

Winter Options for Beef Cattle in Louisiana

At present, southwest and south central Louisiana beef cattle producers have endured a devastating hit from Hurricane Rita. The Louisiana Ag Summary suggests that over 175,000 cows reside in the parishes that were hardest hit. Saltwater intrusion coupled with fence damage has greatly limited the options for wintering beef cattle in these areas.

Although this article is written with the south LA producer in mind, economic data should apply to all areas of the state. Primarily, producers have four options when deciding how to winter beef cows through this winter: 1) ryegrass; 2) dry lot with protein supplement and hay; 3) paying other producers to maintain cattle through the winter and 4) liquidate the existing cowherd.

Ryegrass, a cool season annual, has been a mainstay for south Louisiana beef producers. Two options exist in regards to ryegrass establishment: 1) seedbed preparation or 2) sod seeding. Seedbed preparation this far into the fall will not be a viable option thus sod-seeded will be the only useful sowing method. Estimated costs of wintering cattle including ryegrass establishment and hay supplementation are outlined in Table 1.

Table 1. Estimated Costs Per Acre of Wintering Cattle, Sod Seeded Ryegrass with Hay Supplementation^A

Item	Units	Cost Per Unit	Quantity Used Per Acre	Cost Per Acre
Fertilizer				
Actual Nitrogen ^B	Pounds of N	\$0.37	120	\$44.40
Phosphate/Potash ^C	Pounds	\$0.125	150	\$18.75
Seed				
Gulf Ryegrass ^D	Pounds	\$0.45	35	\$15.75
Equipment Costs ^E	Acre	\$7.10	1	\$7.10
Hay ^F	Round Bale	\$40	1	\$40.00
Total Estimated Cost				\$126.00

^A The costs provided do not include labor costs, operating interest expense, or fixed costs such as interest and depreciation.

^B The price of nitrogen was based on a Urea (45% N) price of \$335 per ton.

^C The price of phosphate/potash cost is based on a cost of \$250.00 per ton.

^D The price of ryegrass seed is based on a cost of \$22.50 per 50 pound bag.

^E The equipment costs include estimates for diesel costs and repair and maintenance associated with assumed field activities. The activities assumed include 1) a light disking or scratching of the soil service, 2) two fertilizer applications, and 3) broadcast seeding. Diesel was assumed at \$3.00 per gallon.

^F One bale of hay per acre was assumed to provide the nutrition necessary to sustain cattle until the ryegrass pasture is ready to be grazed.

The total costs of wintering cattle with ryegrass pasture and hay supplementation was estimated at \$126.00 per acre. While stocking rates tend to vary on ryegrass pasture, for this example, it was assumed that continuous grazing would maintain 0.5 cow-calf pairs per acre over a 120 day grazing season. Given this assumed stocking rate, the per acre costs of \$126.00 translates into a **cost per cow-calf pair of \$252.00**.¹

¹ To translate the cost per acre to the cost per animal unit, the per acre cost is divided by the appropriate stocking rate. In this example, the per acre cost of \$126.00 is divided by the cow-calf pair stocking ratio of 0.5. This results in the estimate of \$252.00 per cow-calf pair ($\$126.00 \div 0.5 = \252.00).

This, therefore, translates into a cost per day per cow-calf pair of \$2.10. This cost is without question too high when looking to sustain cows through this winter.

