Drought Considerations

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Drought conditions force cattleman to look for alternative feeds. During a drought, pastures can be completely depleted or be very limited and low in quality. Animals must be supplemented with purchased feeds if adequate animal performance is going to be achieved. Supplemental feeding will add to the cost of production. Therefore, supplemental feed costs need to be kept as low as possible and feed purchased should be kept to a minimum.

Reducing the need for supplemental feeds

Most cattle in Georgia market calves at weaning time. Weaning weights are almost always negatively affected during a drought situation. Alternative production practices must be considered to return a profit on the cowherd this year. Cattlemen can either sell calves now, wean and feed calves separately from cows, or supplement cow herd and likely market calves at a lower weight in the fall.

Early weaning calves

Weaning spring born calves now, has many advantages.

1. A dry cow will require about 40 to 50% less feed than a lactating cow.

2. Cows that you plan to cull after calves are weaned can be culled now. This will reduce the amount of feed needed. At least 15% of the cows are culled each year. Culling combined with early weaning will cut the feed needed for cows by at least half.

3. In addition, poor dry pastures may be enough to maintain cows that have had their calved weaned. Maintaining cow and calf pairs on dry pasture will result in very poor growth rates of calves and poor body condition and lowered conception rates in cows.

4. Improved conception rates. Although the breeding season is almost over in Georgia. Early weaning the calf at 120 days of age has been shown to greatly improve conception rates. In addition, cow body condition is improved when calves are early weaned, and will require less supplemental feed in the fall and winter to regain body condition.

5. Calves can be fed higher quality supplemental feeds and weaning weights will not be decreased at normal weaning time. Early weaned calves are extremely efficient, often requiring 4 to 5 lb of feed per pound of gain when fed a high grain diet. Grain is relatively cheap and there is still a lot of cottonseed left over form last years crop. Thus, cost of gain can be kept low enough to return a profit.

6. Calves will be considered pre-conditioned. These calves receive a premium on sale day over calved that are sold on the same day they are weaned.

Rations for early weaned calves

Pasture or hay without any supplemental feed will not work. Calves will not gain enough weight to justify early weaning. Calves early weaned can be fed a typical high grain feedlot ration. These are example rations that are designed to be limit-fed, many other feed ingredients can be used. Contact your Extension Animal Scientist for help with formulating rations.

Ingredient	Ration 1	Ration 2	Ration 3	Ration 4
% of Total Ration				
Corn	67	35	57	
Cottonseed		30		
Cottonseed hulls, peanut hulls,	14	15	14	
Supplement, 50% CP	19	20	10	9
Corn silage				85
Soybean meal			19	6

* These are average amounts of feed per day it would take for a calf to grow from 350 lb to 525 lb gaining at 2.25 lb/day in a 75 day period. This would have calves weighing about 550 lb at normal weaning time in September.

* Feed rations 1, 2, and 3 at approximately 2.25% of BW. Ration 4 can be fed free-choice. Heifers will gain approximately 10 to 15% less on these diets than steers.

* Soybean meal can be substituted for the 50% supplement. However, an additional high calcium mineral supplement with an ionophore must be fed.

* Calves must be implanted to obtain gains of 2.25 lb/day. Do not implant potential replacement heifers.

Hay replacers

Hay is an option, but certainly not the only option. Grains are often cheaper per unit of energy than hay. It is okay to feed hay, but other options may be both cheaper and yield better more consistent results.

Ingredient	Ration 1	Ration 2	Ration 3
Corn	860	400	400
Whole cottonseed		500	
Soybean meal	140		
Broiler litter			1400
Peanut Hulls	1000	1100	200
Total	2000	2000	2000

Theses rations are designed to be fed free-choice to cows nursing calves. Rations 1 and 2 must be supplemented with a high calcium mineral supplement containing Vitamin A.
It is recommended to feed an ionophore such as Rumensin or Bovatec with these diets. It can be fed in the mineral or a commercial supplement that can be purchased and mixed in the feed at approximately 5% of the total ration.

The corn should be cracked coarsely. The cottonseed may be mixed whole, or ground if feed separation is a problem. If fed to dry pregnant cows, increase the peanut hulls amount by 200 lb and reduce the corn amount by 200 lb in rations 1 and 2. There are many other feed ingredients that will work well. Some of these are citrus pulp, soyhulls, corn gluten feed, wheat middlings, cottonseed hulls, and others. These rations should be hand-fed for one week prior to self-feeding to adjust cattle to these rations. Start at 10 lb of total mix and increase 2 lb every day until cattle are on full feed. Expected consumption is 25 to 30 lb per day.

