

ms. seed

ALFALFA SEED PRODUCTION

HEMET VALLEY

RIVERSIDE COUNTY

1 9 4 8

An analysis of production, yields, income and costs on 8 alfalfa ranches covering 196 acres for the year 1948. Averages for a similar study in 1947 are also shown. The records in this study are divided into two groups of four records each. In the first group the alfalfa was planted in rows and cultivated. The second group was planted in the usual way with strip check irrigation. This shows a comparison of the two methods of alfalfa production.

Statistical data is shown in table 4 of Acreage, Production, Average Yields and Farm Price for Alfalfa Seed for California and the U. S.

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INTRODUCTION

The purpose of this study is to help the alfalfa growers in the Hemet Valley analyze their production problems and determine the most efficient and economical methods to be used. The Valley has been long noted for its alfalfa seed. In order to insure a fine quality of seed free from noxious weed seed some growers have planted in rows and cultivated as other row crops. The introduction of new methods for the control of the lygus bug has increased the average yield of seed per acre in all parts of the country. The high war prices for seed also, greatly stimulated production. In 1946 and 1947 total U. S. Production was more than 100,000,000 pounds compared to 70-75 million pounds prior to that time and table 4 presents the production picture for the past 15 years. The price of seed was cut in half in 1947 compared to 1946. The price in 1948 increased 50% and total U. S. production declined almost 50%. The alfalfa grower is confronted with the question, which will pay most, seed and hay or just hay. What is the price ratio of seed and hay to make it more profitable to grow a seed crop?

The data in the following tables were obtained from eight growers. Records 1 to 4 are from growers who planted the alfalfa in rows 40" apart and cultivated and produced both seed and hay. Records 5, 7, 13, and 10 planted in the conventional method and harvested seed and hay. Since this is such a very small sample of the total acreage it should not be considered as an average of the valley or final in its conclusion. At best it should stimulate thinking about the economic factors in alfalfa production and indicate methods of analysis. Growers who are interested in making such a study, of their own operations and costs are invited to get in touch with the Farm Advisor's office. Blank forms will be furnished and the analysis will be made at the end of the year.

Each record in the study is given a serial number and they are arranged in descending order of net profit per acre and are kept in the same order in all tables. Copies of this report may be had by applying to the Farm Advisor's office, P. O. building, Riverside, California.

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TABLE 1. Main Factors of Yield, Costs and Income.

Four records cultivated in rows.

Four records strip check.

Serial No.	No. Acres	Average Yield Per Acre			Income Per Acre			Costs Per Acre				Mgt. Income Per Acre		
		Hay Tons	Cleaned Seed #	Screenings #	Alfalfa Straw Tons	Hay	Seed Crop	** Total	Cultural Labor Field Pr.	Harvest Labor & Field Pr.	Materials		All O'head Costs	Total
Planted in rows and cultivated-irrigated - Hay and Seed														
1	53	1.64 *4.96	694	54	-	80.18	217.96	299.55	14.57	31.92	25.09	41.61	113.15	186.40
2	8	3.12	591	-	.28	97.12	187.49	275.61	19.54	53.17	18.31	44.04	135.06	140.55
4	15	3.60	292	-	.50	112.97	96.08	211.05	24.60	38.92	26.17	51.60	141.29	69.76
3	20	2.25	341	-	.32	69.75	112.04	181.79	23.83	41.37	19.83	37.73	122.76	59.03
Av. 4 record	96	2.15 *2.19	549	30	.16	84.54	173.56	259.19	18.48	36.75	23.57	42.57	121.37	137.82
Av. 4 Rec.	47 96	2.4	357	45	.3	60.07	72.36	137.70	18.56	31.06	16.28	41.10	107.00	30.70
Planted in strip check - irrigated - Hay and Seed														
5	18	4.22	398	-	-	152.44	121.15	279.15	11.03	45.73	15.94	43.45	116.15	163.00
7	12	2.49 *3.24	579	134	-	99.14	180.31	279.45	20.80	32.90	25.02	46.91	125.65	153.80
13	60	1.75	363	-	.28	56.00	116.18	178.75	9.95	33.55	21.60	39.96	105.06	73.79
10	6	3.00	206	-	.50	80.25	74.04	154.29	4.95	29.01	16.16	43.13	93.25	61.04
Av. 4 Rec.	96	2.81 * .41	387	17	.21	80.99	122.50	208.70	11.20	35.47	20.62	41.69	108.98	99.72
Av. 4 Record	1947, 125	2.82	365	26	.43	78.22	74.06	163.70	9.59	29.46	13.46	39.80	92.31	71.39

