

Management and economic considerations for beef cow-calf producers during challenging markets or adverse weather conditions

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The current COVID-19 situation has driven a decline in the value of calves and feeder cattle. Markets are expected to remain volatile throughout the foreseeable future. As a result, opportunities and strategies to minimize input costs are understandably on the minds of many producers. Managing cattle in the most economical way possible will be critical to the short-term profitability and long-term survival of many operations. Below is an outline of various aspects and strategies that producers should consider to help navigate these challenging times.

Some keys to success that hold true in all situations

- Forages and grazing programs serve as the foundation of most cow-calf operations. Because of the critical role that forages play in their success, sound grazing strategies and forage management practices are vital for operational success.
- Critically evaluate feeding and supplementation decisions to ensure they are cost effective and are consistent with animal health, welfare, reproductive performance, and production goals.
- Input costs should be critically evaluated and prioritized based on their potential return on investment (ROI), and risks associated with input reductions.
- Good record keeping is essential to accurately evaluate the operation and make informed decisions.
 - Some basic spreadsheets designed to aid in tracking financial and production records can be found at <http://beef.tamu.edu>; click on publications, then spreadsheets, and then look for “Record Keeping Examples.”

Areas to pay close attention to during challenging markets or adverse weather conditions

- Critically evaluate annual cow costs and input changes that may affect productivity and profit or loss per acre.
 - Depending on market conditions, input costs, and weather, running fewer cows may result in more profit or less loss for the operation.
 - A spreadsheet that allows producers to build custom budgets to evaluate the impacts of stocking rate and weaning rate percentage can be found at <http://beef.tamu.edu>; click on publications, then spreadsheets, and then look for “Annual Cow Cost Spreadsheet.”
 - When evaluating budgets and making decisions, it is critical to be realistic about inputs, particularly as it relates to identifying appropriate stocking rates in various climates and the impact that pasture fertilization and other management strategies have on stocking rates.

- Make sure the ranch is not overstocked.
 - Being stocked appropriately minimizes the need for supplemental feeding and helps maintain cow body condition, which promotes reproduction and calf growth.
 - If the ranch is overstocked, evaluate economical methods that can be used to reduce stocking rate or increase forage production accordingly.
 - Strategic culling is an excellent way to reduce stocking rates. This strategy will be further discussed in a subsequent section.
 - In areas where forages are expected to respond to fertilizer, focus on fertilization in order to minimize protein and energy supplementation costs.
 - Employ strategic grazing practices and seasonal stocking rate adjustments to optimize forage use.
 - Utilizing insecticide treatments to control forage insects such as grasshoppers, armyworms, bermudagrass stem maggots, and others can be a critical component of sustaining forage production.
 - Routinely scout fields (when conditions are favorable for damage) in areas that have a history of struggling with certain insect problems.
 - Treating these insects is almost always significantly more economical than purchasing outside feedstuffs, and often results in a substantial ROI after accounting for potential untreated forage losses.
 - A spreadsheet for evaluating insecticide cost per acre can be found at <http://beef.tamu.edu>; click on publications, then spreadsheets, and then look for “Herbicide and insecticide cost per acre spreadsheet.”

Specific management and marketing practices that can be utilized to minimize input costs or decrease risk associated with market volatility

- Strategic culling
 - These situations often favor culling females and bulls that are not essential to the operation.
 - At the time of this publication, the cull cow and bull markets remain strong relative to feeder and fed cattle prices.
 - Culling the following animals will help to decrease total herd overhead and operating costs:
 - Females that are open (when they should not be), did not calve, did not claim their calf, or whose calf did not survive
 - Cows that have large teats or pendulous udders, poor hoof conformation, or recurring lameness issues
 - Smooth-mouthed cows, hard-doing cows that do not maintain body condition as well as their herd mates, or cows that are near the end of their productive lifetime
 - Cows with temperament problems

- Cows that have previously had calves that exhibited health problems or poor growth performance, or calves that did not survive through weaning
 - Young cow/calf pairs that have utility for other operations as breeding stock but calved outside of your targeted calving season, if the market is favorable and justifies doing so
 - Bulls that are less successful breeders (low fertility or sire a small portion of calves in multiple-sire pastures), are excessively destructive, have temperament issues, have poor hoof conformation, or have had recurring lameness issues
 - In addition to these considerations, there are a number of other factors to consider when making strategic culling decisions. Additional considerations can be found at <http://beef.tamu.edu>; click on publications, then drought management, and then look for “Destocking Strategies During Drought.”
- Marketing-focused management practices
 - Minimizing market risk
 - Stay up to date on the current market situation, which can inherently change from day to day.
 - Rely on multiple sources for market information, particularly those that present actual market prices, rather than merely changes.
 - Consider seasonal market patterns, which may vary for different sizes and classes of cattle.
 - Evaluate all marketing options.
 - Consider marketing cattle in smaller groups spread over time to mitigate the risk associated with marketing on a single date.
 - Avoid over-conditioning calves.
 - Consider utilizing excess forage resources to hold weaned calves and delay time to marketing.
 - This strategy will only be expected to result in a net benefit in situations where there are enough additional forage resources to continue to support the cowherd, or if justified by additional forage management practices (i.e. fertilization) or economical sources of supplemental feedstuffs.
 - Where applicable, this strategy also provides an ideal opportunity to complete the requirements necessary to make calves eligible for preconditioned calf sales.
 - If you are in a capable position, down markets may be an ideal time to retain replacement heifers.
 - Retaining heifers during a low market may decrease your total investment in replacement females.

