California Department of Food and Agriculture

Agricultural Commissioners' Crop Reports

San Bernardino County

1952-1955

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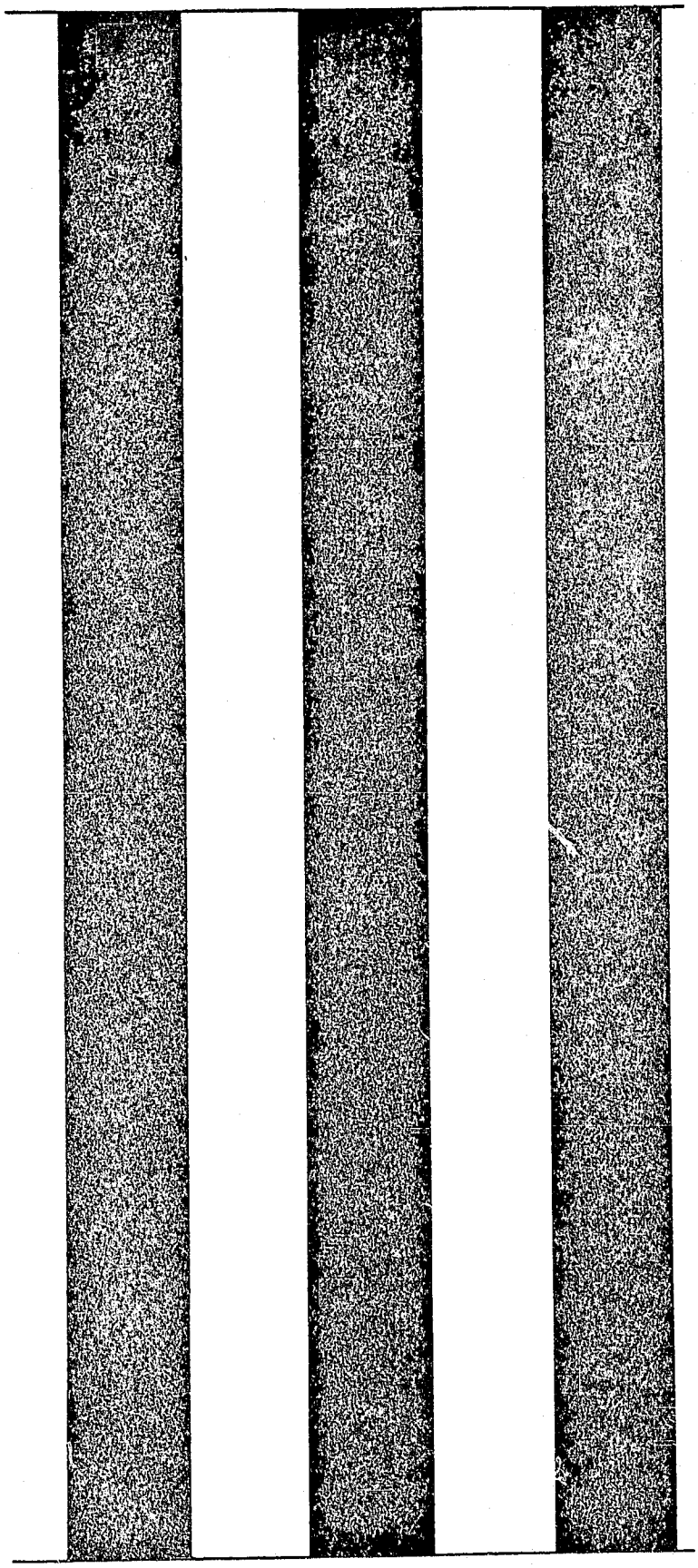
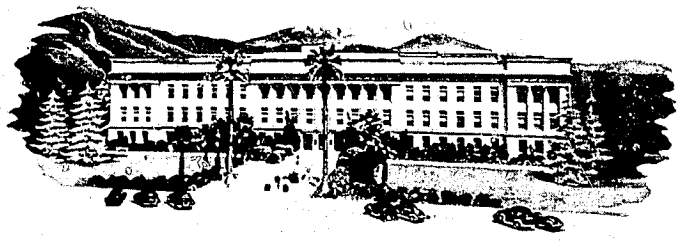


1952

COUNTY DEPARTMENT OF AGRICULTURE
566 LUGO AVENUE PHONE 6811



COUNTY OF
SAN BERNARDINO
SAN BERNARDINO, CALIFORNIA

1952

ANNUAL CROP AND LIVESTOCK REPORT
1952

To Readers:

It is hoped that this report required by Section 65.5 of the Agricultural Code of the State will be both interesting and useful. Suggestions for improvement of future reports are solicited and will be given consideration.

Respectfully submitted

H. A. Crane

Harold A. Crane
Agricultural Commissioner

AND

Warren A. Burr

Warren A. Burr
Agricultural Inspector
Charge of Statistics and Reports

HAC:ll
3-20-53

CROP AND LIVESTOCK REPORT
Calendar Year - 1952

The total income from the agricultural industries of the County herein listed amounts to $106,690,921 for 1952. This represents a slight increase over 1951 and is better than 21% greater than the past five year average. It should be explained that these valuation figures represent gross receipts and not net returns to the grower. Short crops and low prices, particularly in the case of tree and vine fruits, were more than offset by substantial increases in income from row crops, certified seed, nursery stock, beef cattle, dairy products and poultry.

It may be stated that the many business enterprises, both small and large, that are totally dependent upon agriculturalists for their trade may, if simularly appraised, show a combined gross income nearly equal, or perhaps equal, to the 1952 figure given above. The combined figures should give a more accurate appraisal of the position Agriculture holds in the total economy of the County.

The members of our Department, including office personnel and district inspectors, have made an earnest endeavor to make this report as accurate as possible. Whenever we could, we have checked our figures with those of other agencies. We have also tried to present it in a form that will be most helpful. However, in this regard, suggestions from readers are welcome.

We are particularly indebted to the Deputies and Inspectors of our own Department who secured basic information for this report and to various members and organizations of the citrus industry, the Extension Service, the local office of the Agricultural Production and Marketing Administration, the County Milk Inspector and numerous others. Our sincere appreciation is extended to all who have assisted in making this report possible.

