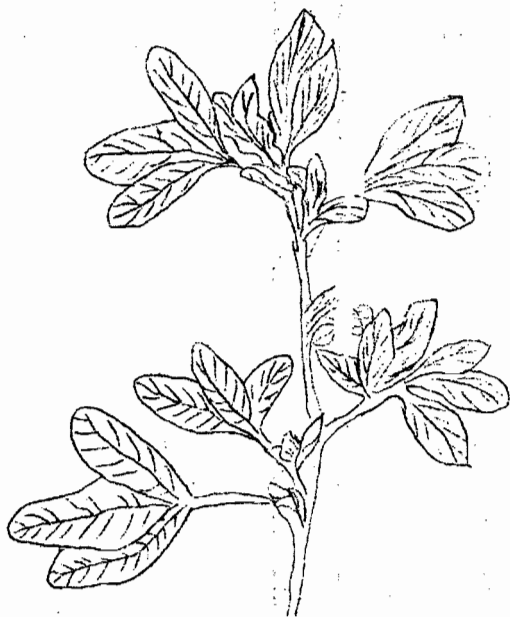


alfalfa
sample costs
and
production



COOPERATIVE EXTENSION
UNIVERSITY OF CALIFORNIA
IMPERIAL COUNTY
COURT HOUSE, EL CENTRO

Cost Data Sheet No. 1

ALFALFA--PROJECTED PRODUCTION COSTS--1982-1983

Mechanical operations custom rates. Labor at \$5.50 per hour (\$4.30 plus Social Security, unemployment insurance and fringe benefits).

Yield--8.0 tons per acre.

OPERATION	Custom Rate	MATERIALS		HAND LABOR*		SAMPLE COSTS Per Acre
		Type	Cost	Hours	Dollars	
LAND PREPARATION						
Plow or subsoil	23.50					\$ 23.50
Disc 2x	8.00					16.00
Fertilize	6.00	11-48-0 (260#)	33.80			39.80
Build & break borders	12.00					12.00
Flood		$\frac{3}{4}$ ac/ft	5.63	2	11.00*	16.63
Disc 2x	8.00					16.00
Landplane 2x	9.50					19.00
Border	13.00					13.00
Float	7.50					7.50
TOTAL LAND PREPARATION						\$ 163.43
COST OF ESTABLISHMENT						
Weed Control	8.00	Herbicide	12.00			\$ 20.00 ^{a/}
Planting ^{b/}	12.00	20# seed @ 1.90/lb	38.00			50.00
Irrigate (2-3x)		1 ac/ft	7.50	2	11.00*	18.50
Insect Control 1x	3.65	Insecticide	7.00			10.65
COST OF ESTABLISHMENT						\$ 99.15
TOTAL COST OF STAND ESTABLISHMENT						\$ 262.58
ANNUAL COSTS OF HAY PRODUCTION--3 YEAR LIFE						
Weed Control 4x		Herbicide Eptam®	50.00			\$ 50.00
Irrigate 16x		7 ac/ft	52.50	9	49.50*	102.00
Fertilize	6.00	90# P ₂ O ₅	23.20			29.20
Insect Control 4x	3.65	Insecticides	46.00			60.60
TOTAL ANNUAL CULTURAL COSTS						\$ 241.80
Land Rent (gross)						\$ 160.00
Depreciation--1/3 on total cost of stand establishment						87.53
Cash Overhead--10% of annual costs, land rent and depreciation^{c/}						48.93
TOTAL PREHARVEST COSTS						\$ 538.26
HARVEST COSTS						
Swather 7x	8.00					\$ 56.00
Rake 7x	4.00					28.00
Bale 8.0 tons	9.00/ton					72.00
Haul & Stack	.25/bale					32.00
TOTAL ALL COSTS						\$ 726.26

Cost per ton 8.0 tons = \$90.78**

Some fields may be reseeded the second year due to loss of stand. The additional cost will range between \$25.00 and \$45.00 per acre depending upon the extent of stand loss.

a/ One application of post emergence herbicide--2,4-DB; a second application of Chem-Hoe® may be needed.

b/ Corrugation is \$3.50 extra.

c/ Gopher bait application \$2.20 per acre may also be needed.

* Includes shovel labor, miscellaneous tractor work.

** Additional cost per unit weight can be calculated by recalculating cost based on weight or number of harvest.

GENERAL INFORMATION: The average yields, acreage and value for alfalfa hay during the past five years have ranged from 7.2 to 8.3 tons per acre, 153,000 to 176,000 acres and \$52.00 to \$80.00 per ton, respectively. There are also 15,000 to 30,000 acres of cubed hay annually.

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 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.

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.

VARIETIES

Certified CUF 101, and other public varieties are recommended because of their resistance to the spotted alfalfa aphid, the blue alfalfa aphid and superior yielding ability. A number of commercial proprietary varieties also have good spotted alfalfa aphid and blue 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 are recommended.

IRRIGATION

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

WEED CONTROL

Consult Weed Control farm advisor for most efficient weed control procedures.

PESTS AND DISEASES

Usually, the spotted alfalfa aphid causes damage on non-resistant alfalfa. Control is sometimes necessary for the Egyptian alfalfa weevil and sometimes for the pea aphid in February and March. The arrival of the blue aphid, Acyrothosiphon sp. to the Imperial Valley may require additional insecticidal costs on alfalfa hay. Alfalfa caterpillar and beet armyworm 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. Consult farm advisor, Entomology, for registered and adapted materials.

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 \$35.00 to \$65.00 per acre for the winter months.

INCOME ABOVE ALL COSTS PER ACRE	
Price Per Ton	Tons Per Acre
\$60.70	7
80	8
90	9
100	10
110	11
120	
-293-223-153-83	-13
+57+127	
-246-166-86	-6
+74+154+234	
-199-109-19	+70
+161+251+341	
-152-52	+47
+148+248+348+448	
-105	+5
+115+225+335+445+555	

Prepared By
Robert W. Hagemann
Farm Advisor
Revised May 1982

To simplify our information, it is sometimes necessary to use trade names of products or equipment. No endorsement of named products is intended nor is criticism implied of similar products which are not mentioned.

The University of California Cooperative Extension in compliance with the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and the Rehabilitation Act of 1973 does not discriminate on the basis of race, creed, religion, color, national origin, sex, or mental or physical handicap in any of its programs or activities. Inquiries regarding this policy may be directed to: Eugene D. Stevenson, Affirmative Action Officer, 3171 University Hall, University of California, Berkeley, California 94720, (415) 642-9300.

Cooperative Extension work in Agriculture and Home Economics, Division of Agricultural Sciences, University of California and United States Department of Agriculture cooperating. Distributed in furtherance of the Acts of Congress of May 8, and June 30, 1914. Jerome B. Siebert, Director, California Agricultural Extension.