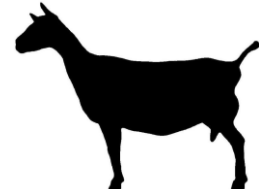


## Goat Dairy: 200-head

### Southcentral Idaho

Carmen Willmore, Joel Packham, Mario de Haro Marti, Ben Eborn



## Background and Assumptions

University of Idaho costs and returns estimates use economic costs—all resources are valued based on market price or opportunity cost. This budget presents typical costs and returns per doe for a 200-head goat dairy operation in southcentral Idaho plus total costs and returns for the dairy.

### Livestock Investment

The livestock investment consists of 200 does and 6 bucks. Does are valued at \$400 per doe and have a useful life of 7 years after they are placed into the milking herd. Approximately 15% of the milking does are culled each year. Bucks are purchased at \$700 per head, kept for 3 years. For the purpose of this budget all kids are sold at birth and replacement doelings are purchased back into the herd at \$100/head, which is the estimated cost of development to 7 months of age.

### Machinery and Equipment

For 200 head of dairy goats machinery is not typically bought for sole purpose of dairy use. However, machinery used for this size operation includes a skid steer, pickup truck 4x4 ½ ton, and ATV. Values on machinery and equipment are calculated at 50% of new replacement cost to reflect typically aged, but functional farm equipment.

### Buildings and Improvements

Buildings and improvements include milking parlor, milking equipment, pens, barn, hay shed, kidding shed, working table, vet equipment and stock trailer.

### Management Practices

Kidding can occur year round with intervention but typically most kids are born January - March and September - November. The sale of kids is represented in Table 2 and the cost of raising and developing goat kids will be published in a separate budget. For this budget doelings will be bought back into the herd when they reach sexual maturity and will be fed a higher quality diet in preparation for breeding and gestation.

The milking herd ration includes 3.5 lbs. of grain and 6 lbs. of alfalfa hay. Dry does will consume 6 lbs. of alfalfa hay and 1.0 lb. of grain. Cost per day averages \$1.41 for lactating does and \$0.66 for dry does.

Feed sources are alfalfa and grass hay with additional high protein/energy grain. The herd is milked two times daily in a single sided 24 head parlor. A single doe will be milked for 305 days with a 60 day dry off prior to kidding. Dairy goats produce 6-8 lbs. of milk per head per day, although this varies by breed. Components for goat milk are typically 3.6-3.8% fat.

Veterinarian costs are included for annual disease and milk testing. Additional costs include hoof trimming, bedding, deworming, medication, vaccination and feeding.

For a herd of 200 milking does, 6 bucks will be held on the property. Bucks will consume 8 lbs. of hay per day with additional grain supplementation when actively breeding. Cost per day averages \$0.48 when not

breeding and \$1.08 during breeding season. Additional costs include hoof trimming, bedding, deworming, medication and vaccination.

### **Livestock Marketing**

Marketing of cull does and bucks can occur in many ways. Some does and bucks are sold private treaty via online and social media sales where as others are taken to auction and sold at market value.

### **Labor Costs**

Labor provided by the operator is valued at \$19.70 per hour, based on average wages for agricultural supervisors. Regular livestock labor is valued at \$14.00 per hour. These hourly rates includes all applicable payroll taxes and benefits.

### **Budget Format**

In addition to the Background and Assumptions pages, this publication has three tables presenting a variety of costs and returns information.

Table 1 shows both expected revenue and expenses. Expenses are broken into two main categories: operating and ownership. Operating expenses are those that typically vary with the level of production and involve inputs that are used in a single production cycle. Ownership expenses include a systematic cost recovery over the useful life for inputs used in the production process that have a useful life of more than one year.

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Table 2 is a monthly summary of the cash flow of revenues and expenses based on when the operation occurs and when inputs are purchased.

Table 3 is a monthly summary of feed requirements for the different classes of livestock. Daily feed quantities per animal are summarized below.

Table 4 lists the purchase price and salvage value of equipment used in this operation, as well as annual capital recovery and interest on retained livestock.