Citrus: The total citrus acreage for San Bernardino County for the year 1952 was 40,790 acres with a gross return of $19,790,436. Of this total acreage, 404 acres have not come into bearing including 40 acres planted in 1952. Navel oranges account for half of our total citrus with 20,479 acres; Valencia oranges 10,828 acres; miscellaneous oranges 795 acres; lemons 5,700; grapefruit 2,986 acres; and limes 2 acres. Loss of citrus acreage by removal amounted to 1,246 acres with oranges accounting for 1,059 acres of this figure. For the most part, these citrus removals were marginal orchards and do not reflect to any great degree in the reduced production shown in this report.

Production and gross receipts for navel oranges show a marked reduction as compared with previous years. Production and gross returns both decreased 20% as compared with 1951. Valencia orange production increased approximately 30% and gross returns show an increase of only 3% over 1951. This high increase in Valencia production can be attributed to a very poor crop in 1951 as compared with 1952 plus the fact that the crop of Valencias in 1952 was one of the best in years.

Lemons show a decrease of 5% in production and an increase of 4% in gross returns as compared with 1951. These low percentages of difference are reflected in the fact that only 23 acres of lemons were removed in 1952. Grape-

fruit production dropped 15% and gross returns decreased 17% as compared with 1951. During the past year, 149 acres of grapefruit were removed.

All citrus combined shows a reduction of 7% in production and 11% in gros returns during 1952 as compared with 1951. Our 1952 production of all citrus was 27% lower and gross returns 20% lower than the previous 15 year average.

It can be stated that the year 1952 was marked by low production in all citrus except Valencia oranges as compared with the previous year. It should be explained also that the valuation figures herein given are f.o.b. as fruit leaves the packing house and not net returns to the grower.

Subtropical fruits (675 acres): This figure includes 442 acres of bearir olives with smaller acreages of avocados, dates and persimmons. Gross income increased 25% over 1951 due to a return to more normal production of these fru

Deciduous fruits (3,680 acres): Acreage figures show a reduction of 371 acres from 1951. Subdivisions and non-profitable orchards were largely the cause. Apricots and cling peaches show an increase in production in spite of removals, and plums show a tremendous drop in production due to late frost in 1952. The price of plums increased considerably as a result, thus showing an increased value over 1951. Gross returns for all deciduous amounte to $2,491,463, a decrease of only 10% under 1951.

Grapes (31,426 acres): Grapes show a small reduction of 230 acres from the 1951 total. Low prices were mainly responsible for this decrease. Production of grapes increased approximately 39% over 1951, but decreased 15% in valuation in spite of this bumper crop.

Berries (408 acres): Decreased acreage in bush berries and strawberries is reflected in a corresponding decrease in production and valuation. Yields were generally good and growers received favorable prices. Gross income for 1952 was $483,777.

Nuts (3,642 acres): Walnuts continue to show a decline in acreage due to removals. 647 acres were removed during the year. Almonds also show a declin from the previous year of 28 acres. In spite of this reduced acreage the production was on a par with 1951. Total valuation of all nuts was $598,340 or 8% less than 1951.

Vegetables (8,569 acres): An increase of 1,206 acres of vegetables over 1951 is partially due to the availability of land formerly used for walnut orchards now planted to vegetables in the Chino Valley. Total gross income from all vegetables was $8,736,874 or 45% more than shown for 1951. This increase is reflected in higher acreages for corn, lettuce, onions and canning tomatoes and higher prices for potatoes almost doubled that received in 1951.

Field Crops (47,386 acres): Field crops show an increase of some 2,761 acres during 1952, due mainly to increases in barley, oats and grain hay. Alfalfa is again our leading field crop, showing a gross return of $2,869,845, on 16,470 acres. Permanent irrigated pastures rank second with gross returns estimated at $100 per acre, totaling $1,200,000. Other important crops are blackeye beans, barley, grain hay and corn ensilage. Total gross returns for all field crops amount to $6,074,549 for 1952.

Seed Crops (1,012 acres): Alfalfa and certified wheat comprise our seed crops. Alfalfa leads with 1,000 acres grown in the Mojave River district wit a yield of 450,000 pounds. Combined gross returns amount to $135,000.

Nursery Stock (363 acres - field grown): Of this total acreage, 235 acre were devoted to rose production. The balance of the acreage was devoted to fruit trees and ornamental nursery stock. The estimated gross return for all nursery stock was $2,561,880, which represents an increase of some 30% over the previous year.

Bees: Honey, beeswax and nuclei production show an increase over 1951. Honey production amounted to 4,527,666 pounds and beeswax 67,890 pounds. With climatic conditions favorable to increased production plus good prices, the total gross income from honey and other products amounted to $591,683.

Livestock: The figures submitted for livestock are, we believe, the best available.

It is estimated that there were 18,420 beef cattle in the County as of December 31, 1952. 30,985 beef cattle were sold during the year with a total beef and feed lot gain of about $3,707,600. This figure is less than 1951 in that gross returns were figured on feed lot gain while the animals were in the County.

Dairy cows show an increase of 1,401 in number with a total number of 16,662. Total gross income from dairying, including milk, breeding stock sold, stock sold for beef and fertilizer amounted to around $13,671,803.

Producing hens increased 10% during 1951 and 9% during 1952. We now have around 3,792,660 producing hens in the County as of the date of this report. Egg production went up 12%. Hens and fryers sold for meat also increased. Gross income from hens and their products amounted to $35,981,561; ducks $128,650; and turkeys 3,504,043, or a total gross income from all poultry of around $39,614,254.

Hog breeding stock on hand dropped 3,880 in 1951 to 1,569 in 1952. 585 were sold as feeders and breeding stock and 12,097 were sold for pork. 10,419 tons of hog manure were sold for fertilizer. The gross income from hogs amount to $653,669.

Rabbits (1,010,000) grossed $1,299,000; chinchillas, $694,250. Sheep, sold for mutton and wool, grossed $309,780 with 1,300 breeding stock remaining on hand at the end of the year 1952.

