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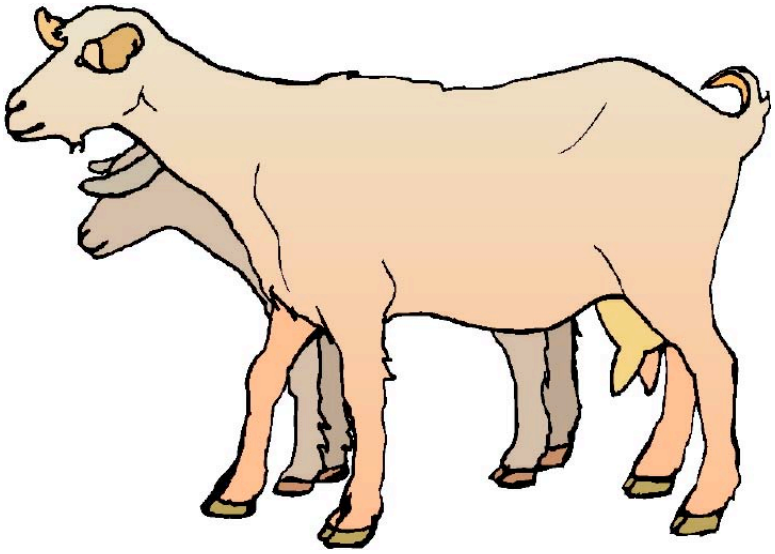
UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION

2005

SAMPLE COSTS FOR A

500 DAIRY GOAT

OPERATION



Milk for Cheese Production
In the North Coast

Deborah D. Giraud	UC Cooperative Extension Farm Advisor, Humboldt County
Karen M. Klonsky	UC Cooperative Extension Economist, Department of Agricultural and Resource Economics, UC Davis
Pete Livingston	Staff Research Associate, Department of Agricultural and Resource Economics, UC Davis

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INTRODUCTION

The sample costs to raise dairy goats on the North Coast of California are presented in this study. The ranch used in this study is 55 acres with the needed milking parlor, barns, storage, housing, fencing, and other investments required for a 500 dairy goat herd. The milk produced at the dairy is meant for the cheese market. This study is intended as a guide only, and can be used to make production decisions, determine potential returns, prepare budgets and evaluate production loans. Practices described are based on those production procedures considered typical for this enterprise and area, but will not apply to every situation. Sample costs for labor, materials, equipment and custom services are based on current figures. Some costs and practices presented in this study may not be applicable to your situation. A blank column, "*Your Costs*", is provided in Table 1 to enter your costs.

The hypothetical dairy operation, production practices, overhead, and calculations are described under the assumptions. For additional information or an explanation of the calculations used in the study call the Department of Agricultural and Resource Economics, University of California, Davis, 530-752-2414.

Sample Cost of Production studies for many commodities are available and can be requested through the Department of Agricultural and Resource Economics, UC Davis, 530-752-4424. Current studies, those produced during the last five years, can be obtained from selected county UC Cooperative Extension offices or downloaded from the department website http://coststudies.ucdavis.edu.

THE COMMERCIAL GOAT MILK INDUSTRY IN CALIFORNIA

How many commercial dairy goat herds are there in California? The exact number is hard to pin down, but a best guess would be 50 to 60. Commercial is defined as an inspected operator that sells milk to a processor, or makes an inspected farmstead product such as cheese. Commercial operators have the goal to make a living from the enterprise, although many small farms in California have some off farm income. California has a long history of producing goat milk. There used to be many farms in Southern California, but most are now in the central part of the state.

The San Joaquin Valley of California has approximately 40 commercial goat dairies that sell for fresh milk and for cheese. There are some long established goat farms and some new ones. Sizes of herds range from 150 to 1,200 goats. A single processor buys most of the milk. This processor sells fresh and dried milk throughout the nation.

The Santa Rosa area has about five commercial producers; the herd size ranges from 30 to 2,000 goats. The milk is sold for cheese, yogurt, and fresh milk. There are two medium sized processors and a dozen boutique cheese makers throughout northern California. There are trucks delivering goat milk between the Central Valley and the Santa Rosa area, and visa versa. In the Sacramento Valley one processor is buying goat milk for cheese. Humboldt County is located 650 north miles from the San Francisco Bay Area. It is home to two goat cheese processors. Currently there are five commercial milk producers milking about 850 goats.

Goat milk is also shipped into California in the form of frozen curd which is added to fresh milk to make cheese. Because of this importation, it is difficult to report on the pounds of goat cheese produced and relate it to the milk produced in the state.

The state and county milk inspectors do not have easily available lists of milk producers for goat milk separated from the cow dairies. Because of new food security concerns, the state does not make sites of food production available to the public.