- Castration, weaning, and preconditioning
 - These practices have industry-wide benefit and should be considered in all marketing situations, independent of the current market.
- Preventative herd health programs
 - Continue to employ a well-designed vaccination program.
 - Work with your veterinarian to ensure that current vaccination programs are up-to-date and appropriate for your operation and its disease or pathogen risks.
 - Biosecurity
 - Avoid bringing animals onto your operation that present a high risk of exposing the herd to pathogens or diseases to which they are not immune.
 - Regardless of assumed risk level, keep any outside animals that are brought into your operation separate from the herd for at least 14 – 28 days.
 - Parasite control
 - Generic products are often expected to have lower efficacy than pioneer products.
 - Consider the economics of various pioneer products and their respective routes of administration.
- Nutrition and supplementation
 - Base protein and energy supplementation decisions on nutrient requirements and feedstuff value.
 - First and second-calf cows will be most susceptible to the effects of protein and energy deficiencies on reproduction. Mature cows will be most resilient, albeit they can still be affected by deficiencies, particularly when body condition is sacrificed.
 - Spreadsheets designed to assist with making value-based supplementation decisions will soon be available at <http://beef.tamu.edu>; click on publications, then spreadsheets.
 - Forage quality should be used to determine hay purchase and feeding practices.
 - Consider supplementation requirements when making hay purchasing decisions.
 - Consult your nutritionist to determine the proper sample collection procedures, laboratory, and tests for your samples.
 - Two laboratories commonly utilized by many ruminant nutritionists are Cumberland Valley Analytical Services and Dairy One.
 - Not all laboratories offer the necessary tests or utilize the appropriate procedures.
 - In hay-feeding situations, feed the highest quality hay to cattle with the greatest nutrient requirements.

- If available, consider grazing crop residues with animals that have low nutrient requirements, such as dry cows and other maintenance cattle.
 - Supplement as necessary to avoid reductions in body condition or unsatisfactory performance
- Base mineral and vitamin supplementation decisions on forage mineral composition and product value.
 - Forage analysis results and known deficiency, antagonism, or toxicity concerns should be utilized to determine required nutrient levels in a mineral supplement.
 - Keep in mind that water may also contribute to the animal's overall mineral element consumption.
 - Utilize a single complete mineral supplement to complement forage mineral content.
 - Work with your nutritionist to determine the best product options for your operation.
 - It is best to use a single mineral source vs. a combination of tubs, blocks, and loose mineral at the same time
 - Utilizing a combination of sources at the same time may result in providing excesses of several nutrients and/or insufficient levels of others.
 - Monitor mineral supplement consumption, and work with your nutritionist to make any necessary adjustments in order to achieve the recommended level of intake
 - Both over- and under-consumption of a mineral supplement add unnecessary costs and risks
 - Injectable trace mineral sources are expected to yield no additional benefit when used in combination with a sound mineral nutrition program.
 - Vitamin deficiencies are rare in cattle grazing green, actively growing forages. Cattle grazing dormant or harvested forages are at greatest risk of experiencing vitamin deficiencies when un-supplemented.
- Focus on value of gain when making nutritional management decisions for growing cattle.
 - Creep feeding may not result in a positive return on the investment, as cost of additional gain may be greater than value of additional gain.
 - Depending on creep feed composition and duration of feeding, over-conditioning calves may result in discounts at marketing.
 - A spreadsheet for calculating and evaluating value of gain will soon be available at <http://beef.tamu.edu>; click on publications, then spreadsheets.

Other areas that may warrant consideration

- Ensure that loans or other financing are taking advantage of the lowest available interest rate.
 - Refinancing might be beneficial depending on current interest rate and length of financing.
 - Minimize debt when possible and be mindful of debt to asset and debt to income ratios.
- Continued maintenance and upkeep of equipment and critical infrastructure will be important to extend years of operational use and reduce risk of costly repairs or catastrophic failures.
- Weigh options when considering purchasing or selling equipment.
 - Appropriate strategies on equipment purchases will vary from operation to operation.
 - Avoid purchases that will not provide a significant tangible benefit to the operation or cannot be supported by income from the operation.
 - Consider selling equipment that is unnecessary in order to generate capital that can be better used elsewhere.
 - If financially capable, opportunities may exist to take advantage of low interest rates, reduced market volumes, or incentives in order to purchase new equipment.
- Weed and brush control
 - Carefully evaluate how weed and brush control affect forage production and stocking rates.
 - If less acres will be treated than previously planned, focus on treating areas that will have the greatest impact on forage production and yield the greatest ROI.

This outline has provided several specific considerations and management practices that should help to minimize production costs during challenging market conditions. This document has also identified specific areas where a small magnitude of short-term savings would be expected to result in far greater and negative long-term consequences to the operation, and therefore should not be used as means of minimizing costs. It is important to note that this outline should not serve as a comprehensive list, as each operation is unique, and therefore may have other opportunities to decrease costs. In those situations, consult with your decision-support network to weigh the expected cost savings against the potential consequences. Finally, many of the practices outlined in this document should be used to identify management changes that can influence profitability of the operation, as their impacts are expected to hold true regardless of market conditions.