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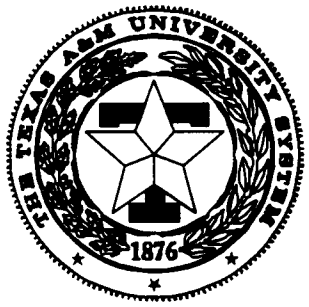

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ECONOMIC ASSESSMENT OF ANGUS AND LIMOUSIN-SIRED STEERS AND HEIFERS FROM PASTURE TO PACKER

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Background. Beef producers face multifaceted, yet segmented production systems that require a wide variety of management decisions. Producers must understand the factors that impact the profitability of each phase of this system and the interrelationships that affect profitability of the overall system. Profits from pasture phases depend on the efficiency of forage utilization, which may be accomplished with a wide array of grazing strategies. Cattle feeding profits are highly variable since they are affected by numerous factors including cattle type and weight, feed costs, market prices, etc. The objective of this economic assessment was to evaluate potential returns from a winter pasture-stocker phase and a feedlot phase, as well as the total production system.

Research Findings. Angus- and Limousin-sired steers and heifers were grazed on winter pasture at three stocking rates (Table 1). Cattle of similar type and weight had very different rates of gain due to differing stocking rates. This resulted in net returns of $172, $223 and $165/ac for the low, medium and high stocking rates, respectively. Rising prices (positive margin) during the pasture phase significantly affected the final profit analysis. Net returns must pay for items such as depreciation, owner labor, and management not included in budgets. The feedlot phase showed net losses of $44, $109, and $20 per head for the low, medium and high stocking rates, respectively. The total pasture-feedlot venture showed annualized rates of return on capital of 4%, -4% and 2% for low, medium, and high stocking rates.

Application. Producers with cattle like those depicted here would do well to sell them directly off-pasture. Rising market prices boosted profits from the pasture phase, even for the high stocking rate group that gained poorly and had a high cost of gain. Feedlot performance was not efficient enough to offset costs, which resulted in all three groups posting losses in the feedyard. Feeding losses negated nearly all profits realized from the pasture phase. This example clearly illustrates the importance of budgeting each production phase in addition to evaluating the overall production system. Sometimes it is desirable to modify marketing plans to avoid losses. An alternative strategy may include selling cattle at a discount to avoid retaining ownership through an unprofitable feedlot phase, even though this would adversely affect cash flow. However, it is conceivable that off-pasture weights may exceed that for which competitive bidding for feeders exists. Low and medium stocking rate cattle could be discounted as much as $7.00/cwt and still generate at least a 20% annualized rate of return.

Table 1. Actual economic performance for Angus and Limousin sired steers and heifers pastured at three stocking rates and fed in a commercial feedlot.

Item	Date	Stocking rate LOW	MEDIUM	HIGH
WINTER PASTURE PHASE				
On-pasture pay weight (lbs)	11/20/96	588	576	576
On-pasture market value ($/cwt)		$66.00	$66.00	$66.00
On-pasture stocker value ($/hd)		$388.08	$380.16	$380.16
Days on pasture		184	184	184
Interest - animal & misc. costs ($/hd)	8.00%	$17.06	$16.74	$16.74
Winter pasture cost, incl. interest ($/ac)		$137.00	$137.00	$137.00
Stocking rate (hd/ac)		1.48	1.95	2.6
Winter pasture cost ($/hd)		$92.57	$70.26	$52.69
Health care, supplements, feed, hay, etc. ($/hd)		$35.00	$35.00	$35.00
Total pasture phase production costs ($/hd)		$144.63	$122.00	$104.44
Off-pasture pay weight (lbs)		877	811	685
Off-pasture market value ($/cwt)		$74.00	$76.00	$80.00
Breakeven price ($/cwt)		$60.74	$61.92	$70.74
Off-pasture market value ($/hd)		$648.98	$616.36	$548.00
Pasture phase cost/lb gain ($/cwt)		$50.04	$51.91	$95.81
Net return to pasture phase ($/hd)		$116.27	$114.20	$63.40
Net return to pasture phase ($/ac)		$172.08	$222.69	$164.85
Annualized rate of return on capital		43.30%	45.11%	25.95%
FEEDLOT PHASE				
In-feedlot pay weight (lbs)		820	770	646
Shipping costs ($/hd)		$14.91	$14.00	$11.75
In-feedlot value ($/hd)		$606.80	$585.20	$516.80
Days on feed		131	131	152
Cattle interest	8.0%	$17.42	$16.80	$17.22
Feedlot gain - payweight (lbs)		424	410	533
Feedlot average daily gain (lbs/da)		3.24	3.13	3.51
Out-feedlot pay weight (lbs)		1244	1180	1179
Feedlot phase cost/lb gain incl. interest ($/lb)		$0.53	$0.66	$0.47
Feedlot costs incl. interest ($/hd)		$225.65	$272.04	$252.38
Selling price ($/cwt)		$66.00	$66.00	$66.00
Breakeven price ($/cwt)		$68.32	$74.07	$66.70
Out-feedlot revenue ($/hd)		$821.04	$778.80	$778.14
Net return to feedlot phase ($/hd)		-$43.74	-$109.24	-$20.00
Annualized rate of return on capital		-14.34%	-34.82%	-6.11%
TOTAL STOCKER THROUGH FEEDLOT PHASE				
Initial stocker cost ($/hd)		$388.08	$380.16	$380.16
Final receipts ($/hd)		$821.04	$778.80	$778.14
Total days		315	315	336
Total production costs ($/hd)		$402.61	$424.84	$385.77
Overall cost/lb gain ($/lb)		$0.61	$0.70	$0.64
Breakeven price ($/cwt)		$63.56	$68.22	$64.96
Returns to other factors of production ($/hd)		$30.35	-$26.20	$12.21
Annualized rate of return on capital		4.45%	-3.77%	1.73%