
FEEDING MANAGEMENT PRACTICES TO REDUCE EFFECTS OF DROUGHT ON BEEF CATTLE PRODUCTION

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The drought conditions in many sections of the state have severely reduced the feed supply available for beef cattle. Beef producers are faced with purchasing feed and looking for alternative feeds for beef cattle.

Purchasing of feed is expensive and will increase the cost of production at a time when returns will be lowered due to the “drought stricken” marketing of cattle. Costs need to be kept as low as possible in preparing rations and also provide adequate nutrition.

The following information should be helpful in developing feeding programs that would provide adequate nutrition and keep costs under control.

Hay Replacers. The greatest percentage of feed consumed by cattle in Tennessee is hay and pasture. Several rations that may be used as replacements for hay are outlined in Table 1. Vitamin A should be added to the above rations at the rate of 3.5 million units per ton or provided in a good quality salt-mineral mix.

Table 1
RATIONS THAT CAN SERVE AS HAY REPLACERS

Ingredients	Rations			
	1	2	3	4
	(Pounds per ton of mix)			
Corn	860	1000	400	400
Whole cottonseed			500	
Soybean meal	140			
Urea		20		
Peanut Hulls	1000	980	1100	
Total	2000	2000	2000	400

From: Stewart, R. L. 1993. Georgia Livestock Newsletter, Cooperative Extension Service, University of Georgia, July 1993, AS-1.

For best mixing results and preventing separation of ingredients, the corn should be coarsely ground. Do not grind other ingredients. Observe for separation.

Supplements. There are several supplements that can be used to provide both energy and protein to cattle. Following are a few of these:

1. **Range cubes.** Cubes do not require troughs to be fed. Cubes can be fed on grass. Cubes are convenient but can be expensive. Most cubes can be fed at 3 to 5 lbs. per day, but more can be fed if needed. Be careful if cubes contain a high percentage of urea or other NPN protein sources.
2. **Liquid Supplements.** Liquid supplements are convenient feed but are expensive. Cows will over consume. Most liquid feeds contain ingredients that are intended to serve as intake limiters. Additional feed will need to be fed if free-choice forage is not available. Do not feed free-choice to starving cows. Do not feed to cows grazing soybean stubble or cows grazing or being fed forages that are likely to be high in nitrates.
3. **Protein Blocks.** Protein blocks should be handled and feeding guidelines followed similar to liquid supplements.

4. **Whole Cottonseed (WCS).** Whole cottonseed are an excellent source of energy and protein. There should be an adequate supply. Feed 5 to 6 lbs. per day of WCS this fall.
5. **Home Prepared Mixes.** Producers can either mix or have custom prepared supplements. Mixes should contain approximately 20% crude protein and 65% TDN. Following are some examples:

Table 2

SUGGESTED SUPPLEMENT MIXES

Ingredient	Ration 1	Ration 2
Corn	75%	88%
Soybean meal	26%	10%
Urea		2%
	100%	100%

Add 3.5 million units of Vitamin A per ton to the above mixes.

The above mixes are only examples and other ingredients may be used.

6. **Self-Fed Supplements.** Self-fed rations listed below provide the same nutrition as the ones outlined above. There are a few minor changes due to addition of salt or an intake limiter.

Table 3

SUGGESTED SUPPLEMENT MIXES FOR DRY, PREGNANT BEEF COWS¹

Ingredients	Rations that Contain	
	No Urea	Ration with Urea
Corn	33%	50%
Soybean meal	33%	16%
Dicalcium Phosphate	2%	2%
Salt	31%	29%
Urea		2%
Total	100%	100%

¹Cows should consume about 2.5 to 3.5 lb. per day.

Table 4

SUGGESTED SUPPLEMENT MIXES FOR LACTATING BEEF COWS¹

Ingredient	Ration That Contain	
	No Urea	Rations That Contain Urea
Corn	40%	59%
Soybean meal	40%	20%
Dicalcium Phosphate	2%	2%
Salt	18%	16%
Urea		2%
Total	100%	100%

¹Cows should consume 4.5 to 5.5 lb. per day.

Table 5

SUGGESTED SUPPLEMENT MIXES FOR REPLACEMENT HEIFERS¹

Ingredient	Ration That Contain No Urea	Ration That Contain Urea
Corn	55%	67%
Soybean meal	28%	14%
Dicalcium Phosphate	3%	3%
Salt	14%	14%
Urea		2%
Total	100%	100%

¹Heifers should consume 3 to 4 lb. per day.

The following feeding suggestions should be followed when feeding the above supplement mixes: (1) Provide Vitamin A at the rate of 7,000 International Units per pound of feed (14 million units per ton). (2) Cattle should be hand-fed for one week prior to self-feeding in order to adjust to these rations. This is most important with the urea-containing supplements to cattle which have access to soybean stubble or hay. Death may result. (3) Do not mix more feed than can be consumed in a month. Note that the salt in these mixes will cause metal feeders to rust.

Acknowledgment

This material was adapted from Stewart, R.L. 1993. Feeding during drought conditions, Georgia Livestock Newsletter, Cooperative Extension Service, University of Georgia, July 1993, AS-1.