

Determining Your Costs of Production

Method: Per Unit Sold

$$UCOP = \frac{TOTAL COSTS}{TOTAL CWT CALVES SOLD} = \frac{\$39,414}{294} = \frac{\$134}{CWT} = \frac{\$1.34}{LB}$$

Problem: You sold more than just calves (i.e. culls). UCOP can not be compared to calf price received to determine profitability.

Solution: Compare to Income per Unit sold rather than calf market price. For example: \$1.10/lb market price and \$8200 in cull revenue.

$$TOTAL REVENUE = \$1.10 * 29,400 + 8200 = \$40,540$$

$$INCOME/UNIT = \frac{TOTAL REVENUE}{TOTAL CWT CALVES SOLD} = \frac{\$40,540}{294} = \frac{\$1.38}{LB}$$

Method: Residual Costs

$$UCOP = \frac{TOTAL COSTS - CULL SALES}{TOTAL CWT CALVES SOLD}$$
$$= \frac{\$39,414 - 8,200}{294} = \frac{\$31,214}{294} = \frac{\$1.06}{LB}$$

ASSUMPTION: Cull sales and all other income are break-even enterprises.

This can be compared to the \$1.10/lb market price.

However, it makes it difficult to extract individual cost of production components. (i.e. feed costs/cwt.)

Method: Equivalent Production

$$Equivalent Units of Production = \frac{TOTAL REVENUE}{PRICE} = \frac{\$40,540}{110} = 369$$

Compared to : 294 CWT sold

$$UCOP = \frac{TOTAL COSTS}{369} = \frac{\$39,414}{382} = \frac{\$1.06}{LB}$$

This can be compared to the \$1.10/lb market price.

ASSUMPTION: Calf sales, cull sales and all other income centers have equivalent profit margin percentages.



Stochastic Livestock Budget Generator

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	Weaning %	Average Weight (lbs.)	Average Price/lb.	Value or Cost Per Exposed Female
GROSS RECEIPTS FROM PRODUCTION				
WEANED LIVESTOCK SALES	83%	475.0	0.98	384.81
TOTAL RECEIPTS				384.81
OPERATING COSTS				
Pasture and Feed				
PASTURE	DOLS			20.77
PURCHASED FEED	DOLS			5.88
SALT & MINERALS	DOLS			0.00
ENERGY SUPPLEMENTS	DOLS			0.00
Total Pasture and Feed				26.65
UTILITIES	DOLS			6.60
TAXES	DOLS			24.04
LABOR	DOLS			62.40
MAINTENANCE & IMPROVEMENTS	DOLS			4.57
VETERINARY, BREEDING, MEDICINE	DOLS			5.77
FREIGHT AND TRUCKING	DOLS			0.00
GAS, FUEL, AND OIL	DOLS			11.53
CAR AND TRUCK EXPENSES	DOLS			13.07
INSURANCE	DOLS			20.49
INTEREST	DOLS			24.87
SUPPLIES PURCHASED	DOLS			10.75
CUSTOM HIRE	DOLS			1.80
RENT/LEASE OF VEHICLES, EQUIPMENT,...	DOLS			0.00
STORAGE AND WAREHOUSING	DOLS			0.00
LEGAL AND PROFESSIONAL FEES	DOLS			0.00
TRAVEL MEALS AND ENTERTAINMENT	DOLS			6.00
OTHER	DOLS			1.40
NET HERD REPLACEMENT COSTS	DOLS			58.99
Total Operating Costs				278.93
TOTAL GROSS MARGIN				105.89
Property and Ownership Costs				
MACHINERY AND EQUIPMENT	DOLS			73.33
BUILDINGS AND IMPROVEMENTS	DOLS			286.67
BREEDING LIVESTOCK	DOLS			226.67
REAL ESTATE TAXES	DOLS			0.00
Total Property and Ownership Costs				586.67
NET RECEIPTS BEFORE FACTOR PAYMENTS				-480.78
FACTOR PAYMENTS				
LAND @ 4.00%	DOLS			0.00
RETURN TO MANAGEMENT AND RISK				-480.78

STOCHASTIC ELEMENTS				
	Average Price per lb.	Average Weight (lbs.)	Weaning %	Total Operating Costs/Hd.
Minimum	0.78	370	70%	215.00
Most Likely	0.98	475	83%	278.93
Maximum	1.15	550	92%	365.00

View Input Distributions

Price	Weight	Weaning %	Costs
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View Output Distributions

Gross Margin	Returns to Management
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OPERATING COST OF PRODUCTION: \$ 0.71 per lb.

ECONOMIC COST OF PRODUCTION: \$ 2.20 per lb.

**LIVESTOCK HERD
BASIC INFORMATION**

FEMALE BREEDING HERD

Number of Females Exposed for Breeding	75 head
Annual Female Cull Animals	8 head
Annual Female Death Loss	0 head
Average Female Cull Value	\$250 per head

MALE BREEDING HERD

Number of Males used for Breeding	4 head
Average Male Useful Life	4 years
Average Male Cull Value	\$500 per head

OFFSPRING

Number of Animals Weaned per Year	62 head
Average Weaning Weight (Males)	475 head
Average Weaning Weight (Females)	475 head

REPLACEMENTS

Annual Number of Female Replacements Needed	8 head
Female Replacement Cost	\$616 per head
Annual Number of Male Replacements Needed	1.0 head
Male Replacement Purchase Price	\$2,000 per head



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