There seems to be a steady increase in number of livestock in the County with attendant increase in gross income. Poultry and beef cattle are continuing to increase as more people are moving to the rural areas from the ever-expanding urban districts. Total gross income from all livestock amounts to $62,288,769.

CITRUS - SAN BERNARDINO COUNTY

Year	*Acreage	Production (Boxes)	Valuation (Gross Receipts)
1938	50,445	7,024,281	$ 11,767,447
1939	49,663	7,296,182	14,109,169
1940	48,078	8,120,227	17,170,447
1941	51,689	9,588,997	20,071,630
1942	51,320	8,998,780	21,195,403
1943	51,728	7,485,209	23,970,155
1944	50,794	10,980,405	40,075,086
1945	50,615	10,820,769	50,364,665
1946	49,167	10,660,414	39,140,244
1947	50,470	9,781,380	28,524,393
1948	50,000	8,463,319	23,546,951
1949	44,854	4,866,902	14,653,270
1950	43,239	8,523,115	24,056,853
1951	42,036	6,601,573	22,203,826
1952	40,790	6,130,909	19,790,436
TOTALS		125,342,462	$ 370,639,975
15 Years' Average		8,356,164	$ 24,709,332

*Includes Bearing and Non-Bearing Acreage.

TOTAL CROP, POULTRY, OTHER LIVESTOCK, AND TOTAL VALUATION FOR THE PAST TEN YEARS AS OF RECORD FOR SAN BERNARDINO COUNTY

YEAR	ALL CROPS	ALL POULTRY	OTHER LIVESTOCK	TOTAL
1943	$ 42,123,408	$ 9,894,927	$ 9,242,599	$ 61,260,934
1944	60,563,406	10,621,257	11,389,403	82,574,066
1945	67,114,424	15,469,053	11,879,364	94,462,841
1946	64,167,052	12,746,496	12,548,564	89,462,112
1947	44,524,547	17,725,625	17,013,715	79,263,887
1948	40,055,839	24,234,080	20,639,282	84,929,201
1949	30,441,086	29,206,756	17,063,785	76,711,627
1950	43,343,662	29,713,980	18,249,401	91,307,043
1951	43,747,168	40,555,572	21,672,010	105,974,750
1952	44,402,152	39,614,254	22,674,515	106,690,921

TOTAL POULTRY AND EGG PRODUCTION FOR THE PAST FIVE YEARS AS OF RECORD FOR SAN BERNARDINO COUNTY

YEAR	PRODUCING HENS	EGG PRODUCTION	EGG VALUATION
1948	2,130,000	29,820,000 Dozen	$ 16,102,800
1949	2,850,000	40,850,000 Dozen	20,833,500
1950	3,135,000	47,025,000 Dozen	19,280,250
1951	3,460,000	53,341,666 Dozen	29,337,916
1952	3,792,660	60,050,592 Dozen	27,623,273

REPORT OF CROP ACREAGE, PRODUCTION AND VALUATION
1952

County of San Bernardino

FRUIT, NUT AND VINE CROPS

	ACREAGE		PRODUCTION	VALUATION
	Bearing	Non-Bearing		
CITRUS				
Oranges: Navels	20,395	84	2,318,512 Pkd. Bxs.	$ 9,630,016
Valencias	10,757	71	1,058,764 Pkd. Bxs.	3,251,847
Misc.	793	2	34,021 Pkd. Bxs.	90,143
Lemons	5,469	231	665,361 Pkd. Bxs.	4,384,259
Grapefruit	2,970	16	365,994 Pkd. Bxs.	1,141,412
Limes	2		370 Pkd. Bxs.	2,080
LOOSE CITRUS				
Oranges: Navels			399,987 Bxs.	155,741
Valencias			672,477 Bxs.	516,368
Misc.			26,713 Bxs.	16,089
Lemons			350,192 Bxs.	520,069
Grapefruit			238,538 Bxs.	82,412
SUBTROPICAL				
Avocados	55	21	76 Tons	27,360
Dates	8		5 Tons	1,500
Olives: Cured	442	131	107 Tons	13,375
Oil			700 Tons	42,000
Persimmons	18		70 Tons	11,900
DECIDUOUS				
Apples	561	138	185,550 Bxs.	371,100
Apples: Cull			20 Tons	200
Cider			23,822 Gals.	17,867
Apricots: Fresh	103		267 Tons	40,050
Dried			6 Tons	3,846
Cherries	28	20	27 Tons	7,020
Peaches. Cling	668	20	5,314 Tons	345,410
Free	1,555	67	8,300 Tons	1,328,000
Pears	19	6	3,920 Lugs	4,900
Plums	410	75	979 Tons	372,020
Quince	6	5	14 Tons	1,050
GRAPES				
Table	1,359		1,098 Tons	46,116
Juice	29,864	203	115,966 Tons *	2,667,218
BERRIES				
Bush	319		308,752 Trays	277,877
Straw	89		102,950 Trays	205,900
NUTS				
Almonds	38	4	7 Tons	4,340
Walnuts	3,548	52	1,980 Tons	594,000
TOTALS	79,476	1,146		$ 26,173,485

* Includes Table Grapes Sold for Juice.

COMMERCIAL VEGETABLE CROPS

		ACREAGE		PRODUCTION	VALUATIO
Beans:	Green	50# Crt.	5	400 Crts.	$ 2,000
Beets		3 Dz. Crt.	3	760 Crts.	1,216
Broccoli		40# Crt.	5	750 Crts.	1,800
Cabbage		60# Crt.	172	50,470 Crts.	70,658
Carrots		70# Crt.	321	80,965 Crts.	230,750
Cauliflower		40# Crt.	181	70,660 Crts.	70,660
Corn:	Green	5 Dz. Crt.	1,718	444,557 Crts.	844,658
Cucumbers		30# Lugs	1	310 Lugs	294
Eggplant		20# Lugs	1	300 Lugs	300
Garlic		Lbs.	1	2,050 Lbs.	820
Lettuce		65# Crt.	65	10,690 Crts.	34,208
Melons:	Cant.	65# Crt.	172	31,260 Crts.	78,150
	Water	Tons	157	1,468 Tons	44,040
	Other	60# Crt.	27	5,815 Crts.	15,991
Onions:	Green	30# Crt.	1	107 Crts.	267
	Dry	50# Sks.	258	216,900 Sks.	495,751
Peppers:	Bell	25# Lugs	2	430 Lugs	580
Potatoes:	Sweet	32# Lugs	571	211,850 Lugs	614,365
	Irish	100# Sks.	4,622	1,571,490 Sks.	6,124,110
Pumpkins		Tons	8	150 Tons	3,000
Spinach		35# Crt.	3	520 Crts.	858
Squash:	Summer	20# Lugs	14	1,390 Lugs	1,390
	Winter	Tons	16	38 Tons	2,470
Tomatoes:	Fresh	28# Lugs	21	6,256 Lugs	6,256
	Can	Tons	157	2,163 Tons	60,564
Turnips		50# Crt.	17	4,640 Crts.	5,568
Misc. Veg.			50	15,000 Crts.	26,250
TOTALS			8,569		$ 8,736,874