Another option is to only allow cows to graze a portion of the day. This method uses ryegrass as a supplement versus continuous pasture. We will still graze the cows for 120 days, however in this scenario, each cow-calf pair is only allowed to graze for 2 hours/day. Cattle can be placed in a dry lot or pasture, and supplied hay for the remainder of the period. This method will definitely cheapen your costs per cow-calf pair. Please keep in mind, however, the estimated costs provided in Table 1 were limited to major expense items associated with establishment of ryegrass pasture. They do not include labor costs, interest expense on operating capital, and fixed costs such as depreciation.²

As with any nutrition program there is risk that must be assumed. Ryegrass establishment could be affected by blast, army worms and non suitable growing temperatures. Secondly, the LSU AgCenter has received many calls in regards to establishing ryegrass on saltwater soaked pastures. Few grass species are tolerant to high concentrations of salt in water and the soil. Bermudagrass is highly tolerant; however, annual ryegrass is more susceptible. Specifically, higher concentrations of salt interfere with seed germination and water uptake. Establishing ryegrass on pastures incurring saltwater are not recommended.³

The second option to consider is feeding hay and a protein supplement. This option typically requires more labor and requires feeders but this year may be less expensive relative to ryegrass establishment. Three different feeding options are shown in Table 2 for a 1000 lb cow consuming 20 lbs dry matter/day.

Table 2. Estimated Hay and Supplement Costs For Maintaining a 1000 lb. for 120 Days Under Various Feeding Options.

	Amount Fed Per Day	Total Amount Fed	Feed Cost Per Ton	Total Cost Per Head
	----- Pounds -----		----- Dollars -----	
Scenario 1				
Soybean Hulls	10	1,200	\$150.00	\$90.00
Hay	10	1,200	\$53.00	\$32.00
Totals- Scenario 1	20	2,400		\$122.00
Scenario 2				
2.5:2.5:1 (Corn: Cottonseed Meal: Salt)	6	720	\$200.00	\$72.00
Hay	14	1,680	\$53.00	\$45.00
Totals - Scenario 2	20	2,400		\$117.00
Scenario 3				
Protein Tub (20%)	1	120	\$712.00	\$43.00
Hay	19	2,280	\$53.00	\$60.00
Totals - Scenario 3	20	2,400		\$103.00

² Additional information on costs of production can be found in the LSU AgCenter's 2005 Beef, Dairy and Forage Production Costs publication located at: http://www.lsuagcenter.com/en/crops_livestock/livestock/beef_cattle/marketing_economics_business/

³ Additional information on saltwater implications to forage production can be found in the article by Dr. Ed Twidwell (Forage Specialist, LSU AgCenter) in the "Forage Clippings" section of the November issue of the Louisiana Cattlemen's magazine.

Typically cows in early gestation have a protein requirement of 1 pound of protein per day and 10 pounds of energy per day. As cows reach parturition and enter early lactation, these requirements will increase 50% thus requiring 1.5 and 15 pounds of protein and energy, respectively. In this example, three supplements are used. Soybean hull pellets are a highly digestible fibrous supplement containing 12% protein. The 2.5:2.5:1 supplement is composed of corn, cottonseed meal and salt. Finally the protein tub contains 20% protein. Hay costs are calculated by assuming a cost of \$40.00 per 1,500 pound round bale or roughly \$53 per ton. For mathematical purposes we are assuming a 1000 lb cow consumes 20 lbs dry matter daily. Consumption will rise as the cow approaches parturition and enters lactation, thus use this table as a basis for calculation.

Table 3. Advantages and Disadvantages of Alternative Feeding Supplements

Supplement	Advantages	Disadvantages
Soybean Hulls	1) Inexpensive 2) "Dummy Proof" 3) Won't interfere with forage intake	1) Requires feeders 2) Increased labor 3) Difficult to limit
2.5:2.5:1	1) Easy to feed 2) Built in limiter	1) Cattle may over-consume 2) Water requirement increases
Protein Tub (20%)	1) Easy to feed	1) High cost per unit of protein supplied 2) Must have high quality hay to assure nutritional requirements are met

Table 3 outlines the positives and negatives of the three feeding scenarios. Soybean hulls and the corn-cottonseed meal supplement are the better options when feeding hay. Soybean hulls are inexpensive relative to the amount of nutrition supplied and in the words of Dr. David Sanson (Associate Professor, Animal Science, LSU AgCenter) are "Dummy Proof". In other words, few digestive problems ever arise when feeding soybean hull pellets. Soybean hull pellets do require feeders and are more difficult to limit. Further, cattle should consume adequate amounts of hay while being fed this commodity as well.

