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2-1-1995

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## Recommended Citation

Pflueger, Burton and Madsen, Larry, "Ewe Flock Sharing Arrangements for Central South Dakota" (1995). *Extension Extra*. Paper 150.  
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# Extension Extra

ExEx 5025  
February 1995  
Ag Economics

SOUTH DAKOTA STATE UNIVERSITY / U.S. DEPARTMENT OF AGRICULTURE

## Ewe Flock Sharing Arrangements for Central South Dakota

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Sheep sharing arrangements can result in higher net incomes for both the livestock owner and the shepherd. Before entering into a sharing agreement, the parties to the agreement should estimate total production expenses for the planned sheep enterprise. All expenses should be charged at market price, including the feed grain produced on the farm.

Budgets of costs and returns for ewe flock enterprises indicate that a system of buying replacement ewes is more profitable than raising your own replacements. This is due to high market prices for slaughter and feeder lambs relative to the cost of securing good quality western replacement ewes for farm flocks. If one party furnishes quality western ewes and the other party provides management to market a 130 percent lamb crop, a ewe flock operating agreement can be profitable for both parties.

### Typical Production Expenses

Table 1 is a summary of typical costs for a 200-ewe flock in the central Dakotas with a 20 percent replacement rate for purchased western ewes. Charges for hay, feed grain, and grazing produced on the farm were calculated based on current market prices. Costs of production, including a return on investment, are estimated to be \$26,354 for each year of operation. Rules of thumb for these cost groups can be used to estimate costs for other situations.

### Ewes and Rams

The \$3,050 charge for ewes and rams represents a charge of 25 percent of the value of breeding animals (Table 1). It includes an allowance for depreciation, interest on investment, insurance, and death loss. Ewe death loss is estimated at 2 percent.

### Buildings and Equipment

Ownership costs include depreciation, interest on investment, repairs, taxes, and insurance. The life expectancy controls depreciation charged. Eighteen to 20 percent of

new cost for equipment and 12 to 15 percent of new cost for buildings should provide a starting point for negotiations to cover these five ownership costs.

### Labor and Management

This charge varies depending upon the size of the flock and the length of the grazing season. For a typical 200-ewe flock in the central Dakotas, \$6.50 per hour is considered to be a typical charge for labor at 4 to 4.5 hours per ewe. A management fee of 5 percent of Value of Production\* is used in this example.

### General Overhead

General overhead costs must be estimated since they cannot be tied to specific enterprises. Included in this charge are costs such as farm share of the telephone, electricity, or automobile, legal fees, use of pickup or tractor in farmyard, and other miscellaneous expenses. Five percent of Value of Production per ewe is a typical charge for general overhead costs per year.

### Grazing

Rental rates for grazing vary throughout the Dakotas. Grazing rates reported range from a low of \$12 per animal unit month (AUM) to a high of \$20. A charge for the grazing season of \$12 per AUM is used in this paper. (C256, South Dakota Agricultural Land Values, Cash Rental Rates, and Cropshare Rental Practices, June 1993.)

### Hay

Hay produced on the farm usually will be valued at \$40 to \$60 per ton. Prices for hay include a return to land and labor. Annual hay charges per ewe vary from \$20 to \$30 depending upon local hay prices and length of the grazing season. High quality hay generally is recommended for sheep.

\*Value of Production = total sales less cost of purchased market livestock. (In this case, Value of Production equals total sales.)

**Table 1. Annual sheep production costs, typical shelter and equipment for central Dakotas, 200 ewes producing a 130-percent lamb crop sold, sell 115-pound market lambs, replacements furnished by owner of breeding stock.**

Type of Cost	Annual Charge
1. Ewes (55 x 200 x .25 = 2,750)	\$ 2,750
2. Rams (210/35 x 200 x .25 = 300)	300
3. Buildings and Equipment (2400x.15=360) + (2800x.2=560)	920
4. Labor-Management (\$6.50/hr.x4.5 hr./ewe) + 5% of Value of Production	6,882
5. General Overhead (5% of sales)	1,032
6. Grazing (\$12.00/AUM)	2,880
7. Hay (\$50.00/Ton)	5,000
8. Other Feed	5,180
9. Veterinary and Drugs	600
10. Shearing	330
11. Trucking & Marketing	480
<b>TOTAL ANNUAL COSTS</b>	<b>\$ 26,354</b>

**Table 2. Gross income needed to cover annual production costs, 200-ewe flock in central Dakotas, replacement ewes and rams purchased by owner of breeding stock, 130-percent lamb crop sold, sell 115-pound market lambs.**

Source of Income	Amount Received
260 Market Lambs @ \$93.36 per head (\$81.18/cwt)	\$ 24,274
Lamb Wool Incentive (No Wool Incentive Payments in 1994)	0
Shorn Wool (\$6.00 per ewe)	1,200
Wool Incentive Payment (No Wool Incentive Payment-1994)	0
<b>GROSS INCOME TO BE SHARED</b>	<b>\$ 26,355</b>
Owner's Sale of Ewes and Rams	880
<b>TOTAL GROSS INCOME</b>	<b>\$ 26,354</b>

### Other Feed

Other feed includes protein supplement, feed grain, mineral, and salt. Other feed costs will vary from \$30 to \$40 per ewe, depending upon the grazing season. In Table 1, it was assumed that a \$38.52 cost per ewe would be adequate to balance the ration, if at least one-third of the hay fed is legume hay.