FIELD CROPS

		ACREAGE	PRODUCTION	VALUATION
Beans:	Blackeye	4,275	82,431 Sks.*	$ 988,092
Corn:	Ensilage	666	4,690 Tons	117,250
	Maize	100	3,000 Sks.	10,500
Cotton		556	556 Bls.	125,100
Grain, Thrashed:				
	Barley	3,495	55,890 Sks.	173,259
	Oats	755	14,395 Sks.	51,822
	Wheat	204	3,660 Sks.	13,359
Hay:	Alfalfa	16,470	86,965 Tons	2,369,845
	Sudan Grass	10	20 Tons	600
	Grain	7,325	12,070 Tons	422,450
Mushrooms			7,000 Pounds	4,200
Pasture:				
Perm. Irrigated		12,000		1,200,000
Planted Dry Range		1,050		26,250
Sudan Grass		400		30,000
Sugar Beets		78	1,638 Tons	20,704
Tobacco		2	2,100 Pounds	1,239
/Govt.-Owned Range Land, Forests & Timber				19,879
TOTALS		47,386 Acres		$6,074,549

* All 100# Sacks

/130,700 Acres Available Range in San Bernardino National Forest.

SEED CROPS

	ACREAGE	PRODUCTION	VALUATION
Alfalfa	1,000	450,000 Pounds	135,000
Wheat	12	221 Sks.	1,381
TOTALS	1,012 Acres		$ 136,381

CONSERVATION EARNINGS AND SOIL BUILDING PRACTICES (P.M.A.)

	1951	1952
Farms, Earning	340	
Payments	$ 145,000	$127,300*

NURSERY STOCK

	ACREAGE	VALUATION
Grown and Sold	363 Acres	$2,561,880

APIARY

	PRODUCTION	VALUATION
Honey Production	4,527,666	$ 522,931.62
Beeswax	67,890	27,156.00
Nuclei with Queens	8,283	41,415.00
Pkg. Bees with Queens		180.00
TOTAL		$ 591,682.62

*Approximate figure.

ESTIMATED LIVESTOCK PRODUCTION

	ON HAND	SOLD	VALUATION
BEEF CATTLE			
Feeders	9,435	30,985	$ 3,707,600*
Range	8,985	10,121	2,024,200
Fertilizer		34,775 Tons	83,460
DAIRY - COWS	18,063		
Milk: Wholesale		17,255,901 Gal.	9,318,186
Retail		4,007,938 Gal.	3,206,350
Products	30,000	30,000 Lbs.	9,000
Young Stock & Bulls	3,190	697	139,400
Slaughter		4,742	758,720
Fertilizer		130,275 Tons	240,147
POULTRY			
Producing Hens	3,792,660		
Eggs (Doz.)		60,050,592 Doz.	27,623,273
Hens sold for meat		3,413,394	2,594,180
Fryers sold for meat		4,579,122	4,579,122
Baby Chicks		4,476,220	805,720
Fertilizer		87,287 Tons	379,266
DUCKS	60		
Ducks sold for meat		102,920	128,650
TURKEYS	22,038		
Sold for meat		400,740	3,141,755
Fryers sold for meat		25,000	61,250
Poults		368,800	276,600
Eggs (Doz.)		7,833 Doz.	24,438
HOGS			
Breeding Stock	1,569	585	65,950
Slaughter		12,097	556,462
Fertilizer (Tons)		10,419 Tons	31,257
RABBITS			
Fryers Sold		1,010,000	1,262,500
Others Sold		15,000	22,500
Fertilizer (Tons)		4,000 Tons	14,000
CHINCHILLA	2,270		
Breeders Sold		1,190 Pr.	684,250
Pelts Sold		200	10,000
SHEEP			
Breeding Stock	1,300		
Slaughter		15,900	305,280
Wool		10,000 Lbs.	4,500
FOX			
Pelts Sold		300	3,750
MISCELLANEOUS			227,003
TOTAL			$ 62,288,769