The California Dairy Herd Improvement Association (DHIA) issued a report for the year 2004. It reported that 35 herds were on the testing program in California. The average herd size was 28 does per herd. This number indicated that many herds on test are not commercial herds. Many small herd owners are large hobbyists who may sell milk to pay the feed bill, but would not consider themselves commercial. However, collectively the milk produced and sold by small herds is significant. Also, conversations with some commercial herd owners indicate that not all commercial producers are members of the DHIA.

ASSUMPTIONS

The following assumptions pertain to sample costs to produce goat milk destined for the cheese market on the North Coast of California. Practices described are not recommendations by the University of California, but represent management and production practices and materials considered typical of a well managed goat dairy herd. Some costs, practices, and materials may not be applicable to your situation nor used during every year. Additional ones not indicated

may be needed. Management practices vary by dairy and region and variations can be significant. These costs are on an annual basis. *The use of trade names in this report does not constitute an endorsement or recommendation by the University of California nor is any criticism implied by omission of other similar products.* Some recommended practices such as herd improvement testing, membership dues in associations, ultra sounding does, and others are not included in this study.

Land. The hypothetical ranch consists of 5 acres of owned land and 50 acres of rented pasture. In this region dairy pasture land averages $5,000 per acre for purchase. Property rents in this region range from $30 to $50 per acre. In this study a rent of $30 per acre is assumed.

GOAT DAIRY MANAGEMENT PRACTICES AND MATERIAL INPUTS

Goat Herd. The herd consists of 500 does, 10 bucks, and replacement kids. Annually, 20% or 100 does are replaced in the herd. Does and replacement does are bred in late summer through winter. Kids are born five months after breeding. The doe milk production rates take into consideration a lower than normal milk production period during the months of gestation. In this study it is assumed that the 500 does will produce 800 kids. This rate considers twins, triplets, does which did not conceive, embryo losses, and neo-natal deaths. Most of the doe kids and all of the buck kids are sold within three days to one week after birth through commercial markets (or given away). A group of doe kids are kept to become replacement does in the herd. With good management, young kid survival rates should be 95%.

130 female kids are retained to become part of the replacement herd. Out of these 130 replacements, 30 will either die or be culled for various reasons during the first year. Does are bred at eight to ten months of age. 100 young does are moved into the milking herd after kidding. This study assumes that all 30 culled replacement does are sold.

Approximate dates for various operations are shown in Table A.

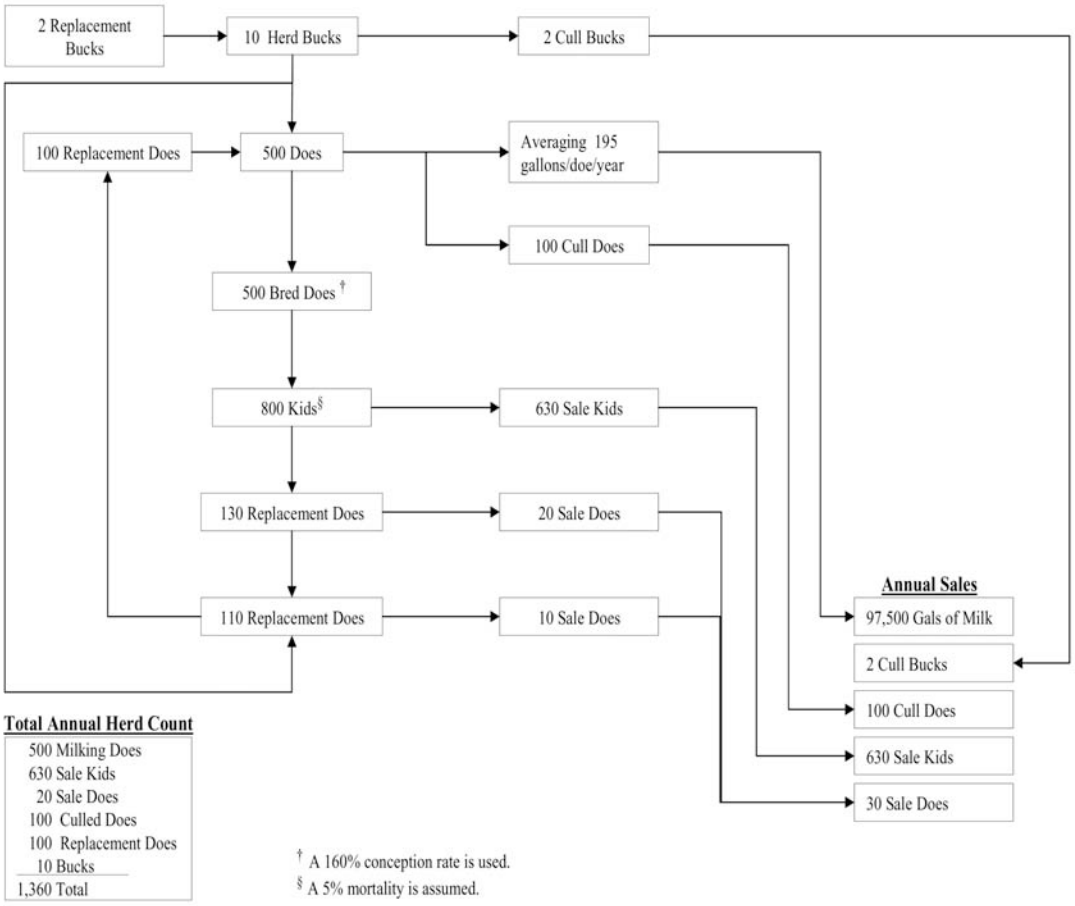
For breeding purposes, 10 bucks are kept year round. Twenty percent or two bucks per year are replaced for age, breeding, or disease related issues. The new bucks are purchased outside of the herd.

