

How to start a small-acreage

Establishing a herd of beef cattle can be a great option for small-acreage landowners to effectively use their land and available forage.

Successfully establishing a small cow-calf herd requires adequate resources and knowledge. Cow-calf operations require year-round management, as well as additional land resources compared to a feeder calf operation.

Getting started

There are several questions to consider before starting a small beef herd:

What resources are available? Cattle will require land, feed, equipment, and year-round management.

Do I have the financial resources to purchase cattle, equipment, feed, health products, etc., required for a beef cattle operation? Creating a budget can help identify production costs associated with managing a small herd of cattle, as well as sources of income. University of Wyoming Extension ranch tools (bit.ly/uwe-ranch-tools) can assist.

What is your background and level of knowledge? Having a basic understanding of animal nutrition, reproduction, health, business principles, and management can help new livestock producers looking to start a small beef herd be successful. There are many

educational opportunities available through the University of Wyoming Extension. Developing a relationship with your local veterinarian, experienced livestock producers, and UW Extension educators can help provide important educational resources as you get started.

The production system developed should be based on the region of the state your property is located, the climate of the property, and available resources. Your management plan should describe the breeding and calving seasons, determine when calves will be weaned, a health program, and a nutrition plan.

Determining how cattle will be marketed is an important part of establishing your operation. Decide if you will market live animals or beef. Many producers market calves after weaning at 6 to 8 months of age. You may choose to market bulls or heifers as yearlings if raising purebred cattle, or you might decide to finish animals (feeding them grain to achieve an adequate weight before harvest) and direct market cattle as freezer beef or retail beef cuts. The Wyoming Food Freedom Act allows the sale of meat processed at state-inspected facilities directly to consumers; however, sales to restaurants, grocery stores, or across state lines requires processing through a USDA-inspected facility.



cow-calf operation



Georgia Evans, shutterstock

Nutritional management

Feed represents the largest expense in beef operations, accounting for 40 to 60 percent of the cost. Nutrient requirements are affected by stage of production including growth, maintenance, gestation, and lactation. Nutritional demands change throughout the year and for different stages of life. A feeding plan should prioritize physiologically demanding stages of production during which cattle have increased nutritional requirements.

Grazing cattle on native forages is typical for beef cattle production systems. Forage quality and availability change throughout the year. Sound management is important to minimize the risk of reduced forage availability, soil erosion, and decreased future productivity of the land. There is a treasure trove of information related to grazing on the Barnyards and Backyards website (www.uwyo.edu/barnbackyard) under the Forage/Pasture/Grazing tab.

As forage becomes dormant, the nutritional quality decreases, and supplemental feed is generally required to maintain animal performance. Animals may require supplemental protein, energy, or both depending on forage quality. Grass and hay samples can be collected and tested for nutrient analysis. If crude protein values are less than 5 to 7 percent, protein supplementation is necessary. If forage availability is limited (previous grazing or snow cover) or energy content is low, hay or a high energy supplement can replace forage.

Body condition scoring (BCS) can assess the level of fat and muscle an animal has. Body condition scoring in beef cattle uses a scale of 1 to 9, with 1 representing emaciation and 9 representing excessive fat. Evaluating BCS before calving, the start of the breeding season, and at weaning will ensure cattle have adequate energy reserves for lactation, reproduction, and feeding/supplementation decisions. For information on how to BCS beef cattle, refer to bit.ly/3StepBCS.

Reproductive management and health

Establishing a defined breeding season will help improve efficiency and management of the cow herd and marketability of calves. A limited breeding season (60 to 75 days) will result in a condensed calving season

and more uniform calf crop. Cattle will cycle throughout the year, allowing breeding and calving to be planned for the time of year you desire.

On average, cattle have a gestation length of approximately 283 days. Factors to consider when determining a calving season include weather conditions, matching feed resources to cow nutrient requirements,

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Resource and equipment needs

The proper equipment and set up can help raise a productive beef herd. Most equipment can be found at many local farm and ranch retailers. Here is a list of equipment considerations:

- Facilities are needed before cattle are purchased and brought home.
- Pastures or pens where cattle will be housed need secure fencing. Local and county zoning, and homeowner association and easement regulations should be checked before animals are acquired or facilities built.
- Cattle need access to shelter or windbreaks to escape harsh winter conditions. Cold temperatures, wind chill, and winter weather can result in cold stress, increasing cattle energy and feed requirements.
- An adequate supply of water is essential. Water quality and intake can directly impact feed intake and animal performance. While many different styles are available for supplying water (buckets, troughs, automatic watering systems), it must be clean, fresh, and available at all times.
- Handling equipment is critical to work animals more efficiently and safely. A pen, alley, lead-up, and chute will enable animals to be handled at important management time points such as weaning and breeding. A head catch and/or squeeze chute allows animals to be properly restrained during routine care, ensuring safety for the animal and manager. In addition, access to a truck and trailer (rent, borrow, or own) is necessary to transport cattle.

cattle markets, and labor availability. Ensuring there is adequate labor available during calving season can be important for producers who work full-time. Many operations calve in the spring, allowing them to take advantage of increased forage quality during the spring and summer when cows have their highest nutrient requirements due to peak lactation.

For breeding, producers have the option of using bulls or artificial insemination (AI). Options for obtaining a quality bull include purchasing a bull from a seedstock producer, buying a bull in cooperation with another producer, or leasing a bull from a breeder or fellow producer. Leasing or co-owning a bull increases the risk of disease, so bulls should be tested by a veterinarian before use. Buying bulls can be expensive, and managing bulls separately in the off-season can

be challenging in small beef herds and may not be feasible in some situations.

Estrus synchronization and AI can be an effective tool for small beef herds, allowing for superior genetics to be utilized without the expense of managing a bull year-round. Beef cattle have a 21-day estrus cycle that can be manipulated with estrus synchronization to allow for effective AI. Estrus synchronization protocols are available for beef heifers and cows. Information on estrus synchronization and AI can be found at <https://beefrepro.org/arsbc>.

Development of a comprehensive health program is important for cattle of all ages and starts with prevention of disease. This is especially important in young cattle to develop a good immune system. Vaccination against common diseases, including

respiratory and clostridial diseases, should begin in young calves and follow with booster vaccinations of cattle each year. A health program should also include control of internal and external parasites. Work with your local veterinarian to develop a health program.

Building a small beef herd requires time, resources, and knowledge. Before starting your beef herd, consider seeking advice from extension educators or experienced beef producers in your area.

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