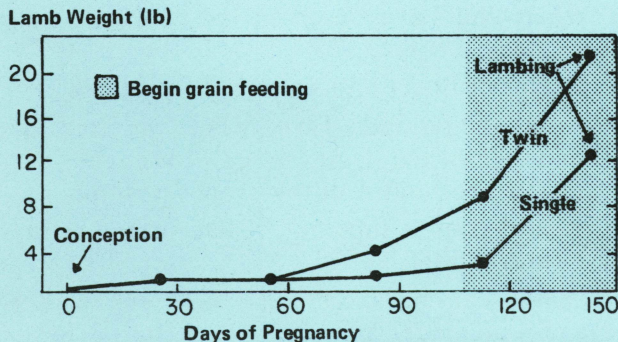


Fig. 1. Increase in fetal growth during the last 6 weeks of pregnancy.

either underfeeding or overfeeding. Energy is the most critical nutrient in supplemental feeding of pregnant ewes. Energy can be easily supplemented with a concentrate ration composed of a single or a combination of feed grains. Oats are excellent grain that can be fed as a single grain. More producer skill is required to feed the higher energy source of feed grains, such as corn, barley or wheat. Mixtures of these should be restricted to 60 percent or less of the concentrate mixture and combined with oats or dried molasses beet pulp to reduce digestive disturbances.

You should determine what energy level to feed ewes on the basis of body condition and stage of fetal development. The supplemental feeding of high energy feed grains over a prolonged period before lambing results in fat, fleshy ewes that have a higher incidence of mastitis, commonly referred to as "blue bag." Spoiled udders do not remain functional. If a ewe survives "blue bag," she will have to be culled from the flock.

A free-choice mineral mixture such as 2 parts trace mineralized salt to 1 part dicalcium phosphate or monoammonium or monosodium phosphate is recommended. A different mineral mix may be required, though, depending upon the feed ingredients you use in your program.

- **Preventing Mechanical Injuries and Stress.**

The best care for healthy ewes is often to handle them as little as possible. Try to protect ewes from the stress of predator chase and kill. Stray dogs can be a critical problem for farm flocks. Handle or herd ewes with ease near lambing time to minimize stress. Crowding through narrow doors and over high doorsills can be a factor in abortions and ruptures.

- **Shearing or Crutching Ewes.** Adverse weather conditions and stress may delay shearing unless shed protection is available for shorn ewes. Shearing ewes before lambing provides a more accessible udder for the lamb, saves space and reduces moisture condensation in the lambing shed. A shorn ewe is more convenient for a lamb to readily find a teat and nurse. Shearing may also discourage a ewe from wandering away from shelter to lamb.

Crutching is the shearing of wool from the tailhead, vulva area, between the hind legs, around the udder and into the flanks. Crutching reduces soiled wool, improves sanitation and allows newborn lambs easy access to the udder. Crutching also permits close observation of the ewe as lambing proceeds.

- **Vaccinating To Prevent Specific Diseases.** Preventive medicine is more economical than the treatment of disease outbreaks because of poor management. Immunization through vaccination increases

resistance to invading pathogenic organisms commonly observed during the lambing season.

Farm flock ewes should be immunized for: vibriosis, enzootic abortion (EAE), *Clostridium perfringens* types C and D, *Clostridium novyi* and *sordelli* and tetanus. Flocks with previous history of respiratory problems should also consider intranasal vaccination with IBR-PI₃.

- **Preventing Losses from Pregnancy Ketosis.**

Ketosis or lambing paralysis is a common cause of death of pregnant ewes during the last few weeks before lambing. This condition is associated with a ewe's nutritional status. Adequate energy will reduce the incidence which is prevalent with unthrifty, thin ewes or ewes with multiple fetuses.

Symptoms of pregnancy ketosis are sluggishness, slow response, unsteady gait and failure or slowness in coming up to feed. As the disease progresses, ewes will regress, fail to stand and progressively become worse until death.

Treatment of affected ewes is most often unsuccessful. Flock recovery depends upon changes that must be made in the feeding program resulting in a higher energy intake. Affected ewes will usually die within a few days, depending on the problem's severity and the treatment's success.

