

Sheep Ranching (Barn Lambing)
Sample Costs and Returns for
Marin and Sonoma Counties

January 25, 1983

This is a sample budget for an owner-operated, sheep ranch using barn lambing in Marin and Sonoma Counties. 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 per AUM; this rate varies by area and season.

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; \$1/AUM | \$12.00* | |
| 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 = \$22.45 | |
| 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 33 ewes | .11 | |
| Wool bags; 32 fleeces/bag, \$4.50/bag | .29 | |
| Replacement rams; 20% replaced annually | | |
| 1 per 33 ewes, \$250/head | 1.52 | |
| Veterinary & medicine | 3.40 | |
| Utilities | 2.00 | |
| Repairs | 2.00 | |
| Hauling | 1.00 | |
| Insurance | 2.00 | |
| Office & misc. expenses | 3.00 | |
| Interest on operating capital; 14% | 3.53 | |
| | TOTAL CASH COSTS = \$53.95 | |

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

^{b/} Four percent mortality rate subtracted.

* AUM costs vary by area and season.

**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 (\$53.95) 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.

Cash Costs Per Pound

| Lamb Sale Weight (lbs.) | Lambing Percentages | | | | | | | |
|----------------------------------|---------------------|------|------|------|------|------|------|------|
| | 90% | 100% | 110% | 120% | 130% | 140% | 150% | 160% |
| | -----(\$/lb.)----- | | | | | | | |
| 65 | .84 | .74 | .65 | .59 | .53 | .49 | .45 | .42 |
| 75 | .73 | .64 | .57 | .51 | .46 | .42 | .39 | .36 |
| 85 | .64 | .56 | .50 | .45 | .41 | .37 | .34 | .32 |
| 95 | .58 | .50 | .45 | .40 | .37 | .33 | .31 | .29 |
| 105 | .52 | .46 | .40 | .36 | .33 | .30 | .28 | .26 |
| 115 | .48 | .42 | .37 | .33 | .30 | .28 | .25 | .24 |

Prepared by Don Brittsan, Bruce Lane, and Kent Olson, Farm Advisors,
Marin County and Sonoma County, and Ag. Economist at UC-Davis, respectively.

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 1500 ewe flock are specified below.

| | Total Investment for | | Your Estimates |
|--|-------------------------------------|------------------|----------------|
| | 500 ewes | 1500 ewes | ewes |
| Livestock | | | |
| Ewes; \$65 | \$ 32,500 | \$ 97,500 | |
| Rams; \$250, 1 per 33 ewes | 3,750 | 11,500 | |
| 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 = \$ 44,650 | \$134,200 | |
| Machinery & Equipment | | | |
| Pickup, 3/4 ton, 4WD (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 | \$ 43,900 | |
| Lambing Facilities (30 yrs. life) | \$ 60,000 | \$180,000 | |
| (20 sq.ft./ewe; \$6/sq.ft.) | | | |
| | TOTAL INVESTMENT = \$131,750 | \$358,100 | |
| | PER EWE = \$ 264 | \$ 239 | |

Estimated Returns and Costs for two flock sizes:

| | Total Returns & Costs | | Your Estimates |
|---|--------------------------|--------------------|----------------|
| | 500 ewes | 1500 ewes | ewes |
| Gross Income | | | |
| Lambs; \$.60/lb. ^{c/} | \$ 17,550 | \$ 52,650 | |
| Cull ewes; \$16/head, 16% replaced | 1,280 | 3,840 | |
| Cull rams; 1 per 33 ewes, \$12/head, 20% replaced | 36 | 109 | |
| Wool ^{d/} , 8.5 lbs./ewe or ram, 1.32¢/lb. | 5,666 | 16,998 | |
| 3.5/lbs./lamb, 1.04¢/lb. | 1,820 | 5,460 | |
| | TOTAL = \$ 26,352 | \$ 79,057 | |
| Cash Costs; \$53.95 per ewe | \$ 26,975 | \$ 80,925 | |
| Cash Income (Gross Income - Cash Costs) = (\$ 623) | (\$ 1,868) | | |
| Fixed Investment Costs | | | |
| Depreciation: | | | |
| Rams, horses, dogs | \$ 1,230 | \$ 3,740 | |
| Machinery and equipment | 3,771 | 5,757 | |
| Lambing facilities | 2,000 | 6,000 | |
| Interest on investment; 14% of 1/2 investment | 9,223 | 25,067 | |
| | TOTAL = \$ 16,224 | \$ 40,564 | |
| Return to owner's labor and management: | (\$ 16,847) | (\$ 42,432) | |

^{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.