### Veterinary and Drugs

These costs vary considerably so use actual costs for your area. A cost of \$3 per ewe is used in this example.

### Shearing

Use actual costs for shearing and handling the wool. The estimated cost in Table 1 is \$1.65 per ewe.

### Trucking and Marketing Costs

These costs vary depending on distance to market and whether trucking is hired. Marketing costs include commission plus normal fees for yardage and sale facilities. It is estimated that an average charge of \$2.40 per ewe will cover the marketing cost for a 130 percent lamb crop.

### Total Expenses

The total for the above costs is \$26,354 in Table 1. If expected gross sales from market lamb and wool, plus wool program payments are \$131.77 per ewe bred, the ewe flock will cover all production costs.

### Expected Gross Income

Expected gross income to be shared must be \$26,354, if contributing parties are to recover all of their costs. In Table 2, returns are estimated based on a 130 per cent lamb crop marketed. The prices used provide this income. At these prices, for each percent that the lamb crop is below 130 per cent, a 200-ewe flock would be \$203 short of covering the costs estimated in Table 1; therefore, a high level of management is important for a profitable operation.

### Estimating Fair Shares

The first step in negotiating a sharing agreement is for the breeding flock owner and the shepherd to agree on the value of contributions by each party. In a typical situation, the first eight costs in Table 1 are considered. Breeding stock and hay, in this example, represent 11.5 percent and 19 percent of the total, respectively. The percentage breakdown on the other five contributions are approximately as follows:

- Buildings and equipment - 3.5
- Labor-management - 26.1
- General overhead - 3.9
- Grazing - 10.9
- Other feed - 19.7

### Alternatives for Cost Sharing

Five alternative sharing arrangements are setup in Table

**Table 3. Estimated fair shares, typical shelter and equipment for sheep in central Dakotas, five alternative plans with replacements purchased by ewe-flock owner.**

Type of Cost Contributed	Selected Alternative Sharing Arrangements									
	Plan A		Plan B		Plan C		Plan D		Plan E	
	Landlord	Tenant	Landlord	Tenant	Landlord	Tenant	Landlord	Tenant	Landlord	Tenant
Ewes and Rams	all	—	all	—	1/2	1/2	all	—	all	—
Build. and Equipment	—	all	all	—	all	—	all	—	all	—
Labor-Management	—	all	—	all	—	all	—	all	—	all
General Overhead	—	all	—	all	—	all	—	all	—	all
Grazing	—	all	—	all	all	—	all	—	all	—
Hay	—	all	—	all	—	all	1/4	3/4	1/3	2/3
Other Feed	—	all	—	all	—	all	1/4	3/4	1/3	2/3
% Contributed	12	88	16	84	21	79	38	62	41	59
Share veterinary, drugs, shearing, trucking and marketing costs	12	88	16	84	21	79	38	62	41	59
Share sale of market lambs, feeder lambs, and wool	12	88	16	84	21	79	38	62	41	59
Share wool incentives and wool support payments	13	87	17.5	82.5	23	77	41.3	58.7	45	55

3. In Plan A, the flock owner only furnishes the breeding stock. The shepherd rents a farm from a third party or owns his own farm.

In Plan B, the shepherd pays cash rent for grazing and hayland. The owner furnishes the breeding stock, buildings, and equipment.

In plans C, D, and E, the shepherd is a tenant on the flock owner's farm. They share the hay costs in the same proportion as the farm crop-sharing arrangement. Costs for feed grain and supplement feeds are shared in the same proportions as the hay costs. If they are not shared the same, disagreements are likely to arise in regard to the proper least-cost ration.

In all plans, veterinary, drugs, shearing, and trucking and marketing costs are not considered when arriving at the percentage contributed by each party. Since these costs can be easily identified, they can be shared in the same proportions as the calculated percentage of the other eight cost items.

### Income Sharing Terms

Equity is achieved when each party receives a share of

the current sales equal to his contribution to production costs. When the owner of the breeding flock purchases all replacements, the sales of market and feeder lambs will be shared the same as the costs in Table 3. Sales of wool plus wool incentive and support payments also will be shared the same way. The owner of the breeding stock will receive all cull ewe and ram proceeds. He also will pay for all replacements unless a special agreement covers excessive death losses.

The five plans outlined in Table 3 can be used to estimate a fair ewe flock sharing agreement. When estimated costs vary significantly from those in Table 1, contributing parties should sit down together and estimate their own costs.

### For More Information

For more details on sharing agreements, ask your county Extension agent or copies of these bulletins:

- *Is Your Lease Fair?*, NCR Publication 9 or EC 70-814
- *Livestock-Share Rental Arrangements for your Farm*, NCR Publication #107
- *Planning Prices and Livestock Budgets for Farm Management Programs*, Table S16, EC 745, SDSU (Revised 1991)



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150 copies printed by CES at a cost of 12 cents each. February 1995.