Table A. Months of major operations

Operation	Month	To	Month
Winter Feeding	August	-	January
Outside Grazing	February	-	July
Breeding	August	-	January
Kidding	January	-	March
Weaning	January	-	March
Milk & Goat Sales [§]	Annually	-	Varies

[§] For milk and goat sale dates see Table B.

Chart 1. A 500 doe herd dairy.



Feed.

Milking Does: Milking does consume an average of three and a half pounds of grain a day annually. Alfalfa hay is fed most of the year, with only a few months where the pasture is sufficient. Milking does will consume an average of five to six pounds of feed per day.

Bucks: Bucks average one to two pounds of grain during most of the year and two to three pounds during breeding**.** Bucks are not given any grain during the wet season. They are fed hay which is included in the hay totals.

Kids: Kids being raised for replacement are fed milk replacement from two days old to eight weeks of age. The pricing used is for a milk replacement bought by the pallet load (40 sacks at 50 pounds each). Kids also consume grain, starting to nibble at two weeks and consuming about 1.5 lbs a day by weaning. In the first year the average kids' grain consumption is 450 pounds. Some producers will cut back on grain significantly for several months if optimum weight is reached. Kids are fed alfalfa hay.

Pasture: On the North coast, many goat dairies have pastures or rangeland. These are accessible for browsing and exercise for much the year. Overall, the pastures do not provide much forage, and feeding is essential.

Dairy pellets contain both grain and ground forage. These are desirable as goats can be selective feeders and waste grains when offered a mix. Pellets can present problems with fines, and create an extra chore to clean feeders, so are not chosen by some producers. Availability of feed products in this region will vary and, in some of the counties, a dairy pellet is not even available. North Coast producers order a custom mix which is usually more expensive than dairy pellets. Animals are also fed supplement minerals and salt in block, not mixed with the feed. It is assumed that a herd this size will consume 72 supplemental mineral blocks annually, or its equivalent in loose salts (for ease of pricing, blocks are used).

Health Care and Veterinary Management. Dairy goats routinely receive preventative treatments for certain health conditions. Does are treated for more health issues than bucks. Herds might experience more problems or diseases than those listed below. Vaccination for overeating disease and tetanus, treatment for mastitis, internal parasites and hoof care are the main concerns on most goat dairies.

All goats have a footbath to help prevent foot rot and hooves are trimmed and injuries treated. This requires about two hours of labor every other day throughout the year. Kids are wormed, vaccinated, and disbudded. Milking does on pasture are wormed 3 to 6 times a year. These costs are included in Table 1 and 2 under Veterinary Medicine.

Other health concerns that may occur within the herd are soremouth, abscesses, joint conditions, Johne's disease, tetanus, scours, pneumonia, parasites, and other problems. This study assumes that $1,112 is spent on miscellaneous veterinary practices on the herd.

Buildings. Goat dairies vary in numbers of buildings and layouts for many reasons. For this study, it is assumed that four buildings are needed for the dairy itself, not including housing for workers or the owner. A milk parlor, shelters for does and kids, buck shelters and a storage building for feed, supplies, repairs and parts are the needed buildings.

The milking parlor is built to milk 12 does at a time and laid out in a herringbone pattern. It also has a holding pen for does waiting to be milked. The building has a 1,500 gallon bulk milk tank and hot water heater. It is 1,200 square feet. For this study, construction costs are $66,000 with an additional $75,000 for all the milking equipment including the bulk tank. The $141,000 total cost is for a new building and equipment. A producer converting an existing cow dairy parlor or using used machinery may expect lower costs.