* Cut green and sold in field ** Includes pasture

The average yield of seed per acre for records in the study in 1948 were much higher than in 1947. This with the greatly increased price for both seed and hay accounts for the much higher management income per acre. Costs were somewhat higher than 1947.

TABLE 2. Analysis of Income, Cultivation and Irrigation Costs.

Serial No.	Analysis of Income					Irrigation					Cult. Furrow Renov.	Cost of hay Per Ton	Cost of seed per CWT.
	Average Prices Received					No.	Ac.in. Per Ac.	Total Ac. in. Per A.	Cost of Irriga. Labor	Cost of Water			
Hay Per Ton	Alf. Straw T.	Screenings CWT.	Seed CWT.	Pasture per Ac.									
Planted in rows and Cultivated - Irrigated - Seed and Hay													
1	32.00	.00	.50	31.00	1.41	2	12.9	25.9	6.90	20.19	7.03		
2	31.08	20.00	.00	29.27	-	2	13.1	26.2	5.06	16.00	13.28		
4	31.38	18.00	.00	30.00	2.00	3	10.3	31.5	11.20	13.52	12.00		
3	31.00	20.00	.00	20.00	.00	2	10.0	20.	13.50	16.53	8.33		
Avg. 4 records	31.52	19.11	-	30.76	1.54	2.3	10.13	20.31	8.79	18.03	8.60	25.73	10.49
Av. 4 1947	24.83	15.00	-	20.26	.78	1.4	9.0	18.5	6.11	10.94	9.33	23.05	14.35
Planted in strip check - Irrigated - Seed and Hay													
5	36.11	.00	.00	31.00	5.56	3	7	21	5.53	8.34	3.50		
7	32.00	.00	.50	31.00	.00	3	-	2.83	13.42	1.80			
13	32.00	18.00	.00	31.00	6.67	2	12	24	3.75	14.00	3.75		
10	26.75	12.00	.00	33.00	.00	4	6	24	3.00	14.00	.75		
Av. 4 Rec.	32.95	17.11	-	30.72	6.41	2.4	6.12	21.24	3.89	12.86	3.08	20.05	12.04
Av. 4 1947	27.74	16.11	-	20.28	4.46	2.3	7.3	20.2	4.58	7.02	3.12	17.28	11.78

The average for the records in the 1947 study are shown on the last line in each table. The average farm price for seed in California in 1948 was 30 cents per pound compared to 42.1 the U.S. (See Table 4)

TABLE 3. Cultural Factors and Dusting Costs.

Serial No.	Age of Stand	Soil Type	Method of Planting	No. Cuttings			D.D.T. Dustings		
				Hay	Seed	No.	Pounds per Acre	Cost of Dust	Cost of Applic.
1	8	H.f.s.1	40" rows	3	1	1*	30	2.10	1.20
2	2	H.f.s.1	40" rows	3	1	1	30	2.31	1.20
4	4	H.f.s.1	40" rows	3	1	1	35	2.45	1.40
3	2	H.f.s.1	60" rows	3	1	1	30	2.25	1.20
5	8	H.f.s.1	Strip Check	2	1	1	30	2.10	1.20
7	9	H.f.s.1	"	2	1	1*	30	2.10	1.20
13	6	H.f.s.1	"	1	1	1	30	2.10	1.20
10	5	Heavy	"	3	1	1	30	2.10	1.20

* Bee pollination.

Records 1 and 7 used bees for pollinator at a cost of \$3.64 per Acre.
No fertilizers were used.

