



August 2000 Department of Animal Sciences and Industry

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## Management Options for Coping with Dry Weather

The dry weather this summer across several regions of the state would certainly fit with the early explorers' assessment of Kansas as the "Great American Desert."

Historical records indicate drought years, with less than two-thirds of the average annual precipitation, occur in one out of five years in eastern Kansas to one out of three years in western Kansas. Likewise, dry periods during the growing season occur one out of three years in the east to two out of three years in the western part of the state. No self-respecting gambler would play the house with these odds.

Drought can occur any season, but when coupled with summer temperatures, the effects on cattle production can be dramatic. Dried up pastures, reduced harvested forage yields and limited water supplies are all potential problems. These challenges

affect both short- and long-term management decisions. Relieving the inevitable shortfalls in enterprise productivity and, in some cases, sheer animal and ranch survival, requires immediate attention.

The immediate concern during drought conditions is to ensure the cowherds' nutritional needs are being met. As forage becomes limited, the economic value of grazing forages increase. Supplements that enhance the remaining supplies and digestibility of forages are the best alternative to minimizing the purchase of harvested forage.

Processed grain by-products that are low in starch content yet high in digestible fiber—such as soybean hulls, wheat middlings, corn gluten feed and rice meal feed—can improve the utilization of low quality forages. Minimizing the nutrient demands of the cow herd is another area that can be managed.

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## Contest to reward innovative cattle producers

Kansas Beef producers have an opportunity to demonstrate their ingenuity when they enter a national contest. "The IRM TIPS for Profit" contest rewards cattle producers for sharing successful management ideas they use in their operations.

Three top winners will receive cash prizes, with the first prize also receiving an expense-paid trip to the 2001 Cattle Industry Convention and Trade Show in San Antonio, Texas. There will also be 10 honorable mentions.

"As I travel the state, I am continually impressed by the new ideas and innovations generated by Kansas producers," Extension Beef Specialist Dale Blasi said. "I'd encourage them to forward their ideas for a chance at some well-deserved national recognition."

Entry deadline is Oct. 1, 2000. For rules and an entry form contact Blasi at (785) 532-5427, [dblasi@oznet.ksu.edu](mailto:dblasi@oznet.ksu.edu), or Renee Lloyd, National Cattlemen's Beef Association at (303) 850-3373, [rlloyd@beef.org](mailto:rlloyd@beef.org).

## MANAGEMENT OPTIONS, from page 1

Cattle producers located in areas of drought might consider the following forage and livestock management options to stretch pastures and maintain productivity while these alternatives are still feasible.

### Reducing Herd Nutrient Requirements

One strategy cattle producers have overlooked as a means of reducing pressure on pastures is to simply wean calves early. Lactation represents a major nutrient drain for the beef cow. Milk production will increase the energy and protein requirements of beef cows by 30 to 50 percent depending upon their genetic potential to milk. Early weaning cow/calf pairs will immediately reduce pressure on pasture and hay supplies. Research indicates that dry and milking beef cows have similar responses to supplementation programs. So there are no distinct advantages for feeding lactating cows.

Many producers do not realize that calves more than 90 days old and/or greater than 200 pounds can be weaned with minimal complications. Calves that are fed *balanced* rations in drylot will weigh similarly to mother-reared calves throughout their lifetime. The following points summarize early weaning:

- Early weaned cow/calf pairs consume approximately 25 percent less feed than normally weaned pairs.
- Calf performance is not compromised.
- Dry, early gestation beef cows require only 60 percent of the energy and 50 percent of the protein of lactating cows.
- Dry cows will consume 30 percent less forage than lactating cows.
- It is more efficient to feed calves directly than to feed cows to sustain milk production.
- It is much cheaper to maintain or regain cow body condition during the summer and fall months than to attempt to increase cow weights during the winter and spring months. By avoiding thin cows (low body condition scores), suboptimal reproductive rates will be avoided.

- Dry cows require 60 percent less water than lactating cows.
- Young cows (first and second lactation) are the ideal candidates for early weaning. This is because of their additional requirements for growth besides maintenance and lactation.

Another strategy to relieve pressure on pastures is to reduce inventory by pregnancy testing and culling earlier than normal. With low grain prices, this would be a logical time to glean those females that would otherwise be intended for market. Access to good records will facilitate culling decisions. Pregnancy detection at this time of year can determine those females that are open or bred late. This is one way of reducing some grazing pressure when forage supplies are short. Many Kansas cattle producers use the “three O” management plan. First, cull cows that are old, open and ornery. Then cull deeper for unsound cows, late calvers and low-producing females.

Producers located in areas affected by drought should strongly evaluate limited creep feeding. Previous research has shown some of the best responses to creep rations occur in dry years with calves on first- and second-calf females or where poor pasture conditions are restricting normal milk production.

From a livestock producer’s perspective, the positive economic situation with regard to grains and protein sources is encouraging for this option. Numerous types of grains and protein mixtures may be used successfully.