**University of Idaho  
Extension**



## Dairy Goat Enterprise Budget

Year: **2017**

Mixed Breed Goat Dairy - Southcentral Idaho

No. of Does: **200**

	Unit	Number of Head or Units	Price or Cost/Unit	Total Value	Value or Cost/Head
<b>GROSS RETURNS</b>					
Milk Sales	cwt	20	32.00	128,000	640.00
Cull Does	hd	0.15	200.00	6,000	30.00
Cull Bucks	hd	0.01	300.00	600	3.00
Male Kids	hd	0.75	20.00	3,000	15.00
Female Kids	hd	0.75	30.00	4,500	22.50
<b>TOTAL GROSS RETURNS</b>				<b>\$142,100</b>	<b>\$710.50</b>
<b>OPERATING COSTS</b>					
Alfalfa Hay	ton	1	120.00	24,000	120.00
Alfalfa/Grass Hay	ton	0		0	0.00
Grain/Concentrate	ton	1	300.00	60,000	300.00
Straw	ton	0.25	45.00	2,250	11.25
Veterinary/Health	hd	1	15.00	3,000	15.00
Milking Supplies	hd	1	10.00	2,000	10.00
Milk Testing	hd	1	10.00	2,000	10.00
Milk Hauling	cwt	0		0	0.00
Utilities	\$	1	20.00	4,000	20.00
Legal & Accounting	\$	1	1.50	300	1.50
Owner Labor	hr	10	19.70	39,400	197.00
Hired Labor	hr	10	14.00	28,000	140.00
Miscellaneous	\$	1	5.00	1,000	5.00
				0	0.00
				0	0.00
Machinery (Fuel, Oil, Repair)			2,500.00	2,500	12.50
Vehicles (Fuel, Repair)			3,500.00	3,500	17.50
Equipment (Repair)			2,000.00	2,000	10.00
Buildings & Improvements (Repair)			3,000.00	3,000	15.00
Interest on Operating Capital		\$50,000	6.50%	3,250	16.25
<b>TOTAL OPERATING COSTS</b>				<b>\$180,200</b>	<b>\$901.00</b>
<b>NET RETURNS ABOVE OPERATING COSTS</b>				<b>(\$38,100)</b>	<b>-\$190.50</b>
<b>OWNERSHIP COSTS</b>					
<b>Capital Recovery:</b>					
Milking Equipment			2,452	2,452	12.26
Buildings & Other Equipment			9,334	9,334	46.67
Replacement Does			2,719	2,719	13.60
Replacement Bucks			783	783	3.91
Machinery & Vehicles			3,967	3,967	19.83
Interest on Retained Livestock		\$100,000	5.00%	5,000	25.00
Taxes & Insurance			1,000	1,000	5.00
General Overhead			2,000	2,000	10.00
<b>TOTAL OWNERSHIP COSTS</b>				<b>\$27,255</b>	<b>\$136.28</b>
<b>TOTAL COSTS</b>				<b>\$207,455</b>	<b>\$1,037.28</b>
<b>NET RETURNS ABOVE TOTAL COSTS</b>				<b>(\$65,355)</b>	<b>-\$326.78</b>