Generally, it is best to perform a caesarean to save the lambs and increase the ewe's chance of recovery. A ewe will usually respond to quick energy treatment in the form of propylene glycol once the lambs are removed. The dosage of propylene glycol is touchy and critical at 2 ounces per head 3 to 4 times daily. Doses too large can cause rumen malfunction and death.

Rumen booster is a commercial product specifically formulated for stress conditions of mature ruminants. This product contains energy and electrolytes. Rumen booster will contribute to an improved recovery rate if administered according to manufacturer's recommendations.

- **Vaginal Prolapse.** You can take care of this problem by having a few bearing retainers available. They may be either plastic or plastic covered wire.

When you have observed the prolapse, follow these steps:

1. Wash, disinfect and replace the prolapse.
2. Insert the retainer. Tie strings to the fleece first, and then tie the strings snugly to the ends of the retainer to hold it in the proper position.
3. If the retainer slips out, replace it and retie the strings tighter.

Lambs can be successfully delivered with the retainer in place. You can get a plastic bearing retainer from Hergert's Industries, Star Route 38 Box 16, Drain, Oregon 97435.

• **Preparing for Lambing.** Here are some simple steps you can follow to get ready for lambing:

1. **Provide clean, dry bedding.** Assuming ewes go through a lambing facility, clean, dry bedding is essential for dirt floors, etc. Bedding may not be necessary if you lamb on an expanded metal floor.

2. **Provide jugs or claiming pens.** Make pens from 5-foot panels wired or hinged together (25 square feet per ewe). Be sure lower slats of the panels are close enough together to prevent lambs from getting out if solid or plywood panels are not used. Four-foot lambing jugs are too small. Ewes lie on too many lambs, and we now have larger ewes!

Buckets or troughs or some method for feeding and watering must be provided while ewes are in the jugs. Shed lambing requires adequate space to house jugs or claiming pens equal in number to at least 10 percent of the number of ewes in flock. However, for 1,000 ewes you need a minimum of 50 to 60 jugs plus 15 to 20 more jugs to accommodate hold-back ewes that do not mother up with their lambs, ewes that are poor milkers or ewes that have big teats. You also need space for weak lambs or other hospital situations.

3. **Provide heat lamps.** A 250-watt infrared heat lamp is satisfactory. An open heat lamp hanging over a jug is too dangerous! A heat lamp should be protected and preferably enclosed with a simple,

box-like, fireproof structure. Don't leave lambs under lamps too long or pneumonia may develop. Use the heat only until the lamb is dry, warm and doing well — not to exceed 2 or 3 days at the most.

4. **Provide a hospital cabinet containing lambing aids.** Your aids should include:

- an ovine esophageal probe (baby lamb)
- a 50 cc pistol-grip syringe
- sterile 10 cc syringes (disposable type); if reusable type, sterilize each time before use
- hypodermic needles (18 G × 1 inch)
- injectable antibiotic
- head snare
- lambing cords (or a manufactured lamb puller)
- intrauterine tablets
- soap, disinfectant, obstetrical lubricant
- clean towels or paper towels
- clean pail for warm water
- tincture of iodine
- oxytocin (POP)
- disposable, arm-length gloves.

Esophageal lamb feeding probes are available from MaGrath Co., P.O. Box 148, McCook, Nebraska 69001.

Trade names are presented for information only. Neither endorsement is implied of those cited nor criticism intended of other products not named.

The Authors — J. J. Dahmen is professor of animal sciences in the UI Department of Animal Sciences, Moscow. Ed Duren is Extension professor and Extension animal scientist for district 4 at Soda Springs. Pete South is assistant professor of veterinary medicine and Extension veterinarian in the UI Department of Veterinary Science, Moscow.

This publication is one of three written on sheep management. Other numbers and titles are University of Idaho Current Information Series No. 619, *Sheep Management — Lambing Time*, and CIS 620, *Sheep Management — Postlambing*.

University of Idaho and Pacific Northwest researchers have authored several other publications on sheep. For a complete list of these numbers and titles, refer to University of Idaho Bulletin No. 401, *List of Available Publications*, which is in county offices of the UI Cooperative Extension Service.