

FINE-TUNING NUTRITIONAL MANAGEMENT FOR SMALL-ACREAGE SHEEP OPERATIONS

Feed represents 40 to 60 percent of the costs raising sheep, but there are ways to minimize expenses and stretch the feed budget.

Management strategies such as body condition scoring, feeding sheep for their stage of production, and seeking cost-effective grazing opportunities are just a few tools to ensure you get more bang for your buck when feeding sheep on small acreages.

Body condition scoring (BCS) assesses the level of fat and muscle an animal has in the short rib region. BCS uses a 1 to 5 scale in sheep, with 1 representing emaciation and 5 representing excessive fat cover. An animal in full fleece is difficult to visually assess and requires running fingers over the vertebrae to feel how much fat or muscle fill exists in this region.

Run your fingers back and forth to feel the top of the vertebrae with thumb and four fingers on the side of the vertebrae. Body condition scoring takes practice, but a simple trick is to practice on your hand.

- BCS of 1 will feel pronounced like running your fingers along the spacing/gaps on the tips of your fingers.
- BCS of 2 to 2.5 will feel like running your fingers along less pronounced areas like spacing on first set of knuckles.

- BCS of 3 to 3.5 will feel like running your fingers along spacing/gaps on knuckles on top of hand.
- BCS 4 to 5 will feel like running your fingers along skin on top of hand, which you won't be able to feel any vertebrae.

For more information on how to body condition score sheep and a visual of the hand method described above, please check out this video bit.ly/sheepbodyscore.

Body condition scoring is a moving target throughout the year, and ewes and breeding rams should be managed for an average BCS of 2.5 to 3.5. During pregnancy, care should be taken ewes do not fall

below a 2.5, but not to exceed a BCS of 4. Keep in mind that 20 to 35 days post-lambing many ewes will lose weight as they're in peak milk production. Once lambs are weaned, a BCS of 2 to 2.5 from weaning to the start of the next breeding season is acceptable.

Flushing, which is the practice of increasing the quality of feed offered to breeding ewes 10 days prior to turnout of a ram, can result in increased ovulation and more lambs born, but only works with ewes at 2 to 2.5 BCS.

Excessive nutrition can be just as bad as undernourished ewes. Excessively fat ewes will fail to breed, can be more prone



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Monitoring sheep health and forage intake is important for improving flock management.



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Feed is the major expense in raising sheep but using body condition scoring, feeding for the sheep's stage of production, and finding cost-effective grazing can help reduce costs.

to prolapse when pregnant, and experience lambing complications. Ewes under semi-confinement management with adequate shelter will not expend the same energy as ewes grazing under sparse rangeland conditions.

Matching feed quality to stage of production

A feeding plan for a ewe flock should not be the same throughout the year. Budgeting and prioritizing feed resources to the physiologically demanding stages of production that require more nutrients is an important planning consideration.

For example, reserving high-nutrition feed that generally costs more to purchase than low-nutrition feed for ewes in the final stages of pregnancy is more cost-effective than feeding that same high-quality feed to ewes after lambs have been weaned and physiological requirements are lower. Similarly, ewes with twin lambs have a higher crude protein and energy requirement than those with singles and should receive a higher level of nutrition during pregnancy and

lactation. Reserving lower-quality grass hay or pasture and omitting supplemental grain between weaning and breeding can avoid wasting nutrients and money and will ensure ewes do not become obese and have problems rebreeding.

Feeding straw/low-quality hay with other high-quality feed sources to animals in dry lots is possible. The low-quality feed can serve as a filler to keep animals feeling full but also to dilute excessive levels of crude protein and slow down passage of feed through the digestive tract. Crude protein is an essential nutrient in sheep diets and can be thought of in terms of the element nitrogen. Feeding more crude protein doesn't always benefit the animal as excess crude protein is excreted in the urine. Keep in mind that generally when crude protein of the total diet exceeds approximately 20-25 percent, more nitrogen is excreted in the urine, and while this doesn't have adverse effects on the sheep, it is wasting expensive nutrients. Determining the specific energy and protein requirements for the desired

level of production should always guide how much and what to feed.

Remember sheep can be gluttons and even when fed enough, they will behave as if they are still hungry. A ewe not breeding, pregnant, or raising a lamb shouldn't be fed more than 2 percent of her body weight on a dry matter basis (for example, 170 lb. ewe \times .02 = 3.4 lb./day).

When grass is green with about 50 percent dry matter, that ewe's intake will look more like 6.8 lbs. per day but when grazing mature grass pastures or dry hay at 90 percent dry matter, it's closer to 3.7 lbs. per day.

Tying together sheep body condition scores and feed requirements can be challenging at first and take time to master. Continued practice and monitoring of sheep health and forage intake is key for improving flock management for a large or small sheep flock.

Niche grazing opportunities

Many times, small acreages will have excess forage that has not been cut for hay or grazed by animals. This excess forage can be viewed

by landowners as a liability rather than a resource, especially when no livestock are owned. The liability could be a fire risk of dormant standing forage, noxious weeds left to propagate and create larger weed populations, or costs associated with mechanically removing vegetation.

Small flock owners provide a unique opportunity for landowners with excess forage that is perceived as a potential risk. Here are some opportunities and methods for fitting into a niche market.

Pricing small-acreage grazing leases can vary from a free weed removal service, to the sheep owner paying for forage. Some components to consider before starting smaller scale grazing projects include:

- Identifying landowner goals for vegetation management
- Estimating pounds of forage production on surrounding acreage. The Natural Resources Conservation Service web soil survey is a good place to find these estimates for a location bit.ly/soilsurveyhome

- Fencing and water needs. Temporary electro-net fence is portable, helps keep sheep in and unwanted predators out, and can tailor grazing to certain parts of a property. If grazing to reduce fire fuel loads, this fence can also force greater forage removal on certain areas or species of plants
- If late-summer months are the target, weaning lambs and only grazing ewes can reduce potential predation losses and can match poor-quality forage resources with ewes that don't have additional physiological demands

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Planning ahead and developing a feed calendar is critical for budget-friendly, small acreage sheep enterprises. The calendar puts the necessary pieces together for maintaining the health of a sheep throughout the year.

Developing a feed calendar or plan should include:

- Nutritional demands throughout the year,
- When forages might need to be purchased,
- When pastures will be available for grazing, and
- A contingency plan if purchasing forages becomes too expensive or pasture forages are not available or decreased because of drought.

Budgeting to purchase hay in larger volumes during summer when readily available can help avoid being priced out later in the year. Talking with other sheep producers (large and small) can help pool labor, equipment, and purchasing power to save money on a feed bill while maintaining the proper health and body condition score of sheep in your flock.

