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# Livestock Feed Management For Idaho's Drought

Dan Hinman

Ed Fiez

J. D. Mankin

The tight feed supply prospects facing Idaho's cattle industry will require special feed management throughout the production year. Producers need to look closely at key factors of feed availability, feeding, harvesting, feed storage and feed purchases. This publication discusses these factors in relationship to drought situations.

## Alternate Feeds for Livestock

Many feeds are available that some ranchers are not presently harvesting and storing as livestock feed. These feeds — grain straws, corn stalks, etc. — could provide needed energy for livestock in drought areas.

Table 1. Comparative TDN and crude protein in selected roughage feeds.

Feeds	Total digestible nutrients		Crude protein	
	%	Relative energy value*	%	Relative value for protein*
Alfalfa (early bloom)	57	100	18.4	100
Alfalfa straw	49	86	8.5	46
Beet tops (with crown)	54	95	12.7	69
Bean straw	39	68	8.6	47
Barley	82	144	10.9	59
Barley hay	58	102	8.9	48
Barley straw	41	72	4.1	22
Corn stalks	55	96	5.9	32
Grass hay (brome or orchard grass)	52	91	10.2	55
Native hay (midbloom)	51	89	9.1	49
Oat hay	61	107	9.2	50
Oat straw	52	91	4.4	24
Wheat hay	66	116	7.5	41
Wheat straw	48	84	3.6	20
Cottonseed meal	75	132	41.0	223

\*Compared to alfalfa hay harvest (early bloom).

Each producer should study how these alternate roughage sources can be used to reduce total feed costs.

Table 1 lists the total digestible nutrients (TDN) and protein content of several feeds, including barley and cottonseed meal, and compares them with good quality alfalfa hay. Note the relative TDN and protein levels. These feeds can provide much of the energy necessary to maintain livestock and dairy replacement heifers.

One word of caution, however: Not all of these feeds contain adequate protein, calcium and phosphorus. This is especially true in rations for growing heifers and dry dairy cows.

If you harvest crop residues for livestock feeds, be sure that they do not contain pesticide residues. Check crop production records and cultivation practices to be sure.

## Feeding

Design your feeding management to get the most mileage from feed supplies. Supplement low-quality feeds correctly, as in the following examples of beef cow rations:

1. 8 lb. alfalfa hay and 10 lb. cereal straw.
2. 6 lb. alfalfa hay and 11 lb. corn stalks.
3. 15 to 17 lb. barley, oat or wheat hay.
4. Free choice cereal straw plus 2 lb. cottonseed meal or liquid protein supplement. Non-protein nitrogen additions to molasses supplement are better utilized if cereal grains are added to the ration.

Make every effort to reduce feed losses. In dairy herds, for example, take the feed refused by milking cows and feed it to dry cows or replacement heifers. Feed the highest quality feeds, especially roughage, to the highest producing cows. To increase consump-

tion of low quality roughages, chop them, blend them with higher quality feeds or top-dress them with molasses. You can use that approach in all cattle feeding operations.

Carefully balance every ration against the animal's requirements. Underfeeding nutrients lowers production. Overfeeding nutrients increases feed expense and reduces net return over feed expense.

### **Buying Supplementary Feeds**

Limit your purchases to feeds that complement your existing feed supplies. For example, if you have good quality alfalfa hay on hand, you need not purchase more alfalfa hay for wintering beef cows. A lower quality roughage such as cereal straw, grass hay or corn stalks will provide much of the energy for beef cattle at a lower cost. Lower quality alfalfa hay can also be used in rations for low-producing dairy cows, dry cows and replacement heifers. The major nutritive value of the lower-quality roughages is energy. If you can provide the necessary equipment and management, you can also use other energy sources.

Purchase additional feed carefully and on a quality basis. Have all feed analyzed for moisture and crude protein. Your county Extension office can help you with feed testing.

### **Harvesting and Storing**

Your harvest goal should be quality forage with minimal field loss of feed nutrients. Alfalfa can be harvested in several ways. Alfalfa silage programs reduce feed losses that are common to baling. Don't fail to review the alternate ways of harvesting each crop that you plan to grow. You may also need to switch forage crops to compensate for limited irrigation water. Cereal grain silage may be possible — and corn silage impossible — because of limited water.

You should place major emphasis on quality if you grow only a portion of your feeds. Quality roughages will be expensive and in short supply.

Growing and harvesting quality feeds may reduce your total expense for purchased feeds.

Contact your local Extension office for help in planning alternate harvesting methods and alternate forage crops.

Storage losses can steal a major share of feed nutrients you buy or harvest. Carefully cover alfalfa stacks with plastic if they are exposed to weather. Locate stacks on high ground to minimize bottom bale losses to moisture.

Cover silages within 4 to 6 hours after filling to eliminate top spoilage. A plastic cover held down with old tires is the best method. Cover the open face of silage pits with chicken wire to prevent bird damage. Don't buy or grow silage unless you have proper storage. Silages that are piled on the ground or on flat slabs without side walls or retaining walls have extremely high nutrient losses during storage. In most cases 20 or 30% of the feed nutrients are lost.

Silages stored in bunker silos should be above 30% in dry matter to reduce nutrient loss from runoff. This means alfalfa, grasses and cereal grain must be field wilted 4 to 8 hours before chopping and ensiling.

### **Summary**

Your total feed management is extremely important in surviving the drought. Take a careful look at your feed supply and feeds available for purchase. Review the alternate crops and various ways of harvesting these crops for your livestock enterprise. Plan a feeding program to return the greatest income over feed cost from your herd.

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*THE AUTHORS — Dan Hinman is assistant research professor and ruminant nutritionist, Ed Fiez is associate Extension professor and District Extension Dairyman and J.D. Mankin is associate Extension professor and District Extension Livestock Specialist, all at the Southwest Idaho Research and Extension Center, Caldwell.*

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