Basic Ranching Investment Costs

A Farm Planning/Decision Tool for Louisiana Cow/Calf Producers

Thinking about starting a cattle ranch generally results in questions about the basic investment costs associated with cattle production. Investment costs vary widely by factors such as geographic location, size of desired operation and the point of time in the cattle cycle (for example, peak, trough, upturn or downturn).

Table 1 provides a basic listing of items commonly associated with startup costs of a ranch. Some of the items listed in the bottom portion of the table are not practical for a small ranch, but are included for illustrative purposes.

Table 1. Initial Investment Costs Associated with Purchase of One Cow

Item	Unit	Quantity	Price per Unit	Total Cost
Land	Acres	2.00	$2,500.00	$5,000.00
Bred Cow	Head	1.00	$2,200.00	$2,200.00
Bull	Head	1.00	$4,000.00	$4,000.00
Five-Strand Perimeter Fencing	Mile	0.32	$7,814.40	$2,500.61
Pasture Establishment	Acres	2.00	$229.25	$458.50
Feed Bunk	Each	1.00	$105.00	$105.00
Hay Rack	Each	1.00	$125.00	$125.00
Squeeze Chute	Each	1.00	$1,905.00	$1,905.00
Corral	Each	1.00	$2,911.00	$2,911.00
Water Tank and Pump	Each	1.00	$1,000.00	$1,000.00
1 Ton Truck	Each	1.00	$35,000.00	$35,000.00
Stock Trailer	Each	1.00	$7,300.00	$7,300.00
75 Horsepower Tractor	Each	1.00	$43,400.00	$43,400.00
Hay Fork	Each	1.00	$382.00	$382.00
Rotary Mower (13 Foot)	Each	1.00	$12,600.00	$12,600.00
Barn	Each	1.00	$10,200.00	$10,200.00
Total Initial Investment				**$129,087.11**

The general rule of thumb in Louisiana is one cow needs 2 acres of pasture. For each additional cow you want to add, you will need to increase the investment cost by $5,000 for 2 additional acres of land and $458.50 for pasture establishment. The land cost is from a survey of Louisiana producers conducted by the U.S. Department of Agriculture's National Agricultural Statistics Service. Pasture establishment costs are estimated each year by the LSU AgCenter and reflect establishment of Bermuda grass pastures that will last approximately 10 years.

Fencing costs are heavily dependent on how many acres are in the operation, which itself is dependent on the number of cows. The estimate for fencing includes posts, wire, clips and labor and is approximately $1.48 per foot. The lengths of a square that was 1 acre in size would need approximately 835 feet (0.16 miles) of fencing.

The number of bulls, feed bunks and hay racks also are dependent upon the number of cows in the herd. One bull can effectively service 25 to 35 cows, while you likely will need an additional feed bunk and hay rack for each additional 10 cows that you add to your operation. One squeeze chute and corral should be enough for most cattle operations, although additional water tanks and pumps may be necessary for large operations.

The cost of a truck and trailer, tractor, implements and barn are included to show how quickly the investment costs increase by purchasing this equipment. How large should the operation be before purchasing this equipment? It would be hard to economically justify purchasing this equipment until at least 25 cows, or possibly more, were owned.

The illustrated investment costs provide a guide to what it takes to become a cattle producer. Most of the time, producers will secure loans to obtain many of these items. The length of the loan will vary by the item purchased. Livestock, equipment and feed bunks typically have a loan length of five to seven years, while land purchases will have a

20- to 30-year loan. The interest rate for each loan will vary based on creditworthiness, the size of the down payment and other factors.

Once producers obtain the items listed, they typically don't think about the effects of owning these items, especially once the loan has been paid off. Most of these items eventually will wear out and will need to be replaced. Realizing this fact and budgeting costs appropriately will allow the producer to build up funds that will make purchase of replacement items easier in the future. This typically means the producer can have a larger down payment for the needed equipment and may result in a more favorable interest rate if a loan is required. This brings down the borrowing cost for the producer over the life of any loan, meaning more money is available for family living expenses or reinvestment into the cattle operation.

Why aren't items such as hay balers and other implements included? Ownership of these types of equipment is expensive from an operating/variable cost perspective (that is, costs that occur each year) as well as the costs to purchase these items. The larger your operation is, the more it makes sense to purchase these items, however. It typically is cheaper to have someone custom bale hay or engage in other work that requires specialized equipment when your operation is small. It may not be as convenient as owning and operating that equipment, but a 25 head cattle operation will greatly increase its overhead costs by owning equipment it uses infrequently. Direct operating/variable costs may be slightly higher through hiring someone to carry out the work that you do not have the equipment for. The major trade-off between purchase of specialized equipment and hiring someone with that equipment is convenience.

What about variable expenses or costs that will occur each year such as fertilization, medication and spraying? Those aren't included in these estimates, because each operation is different and many of those expenses depend on how many cows are in the operation. The LSU AgCenter puts out enterprise budgets that show these costs and are well worth your time to analyze and understand. Per cow operating (variable) expenses each year normally are at least $500. Ownership costs of the items listed above are additional expenses that must be paid each year, regardless of whether they are thought of as loan repayments (principal and interest) or depreciation.