**Table 2: Monthly Summary of Returns and Expenses.**

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	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Value
<b>Production:</b>													
Milk Sales	7,110	7,110	14,293	14,293	14,293	14,293	14,293	14,293	7,110	7,110	7,110	7,110	128,000
Cull Does		2,000							2,000	2,000			6,000
Cull Bucks									600				600
Male Kids		503	503	503	503				333	333	333		3,000
Female Kids		754	754	754	754				500	500	500		4,500
<b>Total Receipts</b>	<b>7,110</b>	<b>10,367</b>	<b>15,550</b>	<b>15,550</b>	<b>15,550</b>	<b>14,293</b>	<b>14,293</b>	<b>14,293</b>	<b>10,544</b>	<b>9,944</b>	<b>7,944</b>	<b>7,110</b>	<b>142,100</b>
<b>Operating Inputs:</b>													
Alfalfa Hay	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	24,000
Alfalfa/Grass Hay													0
Grain/Concentrate	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Straw	188	188	188	188	188	188	188	188	188	188	188	188	2,250
Veterinary/Health	250	250	250	250	250	250	250	250	250	250	250	250	3,000
Milking Supplies	167	167	167	167	167	167	167	167	167	167	167	167	2,000
Milk Testing	167	167	167	167	167	167	167	167	167	167	167	167	2,000
Milk Hauling													0
Utilities	333	333	333	333	333	333	333	333	333	333	333	333	4,000
Legal & Accounting												300	300
Owner Labor	3,283	3,283	3,283	3,283	3,283	3,283	3,283	3,283	3,283	3,283	3,283	3,283	39,400
Hired Labor	2,333	2,333	2,333	2,333	2,333	2,333	2,333	2,333	2,333	2,333	2,333	2,333	28,000
Miscellaneous	83	83	83	83	83	83	83	83	83	83	83	83	1,000
Machinery (Fuel, Oil, Repair)	208	208	208	208	208	208	208	208	208	208	208	208	2,500
Vehicles (Fuel, Repair)	292	292	292	292	292	292	292	292	292	292	292	292	3,500
Equipment (Repair)	167	167	167	167	167	167	167	167	167	167	167	167	2,000
Buildings & Improvements (Repair)	250	250	250	250	250	250	250	250	250	250	250	250	3,000
Interest on Operating Capital												3,250	3,250
<b>Total Costs</b>	<b>14,721</b>	<b>14,721</b>	<b>14,721</b>	<b>14,721</b>	<b>14,721</b>	<b>14,721</b>	<b>14,721</b>	<b>14,721</b>	<b>14,721</b>	<b>14,721</b>	<b>14,721</b>	<b>18,271</b>	<b>176,950</b>
<b>Net Returns</b>	<b>-7,610</b>	<b>-4,354</b>	<b>829</b>	<b>829</b>	<b>829</b>	<b>-428</b>	<b>-428</b>	<b>-428</b>	<b>-4,177</b>	<b>-4,777</b>	<b>-6,777</b>	<b>-11,160</b>	<b>-34,850</b>

**Table 3: Monthly Feed Requirements.**

Feed	Units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alfalfa Hay	ton	17	17	17	17	17	17	17	17	17	17	17	17
Grain Concentrate	ton	17	17	17	17	17	17	17	17	17	17	17	17

**Daily Feed Requirements  
by Livestock Category (lb fed/head/day)**

Livestock Category	Alfalfa Hay (lb)	Grain Concentrate (lb)	No. of Days
Milking Does	5.5	6	305
Dry Does	5	2.5	60
Bucks	8	2	365

Table 4: Investment Summary.

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	Total Value	Salvage/Cull Value	Livestock Share	Useful Life	Annual Taxes & Insurance	Annual Capital Recovery
<b>Buildings, Improvements and Equipment</b>						
Milking Parlor	100,000	50,000	100	30	350.00	\$5,752.57
Milking Equipment	40,000	10,000	100	30	140.00	\$2,451.54
Pens	10,000	5,000	100	15	35.00	\$731.71
Barn	25,000	5,000	100	30	87.50	\$1,551.03
Hay Shed	5,000	2,000	100	30	17.50	\$295.15
Kidding Shed	10,000	2,000	100	30	35.00	\$620.41
Working Table	1,000	250	100	10	3.50	\$109.63
Vet Equipment	500	0	100	15	1.75	\$48.17
Stock Trailer	3,000	500	100	20	10.50	\$225.61
<b>Total</b>	<b>\$194,500</b>				<b>\$680.75</b>	<b>\$11,785.83</b>
<b>Purchased Livestock</b>						
Bucks	4,800	1,800	100	5		\$782.92
Replacement Does	20,000	6,000	100	7		\$2,719.48
<b>Total</b>	<b>\$24,800</b>					<b>\$3,502.40</b>
<b>Retained Livestock</b>						
Milking Does	100,000	40,000	100			\$5,000.00
<b>Total</b>	<b>\$100,000</b>					<b>\$5,000.00</b>
<b>Machinery and Vehicles</b>						
Skid Steer	15,000	5,000	100	18	52.50	\$1,105.46
Pickup 4X4 1/2 ton	20,000	5,000	100	10	180.00	\$2,192.57
ATV	5,000	1,000	100	8	45.00	\$668.89
<b>Total</b>	<b>\$40,000</b>				<b>\$277.50</b>	<b>\$3,966.92</b>

<sup>1</sup> Annual capital recovery is the method of calculating depreciation and interest recommended by the National Task Force on Commodity Costs and Returns Measurement Methods.

<sup>2</sup> Interest on average investment.