

1989 SAMPLE COST TO PRODUCE ALFALFA HAY

SOIL REQUIREMENTS - Deep, well-drained soils. Avoid hardpans and claypans or soils with a high or fluctuating water table. (Some success has been observed on marginal soils where alfalfa is planted on raised 60 inch beds.)

PLANTING DATES - Fall planting in September to early October is preferred. Spring plantings between February and April will produce good stands; however, weed control can be more difficult and expensive. Broadcast by air or drill by ground.

HARVEST DATES - 6-7 cuttings per season. First cutting is usually in April. Cut at 1/10 bloom or when crown regrowth is 12 inches tall.

VARIETIES - Semi-dormant varieties have been the best producers in this region. Public and private varieties resistant to the spotted alfalfa aphid and tolerance to the pea aphid, leaf spot, downy mildew and Phytophthora root rot are suggested. On heavy, poorly drained soils Phytophthora root rot resistance becomes very important.

SEEDING RATES - On good seedbeds 20 to 25 lb/a broadcast and ringrolled. 15 to 20 lb/a drilled. Inoculate seed before planting, or plant pelleted, inoculated seeds.

FERTILIZER - Starter fertilizer at planting time providing 10 to 20 lb Nitrogen, 30 to 35 lb Phosphorous, and 30 to 35 lb Potassium per acre. Soil and tissue analysis can be used to determine fertilizer needs of established stands and soil tests can be used to determine preplant fertilizer needs.

IRRIGATION - One to two irrigations per cutting depending on soil type.

ROTATION - Usually in rotation with row crops. Three to four years alfalfa then 4 to 6 years of annual crops.

YIELDS - Six to nine tons per acre; average 8 tons/acre/year for a four year stand life.

INSECT PROBLEMS - Alfalfa weevil (Feb.-Mar.), armyworm, alfalfa caterpillar, pea aphid, root knot nematodes. Spotted alfalfa aphid on non-resistant varieties. Fields with history of ground mealybug should be avoided. Clover root curculio feeding damage has been found in Delta plantings, but yield impact is not known.

DISEASE PROBLEMS - Phytophthora root rot, mildew, crown rot, and leaf spot.

WEED PROBLEMS - Grasses and some broadleaf weeds. Common groundsel and fiddleneck are poisonous to livestock and should be controlled. 2,4-DB, for post-emergence broadleaf weeds. IPC, Kerb post-emergence for seedling stands and grass weeds. Sencor, Karmex, + weed oil for established stands, both broadleaf and grass weeds. Treflan 10G, 20 lbs/A, should be applied in January for control of yellow and green foxtail. See your local PCA or UC Farm Advisor for current or other recommendations.

SAMPLE COST TO PRODUCE ALFALFA HAY

CROP ALFALFA
 FIRST YEAR STAND ESTABLISHMENT COSTS ... \$ 200.10

CULTURAL COSTS: FUEL & SEED

	<u>COST/A</u>	<u>LABOR COST/A</u>	<u>YOUR COST/A</u>
Disc 2x	\$ 1.08	\$ 1.76	_____
Plow	1.00	1.32	_____
Disc 1x	0.54	0.88	_____
Level Plane 2x	1.34	1.76	_____
Herbicide inc./float ringroll	0.54	0.88	_____
Shape borders	0.30	1.00	_____
Harrow/ringroll	1.00	1.32	_____
Float/ringroll 2x	1.08	1.76	_____
Seed (25#/a @ \$2.05/#)	51.25		_____
Plant, ringroll	<u>1.00</u>	<u>1.32</u>	_____
TOTAL:	\$ 59.13	\$ 12.00*	_____

IRRIGATION

Sprinkle up 3x (electricity/diesel)	\$ <u>13.12</u>	\$ <u>27.37</u>	_____
TOTAL:	\$ 13.12	\$ 27.37*	_____

CHEMICALS

APPLICATION

Potash (400#/a)	\$ 32.40	\$ 4.50	_____
Balan DF (2#/a) or Eptam	13.40		_____
11-52-0 Starter (100#/a)	<u>15.00</u>	<u>6.00</u>	_____
TOTAL:	\$ 60.80	\$ 10.50	_____

LABOR

Cultural (\$5.25/hr)	\$ 12.00		_____
Irrigation (\$4.75/hr)	27.37		_____
Overtime	<u>2.21</u>		_____
TOTAL:	\$ 41.58		_____

CASH OVERHEAD

Employee Benefits (36% of labor cost)	\$ <u>14.97</u>		_____
TOTAL:	\$ 14.97		_____

TOTAL STAND ESTABLISHMENT COSTS ... \$ 200.10
 Amortized over 4 years \$ 50.03/year

* Included in labor budget

SAMPLE COST TO PRODUCE ESTABLISHED ALFALFA (YEARS 1-4)

CROP	ALFALFA	GROSS INCOME/ACRE	\$ 720.00
YIELD/ACRE IN TONS	8	TOTAL CASH EXPENSE/ACRE	597.31
STAND ESTABLISHMENT COST AMORTIZED OVER	4 YEARS	50.03
MARKET VALUE/TONS	\$ 90.00	NET INCOME/ACRE	\$ 72.66

IRRIGATION

	<u>COST/A</u>	<u>LABOR COST/A</u>	<u>YOUR COST/A</u>
Irrigate 8x (diesel, electric)	\$ 34.99	\$ 40.00	_____
Drain Maintenance	<u>1.00</u>	_____	_____
TOTAL:	\$ 35.99	\$ 40.00*	_____

CHEMICALS

	<u>COST/A</u>	<u>APPLICATION</u>	<u>YOUR COST/A</u>
Furadan 4F for weevils (1 pt/a)	\$ 7.56	\$ 6.00	_____
Treflan 10g (TR10) for foxtail (20#/a)	18.24	6.00	_____
Velpar L (1 qt/a)	14.74	5.50	_____
Potash (200#/a)	<u>16.20</u>	<u>5.00</u>	_____
TOTAL:	\$ 56.74	\$ 22.50	_____

HARVEST

Custom (\$25/t x 8 tons)	\$ <u>200.00</u>	_____
TOTAL:	\$ 200.00	_____

LABOR

Irrigation (\$4.75/hr) (5x)	\$ <u>40.00</u>	_____
TOTAL:	\$ 40.00	_____

CASH OVERHEAD

Share rent (15% of gross income)	\$108.00	_____
Management salary/benefits	16.32	_____
Repairs, maintenance, supplies	54.25	_____
Employee benefits (36% of labor cost)	14.40	_____
Office management expense	10.86	_____
Insurance	5.00	_____
Taxes on equipment	<u>2.57</u>	_____
TOTAL:	\$211.40	_____

DEBT SERVICE

Interest on operating loan	\$ 29.25	_____
Interest on equipment	<u>1.43</u>	_____
TOTAL:	\$ 30.68	_____

* Included in labor budget

TOTAL GROSS INCOME	\$ 720.00
TOTAL CASH EXPENSE/ACRE ...	597.31
ESTABLISHMENT COST (1/4) ..	<u>50.03</u>
NET INCOME/ACRE	\$ 72.66

NON-CASH COSTS

Equipment Depreciation	\$ 20.00
Interest on Buildings	0.24
Building Depreciation	<u>3.33</u>
TOTAL:	\$ 23.57