Renting or leasing land and equipment also is a possibility for those who are interested in getting into the cattle industry. This can save significantly on the associated investment and ownership/overhead costs faced by producers. Availability of specific equipment when it's needed could be a drawback of this strategy, however. Also, renting land could be problematic due to availability and landowners deciding to sell the land. Questions about who is responsible for improvements and compensation for those improvements if the rental agreement should end need to be addressed with the landowner prior to entering any rental agreement. These items should be included in a written rental agreement.

What else needs to be considered? The answer depends on whether you see this as a part-time or full-time operation. If it's a part-time job, you likely will generate income for family living expenses, insurance and retirement through your work. A full-time rancher will need to factor these items into the operation's costs of production. In either case, awareness that revenues don't occur throughout the year, as is the case with expenses, should be recognized. As a result, proper budgeting (a cash flow analysis) to be aware of when costs occur (and how much they are) relative to revenues should be determined.

Table 2 provides a breakdown of how the investment costs vary with the number of cows in the operation. Total investment per cow also is included to illustrate how investment costs per head decrease as more animals are added since most of the items purchased can be used for multiple animals without any decrease in the item's effectiveness. Purchase of a truck and trailer is assumed to occur for a 20 cow operation with tractor and associated implements occurring at 30 cows. The number of head when these investments occur can be changed, but they are provided in this example for illustrative purposes.

Table 2. Total Expected Investment Cost By Herd Size and Per Cow

Number of Cows	1	10	20	30	40	50
Number of Bulls	**1**	**1**	**1**	**1**	**2**	**2**
Land	$5,000.00	$50,000.00	$100,000.00	$150,000.00	$200,000.00	$250,000.00
Bred Cow	$2,200.00	$22,000.00	$44,000.00	$66,000.00	$88,000.00	$110,000.00
Bull	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$8,000.00	$8,000.00
Five-Strand Perimeter Fencing	$2,500.61	$25,006.08	$50,012.16	$75,018.24	$100,024.32	$125,030.40
Pasture Establishment	$458.50	$4,585.00	$9,170.00	$13,755.00	$18,340.00	$22,925.00
Feed Bunk	$105.00	$105.00	$210.00	$315.00	$420.00	$525.00
Hay Rack	$125.00	$125.00	$250.00	$375.00	$500.00	$625.00
Squeeze Chute	$1,905.00	$1,905.00	$1,905.00	$1,905.00	$1,905.00	$1,905.00
Corral	$2,911.00	$2,911.00	$2,911.00	$2,911.00	$2,911.00	$2,911.00
Water Tank and Pump	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00
1 Ton Truck	$0.00	$0.00	$35,000.00	$35,000.00	$35,000.00	$35,000.00
Stock Trailer	$0.00	$0.00	$7,300.00	$7,300.00	$7,300.00	$7,300.00
75 Horsepower Tractor	$0.00	$0.00	$0.00	$43,400.00	$43,400.00	$43,400.00
Hay Fork	$0.00	$0.00	$0.00	$382.00	$382.00	$382.00
Rotary Mower (13 Foot)	$0.00	$0.00	$0.00	$12,600.00	$12,600.00	$12,600.00
Barn	$0.00	$0.00	$10,200.00	$10,200.00	$10,200.00	$10,200.00
Total Investment	**$20,205.11**	**$111,637.08**	**$265,958.16**	**$424,161.24**	**$529,982.32**	**$631,803.40**
Total Investment Per cow	**$20,205.11**	**$11,163.71**	**$13,297.91**	**$14,138.71**	**$13,249.56**	**$12,636.07**

Table 2. Continued

Number of Cows	60	70	80	90	100
Number of Bulls	**2**	**3**	**3**	**3**	**4**
Land	$300,000.00	$350,000.00	$400,000.00	$450,000.00	$500,000.00
Bred Cow	$132,000.00	$154,000.00	$176,000.00	$198,000.00	$220,000.00
Bull	$8,000.00	$12,000.00	$12,000.00	$12,000.00	$16,000.00
Five-Strand Perimeter Fencing	$150,036.48	$175,042.56	$200,048.64	$225,054.72	$250,060.80
Pasture Establishment	$27,510.00	$32,095.00	$36,680.00	$41,265.00	$45,850.00
Feed Bunk	$630.00	$735.00	$840.00	$945.00	$1,050.00
Hay Rack	$750.00	$875.00	$1,000.00	$1,125.00	$1,250.00
Squeeze Chute	$1,905.00	$1,905.00	$1,905.00	$1,905.00	$1,905.00
Corral	$2,911.00	$2,911.00	$2,911.00	$2,911.00	$2,911.00
Water Tank and Pump	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00
1 Ton Truck	$35,000.00	$35,000.00	$35,000.00	$35,000.00	$35,000.00
Stock Trailer	$7,300.00	$7,300.00	$7,300.00	$7,300.00	$7,300.00
75 Horsepower Tractor	$43,400.00	$43,400.00	$43,400.00	$43,400.00	$43,400.00
Hay Fork	$382.00	$382.00	$382.00	$382.00	$382.00
Rotary Mower (13 Foot)	$12,600.00	$12,600.00	$12,600.00	$12,600.00	$12,600.00
Barn	$10,200.00	$10,200.00	$10,200.00	$10,200.00	$10,200.00
Total Investment	**$733,624.48**	**$839,445.56**	**$941,266.64**	**$1,043,087.72**	**$1,148,908.80**
Total Investment Per cow	**$12,227.07**	**$11,992.08**	**$11,765.83**	**$11,589.86**	**$11,489.09**

For More Information:

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