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Strategies for dealing with feed shortages during drought

When dealing with drought conditions like we are in many areas of North America this year, it is helpful to remember that cattle do not require amounts of specific forages or others ingredients, but require nutrients, which can be provided from a multitude of sources.

Success in managing feeding requirements and maintaining productivity during drought is a function of our ability to make the most out of the limited resources that can be produced on farm, and flexibility and success in sources cost-effective alternatives elsewhere. This article shows a number of options and strategies that you may find useful.

1. **Determine your needs:** Use past records to calculate feed requirements for the coming year for your current herd. Compare this is your current inventory plus estimated harvest to the end of the crop year. Be realistic about potential adverse weather effects both for yet-to-be-harvested crops and for winter feeding. Include at least a 10% carry-over for unforeseen requirements or losses, including drought effects on next year's crop growth.
    a. If projected feed inventory is adequate, relax and enjoy the coming year, though it may be less profitable due to high grain prices.
    b. If projected feed inventory will be inadequate, make some difficult decisions, and act, immediately, as follows! Waiting will simply make a bad situation worse.
2. **Consider culling unprofitable dairy cows or early weaning beef calves:** Drought causes feed costs to increase dramatically. Return over feed cost, or profitability, is a function of level of production over maintenance for each animal. Consequently, during drought, it's generally advantageous to cull animals that are producing below breakeven (i.e. below a given level of milk production), and maintain productivity in the remainder of the herd, rather than spread limited feed resources across the whole herd, and thus decrease the overall level of productivity and profitability. For beef cow-calf operations this may mean considering early weaning so that pastures are conserved and low cost grazing is extended for the pregnant cows in the main herd, and the calves are either sold to prevent body weight loss on pasture, or fed separately using alternative feed resources to ensure profitable gain.
3. **Minimize losses during harvest, storage and feeding:** The cheapest feeds are those produced at home, but their value, especially during drought, is what equivalent nutrients cost on the open market (i.e. much more than the cost of production). Furthermore, the feed lost during harvest and storage is generally of the highest nutritional value (e.g. proteins, sugars, silage acids) and often represents twice the value as indicated by weight alone. Consequently, in times of drought it pays to make substantial investment in technologies that preserve feed nutrients during harvest and storage, as well as prevent feed wastage during feeding, such as: harvesting at the optimal stage of maturity, making silage or baleage rather than hay if weather is a problem, tarping or otherwise protecting hay from weather, processing long forage, restricting free-choice feeding (e.g. limiting use of round bale feeders), using a bunker silo facer, using TMR feeding (see below).
4. **Purchase and harvest low yield seed crops as forage:** Drought can provide numerous opportunities for purchasing and salvaging standing grain and protein or oil seed crops as forage. This can include corn, wheat, barley, soybeans, canola, sunflowers etc.. If the crop contains sufficient moisture (e.g. 50-70%), it can be ensiled; if it is dry, it can be baled, and perhaps wrapped using a preservative such as propionic acid if it contains excessive moisture for "green feed", but not enough for silage. Silo bags are excellent for emergency storage for chopped silage and high moisture grains.
5. **Source alternative forages and fibrous feeds:** If needed, complement locally produced forages, by purchasing forages produced elsewhere, and be open to sourcing from further

away than previously considered (e.g. outside of the drought area), as well as feeds you may not previously have considered such as heavy large square bales, grass hay, straw, corn stover, baleage or green-feed, and both wet and dry by-products. The latter can include, but should not be limited to, distillers grains, brewers grains, corn gluten feed, wheat midds or shorts, oat hulls, soy hulls, grain screenings pellets, bread and bakery byproduct, cannery byproducts. For best results contact local feed manufacturers and commodity suppliers to identify sources of supply, and evaluate options based on a cost per nutrient supply basis, as opposed to package size (e.g. per bale or ton). Nutritional specialists, extension agents and consultants have special tools and can be valuable in assisting with "least-cost" evaluations.

6. **Consider limit feeding:** Traditional practices often involve feeding to appetite lower energy diets that just meet nutritional requirements. When forage availability is limited, this may not be practical, as well as expensive. For heifers and dry cows, for both beef and dairy, feeding less of a more concentrated, lower forage ration based on nutritional requirements may be more cost effective, as well as conserves limited forage resources. Doing so safely and effectively usually requires nutritional support to formulate appropriate rations and feeding management (all cattle need to be able to eat at the same time), as well as the use of a TMR mixer.
7. **Make the most of a Jaylor TMR mixer:** The two biggest challenges with the options discussed above is how to 1) minimize feed wastage from selection and sorting, and 2) deal with the variability in composition and quality of alternative feed ingredients sourced during such a period of feed shortage. Both challenges are addressed by using a vertical mixer capable of processing bales and incorporating long forage, including corn stalks, along with multiple sources of alternative feeds, into a TMR. Processing of coarse forages with bunk feeding has been shown to decrease feed wastage by over 30%, as well as increase intake and performance. Use of multiple sources of alternative feeds in a TMR evens out the variation contributed to the total diet by each ingredient, as well as decreases ability to sort. This improves overall performance as well as decreases total feed requirements. When it comes to processing forage and creating rations that resist separation and sorting, no other TMR mixer outperforms the industry leading Jaylor.

Periods of feed shortage, especially of forage, can be particularly trying. But with a bit of imagination and flexibility, using all the resources and technical advice available, it can be remarkable what can be achieved.

Following the drought in Alberta, Canada in 2002, the author developed a limit feeding program for the cow herd of a large beef cow-calf operation using a TMR ration containing salvaged canola silage, barley silage, malt sprouts, corn grain and premix, plus a small amount of barley straw fed separately, that reduced the use of traditional forage (barley silage, haylage and straw) to less than one-third the usual amounts, reduced DM intake by 30-40%, and decreased feed costs by over 30%. Furthermore, there was no detrimental effect on calving, rebreeding, or calf growth, and the impact was such that the producer continued to use the new feeding methods in subsequent years even though crop production had returned to normal. You never know what cost savings are possible until you try.

Jaylor's Dealer Network is eager to assist you in dealing with your feeding challenges arising from the current drought. If we can be of assistance, please contact your nearest Jaylor dealer … "Because Nutrition Matters™.

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