Herd health may also be a factor during drought conditions. Lack of forage may force animals to consume plants that are

## NEED HAY?

Hay hotlines put producers in touch with those who can help. In Kansas contact:

[www.oznet.ksu.edu/pr\\_forage/](http://www.oznet.ksu.edu/pr_forage/)

[www.nass.usda.gov/ks/hay.htm](http://www.nass.usda.gov/ks/hay.htm), or call Ron Stitzman at (785) 233-2230.

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normally avoided and poisonous. Nitrate toxicity in many harvested forages is one potential complication that arises as a consequence of droughty weather. This problem can be particularly pronounced in summer annuals such as sudan, sorghum-sudan and the millets. All forages that have experienced harsh growing conditions should be analyzed for this potential “toxin.” Producers are encouraged to collect a *representative* sample of their forage lot.

### Forage Management Options

As the saying goes, “Pray for the Best, but Expect the Worst.” Livestock producers are encouraged to inventory their existing forage supplies for this fall and winter. They should examine their options in anticipation of properly meeting the dynamic nutrient requirements of their stockers or cow herd. When faced with a feed shortage there are two responses. First, operators must obtain additional feed. As mentioned earlier, proper supplementation stretches pasture supplies. Improvements in harvesting, storing and feeding will extend supplies that would otherwise be wasted and unnoticed in normal times. Buying forages and supplements that complement existing standing forage supplies makes good business sense. Secondly, producers may want to conduct an inventory to determine and eliminate nonessential feedstuffs and provide needed capital to buy essential goods. For example, purchasing grass hay and a by-product such as wheat middlings through the sale of alfalfa.

A forage resource inventory (FRI) assesses animal demand and carrying capacity of the operation. One of the primary benefits of conducting a FRI now is additional flexibility in preparing for winter feeding. Your local county Extension agent has the Cow Balancer 2000 computer program that can automatically calculate your forage needs based on your operation’s conditions.

While planning and additional labor are required for a successful outcome, the practice of ammoniating wheat straw has

been used by producers for more than 30 years. Ammoniated wheat straw (AWS) can be used as a primary feedstuff or as a means of “stretching” the feed supply.

How does ammonia improve forage feeding value?

- Increases digestibility 8-15 percent.
- Boosts feed intake 15-20 percent.
- Usually doubles the nitrogen content, which is well utilized by calves and brood cows.

The best time to feed ammoniated wheat straw is before calving, although with adequate supplementation it can be used after calving as well. Cows fed AWS have shown only slight losses in body condition during the last trimester of pregnancy. As might be expected, body condition at the start of winter should also be considered in deciding the level of supplementation, with cows in good condition requiring little supplementation prior to calving and cows in thin condition requiring significant supplementation levels.

Contact your local county extension agent or consult [www.oznet.ksu.edu/pr\\_forage/notebook.htm](http://www.oznet.ksu.edu/pr_forage/notebook.htm) for management tips and guidelines for ammoniating wheat straw. *Caution:* Do not ammoniate forages other than wheat straw or sorghum/corn residues. Toxicity has been reported with wheat hay, sorghum-sudan hays and other high-quality grass hays.

### Wrapping Up

Drought places stress on plants, animals and man alike. Special care and proper land stewardship practices must be strictly followed during the drought period or the harmful effects of drought will be felt well after it is over. Maintaining flexibility and searching for alternatives are required during periods of drought. A calm head, common sense and a sharp pencil will help reduce losses due to the existing situation as we pray for favorable weather conditions.

*One of the primary benefits of conducting a forage resource inventory for your operation now is additional flexibility in preparing for winter feeding.*

*Dale Blasi, Twig Marston*

## Kansas Feedlot Performance and Feed Cost Summary\*

Gerry Kuhl, Extension Feedlot Specialist, Kansas State University

### June 2000 Closeout Information\*\*

Sex/No.	Final Weight	Avg. Days on Feed	Avg. Daily Gain	Feed/Gain (Dry Basis)	% Death Loss	Avg. Cost of Gain/Cwt.	Projected Cost of May-Placed Cattle
Steers/20,662	1,222	144	3.37	5.85	2.01	\$43.20	\$41.80
		(103-179)	(2.84-3.65)	(5.40-6.70)		(39.28-54.14)	(41.00-43.00)
Heifers/19,518	1,119	153	2.96	6.10	1.77	\$45.48	\$43.60
		(123-180)	(2.81-3.20)	(5.68-6.45)		(42.48-49.93)	(42.00-46.00)

Current Feed Inventory Costs: Mid-July Avg. Prices	Range	No. Yards
Corn	\$ 2.25/bu	7
Ground Alfalfa Hay	\$71.26/ton	7

\*Appreciation is expressed to these Kansas feedyards: Brookover Ranch Feed Yard, Decatur County Feed Yard, Fairleigh Feed Yard, Hy-Plains Feed Yard, Kearny County Feeders, Pawnee Valley Feeders, and Supreme Cattle Feeders.

\*\*Closeout figures are the means of individual feed yard monthly averages and include feed, yardage, processing, medication, death loss and usually sold FOB the feedlot with a 4% pencil shrink. Interest charges normally are not included.

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All educational programs and materials available without discrimination on the basis of race, color, religion, national origin, sex, age, or disability.

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