

ALFALFA SEED PRODUCTION STUDY

PALO VERDE VALLEY

RIVERSIDE COUNTY

1948

An analysis of Production, Yields, Income and Costs on six alfalfa ranches covering 190 acres for the year 1948.

Averages for 1946 and 1947 studies are shown in Table 1. Statistical data is also shown on the Acreage Production, Average Yields and Farm Value by States for the past 15 years.

- - - - -

Prepared by

AGRICULTURAL EXTENSION SERVICE

University of California

UNITED STATES DEPARTMENT OF AGRICULTURE

County of Riverside

Farm Advisor's Office

in cooperation with

Alfalfa Seed Growers in the Palo Verde Valley.

*agreed*

## - INTRODUCTION -

This is the third annual study of the cost of production of alfalfa seed in the Palo Verde Valley. The purpose of the study is to analyze the economic factors that determine profit or loss in the production of alfalfa seed. Profits will depend upon two main factors, costs and income. Income is determined by the yield per acre and the price per pound or ton and costs by the inputs of labor, field power and materials used.

The data in these tables was furnished by six growers from records from their books at the end of the year. The data should not be taken as the average for the valley but only as the average of these records as reported by the six cooperators.

The averages for the records in 1946 and 1947 are shown in Table 1. Statistical data is shown in the last table on the production, acreage, yield and income from alfalfa seed in the United States for the past 15 years. Table 3 shows a break down of the costs, income and profits from the seed crop and the hay crop.

Management income in 1948 averaged <sup>\$</sup>118.93 per acre compared to <sup>\$</sup>38.42 in 1947. This increase was due to an increase in price of both seed and hay.

A study of the following tables should enable growers to be better informed on the future prospects of alfalfa seed production.

Copies of this report may be had by applying to the Farm Advisor's Office, Post Office Building, Riverside, California.

Summarized and analyzed by:

Wallace Sullivan  
Extension Specialist in Farm Management  
University of California - Berkeley

W. B. Gardner  
Assistant Farm Advisor  
Riverside County

TABLE 1. Main Profit Determining Factors in Alfalfa Seed Production

Serial No.	Average Yield Per Acre				Income Per Acre			Costs Per Acre				Mgt. Income Per Acre		
	No. Acres	Hay Tons	Cleaned Seed #	Screenings #	Alfalfa Straw Tons	Hay Crop	Seed Crop	Total*	Cultural Labor & Field P.	Harvest Labor & Field P.	Materials		All O'head Costs	Total All Costs
3	20	2.44	687	-	.35	85.37	236.90	322.27	5.45	39.39	20.50	22.81	88.15	234.12
11	11	2.64	829	301	-	77.09	215.63	294.72	6.68	45.55	19.50	26.20	97.93	196.79
9	47	5.21	444	-	.73	152.80	129.27	282.07	6.25	64.92	27.03	29.84	128.04	154.03
12	38	5.25	194	-	.63	154.50	57.08	216.58	6.81	51.17	29.13	24.04	111.15	105.43
7	40	3.22	231	-	.95	96.00	73.16	183.66	4.55	45.49	23.70	24.46	98.20	85.46
13	34	2.53	180	21	.59	68.31	52.35	125.07	9.85	35.83	21.03	26.44	93.14	31.93
Av. 6 Records	190	3.88	350	21	.65	114.70	105.58	225.12	6.61	49.07	24.55	25.96	106.19	118.93
Av. 7 in 1947	474	2.12	290	-	-	51.55	59.03	117.08	6.91	30.11	20.03	21.61	78.66	38.42
Av. 8 in 1946	1483	2.64	301	-	-	70.24	109.74	187.23	7.21	31.71	17.14	20.96	76.81	110.42

This table represents the main profit determining factors for each record in the 1948 study with averages for each of the three years 1946, 1947 and 1948. The 1948 records are arrayed in descending order of management income per acre. Note the wide variation in yield, costs and income. Management income in 1948 was much higher than 1947 because of higher average yields and higher prices for both hay and seed. See table 4 for explanation of seed prices. Costs continued upward in 1948.

