MARKET STEER PROJECT

Idaho 4-H Livestock Costs and Returns Estimate

#72295

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BACKGROUND AND ASSUMPTIONS

This costs and returns estimate (enterprise budget) gives the average costs and returns for a 4-H market steer project (table 1). All resources (feed, labor, etc.) are valued at current market prices or at their opportunity costs. Opportunity cost is defined as the value of a resource (time, money, equipment, etc.) in its most profitable use other than raising the market steer. For example, labor is given a value of $7.25 per hour, the minimum wage you could earn working at McDonalds instead of working on your 4-H project.

The estimate assumes steers are purchased in November at about 500 pounds for $160/cwt and fed a finisher ration and alfalfa hay until mid August. The average weight gain from the beginning weigh-in (typically in early March) to the ending weigh-in (150 days) is approximately 3 pounds per day.

REVENUE

Revenue is the steer finish weight in pounds multiplied by the price received per pound, or simply the price per head.

Figure 1 shows the range of prices received for market steers sold at county and state fairs in 16 southeastern Idaho counties in 2011 ($1,313–$7,232). It also shows the probability (chance) that you would be able to sell a steer at or above a certain price. For example, there is a 50% probability that steers will sell for $2,190 or more. Likewise there is a 6% chance that steers will sell for more than $4,100.

OPERATING COSTS

Operating costs, also called variable costs, are those expenses directly related to the production of your market steer. They increase when you raise more steers

Table 1. 4-H market steer enterprise budget, 1 steer.

	Unit	Total number or units	Price or cost/unit	Total value	Your value
REVENUE					
Market steer	pounds	1,300	$1.86	$2,415.00	_____
Total revenue				**$2,415.00**	_____
OPERATING (VARIABLE) COSTS					
Purchased steer	pounds	500	$1.60	$800.00	_____
Feed					
Grower/finisher ration	cwt	48	$28.00	$1,344.00	_____
Hay	ton	2.00	$190.00	$380.00	_____
Salt	block	1	$7.50	$7.50	_____
Health	$	1	$41.50	$41.50	_____
Marketing	head	1	$35.00	$35.00	_____
Hauling	$	1	$60.00	$60.00	_____
Supplies	$	1	$32.00	$32.00	_____
Equipment repair	$	1	$15.00	$15.00	_____
Opportunity costs					
Labor	hours	180	$7.25	$1,305.00	_____
Interest on operating capital	$	2,715.00	8.0%	$217.20	_____
Total operating costs				**$4,237.20**	_____
Income above operating costs				**-$1,822.20**	_____
OWNERSHIP (FIXED) COSTS					
Livestock facilities				$55.00	_____
Equipment				$125.00	_____
Overhead				$0.00	_____
Total ownership costs				**$180.00**	_____
TOTAL COSTS (operating costs + ownership costs)				**$4,417.20**	_____
NET PROFIT (total revenue – total costs)				**-$2,002.20**	_____

and decrease when you raise fewer.

Feed costs include the purchase price plus delivery costs. Steers are fed approximately 2% of their body weight in finisher ration and alfalfa hay per day (table 2). Mineral is provided free choice.

Health costs include vaccinations, treatment for parasite control, and hoof trimming.

Marketing fees are assessed for each animal sold in the county fair livestock auction. Typically called a sale commission, this fee helps cover auction expenses and brand inspections.

Labor costs are an estimate of the value of your time spent working on your 4-H project. The opportunity cost of labor is calculated at $7.25 per hour, the minimum wage.

Hauling covers costs to transport the animal to and from weigh-ins and to the fair.

Supplies include costs for show shampoos, grooming products, and stall decorations.

Equipment repair covers costs incurred to repair and maintain equipment.

Interest on operating capital is either the actual cost of a loan used to pay your operating expenses (usually a percentage of the amount of money you borrow, the interest rate) or the opportunity cost if you use your own money to pay for the project. The opportunity cost or interest rate used here is 8 percent.

OWNERSHIP COSTS

Ownership costs, also called fixed costs, are expenses that must be paid even if you don't complete the project. These costs could include property taxes and insurance on buildings, facilities, and equipment. Raising more than one steer or sharing facilities and equipment will allow ownership costs to be spread out over more animals.

