

FINANCIAL ANALYSIS OF THE ECONOMIC DATA FOR THE MILKING SHEEP FLOCK AT THE SPOONER AGRICULTURAL RESEARCH STATION

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Background

The milking sheep flock at the UW Spooner Agricultural Research Station has completed two lactations (1996 and 1997). The economic data collected has been analysed and inferences have been concluded which will assist in financial decision making and venture planning.

To ensure accuracy, the UW Extension computer farm records program AAIMS (Agriculture Accounting Information Management Service) has been used. This program also allows easy manipulation of information that would be very time consuming if done by hand.

It is imperative that the reader understand that only the income and expenses of the sheep milking enterprise are being considered. Other income items such as lamb sales, cull sales, etc. are not considered. The financial information and analysis presented only pertains to the sheep milking enterprise.

Farm Earning Statement

A farm earning statement is a snapshot of the income and expenses for a given period of time. Table 1 is a farm earning statement for the 1996 lactation. Table 2 is a farm earning statement for the 1997 lactation. Table 3 is the farm earning statement for both lactations combined.

Included in each farm earning statement are expense items, hired labor, opportunity cost, and depreciation.

Hired labor was paid at a rate of \$8.00 per hour. An individual contemplating milking sheep is encouraged to budget for labor whether it is hired or family labor.

Opportunity cost is a cost of money. Since money can be invested in many different places, it is advised to assign a percentage rate to the amount of money invested in the business. The total invested in the Spooner Agricultural Research Station project is approximately \$50,000. We used an opportunity cost of 9% since we calculated that the \$50,000 could be put in a low risk mutual fund and earn at least 9% return.

Depreciation is a cost of replacing the investment after it becomes worn out. We considered the milking parlor and its equipment to be productive for 20 years. Hence, a depreciation charge of 5% was charged against the enterprise. It is recommended that the depreciation cost be kept in a separate account and not used for expenses such as family living or maintenance.

Implications

When comparing the '96 lactation with the '97 lactation, it is apparent that the increased number of ewes milked in '97 and the increased milk production of older ewes significantly

improved the financial picture of the enterprise. Further research is needed to determine the point on the economic curve where marginal revenue equals marginal costs. At this point, the enterprise is operating at optimum economic efficiency. As more data from subsequent lactations becomes available, it will be possible to ascertain this important indicator.

Farm Earnings

Table 1

UW Spooner Agricultural Research Station Sheep Milking Project 1996 Lactation

	Units	\$/Unit	Ending Balance	%
Income				
Sale of sheep milk	24,233.00 lbs.	\$0.62	\$15,024.00	100.00 %
		Income	\$15,024.00	
Expense				
Purchased feed/grain	216.00 cwt.	\$9.15	\$1,976.00	13.43%
Purchased feed/hay	698.00 cwt.	\$4.25	\$2,967.50	20.17%
Insurance			\$200.00	1.36%
Opportunity cost			\$4,500.00	30.58%
Hired labor	495.00 hr.	\$8.00	\$3,960.00	26.91%
Milk house supplies			\$713.96	4.85%
Utilities			\$300.00	2.04%
Milk testing costs			\$96.23	0.65%
		Expense	\$14,713.69	
			Change in feed inventories	\$0.00
			Change in raised livestock	\$0.00
			Change in accounts receivable	\$0.00
			TOTAL INCOME	\$15,024.00
			Depreciation claimed	\$2,500.00
			TOTAL EXPENSE	\$17,213.69
			NET FARM INCOME	(\$2,189.69)

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Farm Earnings

Table 3

UW Spooner Agricultural Research Station Sheep Milking Project 1996/1997 Lactation

	Units	\$/Unit	Ending Balance	%
Income				
Sale of sheep milk	78,433.30 lbs.	\$0.61	\$47,544.48	100.00 %
		Income	\$47,544.48	
Expense				
Purchased feed/grain	715.00 cwt.	\$8.68	\$6,204.00	14.87%
Purchased feed/hay	1,404.00 cwt.	\$4.63	\$6,497.50	15.58%
Insurance			\$400.00	0.96%
Opportunity cost			\$9,000.00	21.58%
Hired labor	495.00 hr.	\$8.00	\$17,910.71	42.94%
Milk parlor maintenance			\$563.89	1.35%
Milk house supplies			\$713.96	1.71%
Utilities			\$300.00	.72%
Milk testing costs			\$118.58	.28%
		Expense	\$41,708.64	
			Change in feed inventories	\$0.00
			Change in raised livestock	\$0.00
			Change in accounts receivable	\$0.00
			TOTAL INCOME	\$47,544.48
			Depreciation claimed	\$5,000.00
			TOTAL EXPENSE	\$46,708.64
			NET FARM INCOME	\$835.84

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