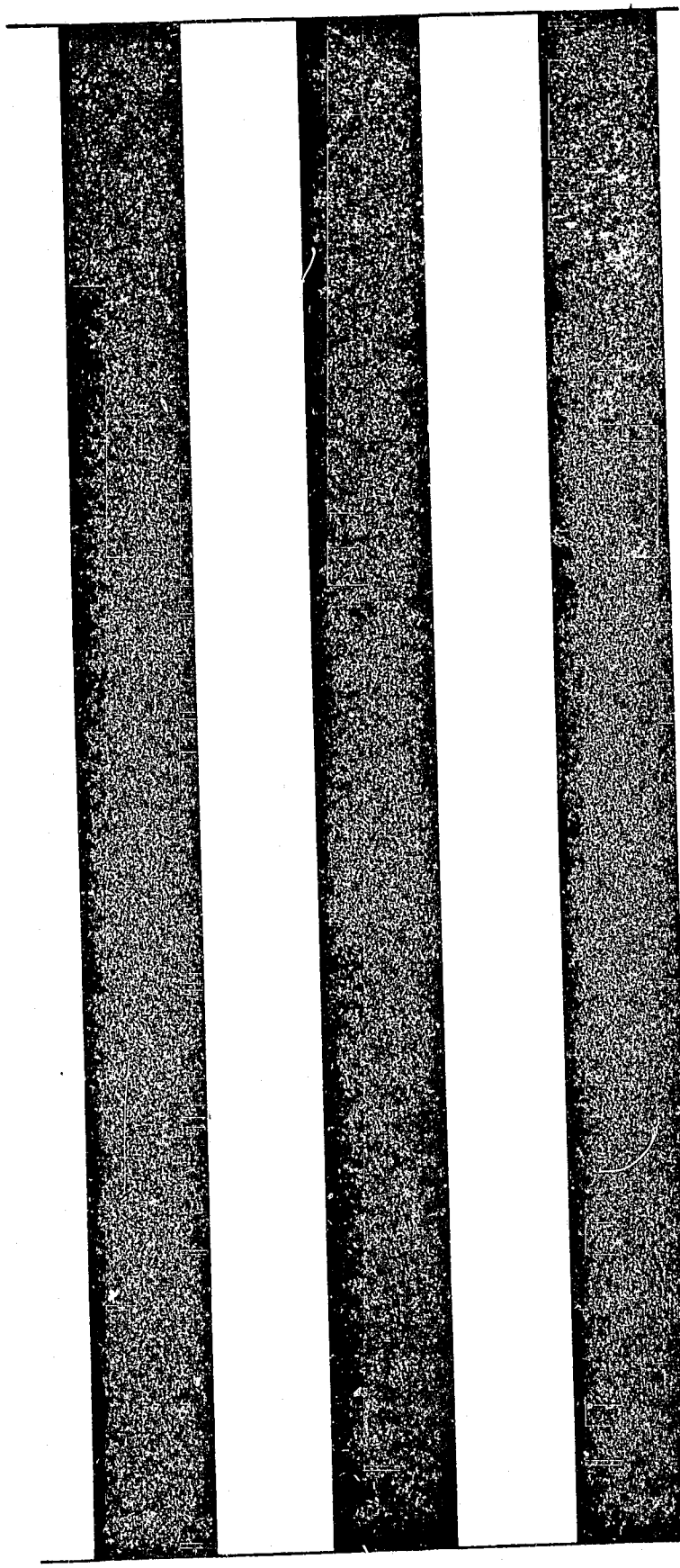
*Reef and feed lot gain only.

RECAPITULATION

NOTE: The following valuation figures represent gross receipts and not net returns to the growers.

	Acreage*		Valuation	
	1951	1952	1951	1952
Citrus	42,036	40,790	$ 22,203,826	$ 19,790,436
Subtropical	637	675	75,850	96,135
Deciduous	4,051	3,681	2,560,113	2,491,463
Grapes	31,656	31,426	3,201,660	2,713,334
Berries	468	408	691,705	483,777
Nuts	4,330	4,050	645,516	598,340
Vegetables	7,363	8,569	5,959,652	8,736,874
Field Crops	44,625	47,389	5,842,102	6,074,549
Seeds	750	1,012	80,000	136,381
Nursery Stock	220	363	1,943,146	2,561,880
Apiary			398,598	591,683
Livestock Including Poultry			62,227,582	62,288,769
Government Payments (P.M.A.)			145,000	127,300**
TOTALS	136,000	138,358	$105,974,750	$106,690,921

*Includes Bearing and Non-Bearing.
**Approximate figure



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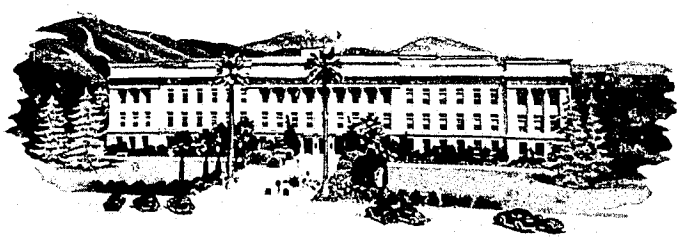
AGRICULTURAL CROP REPORT

SAN BERNARDINO COUNTY

OFFICE OF AGRICULTURAL COMMISSIONER

COUNTY DEPARTMENT OF AGRICULTURE
566 LUGO AVENUE PHONE 6811



COUNTY OF
SAN BERNARDINO
SAN BERNARDINO, CALIFORNIA

ANNUAL CROP REPORT 1953

To: Honorable W. C. Jacobsen, Director of Agriculture, and
The Honorable Board of Supervisors, San Bernardino County

It is required by Section 65.5 of the Agricultural Code that the Agricultural Commissioner compile a report covering the conditions, acreage, production and value of the agricultural products of the County. Herewith is submitted such a report for the County of San Bernardino.

It should be explained that the valuation figures herein given are gross receipts, and not net returns to the grower. High production costs and short crops in some instances have kept the grower net-returns at a low level. On the basis of gross returns to the grower, the total income from the agricultural industries of the County herein listed amounts to $112,543,812 for 1953 as compared with $106,690,921 for 1952 and $92,389,926 for the past ten year average. This increase is due largely to expansion of some of our industries, particularly poultry and livestock and better production and higher prices in other instances.

Citrus: The total citrus acreage for San Bernardino County for 1953 was 38,619 acres with a gross return of $26,640,302. Navel oranges account for half our acreage with 19,371 acres; Valencia oranges 10,164 acres; lemons, 5,632 acres; and grapefruit, 2,735 acres. Loss of citrus acreage by removal amounted to 2,171 acres with 1,913 acres attributed to oranges.

Production and gross receipts for navel oranges show a marked increase over 1952. Production increased 68% while valuation increased some 32%. Valencia orange production increased 67% and valuation 43% over the previous year. These increases are reflected to a great degree by the fact that 1952 was a very poor citrus year and 1953 was more a normal year as can be seen by the accompanying chart showing trends the past 16 years.

Lemons increased some 10% in production over the previous year while the valuation of the same increased 12%. Acreage and production of lemons in San Bernardino County seem to remain quite constant.

Grapefruit production increased 35% while gross returns were increased only 15%.

It is worth-while noting that there was also more fruit sold as loose fruit and diverted to by-product plants with considerable increase in returns on this fruit.

All citrus combined shows an increase of 13% in production and 7% in gross returns in 1953 as compared with the past 16 year average. It should be explained that the valuation figures given are f.o.b. as fruit leaves the packing house and not net returns to the grower.