TABLE 2. Comparison of Management Practice

Serial Number	3	11	9	12	7	13
Variety	India Africa	Com.	Com.	Com.	Com. Africa	Com.
Age of Stand	2	5	5	2	7-1	4
Kind of Soil	Sandy Loam	Sandy Loam	Fine S. Loam	Fine S. Loam	Silt Loam	Sandy Medium
No. Irrigations	5	9	12	10	5-6	10
Kind of Fertilizer	Phos. 18%	Phos. 18%	Phos. 53	Phos. 18% Phos. 53%	Phos. 53	Phos. 46
Lbs. Fert. per Acre	400	400	200	100 400	150	150
No. Dustings	1	1	1	1	1	1
Lbs. D.D.T. per Acre	30	30	25	30	30	30
Tons Hay per Acre	2.44	2.64	5.21	5.25	3.22	2.53
Lbs. Seed per Acre. No. 1 & 2	687	829	444	194	231	180

The above table presents information that has important bearing on the final results in Alfalfa Seed Production.

TABLE 3. An analysis of Alfalfa Seed Production Costs and Income -  
Average for 6 records covering 190 Acres.

Items	Total Costs per Acre			Total Cost Seed Crop Per Acre	Total Cost of Hay Crop Per Acre
	Labor Field Power	Materials	Total		
Pre-harvest					
Reno-vate, etc.	1.36		1.36	3.16	Cut, rake, etc. 6.34
Fertilize	.43	9.09	9.52	1.72	Bale 19.06
Irrigation	2.61	12.33	14.92	9.80	Stack & haul 3.40
Dusting	1.15	2.01	3.16	3.52	Irrigate 75% 11.19
Re-seed	.81	.80	1.61	5.22	Fertilize 50% 4.76
Misc.	.25	.32	.57	3.73	Other pre-harvest 50% 1.77
Sub-total	6.61	24.55	31.16	4.76	Cash o'head 50% 3.63
Harvesting				1.77	Depreciation 50% 2.81
Seed Crop				3.63	Int. on investment 50% 6.52
Cut, rake, etc.	1.72		1.72	2.81	Total Costs 59.54
Thresh or Comb.	9.80		9.80	6.52	Less income from pasture 4.84
Clean & haul	5.22		5.22	46.65	Net Cost of Hay 54.70
Bale & stack st.	3.52		3.52	10.61	Cost per Ton-(3.88) 14.08
Sub-total	20.26		20.26	36.04	Income per Acre 114.70
Hay Crop					Hay 4.84
Cut, rake, etc.	6.34		6.34	10.29	Pasture 119.54
Bale	19.06		19.06	94.97	Total 60.00
Stack & haul	3.40		3.40	.24	Management Income
Sub-total	28.80		28.80	10.37	
Total All Harvest	49.06		49.06	105.58	
Total Labor & M.	55.67	24.55	80.22	58.93	
Cash O'head			7.26		
Sub-total			87.46		
Depreciation			5.63		
Sub-total			93.09		
Int. on investment			13.07		
Total All Costs			106.19		
Total Income			225.12		
Management Inc.			118.93		

An estimated break down of costs and income from the seed crop and hay crop are shown in the last two sections.

Table 1. U.S. and California Acreages, Production, Average Yields, and Farm Price of Alfalfa Seed, 10-Year averages 1933-1942, annually 1943-1948

