



# SHEEP FLOCK PLANNING GUIDE

## Should I Have a Ewe Flock

The number of Minnesota farms with breeding ewes on them has declined from 37,000 in 1935 to 8,250 by 1972. The number of ewes on Minnesota farms has been cut in half during the past 25 years and in 1972 was about 358,000 head.

Lamb and mutton per capita consumption in the U.S. has been on the decline for a number of years to its present level of about 3 pounds per person. If supplies can be produced on a competitive basis this decline can be halted.

With good management sheep can compete with other livestock enterprises for resources on Minnesota farms and particularly so when the following locational, resource and management conditions exist:

- LOCATION: ● In areas where grazing land and forage crops are competitive land use alternatives.
- RESOURCES: ● On farms where excess feed, buildings and labor are available.  
 ● Where capital is limited and a fast rate of turnover is desired.  
 ● On farms operated by an interested sheep producer where a skilled manager is able to achieve the following management goals on a commercial ewe flock.
- MANAGEMENT: ● Able to limit annual feed cost per ewe unit in a complete enterprise to \$30/year.  
 ● Able to wean a 140% lamb crop.  
 ● Market lambs weighing 90 pounds at the age of 120 days, or 105 pounds at 160 days.  
 ● On a specialized sheep ranch one man should be able to handle 800 to 1,000 ewes. Ewe flocks of 100 to 200 ewes might fit many farms.  
 ● Innovative management that will apply money saving technology to the enterprise.

Mervin L. Freeman  
Area Extension Agent

Robert M. Jordan  
Animal Science

Paul R. Hasbargen  
Extension Economist

Agricultural Extension Service  
Department of Agricultural and Applied Economics  
UNIVERSITY OF MINNESOTA  
U.S. Department of Agriculture

This archival publication may not reflect current scientific knowledge or recommendations.  
Current information available from University of Minnesota Extension: <http://www.extension.umn.edu>.

# Planning Information

**TOTAL INCOME** - Add market lamb, wool sales and incentive payments and cull ewe sales together.

**Health** - Medicine, sprays, drenches and veterinarian expenses: \$.60 - \$.90/ewe unit.

**Breeding** - The ram depreciation charge is calculated by subtracting the selling price from the purchase price and dividing that figure by the number of ewes serviced. Example - \$130 ram purchase price minus \$70 selling price = \$60 (the amount ram depreciated in value).

\$60 depreciation charge: 80 ewes bred in 2 years the ram was used. \$.75/ewe unit.

**Power and Fuel** - The sheep flock share of electricity, fuel and oil: \$.30 - \$.50/ewe unit.

**Shearing** - Cost of shearing ewe: \$.60 - \$.80/head.

**Marketing Costs** - Includes trucking, yardage, ins. com. weighing and feed: \$1.50/head.

**Interest Paid** - Includes interest actually paid on sheep or facility loan. Example assumes a \$10 debt per ewe unit at 8% interest, this amounts to \$.80/ewe unit.

**Repairs** - This assumes a \$25 investment/ewe in buildings with an annual repair rate of 1.5%. equipment investment is assumed to be \$10 with a 3% repair rate: \$.70/ewe unit.

**Hired Labor** - Assume 10% of the labor is hired. Labor requirements vary from 2 to 4 hours per ewe unit. Example 3 hours/year x 10% x \$3/hour: \$.90/ewe unit.

**Manure** - Assume the value of manure is equal to the expense of removal: \$.00/ewe unit.

**Miscellaneous** - Insurance and taxes on buildings and equipment, bedding and other general expenses: \$.40 to \$1/ewe unit.

**HOME GROWN FEED** - Example assumes a 125% and 150% lamb crop with 1.05 and 1.3 lambs sold per ewe. Home grown feed can supply most of the grain and forages for sheep. The annual feed requirements per ewe and feeder lamb are set forth in the table below.

Assumption: start flushing ewes mid-August, turn rams in with ewes first of September, lamb in February and sell slaughter lambs in June and July.

