

Sheep Ranching (Barn Lambing)
Sample Costs and Returns for
Mendocino County

January 25, 1983

This is a sample budget for an owner-operated, sheep ranch using barn lambing in Mendocino County. The owner provides the management, capital, and his/her labor; additional labor is hired as needed.

A 100 percent lamb crop at six months is expected, 20 percent of the ewes are replaced each year, and there is a four percent ewe and lamb (after six months) mortality rate. Range land is charged at current rental rates assuming a carrying capacity of four acres per ewe.

The sample cash costs per ewe are itemized below. These costs are fairly stable on a per ewe basis regardless of the flock size. On the next page investment costs and returns for two flock sizes are estimated. The "Your Estimates" column is for you to adjust these estimates to your own ranch.

| <u>Cash Costs</u> | <u>Per Ewe</u> | <u>Your Estimates</u> |
|---|----------------|-----------------------|
| Range; 4 acres, \$2.50/acre | \$10.00* | |
| Hay; 70 lbs., \$120/ton | 4.20 | |
| Concentrate feed; ^{a/} | | |
| 4 lbs./day, 21 days, \$125/ton | 5.25 | |
| Salt and minerals | 1.00 | |
| TOTAL FEED = \$20.45 | | |
| Hired labor: general; 1 hr/head, \$6.50/hr. | \$ 6.50** | |
| lambing; 2/5 hr./head, \$6.50/hr | 2.60 | |
| Shearing; \$1.85 per ewe or lamb ^{b/} | 3.55 | |
| \$3.70 per ram, 1 ram per 20 ewes | .19 | |
| Wool bags; 32 fleeces/bag, \$4.50/bag | .29 | |
| Replacement rams; 1 per 20 ewes, 20% replaced annually, \$250/head | 2.00 | |
| Veterinary & medicine | 3.40 | |
| Utilities | 3.00 | |
| Repairs | 2.00 | |
| Hauling | 1.00 | |
| Insurance | 2.00 | |
| Office & misc. expenses | 3.00 | |
| Interest on operating capital 14% | 3.50 | |
| TOTAL CASH COSTS = \$53.48 | | |

^{a/}Ewes lamb in rotation, each ewe is fed 1/2 of a six week period.

^{b/}Four percent mortality rate subtracted.

* Rental rates vary by area.

**Small flocks may need no help.

To show the importance of good management, weather, and other factors, the estimated cash costs per ewe are used to calculate the cash costs per pound of lamb sold. The costs per pound of lamb are calculated by subtracting the values of cull ewes and rams per ewe (\$2.63) and of wool per ewe (\$14.97) from the total cash cost per ewe (\$53.48) then dividing by the lamb weight which is adjusted for a 4% mortality rate and a 20% ewe replacement rate. Different lambing percentages and weaning weights show the effect of timeliness, proper management, weather, and other factors.

| Lamb Sale Weight (lbs.) | Cash Costs Per Pound | | | | | | | |
|----------------------------------|----------------------|------|------|------|------|------|------|------|
| | Lambing Percentages | | | | | | | |
| | 90% | 100% | 110% | 120% | 130% | 140% | 150% | 160% |
| | -----(\$/lb.)----- | | | | | | | |
| 65 | .83 | .73 | .64 | .58 | .53 | .48 | .45 | .41 |
| 75 | .72 | .63 | .56 | .50 | .46 | .42 | .39 | .36 |
| 85 | .64 | .56 | .49 | .44 | .40 | .37 | .34 | .32 |
| 95 | .57 | .50 | .44 | .40 | .36 | .33 | .30 | .28 |
| 105 | .51 | .45 | .40 | .36 | .33 | .30 | .28 | .26 |
| 115 | .47 | .41 | .36 | .33 | .30 | .27 | .25 | .23 |

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The investment costs will vary by flock size. Larger flocks may make better use of some machinery and equipment, thus giving them a competitive advantage. The estimated investment costs and returns for a 500 ewe flock and a 1500 ewe flock are specified below.

| | Total Investment for | | Your Estimates |
|--|-------------------------------------|------------------|----------------|
| | 500 ewes | 1500 ewes | ewes |
| <u>Livestock</u> | | | |
| Ewes; \$65 | \$ 32,500 | \$ 97,500 | |
| Rams; \$250, 1 per 20 ewes | 6,250 | 18,750 | |
| Replacement ewes; \$60, 20% of ewe flock | 6,000 | 18,000 | |
| Horses; \$1000/horse | 2,000 | 6,000 | |
| Dogs; \$200/dog | 400 | 1,200 | |
| | SUBTOTAL = \$ 47,150 | \$141,450 | |
| <u>Machinery & Equipment</u> | | | |
| Pickup, 3/4 ton, 4 WD (7 yrs. life) | \$ 12,000 | \$ 12,000 | |
| Horse trailer (7 yrs. life) | 3,000 | 3,000 | |
| Sprayer (5 yrs. life) | 500 | 500 | |
| Corrals, gates, chutes (7 yrs. life) | 7,000 | 18,000 | |
| Saddles & tack (7 yrs. life) | 1,600 | 2,400 | |
| Misc. tools & equipment (10 yrs. life) | 3,000 | 6,000 | |
| | SUBTOTAL = \$ 27,100 | \$ 41,900 | |
| <u>Lambing Facilities (30 yrs. life)</u> | <u>\$ 60,000</u> | <u>\$180,000</u> | |
| (20 sq. ft./ewe; \$6/sq.ft.) | | | |
| | TOTAL INVESTMENT = \$134,250 | \$363,350 | |
| | PER EWE = \$ 269 | 242 | |

Estimated Returns and Costs for two flock sizes:

| | Total Returns & Costs | | Your Estimates |
|---|--------------------------|-------------------|----------------|
| | 500 ewes | 1500 ewes | ewes |
| <u>Gross Income</u> | | | |
| Lambs; \$.60/lb. ^{c/} | \$ 17,550 | \$ 52,650 | |
| Cull ewes; \$16/head; 16% replaced | 1,280 | 3,840 | |
| Cull rams; 1 per 20 ewes, 20% replaced, \$12/head | 60 | 180 | |
| Wool ^{d/} , 8.5 lbs./ewe or ram, 1.32¢/lb. 3.5/lbs./lamb, 1.04¢/lb. | 5,666 | 16,998 | |
| | 1,820 | 5,460 | |
| | TOTAL = \$ 26,376 | \$ 79,128 | |
| <u>Cash Costs; \$53.48 per ewe</u> | <u>\$ 26,740</u> | <u>\$ 80,220</u> | |
| <u>Cash Income (Gross Income - Cash Costs)</u> | <u>=(\$ 364)</u> | <u>(\$ 1,092)</u> | |
| <u>Fixed Investment Costs</u> | | | |
| Depreciation: | | | |
| Rams, horses, dogs | \$ 1,480 | \$ 4,440 | |
| Machinery | 3,771 | 5,757 | |
| Lambing facilities | 2,000 | 6,000 | |
| Interest on investment; 14% of 1/2 investment | 9,398 | 25,435 | |
| | TOTAL = \$ 16,649 | \$ 41,632 | |
| Return to owner's labor and management: | (\$ 17,013) | (\$ 42,724) | |

^{c/}100% lamb crop, 20% ewe replacement, 4% mortality, and 77 lbs. per lamb sold equal an average of 58.5 lbs. of lamb sold per ewe.

^{d/}Adjusted for 4% mortality. Includes estimated incentive payment of 74¢/lb.