Goats do not like wet conditions. Most dairies allow goats to wander into or out of shelters as they wish. The size and type of shelters vary considerably. Some are open on all sides while others are enclosed. This study assumes a 75 foot by 120 foot pole barn with two enclosed walls for sheltering the doe herd, with separate pens for kids, and an area to store feed and bedding material. The buck shelter is 15 by 10 feet. Neither barn has a concrete floor. This study uses $24,000 for the doe and kid barn, and $13,000 for the buck shelter. Straw bedding is used in the barns.

The storage building is 500 square feet and is used to keep some feed, veterinary supplies, cleaning goods, machinery parts and other materials. Most of the space is used to store feed and is open on some sides. The storage building costs $10,250 for materials and construction.

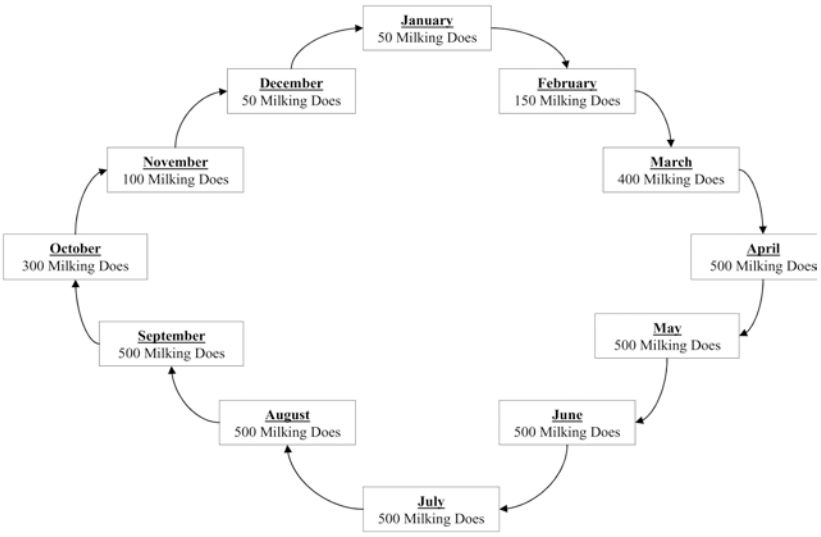
Milking. Lactating does are milked daily. The does stand on elevated platforms so the workers do not have to stoop. In this study the milking parlor has 12 stanchions. Electricity use and cost for dairies will vary, but this study uses a cost of $8,000 annually. This includes lighting, power to milking machinery, cooling milk, cleaning equipment, and other uses.

Teats are cleaned prior to milking. This helps keep bacteria counts low in the milk and reduces mastitis. All milking equipment is sanitized before each milking session. Goat dairies maintain the same sanitary conditions in milking parlors, cooling, and storage as cow dairies and are inspected by county or state personnel. The costs of cleaning supplies used in the parlor are included in the miscellaneous expenses.

In this study, a total of 97,500 gallons (or 838,500 pounds) of milk are produced by the herd annually. Different breeds of goats will give varying amounts of milk and have different factors affecting milk quality and, ultimately, price. The actual numbers will vary by individual dairies. Since goats are seasonal breeders, some producers are using lights and other methods to breed off season, and have a continual milk production. Some producers dry down the herd for two months and have one kidding season. Chart 2 shows the number of does that are being milked each month during the year as assumed in this study.

For this study the herd is not on the DHIA test because of costs and inconveniences. The costs of DHIA membership, ultra sounds, and other practices are not included in this study.

Chart 2. Annual number of does milking each month



Transportation Cost. There are two types of transportation costs; for milk and for hauling animals to sale. Milk is picked up two or three times per week, depending on the season, herd size, and the dairy's milk holding capacity. Hauling costs vary depending on many factors, such as charges per mile to plant, stop charges, and milk quality sampling costs. In this study, a transportation charge of $70 per week is used

Animals are normally not sold year round. Producers will often transport many at one time to save on costs. Most sales occur after non-replacement kids are a few days old and when animals are culled from the herd. This study uses a cost of $200 annually for hauling animals.

Sales and Returns. In this study, goat milk is sold to the cheese production market. Price for milk destined for this market is variable. Protein and butterfat content play a large part in determining the price received by producers. Prices also tend to vary with the season. When milk production is lower in the winter and spring, protein and butterfat levels tends to be higher. Quality premiums for low bacteria counts are not included in the price for this study. This study uses a price of $3.00 per gallon for return purposes only. Fluid milk sales are shown in Table B.