Subtropical fruits (695 acres): This figure includes 470 acres of bearing olives which were a complete failure due to a late spring frost. Smaller acreages of avocados, dates and persimmons make up the $22,680 valuation which is considerably less than 1952.

Deciduous fruits (3,174 acres): Acreage of all deciduous fruits is 506 acres less than 1952. Peach and apricot orchard removals are mainly responsible for this reduction. Apple production decreased over one-half from the previous year due to late frost with peaches showing a tremendous drop in production due to this same condition with corresponding decreases in valuation. Gross returns for all deciduous amounted to $1,104,284, a decrease of 56% from 1952.

Grapes (29,653 acres): Grapes show a reduction of 1,773 acres from the previous year. Production dropped 26% from 1952 but valuation increased 18% to help offset this reduced production.

Berries (412 acres): Acreage of bush and strawberries practically the same as last year. Although production of bush berries was lower in 1953, good prices were received. Gross income from both was $684,990.

Nuts (2,673 acres): Walnuts continue to show a decline in acreage and production. 1,009 acres were removed during the year. Almonds, with 78 acres in bearing, was also a complete crop failure in 1953. Total valuation of all nuts was $252,000, attributed to walnuts alone.

Vegetables (9,220 acres): An increase of 651 acres is noted in vegetable acreage over the previous year. Increases are found in Irish potatoes, green corn, cabbage and melons. In spite of increased acreage of Irish potatoes, the valuation dropped over three and one half million dollars from the previous year due to low prices occasioned by a tremendous surplus. Due to this drop in potato valuation, all vegetable crops combined totaled $4,436,245 or 50% less than 1952.

Field Crops (45,322 acres): Field crop acreage increased in blackeye beans, oats, alfalfa and cotton during 1953 over the previous year. Alfalfa, with 17,427 acres, is again our leading field crop showing a gross return of $2,586,100. Blackeye beans rank second with gross returns of $879,200 on 5,608 acres. Other important field crops are barley, oats, grain, permanent irrigated pasture and cotton. Total gross returns for all field crops amount to $5,080,560 for 1953.

Seed Crops (973 acres): Alfalfa and barley comprise our certified seed crops. Alfalfa leads with 810 acres and a yield of 363,000 pounds. Combined gross returns amount to $117,920.

Nursery Stock (352 acres): Of this total acreage, 271 acres were devoted to rose production. The balance of the acreage was devoted to fruit trees and ornamental nursery stock. The estimated gross return for all nursery stock was $2,721,866 which represents a slight increase over the previous year.

Bees: Honey, beeswax and nuclei production show a reduction from the previous year. Honey production dropped to 1,406,360 lbs. as compared with over 4 million pounds for 1952. Due to inclement weather during the citrus bloom, plus lack of rainfall on wild hosts, the total gross income from honey and other products amounted to only $248,055.

Livestock: The estimated figures shown in this report for livestock are, we believe, the best available.

It is estimated that there were approximately 19,000 beef cattle in the County at the end of year 1953. 30,631 beef cattle were sold during the year with a total beef and feed lot gain of about $2,391,961. This amount is considerably less than the beef valuation figure for 1952 due mainly to low prices received by the producers.

Dairy cows again show an increase with an additional 835 cows on hand over the previous year. Total gross income from dairying including milk, breeding stock sold, stock sold for beef, and fertilizer amounted to $14,631,365 or a 7% increase over 1952.

Producing hens increased 9% during 1952 and 7% during 1953. We now have around 4,083,845 producing hens in the County as of the date of this report. Egg production correspondingly increased to over 68 million dozen with a valuation of over 35 million dollars. Hens and fryers sold for meat also increased. Gross income from hens and their products amounted to $45,544,638; ducks $195,000 and turkeys $3,459,390, or a total gross income from all poultry of around $49,199,028 or an increase of 24% over the previous year.

Hogs grossed $389,428 with some 8,027 being sold for pork. Rabbits, with 638,750 fryers sold, grossed $712,321 a decrease from the previous year. Sheep grossed $142,000 with 1,230 breeding stock remaining on hand at the end of 1953.

There seems to be a steady increase in numbers of certain types of livestock in the County such as dairy cows, producing hens, and turkeys with attendant increase in gross income in spite of reductions in other types. Total gross income from all livestock amounts to $67,888,480 or an increase of 9% over 1952.

In conclusion: The members of our Department, including office personnel and district inspectors, have made an earnest endeavor to make this report as accurate as possible. Whenever we could, we have checked our figures with those of other agencies. We have also tried to present it in a form that will be most helpful. However, in this regard, suggestions from readers are welcomed.

We are particularly indebted to the Deputies and Inspectors of our own Department who secured basic information for this report and to various members and organizations of the citrus industry, the Agricultural Extension Service, the local office of the Agricultural Production and Marketing Administration and numerous others.

Our sincere appreciation is extended to all who have assisted in making this report possible.

Respectfully submitted

H. A. Crane
Agricultural Commissioner

AND

Warren A. Burr
Agricultural Inspector II

CITRUS

Year	*Acreage	Production (Boxes)	Valuation (Gross Receipts)
1938	50,445	7,024,281	$ 11,767,447
1939	49,663	7,296,182	14,109,169
1940	48,078	8,120,227	17,170,447
1941	51,689	9,588,997	20,071,630
1942	51,320	8,998,780	21,195,403
1943	51,728	7,485,209	23,970,155
1944	50,794	10,980,405	40,075,086
1945	50,615	10,820,769	50,364,665
1946	49,167	10,660,414	39,140,244
1947	50,470	9,781,380	28,524,393
1948	50,000	8,463,319	23,546,951
1949	44,854	4,866,902	14,653,270
1950	43,239	8,523,115	24,056,853
1951	42,036	6,601,573	22,203,826
1952	40,790	6,130,929	19,790,436
1953	38,619	9,602,736	26,640,302
16 Years' Average		8,434,074	$ 24,830,017

* Includes Bearing and Non-Bearing Acreage.