These diets can also be limit-fed every day. Doing this will eliminate the need for cracking corn and self-feeders. It will also reduce wasted feed and decrease the risks of acidosis. Cattle use grains more efficiently when limit-fed versus self-fed, and therefore less grain would be needed to obtain the desired results if cattle are limit-fed. For example, a lactating cow could be maintained on ration 1 by feeding 12.5 lb/d corn, 4 lb/d peanut hulls, and 3 lb/d soybean meal. Contact your Extension Animals Scientist for help when formulating these rations.

Supplements for forage

Many producers may be feeding hay or have limited grazing available. Adequate nutrition can be achieved by supplementing energy, protein, minerals, and Vitamin A. The following supplements can be considered.

1. Range cubes - They require no feed troughs, are convenient, but expensive. Feeding 3 to 5 lb/day is generally recommended. However, more can be fed if needed.

2. Liquid Supplements, molasses blocks, and protein blocks - are convenient, but expensive. Daily consumption will generally be less than 2 pounds. Liquid supplements provide supplemental protein but will not provide enough supplemental energy. Cows should be fed 3 to 5 pounds a day of supplemental energy.

3. Whole cottonseed - excellent source of both energy and protein. Feed up to 6 pounds per head per day.

4. Grain, protein mixes - A mix of 75% corn and 25% soybean meal protein can be fed at 3 to 5 lb/d to maintain animal performance. Feeding more than this results in a significant depression of forage digestion. It is best to use by-product feeds such as soyhulls, citrus pulp, or corn gluten feed if higher levels of supplementation are needed. These feeds are equal in energy to corn when fed as a supplement to a high forage diet.

5. Self-Fed Supplements - are designed to deliver the same nutrition as the ones in section 5 with only minor changes.

The following rations are designed to supplement fair quality hay fed free-choice or limited grazing. Formulations are based on the feed ingredients listed. Substitutions for ingredients may require revision of formulas.

I. Dry Cows

	w/o Urea %	w/Urea %
Corn	33	50
Oilseed Meal	33	16
Dicalcium Phosphate	3	3
Salt	31	29
Urea	--	2

Expected consumption: 2.5 - 3.5 lbs./day

II. Lactating Cows

	w/o Urea %	w/Urea %
Corn	40	59
Oilseed Meal	40	20
Dicalcium Phosphate	2	2
Salt	18	16
Urea	--	3

Expected consumption: 4.5 - 5.5 lbs./day

III. Replacement Heifers

	w/o Urea %	w/Urea %
Corn	55	67
Oilseed Meal	28	14
Dicalcium Phosphate	3	3
Salt	14	14
Urea	--	2

Expected consumption: 3-4 lbs./day

Notes: (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 feeds.

(3) Do not feed the urea-containing supplements to cattle which have access to soybean stubble or hay. Death may result.

(4) Do not mix more feed than can be consumed in 3-4 weeks.

Other considerations during a drought

1. Grazing corn - Most of the dryland corn has been hurt severely by the drought. Corn can be salvaged by grazing. Corn is best utilized by strip grazing. Only allow a 2 day supply of grazing at one time. Allow enough corn dry matter for calves to consume about 3% of their body weight. A rule of thumb is that each foot of height is about 600 lb per acre of dry matter. Thus 1 acre of corn 5 foot tall could feed about 100 steers weighing 500 lb for two days. Supplement calves with about 1.5 lb of soybean meal per day or 3 lbs every other day. Nitrates can be a problem, especially after a rain. To be safe, do not graze corn fields for 1 to 5 days after a rain.

2. Evaluate stocking rates - If grass runs out every time there is a dry spell you are probably overstocked. Grass should only completely run out when there is a long term drought.

3. Creep feeding - If early weaning is not an option, then creep feeding is an excellent alternative. The most profitable time to creep feed is during a drought. A mixture of 75% grain and 25% protein such as soybean meal can significantly increase weaning weights. Separate replacement heifers and do not creep feed them.

4. Supplemental Vitamin A - Normally, summer forages which are actively growing will provide plenty of Vitamin A. Drought stressed forages may be deficient. Make sure you salt-mineral mix is fortified with Vitamin A. The suggested minimum level is 200,000 per pound.

Deworm

Parasites can reduce cow performance and rob your cows of expensive supplemental feed. Current research indicates the best time to deworm cows may be in the mid-summer. Deworming now will reduce the chance for reinfection because of hot dry weather, and also reduce the amount of parasites on the the farm next year.