Animal sales will also vary depending on birth rates, mortality, and culling. Categories, price per head, and the number of animals used in this study are shown in Table B.

Table B. Sale prices for commodities marketed.

Unit Name	Sale Date	Unit	# of Units	Price/Unit	Returns
Fluid Milk	Annually	Gallons	97,500	$3.00	$292,500
Kids	January - March	Head	400	$1.00	$400
Small Kids	April	Head	230	$15.00	$3,450
Cull Goats (Skinny)	March - May	Head	65	$55.00	$3,575
Cull Goats (Fat)	March - May	Head	65	$85.00	$5,525
Cull Bucks	June	Head	2	$100.00	$2,200
Cull & Sale Does	August - January	Head	130	$85.00	$8,450

Labor. Labor rates of $9.59 per hour for milkers and general labor includes payroll overhead of 42%. The basic hourly wages are $6.75 for milkers and general labor. The overhead includes the employers' share of federal and California state payroll taxes, workers' compensation insurance for a dairy operation (code 0036), and a percentage for other possible benefits including providing housing. Although a cost is not used in this study, most dairies in this region supply housing because of low availability of places to stay and low worker wages. Workers' compensation insurance costs will vary among dairies, but for this study the cost is based upon the average industry final rate as of January 1, 2005 (California Department of Insurance).

A total of 130 hours of labor per week is estimated. Milking takes 10 hours every day, including clean up. There are many scenarios available for the needed labor; a full time position working five days a week plus a part-time relief milker working two days a week; the owner milking some shifts etc. The hired labor totals 70 hours per week at minimum wage. Besides milking, the tasks are repairs, feeding, breeding, and all animal management. The owner also provides labor for all aspects of the dairy. The owner works seven days a week, for a total of 60 hours per week. With two weeks away, the study assumes 3,000 hours of owner labor annually. The owners are paid $20.00 per hour which includes self-employment taxes and benefits. The owner labor is included in the operating costs. Returns above total costs are a return to risk and management. These are the minimum average labor needs, seasonal differences can be expected.

Equipment Operating Costs. Repair costs are based on purchase price, annual hours of use, total hours of life, and repair coefficients formulated by American Society of Agricultural

Engineers (ASAE). Fuel and lubrication costs are also determined by ASAE equations based on maximum Power-Take-Off (PTO) horsepower, and fuel type. Prices for on-farm delivery of diesel and gasoline are $1.51 and $2.05 per gallon, respectively. Costs are based on current delivery prices quoted by distributors and 2004 monthly price data. The cost includes a 2% local sales tax on diesel fuel and 8% sales tax on gasoline. Gasoline also includes federal and state excise taxes that are refundable for on-farm use when filing income tax return. The fuel, lube, and repair cost per acre for each operation is determined by multiplying the total hourly operating cost for each piece of equipment used in the selected operation by the hours per acre. Tractor time is 10% higher than implement time for a given operation to account for setup, travel and down time.

Risk. The risks associated with a 500 head goat dairy to produce milk for the cheese market are significant. While this study makes every effort to model a production system based on typical, real world practices, it cannot fully represent financial, agronomic, and market risks which affect the profitability and economic viability of a dairy goat operation. A market channel should be determined before starting a goat dairy for either fluid milk or cheese markets. Goat milk is not part of a state or federal marketing order.

Interest On Operating Capital. Interest on operating capital is based on cash operating costs and is calculated monthly until the first cash returns, at a nominal rate of 7.65% per year. A nominal interest rate is the typical rate for borrowed funds.

CASH OVERHEAD COSTS

Cash overhead consists of various cash expenses paid out during the year that are assigned to the whole farm and not to a particular operation. These costs include property taxes, office expense, liability and property insurance, and, if used, management services.

Property Taxes. Counties charge a base property tax rate of 1% on the assessed value of the property. In some counties special assessment districts exist and charge additional taxes on property including equipment, buildings, and improvements. For this study, county taxes are calculated as 1% of the average value of the property. Average value equals new cost plus salvage value divided by 2 on a per acre basis.

Office Expense. Office and business expenses are estimated at $5,000 annually and included in miscellaneous expenses. These expenses include office supplies, telephones, bookkeeping, accounting, legal fees, etc.

Insurance. Insurance for farm investments vary depending on the assets included and the amount of coverage. Property insurance provides coverage for property loss and is charged at 0.690% of the average value of the assets over their useful life. Liability insurance covers accidents on the farm and costs $529 for the farm.

NON-CASH OVERHEAD COSTS

Capital Recovery Costs. Although farm equipment on a stock farm in the region might be purchased new or used, this study shows the current purchase price for new equipment. The new purchase price is adjusted to 60% to indicate a mix of new and used equipment. Annual ownership costs for equipment and other investments are shown in the various tables. They represent the capital recovery cost for investments on an annual per acre basis.