<u>Type of Animal</u>	<u>Production and Feeding Systems</u>				<u>Prot.</u>
	<u>Pasture (5 mo. Ewe Flock)</u>		<u>Dry Lot</u>		
	<u>Corn Equiv.</u>	<u>Hay Equiv.</u>	<u>Corn Equiv.</u>	<u>Hay Equiv.</u>	
120 lb. ewe	2.5 bu.	820#	2.5 bu.	1165#	
140 lb. ewe	2.5 bu.	920#	2.5 bu.	1300#	
50# to 105# fattening lamb - dry lot 130 days			3.6 bu.	165#	13#
65# to 105# fattening lamb - dry lot 90 days			2.9 bu.	120#	9#
75# to 110# fattening lamb - dry lot 80 days			2.9 bu.	95#	8#
85# to 115# fattening lamb - dry lot 70 days			2.8 bu.	75#	7#

**RETURN OVER FEED AND CASH COSTS** - Earnings would drop by this much if the sheep flock was discontinued, if the crops were sold and the labor and capital resources were not used for anything else. This is the amount available to pay off capital investments and/or provide a return to the operator.

# Estimating Income Above Costs Per Ewe

	<u>Average Management</u>		<u>Good Management</u>		<u>My Estimate</u>	
Percent lamb crop weaned	125%		150%		_____	
Market lamb selling weight	105 lbs.		105 lbs.		_____	
<b>GROSS RETURN PER EWE UNIT</b>						
Source of income:	<u>Amount</u>	<u>Value</u>	<u>Amount</u>	<u>Value</u>	<u>Amount</u>	<u>Value</u>
Market lamb sales @ \$.32/lb.	110#	\$35.20	157#	50.40	_____	_____
Wool incentive per lamb \$1.48/cwt. lamb		1.65		2.30	_____	_____
Cull ewe sales (16% of flock sold) @ \$.10/lb.	22#	2.20	22#	2.20	_____	_____
Wool sales (include incentive) \$.75/lb.	9#	<u>6.75</u>	8.5#	<u>6.40</u>	_____	_____
<b>TOTAL INCOME</b>		<b>\$45.90</b>		<b>\$61.30</b>	_____	_____

## CASH COSTS PER EWE UNIT:

<b>Purchased feed:</b>						
Protein	13#	\$ 1.05	1.95#	\$ 1.45	_____	_____
Mineral and salt	18#	.65	22#	.80	_____	_____
Health		.80		.90	_____	_____
Breeding (ram replacement)		.75		.60	_____	_____
Power and fuel		.40		.45	_____	_____
Shearing		.70		.70	_____	_____
Marketing costs		1.80		2.50	_____	_____
Repairs		.70		.75	_____	_____
Labor hired		.90		1.00	_____	_____
Miscellaneous		.60		.75	_____	_____
<b>Total Cash Costs</b>		<b>\$ 8.35</b>		<b>\$ 9.90</b>	_____	_____
<b>RETURN OVER CASH COSTS</b>		<b>\$37.55</b>		<b>\$51.40</b>	_____	_____

## HOME GROWN FEED PER EWE UNIT <sup>1/</sup>

Corn <sup>2/</sup>	6.2 bu.	\$ 9.30	7.2 bu.	\$10.80	_____	_____
Hay	1180#	14.75	1220#	15.25	_____	_____
Pasture (breeding flock)	5 mo.	<u>3.50</u>	5 mo.	<u>3.50</u>	_____	_____
<b>Total Home Produced Resources</b>		<b>\$27.55</b>		<b>\$29.55</b>	_____	_____

## RETURN TO LABOR AND FACILITIES

		\$10.00		\$21.85	_____	_____
--	--	---------	--	---------	-------	-------

<sup>1/</sup> Feed costs are for 140 ewe and her offspring. Prices used: corn - \$1.50/bu., hay - \$25/ton, and protein - \$7.50/cwt. Lambs are weaned at 50# and then they are put into a drylot where they are fed out to 105 lbs. net selling weight.