Table 4. 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.
<u>A C R E A G E</u>			
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	72,339
1943	2,940	13,320	70,164
1944	3,960	13,080	68,550
1945	3,600	13,620	70,926
1946	6,000	18,480	109,344
1947	8,340	25,680	102,000
1948	4,740	13,908	59,394

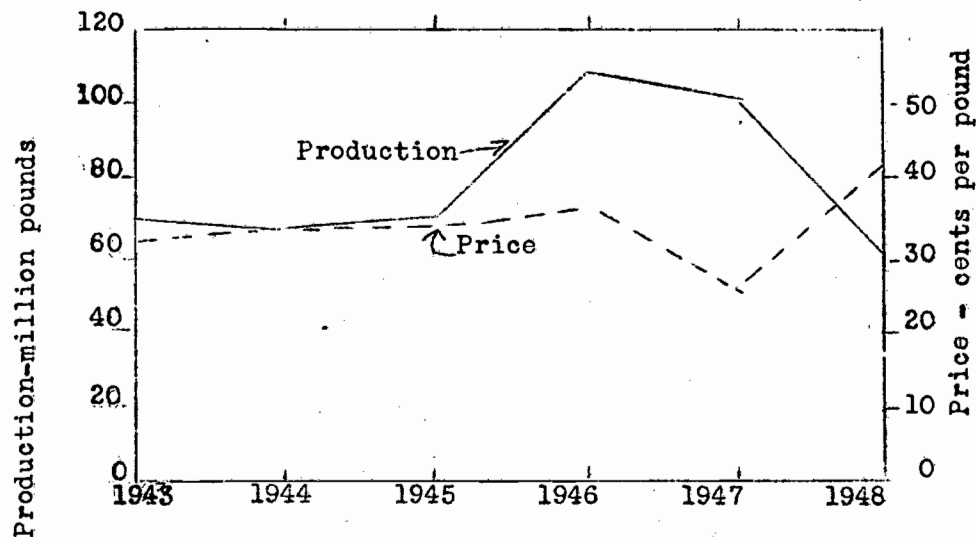
Average yield per acre - lbs.

10-yr.av. 1933-1942	195	190	102
1943	210	162	91
1944	198	129	71
1945	150	140	80
1946	222	165	93
1947	252	198	103
1948	264	196	97

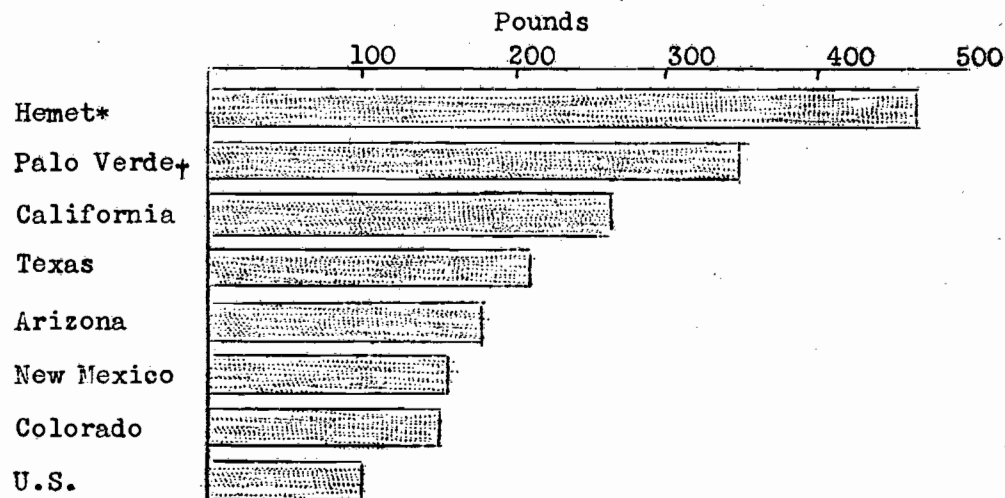
Average farm price - ¢ per lb.

10-yr.av. 1933-1942	15.6	15.4	18.0
1943	32.2	32.4	32.1
1944	32.5	33.0	34.1
1945	35.8	34.3	34.3
1946	36.7	36.1	36.7
1947	22.5	20.3	25.4
1948	30.0	31.5	42.1

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.