TOTAL CROP, POULTRY, OTHER LIVESTOCK, AND TOTAL VALUATION FOR THE PAST ELEVEN YEARS AS OF RECORD FOR SAN BERNARDINO COUNTY

YEAR	ALL CROPS	ALL POULTRY	OTHER LIVESTOCK	TOTAL
1943	$ 42,123,408	$ 9,894,927	$ 9,242,599	$ 61,260,934
1944	60,563,406	10,621,257	11,389,403	82,574,066
1945	67,114,424	15,469,053	11,879,364	94,462,841
1946	64,167,052	12,746,496	12,548,564	89,462,112
1947	44,524,547	17,725,625	17,013,715	79,263,887
1948	40,055,839	24,234,080	20,639,282	84,929,201
1949	30,441,086	29,206,756	17,063,785	76,711,627
1950	43,343,662	29,713,980	18,249,401	91,307,043
1951	43,747,168	40,555,572	21,672,010	105,974,750
1952	44,402,152	39,614,254	22,674,515	106,690,921
1953	44,655,332	49,199,028	18,689,452	112,543,812

TOTAL POULTRY AND EGG PRODUCTION FOR THE PAST SIX YEARS AS OF RECORD FOR SAN BERNARDINO COUNTY

YEAR	PRODUCING HENS	EGG PRODUCTION	ECG VALUATION
1948	2,130,000	29,820,000 Dozen	$ 16,102,800
1949	2,850,000	40,850,000 "	20,833,500
1950	3,135,000	47,025,000 "	19,280,250
1951	3,460,000	53,341,666 "	29,337,916
1952	3,792,660	60,050,592 "	27,623,273
1953	4,083,845	68,064,083 "	35,393,323

FRUIT, NUT AND VINE CROPS

	ACREAGE		PRODUCTION	VALUATION
	Bearing	Non-Bearing		
CITRUS				
Oranges: Navels	19,282	89	3,902,747 Pkd. Bxs.*	$ 12,741,195
Valencias	10,145	19	1,769,247 " "	4,652,988
Misc.	713	—	53,862 " "	132,440
Lemons	5,410	222	729,705 " "	4,923,408
Grapefruit	2,715	20	495,685 " "	1,314,987
Limes	4	—	880 " "	8,880
LOOSE CITRUS				
Oranges: Navels			509,160 Bxs.	213,911
Valencias			1,328,582 "	1,348,571
Misc.			65,720 "	39,594
Lemons			413,771 "	1,173,423
Grapefruit			333,377 "	90,905
SUBTROPICAL				
Avocados	62	10	48 Tons	17,280
Dates	8	—	3 "	600
Olives	470	130	Crop Failure	
Persimmons	15	—	24 Tons	4,800
DECIDUOUS				
Apples	535	137	80,350 Bxs.	216,945
Apples: Cider			27,050 Gals.	22,993
Apricots	81	5	66 Tons	5,940
Cherries	25	13	4 "	1,200
Peaches: Cling	517	41	1,736 "	112,840
Free	1,236	71	3,590 "	548,566
Pears	37	4	1,000 Bxs.	2,000
Plums	405	67	646 Tons	193,800
GRAPES				
Table	1,252	—	200 Tons	9,000
Juice	28,030	371	86,390 " **	3,196,430
BERRIES				
Bushberries	327	—	1,308 Tons	366,240
Strawberries	85	—	127,500 Trays	318,750
NUTS				
Almonds	78	4	Crop Failure	
Walnuts	2,556	35	700 Tons	252,000
TOTALS	73,988	1,238		$ 31,909,686

* Standard half box cartons converted to standard boxes.
** Includes table grapes sold for juice.

COMMERCIAL VEGETABLE CROPS

	SIZE	ACRES	PRODUCTION	VALUATION
Beans: Green	50 lbs.	12	960 crts.	$ 3,840
Beets	3 doz.	12	2,400 "	2,040
Broccoli	40 lbs.	87	13,050 "	26,100
Cabbage	60 "	276	86,555 "	134,160
Carrots	70 "	237	71,012 "	138,473
Cauliflower	40 "	208	80,850 "	40,425
Corn: Green	5 doz.	1,765	456,845 "	913,690
Cucumbers	30 lbs.	2	330 lugs	165
Eggplant	20 "	2	650 "	293
Garlic		1	1,000 lbs.	300
Lettuce	65 lbs.	5	550 crts.	1,650
Melons:				
Cantaloupe	65 "	117	12,950 "	46,620
Water		74	380 tons	17,100
Other	60 "	6	700 crts.	1,400
Onions: Dry	50 "	160	134,650 sks.	114,453
Peppers: Bell	25 "	2	400 lugs	360
Potatoes:				
Sweet	32 lbs.	468	146,750 lugs	375,680
Irish	100 "	5,505	1,727,625 sks.	2,546,242
Pumpkins		10	25 tons	625
Spinach	35 lbs.	3	579 crts.	608
Squash:				
Summer	32 "	4	800 lugs	1,000
Winter		31	150 tons	7,500
Tomatoes:				
Fresh	32 lbs.	38	11,780 lugs	11,780
Can		132	730 tons	19,710
Turnips	50 "	8	1,280 crts.	768
Misc. Veg.		55		30,663
TOTALS		9,220		$ 4,436,245

FIELD CROPS

	ACRES	PRODUCTION	VALUATION
Beans: Blackeye	5,608	87,920 sks.*	$ 879,200
Corn: Ensilage	530	3,530 tons	88,250
Maize	105	2,525 sks.	7,575
Cotton	862	647 bls.	103,520
Grain: Barley	3,708	60,960 sks.	179,832
Oats	1,460	27,440 "	91,924
Wheat	700	12,552 "	46,442
Hay: Alfalfa	17,427	103,444 tons	2,586,100
Grain	6,122	8,697 "	234,819
Mushrooms		14,000 lbs.	10,500
Pasture: Perm. Irrigated	7,939		793,900
Planted Dry Range	574		14,350
Sudan Grass	200		7,000
Sugar Beets	85	1,600 tons	20,000
Tobacco	2	2,000 lbs.	1,000
≠ Govt.-Owned Range Land, Forests & Timber			16,148
TOTALS	45,322		$ 5,080,560

*All 100# sacks.
≠ 130,700 Acres available range in San Bernardino National Forest.

