

## The Economics of Supplementing Stocker Calves Grazing Summer Forages

In many regions of the country it is not suitable to raise any other crop but grass. Cattle, because they are ruminants, can utilize grass quite effectively as a feed source. For this reason it is common practice to use stocker calves as a means of utilizing the summer grass in these regions.

In an effort to maximize returns in grazing situations, a large number of producers supplement cattle with an additional feed source. A large variety of feeds are available for supplementation. These include grains, numerous co-products from the processing of grain, and a large assortment of commercial feeds.

In most grazing situations, the most profitable supplement is typically the one that is most efficient (cost per lb of gain). High gains are good, but they must be efficient, and they must be weighed against the probability of a lower sale price per lb. due to higher animal sale weight. Again, gains must be cost effective. Generally, the supplement that does the best job of enhancing rumen function and improving grass utilization is the one that is most profitable.

During the summer of 2004, Murray State University in Murray, Kentucky conducted a trial to determine the profitability of different supplementation strategies on stocker calves grazing summer forages. The study results bring home the point of the importance of using a supplement with the lowest cost per lb of gain. The chart on the following page summarizes the trial results.



	CONTROL	MIX 30 LIQUID FEED	MOLASSES TUB	SOYHULLS & DDG
INITIAL ANIMAL WEIGHT, LBS	518.89	512.94	516.22	509.94
ANIMAL PURCHASE PRICE PER LB	\$1.05	\$1.05	\$1.05	\$1.05
PURCHASE COST PER HEAD	\$544.83	\$538.59	\$542.03	\$535.44
ADG	1.11	1.31	1.28	1.77
GAIN PER HEAD	130.00	152.69	150.22	207.62
GAIN PER HEAD OVER CONTROL		22.69	20.22	77.62
FINAL ANIMAL WEIGHT, LBS	648.89	665.63	666.44	717.56
ANIMAL SALE PRICE PER LB**	\$0.96	\$0.95	\$0.95	\$0.92
SALE PRICE PER HEAD	\$622.93	\$632.35	\$633.12	\$660.16
SUPPLEMENT COST PER TON		\$165.00	\$776.00	\$134.50
SUPPLEMENT COST PER HEAD		\$5.25	\$48.50	\$41.49
SUPPLEMENT COST PER LB OF GAIN OVER CONTROL		\$0.23	\$2.40	\$0.53
MINERAL COST PER TON	\$542.00	\$414.80	\$479.60	\$542.00
COSTS PER HEAD (MINERAL/SUPP/LABOR/INTEREST)*	\$15.49	\$19.47	\$61.39	\$70.91
NET RETURN PER HD	\$62.61	\$74.29	\$29.70	\$53.81
RETURN PER HEAD OVER CONTROL		\$11.68	-\$32.91	-\$8.80
% RETURN ON COST OF SUPPLEMENT VS CONTROL		410.58%	39.61%	172.11%
% ANNUAL RETURN ON INVESTMENT VS CONTROL		6.62%	-17.49%	-4.71%

\*LABOR CHARGE - \$.7/HR; INTEREST CHARGE - 5.50% ON COST OF CALF, MINERAL, SUPPLEMENT, AND LABOR

\*\*SALES PRICE ADJUSTED TO REFLECT ACTUAL PRICES BASIS WEIGHT OF ANIMAL/ DAY OF SALE FOR A COPY OF THE COMPLETE TRIAL CONTACT AGRIDYNE, LLC, 800-575-7585

Analysis: The results of this trial point out how market price, animal performance, and type of supplementation all play major roles in determining profitability. Supplementation, as this trial indicates, does not always guarantee profitability. In this trial the supplement with the lowest cost per lb. of gain was the only treatment that returned a profit over the control.



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