

Cattle Businesses: Which One is Right for Me?

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There are many sectors of the cattle business including commercial cow-calf, stocker cattle, backgrounding, finishing, seedstock, heifer development and stocker cows. The many different sectors of the cattle business form an elaborate system with various marketing decisions and opportunities. The elaborate cattle production system coupled with beef marketing results in another layer of complexity. Given the breadth of knowledge necessary to grow and develop an animal through the entire production cycle from birth to harvest, many cattle producers choose to focus on a smaller portion of the full cycle, which leads to the familiar question of which sector of the business is the best fit for a specific producer.

Many cattle producers, as well as new and beginning cattle producers, have questions and attempt to evaluate each sector to determine which production stage(s) they should undertake as a producer. Historically, cattle producers may only participate in one or two sectors of the cattle business. However, there are some cattle producers that participate in several sectors with the hope of capturing more total value from the animals produced. For instance, with the growth in demand for local foods, some producers participate in the entire production system from breeding cows, then raising the offspring to a finished weight, and then marketing the beef. The determining factors of which sectors to participate in is largely dependent on farm resources, personal preference, operational goals and marketing opportunities.

Given that new producers are entering the business, and established producers are evaluating different opportunities, it is important to understand the different sectors. Thus, the objective of this publication is to present some of the most common sectors of the cattle business that a cattle producer can participate in, outline potential resources needed to participate in that sector, and discuss the opportunities and challenges associated with the sector. The sectors of the production system to be discussed include commercial cow-calf, stocker cattle/backgrounding, finishing, seedstock and heifer development. Readers may find the UT Extension publication "[Cattle and Beef Market Definitions W 801](#)" to be helpful (Griffith, 2019).

Commercial Cow-Calf

Commercial cow-calf production involves managing and breeding females to produce calves that will enter the cattle finishing sector or return to the breeding herd for reproductive purposes. Cow-calf production is the most heavily participated sector and is represented in every region of the United States. Nearly 82.6 percent of cattle operations in the United States participate in the cow-calf sector, with the average herd size being 43 cows compared to 88.4 percent of Tennessee cattle operations participating in cow-calf production (USDA-NASS, 2019). Seventy nine percent of cow-calf operations in the United States and 75.4 percent of Tennessee operations have fewer than 50 cows (USDA-NASS, 2019). The majority of cow-calf producers breed females and then market calves at time of weaning when calves are between six and eight months of age. However, there are some commercial cow-calf operations that will precondition (i.e. wean, vaccinate and bunk break) calves prior to marketing cattle while others may background and grow cattle to the yearling stage prior to marketing or developing their own heifers to enter the breeding herd. Additionally, some cow-calf operations may maintain ownership of cattle through the finishing phase of production either in a commercial feedlot or at home.

Many cattle producers enter commercial cow-calf production because it may be considered to be less management intensive than other sectors of the business. However, cow-calf production can require extensive management depending on the goals and aspirations of the producer. Another reason for entering commercial cow-calf production is being able to manage breeding and genetics that will influence the entire life cycle of the animal. Furthermore, some cattle producers choose to participate in commercial cow-calf production, because it can be managed in many cases while maintaining an alternative career.

Cow-calf production can be pasture based, which is the most common, but it can also take the form of a confined animal feeding operation. Either way, cow-calf production requires a large initial investment when purchasing breeding animals, owning or renting pasture or confinement facilities, and purchasing necessary equipment and inputs. Additionally, it takes at least 15-17 months from the decision to breed a female until calf marketing, which is when revenue is generated. Thus, cow-calf production has a longer production horizon than other sectors of the business. Despite these challenges, cow-calf production does have the advantage of being able to manage animals from the time of birth through whatever stage of production a producer decides to market an animal.

More specifically as it relates to the necessary resources, a common stocking rate in Tennessee is 1.5 to 2.0 acres per cow-calf pair. Thus, a 30-cow herd would require approximately 60 acres of pasture with additional acreage for hay production if hay is not purchased. Additionally, most operations will need facilities to provide regular herd health protocols, which at a minimum will include a catch pen, crowding tub, working alley and head catch. Many operations will also choose to own tractors and implements such as hay equipment, rotary mower and a tool to apply herbicides.