Capital recovery cost is the amount of money required each year to recover the difference between the purchase price and salvage value (unrecovered capital). Put another way, it is equivalent to the annual payment on a loan for the investment with the down payment equal to the discounted salvage value. This is a more complex method of calculating ownership costs than straight-line depreciation and opportunity costs, but more accurately represents the annual costs of ownership because it takes the time value of money into account (Boehlje and Eidman). The calculation for the annual capital recovery costs is as follows:

$$\left[\left(\underset{\text{Price}}{Purchase} - \underset{Value}{Salvage}\right) \times \left(\underset{Factor}{\overset{Capital}{Recovery}}\right)\right] + \left[\underset{Value}{Salvage} \times \underset{Rate}{Interest}\right]$$

Salvage Value. Salvage value is an estimate of the remaining value of an investment at the end of its useful life. For farm machinery (e.g., tractors and implements) the remaining value is a percentage of the new cost of the investment (Boehlje and Eidman). The percent remaining value is calculated from equations developed by the American Society of Agricultural Engineers (ASAE) based on equipment type and years of life. The life in years is estimated by dividing the wearout life, as given by ASAE by the annual hours of use in this operation. For other investments including irrigation systems, buildings, and miscellaneous equipment, the value at the end of its useful life is zero. The salvage value for land is equal to the purchase price because land does not depreciate.

Capital Recovery Factor. Capital recovery factor is the amortization factor or annual payment whose present value at compound interest is 1. The amortization factor is a table value that corresponds to the interest rate and the life of the equipment.

Interest Rate. The interest rate of 6.01 % used to calculate capital recovery cost is the USDA-ERS's ten-year average of California's agricultural sector long-run rate of return to production assets from current income. It is used to reflect the long-term realized rate of return to these specialized resources that can only be used effectively in the agricultural sector. In other words, the next best alternative use for these resources is in another agricultural enterprise.

Table Values. Due to rounding, the totals may be slightly different from the sum of the components.

Acknowledgment. Assistance provided by local producers, builders, and suppliers was greatly appreciated.

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For information concerning the above or other University of California publications, contact UC DANR Communications Services at 1-800-994-8849, online at www.ucop.edu, or your local county UC Cooperative Extension office.

Table 1.

UC COOPERATIVE EXTENSION
COSTS RETURNS TO OPERATE A 500 HEAD DAIRY GOAT OPERATION
NORTH COAST
FOR CHEESE PRODUCTION

	Unit	Total Number of Head or Units	Price or Cost/Unit	Total Value	Value or Cost/Head	Your Value
GROSS RECEIPTS						
Kids	Head	580	1.00	580	1.16	
Fat Goats	Head	65	55.00	3,575	7.15	
Skinny Goats	Head	65	85.00	5,525	11.05	
Cull Bucks	Head	3	100.00	300	0.60	
Milk	Gallon	97,500	3.00	292,500	585	
Small Kids	Head	40	15.00	600	1.20	
Sale Does	Head	130	65.00	8,450	16.90	
TOTAL RECEIPTS				**311,530**	**623.06**	
OPERATING COSTS						
Mineral Block	Block	72	8.20	590	1.18	
Alfalfa Hay	Ton	75	180	13,500	27.00	
Oat Hay	Ton	75	120	9,000	18.00	
Dry Minerals	Ton	1	380	456	0.91	
Mixed Grain	Ton	320	253	81,023	162.05	
Kid Grain	Ton	16	200	3,200	6.40	
Calf Milk Replacer	Sack	40	42.50	1,700	3.40	
Inspection	Dairy	1	350	350	0.70	
Miscellaneous Veterinary	Dairy	556	2	1,112	2.22	
Miscellaneous Expenses	Month	12	666.67	8,000	16.00	
Milk Transportation	Week	52	70	3,640	7.28	
Animal Transportation	Trip/Fuel	4	50	200	0.40	
Dairy Electricity	Dairy	12	666.67	8,000	16.00	
Straw Bedding	Dairy	24	50	1,200	2.40	
Hired Labor	Hour	3,650	9.59	35,004	70.01	
Owner Labor	Hour	3,000	20.00	60,000.00	120.00	
Veterinary Medicine	Dairy	1	9,090	9,090	18.18	
Machinery (fuel, oil, lube, repair)	Dairy	1	1,375	1,375	2.75	
Vehicles (fuel, lube, repair)	Dairy	1	6,832	6,832	13.66	
Equipment (repair)	Dairy	1	370	370	0.74	
Housing and Improvements (repair)	Dairy	1	3,973	3,973	7.95	
Interest on Operating Capital @ 7.65%	Dairy		100,963	7,724	15.45	
TOTAL OPERATING COSTS				**$256,339**	**$512.68**	
INCOME ABOVE OPERATING COSTS				**$55,041**	**$110.08**	
CASH OVERHEAD COSTS						
Interest on Retained Livestock				2,226	4.45	
Property Taxes and Insurance				6,793	13.59	
Office Expenses				5,503	11.01	
TOTAL CASH OVERHEAD COSTS				**14,522**	**29.04**	
NON-CASH OVERHEAD						
Capital Recovery				23,880	47.81	
TOTAL NON-CASH OVERHEAD COSTS				**23,880**	47.76	
TOTAL COSTS				**294,742**	**589.48**	
Returns to Risk and Management				**16,788**	**33.58**	