<sup>2/</sup> Corn fed assumes about 1 bushel of additional corn is gleaned from corn and grain fields.

# Lamb Feeding Costs And Returns

Sheep flock owners must either feed out or sell their feeder lambs. Feedlot owners must decide what weight, sex and/or grade feeder lambs to buy. An accurate estimate of feedlot costs is essential to make these decisions.

	<u>Typical Feedlot Costs Per Lamb</u>				<u>My Farm</u>
	<u>Weaning Lambs</u>	<u>Light Feeders</u>	<u>Medium Feeders</u>	<u>Heavy Feeders</u>	
Days in feedlot	120-140	80-100	70-90	60-80	
Lamb weight entering feedlot	50#	65#	75#	85#	
Lamb weight leaving feedlot	105#	105#	110#	115#	
Net lamb selling weight after shrink	100#	100#	105#	110#	
Value of shipping shrink @ \$32/cwt.	\$ 1.60	\$ 1.60	\$ 1.60	\$ 1.60	
<b>Cash Expenses</b>					
Feed	\$ 8.44	\$ 6.43	\$ 6.14	\$ 5.66	
Health	.40	.40	.40	.40	
Interest	.45	.40	.40	.40	
Marketing	1.50	1.50	1.55	1.60	
Hired Labor	.30	.20	.20	.20	
Miscellaneous	.40	.30	.30	.30	
<b>Total Cash Expense</b>	<b>\$11.49</b>	<b>\$ 9.23</b>	<b>\$ 8.99</b>	<b>\$ 8.56</b>	
<b>Other Expenses</b>					
Death loss	\$ .30	\$ .30	\$ .30	\$ .30	
Building and equip. charge	.30	.30	.30	.30	
Family labor and mgt.	.85	.65	.55	.50	
<b>Total Other Expenses</b>	<b>\$ 1.45</b>	<b>\$ 1.25</b>	<b>\$ 1.15</b>	<b>\$ 1.10</b>	
<b>TOTAL FEEDLOT COSTS</b>	<b>\$12.94</b>	<b>\$10.48</b>	<b>\$10.14</b>	<b>\$ 9.66</b>	

The difference between the gross sales value for the market lamb and the purchase cost of the feeder is the Gross Margin a lamb feeder has to cover all his feedlot costs. A lamb feeder should strive for a gross margin large enough to cover all his costs. For example, a lamb feeder wants a gross margin of \$9 on every 75# feeder lamb he buys. Feeder lambs are offered to him at a laid in price of \$32 per hundred weight. Looking at our table below we note the breakeven market price for 105 pound fat lambs (110# lamb with a 5# shrink) is \$31.43 per hundred weight. If he expects the market price to be \$31.43/cwt. or more he will probably buy the feeder lambs.

## Breakeven Prices for Typical Lamb Feeding Program

<u>Laid-in Feeders</u>	<u>Light Feeders</u>		<u>Medium Feeders</u>		<u>Heavy Feeders</u>	
	65#-100# net wt.		75#-105# net wt.		85#-110# net wt.	
	<u>Gross Margin</u>		<u>Gross Margin</u>		<u>Gross Margin</u>	
<u>Price Per Cwt.</u>	<u>\$10</u>	<u>\$12</u>	<u>\$ 9</u>	<u>\$11</u>	<u>\$ 9</u>	<u>\$11</u>
\$28	\$28.20	\$30.20	\$28.57	\$30.47	\$29.82	\$31.65
\$30	29.50	31.50	30.00	31.90	31.37	33.20
\$32	30.80	32.80	31.43	33.33	32.91	34.74
\$34	32.10	34.10	32.85	34.75	34.45	36.28
\$36	33.40	35.40	34.28	36.18	36.00	37.83
\$38	34.70	36.70	35.71	37.61	37.55	39.38
\$40	36.00	38.00	37.14	39.04	39.04	40.92
\$42	37.30	39.30	38.57	40.47	40.64	42.47
\$44	38.60	40.60	40.00	41.89	42.18	44.01