Livestock facility expenses include the cost of corrals, shelter, barn, etc. These expenses are depreciated, or spread out, over the expected life of the facility. For example, a pen that cost $500 new may have a useful life of 10 years. Dividing that $500 cost by 10 years would give you a cost of $50 per year for the pen.

Equipment expenses include blowers, trimming chute, clippers, show sticks, halters, brushes, combs, hoses, feeders, pitchforks, wheelbarrow, etc. Equipment costs are depreciated, or spread out, over the life of the equipment. For example, clippers that cost $150 may have a useful life of 10 years, so $15 of the purchase price ($150 ÷ 10 years) would be allocated to each year of use. (In other words,

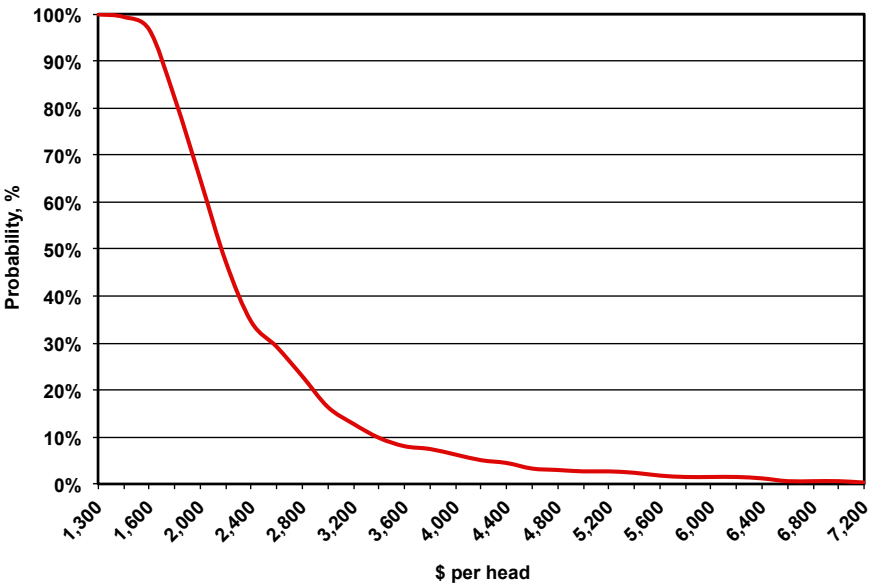

Figure 1. The probability (chance) of selling a steer at or above a given price, southeastern Idaho fairs, 2011.

Table 2. 4-H market steer monthly feed requirements, in pounds.

	Finisher ration	Hay
Nov	250	400
Dec	300	400
Jan	400	400
Feb	460	400
March	510	350
April	570	350
May	620	300
June	670	300
July	730	240
Aug	290	80
Sept	0	0
Oct	0	0
Total	**4,800**	**3,220**

Table 3. 4-H market steer cash flow budget.

	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep-Oct	Total
CASH INFLOWS												
Market steer										$2,415.00		$2,415.00
Total inflow	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$2,415.00	$0.00	$2,415.00
CASH OUTFLOWS												
Purchased steer	$800.00											$800.00
Feed												
Finisher ration	$70.00	$98.00	$112.00	$126.00	$154.00	$168.00	$168.00	$182.00	$196.00	$70.00		$1,344.00
Hay	$95.00		$95.00		$95.00		$95.00					$380.00
Salt/Mineral	$7.50											$7.50
Health	$1.50				$10.00				$30.00			$41.50
Marketing										$35.00		$35.00
Hauling	$15.00				$15.00				$15.00	$15.00		$60.00
Supplies									$10.00	$22.00		$32.00
Equipment repair									$15.00			$15.00
Total outflow	$989.00	$98.00	$207.00	$126.00	$274.00	$168.00	$263.00	$182.00	$266.00	$142.00	$0.00	$2,715.00
OPERATING SURPLUS	–$989.00	–$98.00	–$207.00	-$126.00	-$274.00	-$168.00	-$263.00	-$182.00	-$266.00	$2,273.00	$0.00	-$300.00

the clippers depreciate $15 per year.) Equipment may also be borrowed or shared with the club leader or other members, and then you can also share the costs.

Overhead includes rent, utilities, or other miscellaneous costs.

CASH FLOW BUDGET

The cash flow budget traces the flow of cash into and out of the project. It shows the months when you will need cash to pay for the project and the months when you will receive income (table 3).

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