Table 2.

UC COOPERATIVE EXTENSION
MONTHLY SUMMARY OF CASH RETURNS AND EXPENSES TO OPERATE A 500 HEAD GOAT DAIRY
NORTH COAST
FOR CHEESE PRODUCTION

	Sep 04	Oct 04	Nov 04	Dec 04	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	Jul 05	Aug 05	Total
PRODUCTION													
Kids	0	0	0	0	230	230	120	0	0	0	0	0	580
Fat Goats	0	0	0	0	0	0	1,375	1,375	825	0	0	0	3,575
Skinny Goats	0	0	0	0	0	0	2,125	2,125	1,275	0	0	0	5,525
Cull Bucks	0	0	0	0	0	0	0	0	0	300	0	0	300
Milk	36,111	21,667	7,222	3,611	3,611	10,833	28,889	36,111	36,111	36,111	36,111	36,111	292,500
Small Kids	0	0	0	0	0	0	0	600	0	0	0	0	600
Sale Does	0	0	0	0	0	0	0	0	0	4,550	3,900	0	8,450
Total RECEIPTS	**36,111**	**21,667**	**7,222**	**3,611**	**3,841**	**11,063**	**32,509**	**40,211**	**38,211**	**40,961**	**40,011**	**36,111**	**311,530**
OPERATING INPUTS													
Mineral Block	49	49	49	49	49	49	49	49	49	49	49	49	590
Alfalfa Hay	1,125	1,125	1,125	1,125	1,125	1,125	1,125	1,125	1,125	1,125	1,125	1,125	13,500
Oat Hay	750	750	750	750	750	750	750	750	750	750	750	750	9,000
Dry Minerals	38	38	38	38	38	38	38	38	38	38	38	38	456
Mixed Grain	6,831	6,641	6,641	6,641	6,641	6,641	6,831	6,831	6,831	6,831	6,831	6,831	81,023
Kid Grain	278	278	278	278	0	0	139	417	417	420	347	347	3,200
Calf Milk Replacer	0	0	0	0	850	850	0	0	0	0	0	0	1,700
Inspection	0	0	0	0	350	0	0	0	0	0	0	0	350
Miscellaneous Veterinary	0	0	102	102	202	202	202	102	100	100	0	0	1,112
Miscellaneous Expenses	667	667	667	667	667	667	667	667	667	667	667	667	8,000
Milk Transportation	303	303	303	303	303	303	303	303	303	303	303	303	3,640
Animal Transportation	0	50	0	0	0	0	50	50	0	50	0	0	200
Dairy Electricity	667	667	667	667	667	667	667	667	667	667	667	667	8,000
Straw Bedding	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Veterinary Medicine	758	758	758	758	758	758	758	758	758	758	758	758	9,090
Machinery (Fuel, Oil, Lube, Repair)	206	206	206	206	206	206	28	28	14	14	28	28	1,375
Vehicles (Fuel and Repair)	1,576	1,574	368	368	368	368	368	368	368	368	368	368	6,832
Equipment (Repair)	0	0	0	0	185	185	0	0	0	0	0	0	370
Housing, Improvements (Repair)	397	397	397	397	397	397	397	397	199	199	199	199	3,973
Owner Labor	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
Hired Labor	3,203	3,203	1,918	1,918	2,282	3,203	3,213	3,213	3,213	3,213	3,213	3,213	35,004
Interest on Operating Expenses	103	211	297	402	498	598	693	790	885	983	1,085	1,178	7,724
Total Operating Cost	**16,167**	**16,885**	**13,587**	**16,355**	**15,158**	**15,729**	**14,903**	**15,176**	**14,817**	**15,387**	**16,000**	**14,661**	**256,339**
Cash Overhead Costs													
Interest on Retained Livestock	0	0	0	517	0	0	0	0	0	517	1,205	0	2,226
Property Taxes and Insurance	566	566	566	566	566	566	566	566	566	566	566	566	6,793
Office Expenses	459	459	459	459	459	459	459	459	459	459	459	459	5,503
Total Cash Overhead Costs	**1,025**	**1,025**	**1,025**	**1,542**	**1,025**	**1,025**	**1,025**	**1,025**	**1,025**	**1,542**	**2,230**	**1,025**	**14,522**
Total Cash Costs	**17,192**	**17,910**	**14,611**	**17,897**	**16,183**	**16,753**	**15,928**	**16,200**	**15,841**	**16,928**	**18,230**	**15,686**	**270,861**
Net Returns	**18,920**	**3,757**	**-7,389**	**-14,286**	**-12,342**	**-5,690**	**16,581**	**24,011**	**22,370**	**24,033**	**21,781**	**20,425**	**40,669**

