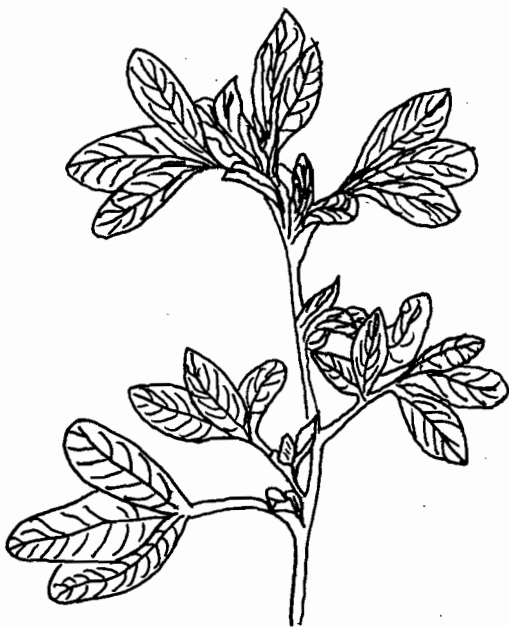


ALFALFA
SAMPLE COSTS
AND
PRODUCTION



Agricultural Extension
University of California
Imperial County
Court House, El Centro

Cost Data Sheet No. 1

UC Cooperative Extension

ALFALFA--PROJECTED PRODUCTION COSTS

Mechanical operations at custom rates. Labor at \$3.50 per hour (\$3.00 plus Social Security, unemployment insurance, and fringe benefits).

Yield - 8.5 tons per acre.

OPERATION	Custom Rate	MATERIALS		HAND LABOR		SAMPLE COSTS Per Acre
		Type	Cost	Hours	Dollars	
LAND PREPARATION						
Plow	\$ 13.50					\$ 13.50
Disc 2x	4.50					9.00
Fertilize	3.00	11-48-0 (260#)	28.60			31.60
Build & break borders	4.50					4.50
Flood		Water 1.0 ac ft	3.50	1.0	3.50	7.00
Disc 2x	4.50					9.00
Landplane 2x	5.00					10.00
Border	5.50					5.50
Float	4.00					4.00
TOTAL LAND PREPARATION						\$ 94.10
COST OF ESTABLISHMENT						
Weed Control	3.50	Herbicide	10.00			13.50 ^{a/}
Corrugate	7.00	20# certified	27.00			34.00
Planting		seed @ 1.35				
Irrigate (2-3x)		Water 1 ac ft	3.50	1.0	3.50	7.00
COST OF ESTABLISHMENT						\$ 54.50
TOTAL COST OF STAND ESTABLISHMENT*						\$ 148.60

ANNUAL COSTS OF HAY PRODUCTION - 3 YEAR LIFE

Irrigate 16x		Water 7 ac ft	24.50	8.4	29.40	53.90
Fertilize		200# 0-52-0	14.80			14.80
Insect control 4x	3.00	Insecticides	16.00			28.00
TOTAL ANNUAL CULTURAL COSTS						\$ 96.70
PREHARVEST COSTS						
Land Rent (new lease)						125.00
Depreciation - 1/3 on total cost of stand establishment						49.53
Cash Overhead - 15% of preharvest costs and land rent						40.68
TOTAL PREHARVEST COSTS						\$ 311.91
HARVEST COSTS						
Swather 7x	4.00					28.00
Rake 7x	3.00					21.00
Bale 8.5 Tons	7.00/Ton					59.50
Haul & Stack	.15/bale					22.95
TOTAL ALL COSTS						\$ 443.36

Cost per ton = \$52.16

*Some fields may be reseeded the second year due to loss of stand. The additional cost will average between \$20.00 and \$30.00 per acre depending upon the extent of stand loss.

^{a/}One application of post emergence herbicide - 2,4-DB, a second application of IPC at a cost of \$15.50 may be needed or vice versa.

ALFALFA CULTURE

GENERAL INFORMATION: The average yields, acreage and value for alfalfa hay during the past five years have ranged from 6 to 9 tons per acre, 121,000 to 170,000 acres and \$30.50 to \$62 per ton respectively.

SOIL PREPARATION: A uniform seed bed is a prerequisite to a good stand. High spots in the field cause an uneven germination, irrigation and poor stands. A well drained field is also necessary to lessen the likelihood of salinity, scald, and root rot problems.

PLANTING RATES

One pound of seed per acre will provide 4 to 5 seeds per square foot. At this rate, 15 pounds are equal to 60 to 75 seeds per square foot. Growers use 15 to 30 pounds seed depending on condition of their field, cost of seed, method of planting and time of planting.

PLANTING DATES

Late September through November is the preferred time for planting. Later plantings often result in poor germination. Spring plantings, if necessary, are suggested in February and March.

VARIETIES

Certified U.C. Salton alfalfa is recommended because of its resistance to the spotted alfalfa aphid and its superior yielding ability. A number of commercial varieties also have good spotted alfalfa aphid resistance and are very good yielders.

FERTILIZATION

Approximately 100 pounds of phosphate is taken from the soil by each 7-8 tons of alfalfa. This must be replaced to maintain maximum hay production. A preliminary

application of at least 100-150 pounds of phosphate per acre is recommended prior to planting. On soil low in nitrogen 20 to 30 pounds of nitrogen stimulates seedling growth. A deficiency in nitrogen may occur on soils recently brought into production. Additional annual applications of 100 pounds of phosphate per acre may be applied. If a three year growing period is planned an alternate method of application is to apply all P₂O₅ at preplant.

IRRIGATION

Two or three irrigations per cutting are necessary depending on the type of soil and time of year.

WEED CONTROL

Broadleaf weeds can be controlled with 2,4-DB in seedling or established alfalfa. Winter annual grasses can be controlled with IPC granules. Consult Weed Control Recommendations - Imperial County.

PESTS AND DISEASES

Usually, the spotted alfalfa aphid causes damage on nonresistant alfalfa. Control is sometimes necessary for the Egyptian alfalfa weevil and sometimes for the pea aphid in February and March. The arrival of the new aphid, Acyrtosiphon sp. to the Imperial Valley may require additional insecticidal costs on alfalfa hay.

The degree of damage and the economic treatment levels for this aphid are presently under investigation in the Imperial Valley. Alfalfa caterpillar and beet army-worm usually require control in mid to late summer. Occasionally cutworm outbreaks occur in fall and spring months. Root rot (*Rhizoctonia* and *Phytophthora*) also can be a severe problem. See the Pest Control Recommendations for Imperial County Field Crops for more specific information on pests and control.

HARVESTING

Alfalfa is normally baled from March until October. During winter months both pasturing and green chopping are practiced. Both pasturing and green chop may return from \$20.00 to \$40.00 per acre for the winter months. There is 20 to 30 percent of the alfalfa green chopped annually.

Prepared by
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