Dairy Guidelines

COOPERATIVE EXTENSION SERVICE, V.P.I., BLACKSBURG, VIRGINIA

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Short on Forage?

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Dairymen in Virginia are faced with an extreme drought condition, and a short supply of feed, just at a time when the demand for milk is high, milk supply is short, and the price for milk may be the highest on record. In certain areas of the state, the dry weather is a continuation of a series of dry seasons extending from 3 to 5 years. Many lessons have been learned on what to do in periods like this. It means tightening up on management decisions and doing a better job of getting milk from the cows.

Practices to Follow

1. Cull the herd closely

   Now is the time to sell potentially unprofitable cows and heifers. Use records of past performance and cull those cows with udder trouble, breeding difficulties that result in long dry periods, low producing cows and extra heifers out of these low producing cows. Keep only high potential heifers for replacements. Gather all records and other information that is available on each animal, both cows and heifers, and evaluate each animal on her merits. Getting someone that is a good cow-man to evaluate the animals may eliminate personal prejudices.

2. Better herd management

   Looking after the details that, if neglected, cause a reduction in milk production is necessary. Some of these are:

   a. Practice proper milking procedures to assure complete milking and prevent udder injury.

   b. Feed the best quality forage to the high-producing cows.

   c. Feed all cows adequately, but particularly, feed ample concentrates to the high-producers to make up for the shortage of forage.

   d. Give close individual attention to all cows, particularly during the early part of their lactation, to keep them producing.

3. Feeding procedures

   a. Forage minimums: A minimum of 1 pound of hay (or 3 pounds of silage) per 100 pounds of body weight per cow daily is essential to keep the butterfat test up and maintain normal body functions. For dry cows and heifers this can drop to ½ pound hay (or 1½ pounds of silage) per day per 100 pounds. An inventory of the forage supply on hand should be made and then fed in proper amounts to make it last until spring, keeping in mind the minimum that must be fed. Any supplemental grazing, green chop or small grain silages that can be made will help.

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Have the forages analyzed and use the analysis in calculating protein and net energy supplied when balancing the ration. Buying a minimum amount of hay and feeding enough high energy concentrates to meet requirements may be more economical than a commercially available complete ration.

b. Concentrates: Grain feeding rates should be much higher than normal due to limited forage intake. Each cow should be fed according to milk production. Challenging the cow by feeding the grain liberally 2 or 3 weeks before calving and according to the following recommendations after freshening is recommended.

Recommended Rates with Minimum Hay or Silage

Milk per day(lbs.)	Grain:Milk(lbs.)
Before calving	up to 20
10-40	1:2
41-60	1:1.5
61 up	Free choice

A 16% total protein grain-concentrate mixture will supply adequate protein if the recommended rates of grain feeding are followed. A high energy grain mixture should be used. Commercial mixtures with less than 6% crude fiber are considered high energy. Home mixtures should contain ground shelled corn, oil meal, minerals and may contain urea. Some suggested mixtures are:

	16% Calculated Total Protein			
Ingredient	1	2	3	4
Corn (ground, shelled)	750	750	800	850
Oil Meal* (45%)	220	215	160	---
Urea (45% N)	---	5	10	---
65% Oil Meal-Urea Mix	---	---	---	120
Salt (trace mineral)	10	10	10	10
Dicalcium Phosphate**	20	20	20	20
Vitamins A & D***	4	4	4	4

*Use the protein concentrate that will cost the least per pound of digestible protein.
**Other minerals such as steamed bonemeal or deflourinated rock phosphate may be used.
***The final grain mixture should contain 3,000 I.U. of vitamin A and 4,000 I.U. of vitamin D per pound.

Urea is a less expensive source of protein than oil meals and can be used very efficiently by the dairy cow. It must be fed with a high energy feed for maximum use by the animal. Also, it must be thoroughly mixed with other ingredients. If dairymen are mixing their own ingredients at home, a pre-mix of oil meal and urea is an easy way to get a thorough mixture. A pre-mix containing 910 lbs. of a 45% oil meal and 90 lbs. of urea (45% N) will give about a 65% mixture.

References

Dairy Guidelines - Series 105 - May 1966 - "A Guide for Feeding Dairy Cows"
Dairy Guidelines - Series 106 - April 1966 - "Minerals and Vitamins for Dairy Cattle"