

# TIMELY INFORMATION

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### What Is The Value of Management In A Cow-Calf Enterprise?

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Management in the cow-calf business uses land, labor, and capital inputs to produce feeder calves. These feeder calves are sold to generate revenue from the cow-calf enterprise. A simple cowboy's definition of management is "using what you've got (land, labor, feed and other inputs, etc.) to get what you want (net farm income)."

Table 1 describes three common levels of management often observed on Southern cow-calf farms. A three bull unit cow-calf enterprise (100 cows) is used to illustrate the impact of management on cow-calf revenues. A terminal breeding program is assumed for each management scenario and thus all feeder calves are sold at weaning (for simplicity all replacement heifers are assumed purchased).

Table 1. An estimate of the value of management for a three bull unit cow-calf enterprise.

Item	Below	Average	Above	Avg. Mgt.	Above Avg. Mgt.	Above Avg. Mgt.
	Average	Average	Average	Minus	Minus	Minus
	Management	Management	Management	Below Avg. Mgt.	Avg. Mgt.	Below Avg. Mgt.
	----- Value of Management -----					
Number of Acres	200	200	200	NA	NA	NA
Number of Brood Cows, hd.	100	100	100	NA	NA	NA
Weaning Percent, %	60%	75%	90%	15%	15%	30%
Number of Calves, Hd.	60	75	90	15	15	30
Weaning Weight, Lbs./Calf	400	500	600	100	100	200
Calf Crop Total Weight, Lbs.	24,000	37,500	54,000	13,500	16,500	30,000
Feeder Calf Market Price, \$/Lb.	\$1.07	\$1.00	\$0.95	-\$0.07	-\$0.05	-\$0.12
Feeder Calf Revenue, \$/Hd.	\$428.00	\$500.00	\$570.00	\$72.00	\$70.00	\$142.00
Revenue Per Brood Cow, \$/Hd.	\$256.80	\$375.00	\$513.00	\$118.20	\$138.00	\$256.20
Revenue Per Acre, \$/Acre	\$128.40	\$187.50	\$256.50	\$59.10	\$69.00	\$128.10
Calf Crop Total Revenue, \$	\$25,680.00	\$37,500.00	\$51,300.00	\$11,820.00	\$13,800.00	\$25,620.00

In the below average management scenario, the cow-calf farm has 100 head of brood cows and three bulls. The brood cows are assumed to be in body condition scores of 2's, 3's and 4's (critically less than desirable body condition for maintenance, gestation, milk production, rebreeding, etc.). Therefore, the feeder calf weaning percent is assumed to be only 60 percent resulting in only 60 calves being weaned. The average weaning weight of the calves is estimated at 400 pounds per head. The calf crop total weight of all 60 calves is

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24,000 pounds (60 hd. \* 400 lbs./hd.). The 10-year average feeder calf market price is \$1.07 per pound for 450 pound feeder calves that are small-medium frame and #3 muscle score. The calf crop total revenue for this farm was \$25,680 (60 hd. \* 400 lbs./hd. \* \$1.07/lb.). The revenue per brood cow and revenue per acre for this operation was \$256.80 and \$128.40 per head, respectively.

In the average management scenario, again the cow-calf farm has 100 head of brood cows and three bulls. The brood cows are assumed to be body condition scores of 4's and 5's (slightly less than desirable body condition for maintenance, gestation, milk production, rebreeding, etc.). The feeder calf weaning percent is assumed to be 75 percent resulting in 75 calves being weaned. The average weaning weight of the calves is estimated at 500 pounds per head. The total weight of the 75 calves was 37,500 pounds (75 hd. \* 500 lbs./hd.). The market price per pound was assumed to be \$1.00 per pound for 500 pound feeder calves that are an average of medium frame and #2 muscle score. The calf crop total revenue for this farm was \$37,500 (75 hd. \* 500 lbs./hd. \* \$1.00/lb.). The revenue per brood cow and revenue per acre for this operation was \$375.00 and 187.50, respectively.

Lastly, in the above average management scenario, once again the cow-calf farm has 100 head of brood cows and three bulls. The brood cows are assumed to be body condition scores of 5's and 6's (desirable body condition for maintenance, gestation, milk production, rebreeding, etc.). The feeder calf weaning percent is assumed to be 90 percent resulting in 90 calves being weaned. The average weaning weight of the calves is estimated at 600 pounds per head. The total weight of the 90 calves was 54,000 pounds (90 hd. \* 600 lbs./hd.). The market price per pound was assumed to be \$0.95 per pound for 600 pound feeder calves that are of medium and large frame and #1 and #2 muscle scores. The calf crop total revenue for this farm was \$51,300 (90 hd. \* 600 lbs./hd. \* \$0.95/lb.). The revenue per brood cow and revenue per acre for this operation was \$513.00 and 256.50, respectively.

