

Short of Feed ?– Here are Some Options to Consider

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Though fall rains came to many of the drier parts of Alberta, the poor hay crop will have many producers scrambling for feed and paying more than they normally do to winter the ewes. Here are some things to think about when feeding the flock during a feed shortage.

1. **Cull heavily.** Feeding the top 75% of your flock properly will be a lot more rewarding than feeding 100% poorly. And, full-mouth ewes in their prime, will be better able to handle straw based diets.
2. **Sheep need specific nutrients** and those nutrients can come from a variety of feed sources. Look around for food industry by products, oat hulls, grain screenings and other odd and unusual feeds that you normally would not consider.
3. **Make sure you have sufficient roughage supplies.** As mature ruminants, ewes require that at least 40% of their diet is roughage. This can be poor quality roughage, such as canola, pea and grain straw as long as proper supplementation is provided.
4. **Tips for feeding straw and grain rations:**
 - Feeding straw as the predominant, or only, roughage may be the biggest management challenge you have ever faced. Your keen powers of observation are essential to ensure the sheep thrive. This includes monitoring sheep behavior, feed intake and body condition on a regular basis.
 - Grain straw will be very low in digestible protein – consider it to be “zero” to be safe. Legume straw (e.g. pea straw) should be considered to have 50% of the crude protein shown on a feed test.
 - Energy and Protein supplementation will be essential. Balance your rations carefully. See the **Example Rations** table at the end of this article for some ideas.
 - Feed not more than 1.5 pounds of a grain mix (grain plus supplement) at one feeding. This may mean two times a day feeding to avoid grain overload problems. Figure out a way to feed the grain component of the ration without causing a “stampede” that may injure the sheep or the shepherd. **Grains should be fed whole, not processed.**
 - Give time for the sheep to adapt to grain mix in the ration. Start with ½ pound per ewe per day and work up to the target over 10 to 14 days.

- An alternative may be to create a total mixed ration, but be sure the grain portion doesn't settle out during feeding. Adding some silage or water to a dry TMR will help reduce settling and sorting problems.
 - Increase the grain mix portion of the ration by about 15% if the temperature falls below -20 degrees C.
5. **Know the nutrient content of your feeds – test feeds.** This winter you will likely be balancing rations closer to the actual requirement than you ever have before. You may not have a 16% protein alfalfa hay to feed to a dry ewe that only requires 10% protein in her diet. You can make best use of any feed in a balanced ration when you **know the nutrient content**. This is particularly important when using feeds you are not used to, such as by-products, screenings, straw and chaff.
 6. **Know the cost of the nutrients you are purchasing.** What is a better buy? Paying 10 cents per pound for good alfalfa hay, or 10 cents per pound for barley grain? Depends on what you need. Barley grain contains about 50% more energy (TDN) than the hay, but alfalfa hay contains about 50% more protein than the barley. With feed analysis results you can calculate not just the cost of a pound of feed, but the cost of a unit of protein and energy as well.
 7. **Save the best feed, usually your hay, for the “most critical period”.** That's the last 6 weeks of gestation and the first 6 weeks of lactation. Shorting the ewe's nutrient supply during this time can have disastrous consequences on lamb survival and growth. The replacement ewe lambs will also benefit from some hay in their ration rather than straw as the only roughage.
 8. **Vitamin and Mineral supplementation.** While always important, it is more so when not using your conventional feeds. For example, Vitamin A, Calcium, Phosphorus and Magnesium will be much lower in straw and grain products than in conventional legume based forages.
 9. **Use Available “experts”.** Feed manufacturing companies and the AgInfo Center (310-FARM) are two sources of nutritional information and guidance that you should call on to help you design a good winter feeding program. They have the knowledge and understanding of how to balance rations using unusual feeds, and the feed companies can provide the specific products you need for your flock. Contact them now as they will be very busy come winter working with all of their livestock clients.
 10. **The Eye of the Shepherd.** Watch your sheep more closely than you ever have before. When using a lot of straw in the rations, watch closely for any signs of compaction in the rumen/abomasum such as:
 - a. Loss of appetite
 - b. Scant feces
 - c. Distension of the abdomen
 - d. Weight or condition loss
 - e. General lethargy and weakness

Contact your vet for treatment of sheep showing these symptoms. **The risk of compaction is higher during cold snaps and if straw is ground or finely chopped.** If you have seeing compaction, increase protein and energy in the ration or replace straw with more digestible forage.

EXAMPLE RATIONS

175 lb EWE

(Ration Ingredients are in pounds per ewe per day)

	#	BLY STRAW	PEA STRAW	BLY GRAIN	35% SUPP	V.G. ALF HAY	TOTAL AS FED	TOTAL DRY MATTER	DMI % OF BW	% Forage
Breeding										
	1	2.3	X	1.0	0.5	X	3.82	3.41	1.9	60.1
	2	X	2.5	1.0	0.3	X	3.9	3.48	2.0	66.6
Early Gestation										
	3	2.3	X	1.5	0.6	X	4.4	3.93	2.2	52.2
	4	X	2.6	1.3	0.4	X	4.3	3.84	2.2	60.4
Late Gestation										
	5	2.0	X	1.8	0.6	1	5.4	4.81	2.7	55.4
	6	2.0	X	2.2	0.8	X	5.0	4.47	2.6	39.9
	7	X	2.6	2.0	0.6	X	5.2	4.64	2.7	50.0
Early Lactation										
	8	2.0	X	1.0	1.5	2	6.5	5.81	3.3	61.0
	9	X	2.5	0.8	1.3	2	6.6	5.89	3.4	67.7
	10	X	3.0	1.0	2.3	X	6.3	5.68	3.2	47.1

Note:

1. Feed quality is assumed to be average. There is no waste factor in these rations.
2. Ewes are in body condition score of 3.0.
3. Average daily temperature is -14 degrees C. Increase grain and supplement by 15% whenever temperatures fall below -20 degrees C.
4. The 35% Supplement is fortified to balance the ration for all minerals and vitamins.
5. It is recommended that the reader consult with a feed industry specialist for advice regarding their specific situation.
6. **Responsibility for the interpretation and/or use of these rations lies with the reader.**