

An Economic Evaluation of Feeder Calves Grazing Cool-Season Annual Forages in the Southeastern U.S.

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Why? The U.S. cattle industry looks to be entering a new high-cost environment. Over the last 8 months, many feedstuffs have increased in price by over fifty percent. As feedstuff costs rise, it costs more for feedlots to put additional weight on cattle. Thus, they are willing to pay more for additional weight added outside of feedyards.

How? A Microsoft Excel spreadsheet was developed to provide producers with a management tool to evaluate the agronomic, animal, and economic variables when grazing feeder calves on cool-season annual forages.

The Results? Producers that utilized the tool and developed a detailed cool-season annual forage plan for their operation projected that they were able to increase their number of grazing days by seven, improved animal performance by 0.10 pounds per head per day, reduced their cost of gain by \$0.04 per pound, and were able to make more informed management decisions.



Table 1. Estimated Production Summary for Grazing Cool-Season Annual Forages with Feeder Calves in the Southeastern USA.

Forage and Animal Information	Cool-Season Annual Forage Mix*
Forage Information	
Number of Acres Planted	138
Projected First Planting Date	15-Sep
Projected Last Planting Date	15-Nov
Level of Nitrogen (N) Applied, Split Applications	120
Begin Grazing Date	25-Nov
End Grazing Date	15-May
Number of Grazing Days	171
Forage Production, DM lbs./acre	6,400
Level of Forage Utilization, %	40%
Forage Consumption, DM lbs./acre	2,560
Forage Quality, Total Digestible Nutrients (TDN)	65%
Forage Quality, Crude Protein (CP)	16%
Animal Information	
Number of Stocker Steers At Beginning of Grazing Period, head	240
Avg. Beginning Stocker Steer Weight, lbs./head	450
Number of Stocker Steers At End of Grazing Period, head	234
Animal Gain, ADG (average daily gain), lbs./head/day	1.92
Avg. Ending Stocker Steer Weight, lbs./head	778
Death Loss, %	2.5%
Stocking Rate, head/acre	1.7
Animal Gain, total pounds gained	76,827
Animal Gain, pounds/acre	557
Animal Gain, pounds/animal	328

Table 2. An Economic Analysis of Cool-Season Annual Forage Cost Per Dry Matter Ton Consumed For Various Levels of Forage Production and Production Costs Per Acre

Forage Production, DM lbs./acre	Forage Consumption*, DM lbs./acre	Cool-Season Annual Forage Production Costs, \$/acre							
		\$125	\$150	\$175	\$200	\$225	\$250	\$275	\$300
		Total Cost of Growing and Grazing Per Dry Matter Ton Consumed							
3,000	1,500	\$167	\$200	\$233	\$267	\$300	\$333	\$367	\$400
4,000	2,000	\$125	\$150	\$175	\$200	\$225	\$250	\$275	\$300
5,000	2,500	\$100	\$120	\$140	\$160	\$180	\$200	\$220	\$240
6,000	3,000	\$83	\$100	\$117	\$133	\$150	\$167	\$183	\$200
7,000	3,500	\$71	\$86	\$100	\$114	\$129	\$143	\$157	\$171
8,000	4,000	\$63	\$75	\$88	\$100	\$113	\$125	\$138	\$150
9,000	4,500	\$56	\$67	\$78	\$89	\$100	\$111	\$122	\$133
10,000	5,000	\$50	\$60	\$70	\$80	\$90	\$100	\$110	\$120

*For this analysis the level of forage utilization was assumed to be 50 percent of forage production (column one x .50).

What? This provides an opportunity for many cattle producers to consider utilizing forages as a low-cost alternative to add additional weight to feeder calves prior to being marketed to feedlots. One of the best options available to producers in the southeastern U.S. to accomplish this is grazing feeder calves on cool-season annual forages during the late fall, winter, and spring.

Interested in learning more?

For more detailed information about this project, please scan the QR Code using your smartphone or tablet.



The producers that participated in the initial rollout provided feedback that will help increase future adoption of this management tool.