Stocker/Backgrounder

The stocker/backgrounding phase is generally thought to be the second production phase for traditional commercial cattle production following the cow-calf phase. Stocker and backgrounding operations typically purchase calves weighing between 400 and 700 pounds and grow those calves either on a forage and/or grain-based diet for 60 to 200 days to prepare them to enter the feedlot at a heavier weight. This phase of production typically operates off the margin between purchase cost of the calves and the revenue generated from selling the cattle.

One of the primary challenges of the stocker/backgrounding phase is health management. Oftentimes, stocker/backgrounding operations purchase cattle dealing with stress from weaning, being hauled, sorted and exposed to a new environment, which increases the animals' susceptibility to sickness. Thus, this phase of production requires a significant quantity of time observing cattle for sickness and administering treatment to those suffering from sickness. This phase of production typically requires increased management compared to cow-calf production as animals must be acclimated to a new environment and managed to grow efficiently. One advantage over cow-calf production is that producers only have to manage health and growth of calves and do not have to be concerned with reproduction or managing two classes of cattle (i.e., cows, calves).

Another advantage of the stocker/backgrounding phase is that it offers stocking rate flexibility. Producers can choose to purchase more cattle during times of excess forage or low feed prices and can purchase fewer cattle during times of limited forage or high feed prices. Similarly, producers can adjust the number of cattle purchased based on calf purchase price or expected margin. In Tennessee, a common stocking rate for permanent pasture would be about 600 pounds of animal per acre. Thus, producers have to consider the quantity of pasture available when purchasing animals and account for those animals growing. The stocking rate in such operations can be highly variable and is largely dependent on the forage species being grazed and the quantity of other feedstuffs being fed.

It is necessary for stocker/backgrounder operations to have good working facilities with an efficient way to restrain cattle when providing the herd health protocol upon animal arrival and to treat animals that become sick. It is also necessary to have good fences as many of these animals will be extremely mobile upon arrival. Lastly, producers considering this sector must have adequate time to observe cattle to identify sickness and treat cattle suffering from various ailments.

Finishing

Finishing cattle or the feedlot phase is typically the last phase prior to harvesting animals and entering the beef market. Finishing cattle is the phase of production in which the animal is grown to full maturity either with a concentrate diet or by grass finishing depending on the intended market. Most animals in the United States are finished on a grain-based diet in feedlots located in the Midwest or Great Plains regions. However, a few cattle are finished throughout each region of the United States.

The finishing phase of production generally requires a sizable investment in feeding infrastructure which may include feed bunks, water systems, feed mill, feeding equipment, pen maintenance equipment and manure disposal. Additionally, feedlots typically have a large investment in purchasing cattle, feed and energy (i.e. electricity and fuel) to operate equipment and machines. Thus, a large quantity of capital or borrowed capital may be necessary to operate a commercial feedlot. An advantage of the finishing phase is that animals are confined and are more accessible when health issues arise. Another advantage for commercial feedlots is that many of them are located in regions with a large quantity of available feed, which allows them to capitalize on size and scale efficiencies that may not be as achievable in other phases of production. Yet another advantage of finishing cattle is that the feedlot can provide additional management to cattle in order to achieve the animal's full genetic potential and capitalize on good management from the previous owners of the cattle.

With the growth in the local food movement, many cow-calf and stocker/backgrounding producers have entered the finishing phase of production. Local finishing operations tend to be much smaller and tend to market animals individually as opposed to by the pen like a commercial feedlot. Small local finishers often face higher feed costs than commercial cattle feeders and thus must receive a higher price for their cattle to achieve a profit. Regardless of the operation size, manure management is necessary as well as having heavy use areas, which are additional costs.

The finishing phase is similar to the stocker phase in that they operate on the margin between purchasing and selling cattle. These margins can be extremely variable depending on cattle prices and feed prices. However, many feedlots have the capacity to manage both input and output price risk due to size and scale efficiencies. The management of these risks smooths returns (i.e., removes the extreme high and low returns) over the long-term.