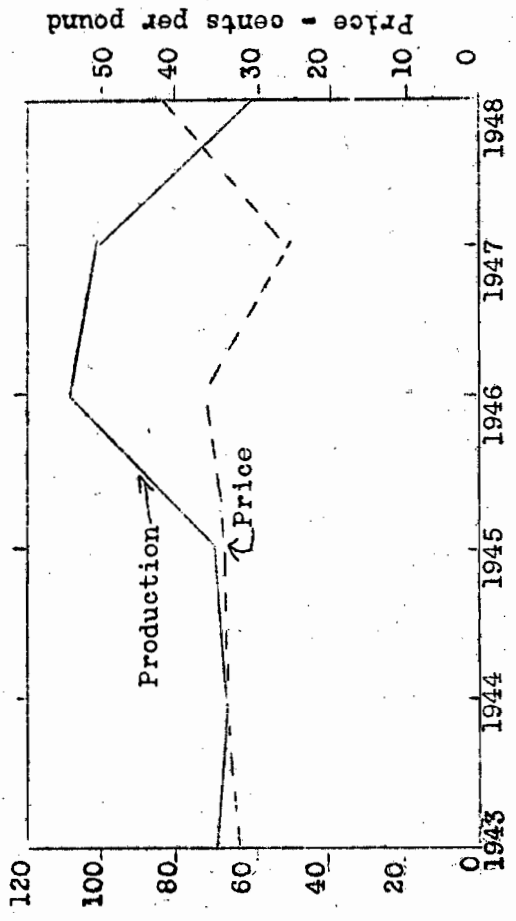
	California 4 states*		U.S.
	A C R E A G E		
10-yr. av. 1933-1942	17,710	71,900	718,380
1943	14,000	82,000	768,800
1944	20,000	101,500	967,500
1945	24,000	97,500	888,500
1946	27,000	112,000	1,174,200
1947	33,000	130,000	995,700
1948	18,000	71,000	614,100

	Production - 1,000 lbs.	
10-yr. av. 1933-1942	3,440	13,637
1943	2,940	13,320
1944	3,960	13,080
1945	3,600	13,620
1946	6,000	18,480
1947	8,340	25,680
1948	4,740	13,908

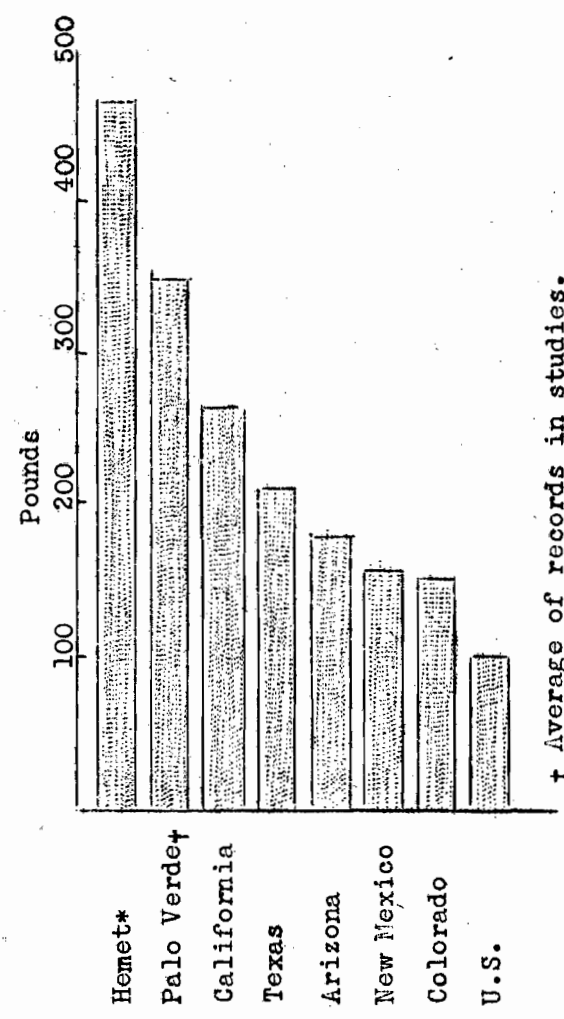
	Average yield per acre - lbs.	
10-yr. av. 1933-1942	195	190
1943	210	162
1944	198	129
1945	150	140
1946	222	165
1947	252	198
1948	264	196

	Average farm price - ¢ per lb.	
10-yr. av. 1933-1942	15.6	15.4
1943	32.2	32.4
1944	32.5	33.0
1945	35.8	34.3
1946	36.7	36.1
1947	22.5	20.3
1948	30.0	31.5

U.S. Production and Farm Prices of Alfalfa Seed



Average Yield per Acre in Pounds in 1948 (Selected states and U.S.)



\* Average of records in studies.  
 † California, Arizona, New Mexico, and Colorado.  
 Source of data: U.S. Dept. Agr. Agricultural Statistics, U.S. & Calif. Crop Reporting Service reports.