Let's use the data from these three levels of management in the cow-calf business to evaluate the impact of improving management. When comparing the farm that has "average management" with the "below average management" farm, we find that the farm with average management realized an increase in weaning percent from 60 to 75 percent (+15%) or 15 more calves being weaned. The average weaning weight of the feeder calves increased from 400 pounds per calf to 500 pounds per calf (+100 pounds or +25%). Therefore, the calf crop total weight with heavier weaning weights and 15 more calves increased 13,500 pounds (37,500 lbs. – 24,000 lbs. or +56%). However, the market price received for the feeder calves declined \$0.07 per pound (\$1.00/lb. - \$1.07/lb. or -7%) due to the heavier weight per calf of the feeder calves. The calf crop total revenue increased by \$11,820 (\$37,500-\$25,680 or +46%). The revenue per brood cow and revenue per acre increased \$59.10 (+46%) and \$69.00 (+46%), respectively.

Next, let's use the data from the "above average management" and "average management" scenarios to evaluate the impact of improving management between these two scenarios. When comparing the farm that has "above average management" with the "average management" farm, we find that the farm with above average management realized an increase in weaning percent from 75 to 90 percent (+15%) or 15 more calves being weaned. The average weaning weight of the feeder calves increased from 500 pounds per calf to 600 pounds per calf (+100 pounds or +20%). Therefore, the calf crop total weight with heavier weaning weights and 15 more calves increased 16,500 pounds (54,000 lbs. – 37,500 lbs. or +44%). However, the market price received for the feeder calves declined \$0.05 per pound (\$0.95/lb. - \$1.00/lb. or -5%) due to the heavier weight per calf of the

feeder calves. The calf crop total revenue increased by \$13,800 (\$51,300 - \$37,500 or +37%). The revenue per brood cow and revenue per acre increased \$59.10 (+37%) and \$69.00 (+37%), respectively.

Lastly, let's use the data from the "above average management" and "below average management" scenarios to evaluate the impact of improving management between these two scenarios. When comparing the farm that has "above average management" with the "below average management" farm, we find that the farm with above average management realized an increase in weaning percent from 60 to 90 percent (+30%) or 30 more calves being weaned. The average weaning weight of the feeder calves increased from 400 pounds per calf to 600 pounds per calf (+200 pounds or +50%). Therefore, the calf crop total weight with heavier weaning weights and 30 more calves increased 30,000 pounds (54,000 lbs. - 24,000 lbs. or +125%). However, the market price received for the feeder calves declined \$0.12 per pound (\$0.95/lb. - \$1.07/lb. or -11%) due to the heavier weight per calf of the feeder calves. The calf crop total revenue increased by \$25,620 (\$51,300 - \$25,680 or +100%). The revenue per brood cow and revenue per acre increased \$256.20 (+100%) and \$69.00 (+100%), respectively.

As you can easily see, the calf crop total revenue can be significantly increased as you move from below average management to either average management or above average management. In most situations it will cost something to attain these higher levels of performance and revenue, while for some operations it may merely be a matter of providing more attention to management (genetic selection, providing the correct amount of feed at the correct times, wasting less feed, improving forage utilization, comparison shopping for feed, fertilizer, and other inputs, improving labor utilization, scheduling and implementing management practices, etc.). If it does cost something to increase your total revenue, you want to be sure not to spend more than you expect to get back. In other words, be sure that you can improve your cow-calf operation for less than the differences noted in Table 1 above.

The value of management in the cow-calf enterprise presented here may be understated for some operations where cattle farmers can achieve higher than 90 percent weaning rates and/or higher than 600 pound weaning weights. Also, this analysis used a 10-year average of feeder calf prices. A cattle farmer who can market his feeder calves at higher than the 10-year average feeder calf market prices (due to quality, health, truckload units, preconditioning, etc.) will realize even larger levels of improvement in calf crop total revenues.

If you are not keeping production and financial records on your cow-calf operation, now is a good time to get started. These records will help guide you to make more profitable decisions each year. If you need some help getting started, call your local Extension office for sources of information. Good luck with your cow-calf enterprise and may your pastures grow grass abundantly and all your cows wean calves.