Seedstock

The registered seedstock business is the base of all physical and genetic characteristics in cattle production. Most seedstock operations spend considerable time mating males and females in order to produce offspring with superior genetics (i.e., expected progeny differences, EPDs) compared to the dam and sire and desirable physical attributes (i.e., feet, conformation, udder, etc.). Seedstock producers then market animals to commercial cow-calf producers and other seedstock producers that desire instituting those specific genetics and physical traits.

Seedstock producers spend a significant portion of time collecting and recording information on animals that is used in calculating expected progeny differences (EPDs). Additionally, seedstock producers use technologies such as genomic testing to increase the accuracy of EPDs, which provides potential buyers of the animal more certainty in how the animal will perform and pass on certain traits to their offspring. The collection and recording of data require attention to detail and significant managerial time. However, this is what buyers of such animals have come to expect and desire so they can make better decisions when mating males and females in their respective herds.

Getting started in the seedstock business can require a large investment as animals with the desired physical and genetic attributes tend to be expensive. However, there are multiple ways to get started in the seedstock business. The most traditional way is to purchase registered seedstock and then begin mating animals to produce offspring with the desired attributes. A second option is to purchase registered females and then use artificial insemination from sires deemed to be superior and then produce the desired offspring. A third alternative would be to use non-registered cattle as recipient cows and insert a fertilized embryo into the recipient cow that comes from a registered dam and sire. Each of these alternatives have different pros and cons and should be considered by producers entering the business.

Heifer Development

Heifer development is often a segment of the production system that producers operate in tandem with cow-calf production. This generally takes the form of a cow-calf producer retaining females after weaning, growing them until the appropriate age of breeding, breeding them and then placing them in the cow herd or selling bred heifers. However, there are also cattle producers who specialize in developing young females and then breeding the heifers before marketing them as bred heifers. The beginning of heifer development is similar to stocker/backgrounding systems in which animals are purchased and then the producer addresses health conditions and manages nutrition in such a manner to prepare the young females for breeding.

Heifer development and breeding can require significant capital to purchase the animals, manage health and nutrition and finally breed the animals. Additionally, if heifers are purchased as freshly weaned heifers and then marketed when five or more months confirmed pregnant then this portion of the production cycle may last nearly a full year. A heifer developer may shorten this portion of the cycle by purchasing more mature heifers that are ready to breed at time of purchase, which may allow for more groups of animals to be purchased and bred.

Similar to the stocker/backgrounding sector, heifer developers can purchase the number of animals each year that will most efficiently utilize forage, feed and capital resources. Such a system allows a producer to fit purchasing and selling into their schedule and not require constant oversight. The heifer development business can be a high margin business, but it is influenced by the cattle cycle and outside forces as are all sectors of the cattle business.

Conclusion

There are several stages of cattle production, and most cattle producers do not actively participate in all of them. However, there are new producers entering the cattle industry and established producers evaluating new opportunities in the business. The objective of this publication was to provide a brief overview of the major production stages that producers may evaluate when considering cattle production. This publication is not meant to be an exhaustive list of sectors to participate in, but rather a starting point to evaluate potential directions and provide a few of the major production challenges and benefits to each sector.

Regardless of the sector entered, it is necessary to have a well-defined plan when initiating production. This may include a written business plan, which may be required when obtaining a loan, an enterprise budget and a marketing plan. Many universities have programs that can assist producers in getting started in cattle production. The University of Tennessee conducts programs such as the Master Beef Producer Program and Master Farm Manager Program to prepare individuals to produce and manage a cattle operation. UT also develops an annual budget for cow-calf and stocker production that can be helpful in planning. Readers intending to enter cattle production are encouraged to reach out to county Extension personnel to locate available resources.

References

Griffith, A.P. 2019. Cattle and Beef Market Definitions. University of Tennessee Extension Publication W 801.

United States Department of Agriculture – National Agricultural Statistics Service (USDA-NASS). 2019. Census of Agriculture, 2017. Online: <https://www.nass.usda.gov/Publications/AgCensus/2017/index.php>.



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