Table 3.

UC COOPERATIVE EXTENSION
INVESTMENT SUMMARY OF OPERATINGING A 500 GOAT DAIRY
NORTH COAST
FOR CHEESE PRODUCTION

	Purchase Price	Salvage/Cull Value	Livestock Share (%)	Useful Life (yr)	Annual Taxes and Insurance	Annual Capital Recovery
BUILDINGS, IMPROVEMENTS AND EQUIPMENT						
Milking Parlor	141,000	14,100	100	40	1,311	9,292
Barn/Shelter - Does	25,500	2,550	100	40	237	1,680
Barn/Shelter - Bucks	13,200	1,320	100	40	123	870
Storage Building	10,350	1,035	100	40	96	682
Corrals	3,000	300	100	30	28	214
Fencing	5,000	500	100	30	46	357
Land	25,000	25,000	100	20	423	1,503
Vet Equipment	390	65	100	15	2	37
Gooseneck trailer	6,930	1,155	100	20	28	573
Squeeze	1,080	180	100	10	4	133
Total BUILDINGS, IMPROVEMENTS AND EQUIPMENT	**231,450**				**2,297**	**15,343**
PURCHASED LIVESTOCK						
Bucks	1,000	200	100	5		188
Total PURCHASED LIVESTOCK	**$1,000**					**$188**
RETAINED LIVESTOCK	**(Beginning Value)**					**(Int. on investment)**
Does	60,000	28,000	100			1,760
Replacement Does	12,500	6,000	100			370
Bucks	4,000	800	100			96
Total RETAINED LIVESTOCK	**76,500**					**2,226**
MACHINERY AND VEHICLES						
30 HP Tractor & Loader	20,000	2,000	100	20	76	1,691
Pickup 4x4 3/4 ton	26,000	2,600	75	5	2,652	4,060
Pickup 1/2 Ton	23,000	2,300	65	7	1,768	2,599
Total MACHINERY AND VEHICLES	**69,000**				**4,496**	**8,350**

Table 4.

UC COOPERATIVE EXTENSION
RANGING ANALYSIS FOR A 500 GOAT DAIRY
NORTH COAST
FOR CHEESE PRODUCTION

	Units	Units Produced	Market Prices $ per Unit								
Fluid Milk	Gallons	97,500	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80
Kids	Head	580	0.80	0.85	0.90	0.95	1.00	1.05	1.10	1.15	1.20
Small Kids	Head	40	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00
Skinny Goats	Head	65	35.00	40.00	45.00	50.00	55.00	60.00	65.00	70.00	75.00
Fat Goats	Head	65	65.00	70.00	75.00	80.00	85.00	90.00	95.00	100.00	105.00
Cull Bucks	Head	2	80.00	85.00	90.00	95.00	100.00	105.00	110.00	115.00	120.00
Sale Does	Head	130	45.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00
Gross Income			**227,914**	**248,793**	**269,672**	**290,551**	**311,530**	**332,309**	**353,188**	**374,067**	**394,946**
Total Operating Costs			256,339	256,339	256,339	256,339	256,339	256,339	256,339	256,339	256,339
Net Income Above Operating Costs			**-28,425**	**-7,546**	**13,333**	**34,212**	**55,191**	**75,970**	**96,849**	**117,728**	**138,607**
Total Costs			294,742	294,742	294,742	294,742	294,742	294,742	294,742	294,742	294,742
Net Income Above Total Costs			**-66,828**	**-45,949**	**-25,070**	**-4,191**	**16,788**	**37,567**	**58,446**	**79,325**	**100,204**
Net Income per doe head	**Doe Head**	**500**	**-133.66**	**-91.90**	**-50.14**	**-8.38**	**33.58**	**75.13**	**116.89**	**158.65**	**200.41**