The corn-cottonseed meal supplement is limited by salt and can be dumped into feed troughs or large mineral feeders. Cattle will need to consume more hay while using this supplement to meet requirements. Over time cattle may be more apt to eat through the limiter as they become accustomed to salt which will increase daily supplement costs. Be sure to always have a good water source while feeding this supplement.

The final alternative supplement is the protein tubs. While the protein tubs are easy to use and appear to provide the least cost method of supplementing cattle, this method only supplies 0.20 lbs of protein a day, well below the cow's requirement. Hay supplementation most likely **will not** be able to supply the remaining protein and energy necessary to meet the cow's requirement, unless the hay is of very high quality. In actuality, in terms of cost per unit of protein supplied, the protein tubs are generally the most expensive option.

Not only are ryegrass and protein supplementation options to winter cattle, but pay for maintenance scenarios should be contemplated as well. Many producers in north Louisiana, Mississippi and Alabama graze calves on ryegrass. However, due to high procurement prices, producers are not purchasing calves and are looking for other options. Thus producers may be willing to agree to a pay for maintenance agreement. This would be a charge assessed for the daily upkeep of the cows. Typically prices should range from \$1.00 to \$ 2.00/day. However, trucking will play a large part in pay for maintenance scenarios. A 500 mile haul to and from a location for 40 cows could be a \$3,000.00 charge or \$75.00/head. In this example if a producer pays \$1.50/hd/day for maintenance across a 120 day period the total cost including trucking is \$255.00. This scenario can also get more complicated as you will be hauling pairs back to your ranch versus cows only.

The final option to analyze is liquidation. Many producers will be faced with this decision because of the cost to replace fence, buildings and equipment. One potential issue to consider when liquidating cattle is current market conditions. Will the current market pay fair value for the cattle? Early indications suggest that liquidated cattle due to the hurricanes have been selling at discounted price levels. Two primary reasons for discounted prices have surfaced: 1) The influx of cattle to local markets have simply over-supplied those markets forcing prices downward, and 2) cattle are being discounted (fairly and unfairly) if they showed any signs of being stressed during the storms. While these market conditions are likely to be temporary, producers should keep these in mind when thinking about liquidating herds.

Although liquidation seems disheartening, there are some tax benefits in regards to weather-related sales of livestock. Dr. Parman Green, Ag Economist, University of Missouri, recently published information relating to liquidating livestock due to the weather. There are two tax provisions that could influence your decision. The first provision is Code Section 451(e) which addresses situations when a producer sells more livestock than they normally would have because of a weather related condition. This provision allows the producer to postpone recognizing the income resulting from the disposal for one year. The following conditions must be met: your principal trade or business is farming; you use the cash method of accounting; you can document the volume of cattle sold is higher than normal and the area you reside in was declared eligible for assistance by the federal government. The second provision, 1033(e) deals with the sale of livestock used for breeding solely because of a weather event. Like 451(e) this provision deals with marketed livestock sold in excess of a normal year. The Code Section 1033(e) provision allows producers to postpone and actually avoid capital gains providing they replace the livestock within four years. This provision is only in disaster declared areas. The provision still applies in non declared disaster areas but the producer only has two years to purchase replacement stock. Because most producers are not solely involved in agriculture, Code Section 1033(3) may be the best option for tax relief. As in all tax situations, please consult your accountant for more information on these tax provisions.

Hurricanes Katrina and Rita have certainly altered many producers' plans for the winter both directly and indirectly. Please use these figures as a guide, an estimate to help in calculating the best way for you to winter cattle this year. Every situation is different. If you have any questions, please email Dr. Kurt Guidry at kmguidry@agcenter.lsu.edu, or Dr. Jason Rowntree at jrowntree@agcenter.lsu.edu.