SEED CROPS

	ACRES	PRODUCTION	VALUATION
Alfalfa	810	363,000 lbs.	$ 108,900
Barley	163	180,400 ~~sks.~~ lbs.	9,020
TOTALS	973		117,920

CONSERVATION EARNINGS AND SOIL BUILDING PRACTICES (P.M.A.)

	1952	1953
Approximate Payments	$127,300	$141,000

NURSERY STOCK

	ACRES	VALUATION
Grown and Sold	352	$ 2,721,866

APIARY

	PRODUCTION	VALUATION
Honey Production	1,406,360 lbs.	$ 205,390
Beeswax	21,090 "	10,545
Nuclei with Queens	5,059	25,295
Pollination Fees		6,825
TOTAL		$ 248,055

ESTIMATED LIVESTOCK PRODUCTION

	ON HAND	SOLD	VALUATION
BEEF CATTLE			
Feeders	7,008	23,921 *	$ 1,529,381
Range	11,998	6,710	862,580
Fertilizer		28,380 tons	56,760
DAIRY - COWS	18,898		
Milk: Wholesale		19,481,903 gal.	10,130,590
Retail		4,618,827 "	3,602,685
Products		30,000 lbs.	9,000
Young Stock and Bulls	2,165	333	83,250
Slaughter		3,872	522,720
Fertilizer		141,560 tons	283,120
POULTRY			
Producing Hens	4,083,845		
Eggs		68,064,083 doz.	35,393,323
Hens sold for meat		3,471,268	2,950,577
Fryers sold for meat		5,521,429	6,073,572
Baby Chicks		4,406,353	837,207
Fertilizer		96,653 tons	289,959
DUCKS	190		
Sold for meat		156,000	195,000
TURKEYS	19,990		
Sold for meat		449,800	3,103,620
Fryers sold for meat		45,000	100,800
Poults		315,000	236,250
Eggs		6,000 doz.	18,720
HOGS			
Breeding stock	1,031		
Slaughter		8,027	367,878
Fertilizer		8,050 tons	21,550
RABBITS			
Fryers sold		638,750	702,625
Others sold		950	1,520
Fertilizer		2,336 tons	8,176
CHINCHILLA	3,595		
Breeders sold		62 pr.	31,000
Pelts sold		250	12,500
SHEEP			
Breeding stock	1,230		
Slaughter		7,600	142,000
FOX	130		
Pelts sold		271	4,065
GAME BIRDS	600	100	500
MISCELLANEOUS			317,552
TOTAL			$ 67,888,480

* Beef and feed lot gain only.

RECAPITULATION

	ACREAGE *		VALUATION	
	1952	1953	1952	1953
Citrus	40,790	38,619	$ 19,790,436	$ 26,640,302
Subtropical	675	695	96,135	22,680
Deciduous	3,681	3,174	2,491,463	1,104,284
Grapes	31,426	29,653	2,713,334	3,205,430
Berries	408	412	483,777	684,990
Nuts	3,642	2,673	598,340	252,000
Vegetables	8,569	9,220	8,736,874	4,436,245
Field Crops	47,389	45,322	6,074,549	5,080,560
Seeds	1,012	973	136,381	117,920
Nursery Stock	363	352	2,561,880	2,721,866
Apiary			591,683	248,055
Livestock Including Poultry			62,288,769	67,888,480
Government Payments (P.M.A.)			127,300	141,000
TOTALS	137,955	131,093	$106,690,921	$112,534,812

* Includes bearing and non-bearing.

NOTE: The above valuation figures represent gross receipts and not net returns to the grower.

1954

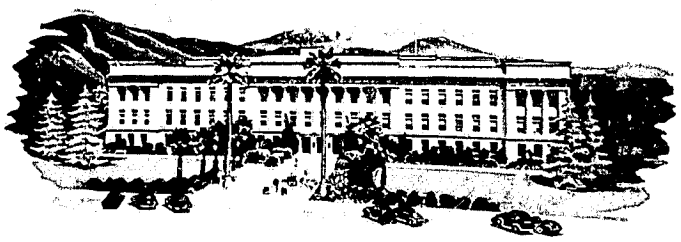
DEPARTMENT OF AGRICULTURE

ANNUAL REPORT 1954

SAN BERNARDINO COUNTY

COUNTY DEPARTMENT OF AGRICULTURE
566 LUGO AVENUE PHONE 6811

HAROLD A. CRANE
COMMISSIONER
RAYMOND M. SCHNEIDER
CHIEF DEPUTY
STUART M. GEORGE
ORCHARD HEATER
CONTROL OFFICER



DEPUTIES
ROY F. CAMBLIN
WAYNE H. STONE
CECIL E. PRATT

COUNTY OF
SAN BERNARDINO
SAN BERNARDINO, CALIFORNIA

LETTER OF TRANSMISSION

TO: The State Director of Agriculture,

The Honorable Board of Supervisors,
and
Others Interested in Agriculture.

Our Annual Report for the year 1954 is submitted in accordance with the provisions of Sections 65 and 65.5 of the Agricultural Code of the State of California. It covers both the official acts of our Department, and acreage and valuation of crops and livestock.

The primary purpose of our Department is to protect and conserve the agricultural interests of our County. Our report covers many matters which do, or may, vitally effect our entire economy. The discourse is intentionally brief. It is hoped that interested people will feel free to ask for further information.

It should be stated that the rapid increase in County population, the subdividing of farm properties into smaller holdings, and the increase in industries serving agriculture have combined, up to the present time, to multiply the demand upon our Department.

I wish to express my gratitude to the Board of Supervisors; to other departments of government, Federal,State, and County; to various local farm organizations; to innumerable individuals; and to the entire personnel of our Department for the loyal assistance in the accomplishments of the year.

Respectfully,

H. A. Crane
Agricultural Commissioner

HAC:ll
3-15-55

CONTENTS

PERSONNEL DIRECTORY
(Revised as of February 1, 1955)

Headquarters: 566 Lugo Avenue, San Bernardino - Phone: San Bdno. 6811 Ext.203-204

Crane, Harold A. (Commissioner)
Schneider, Raymond M. (Chief Deputy. In charge of regulatory Pest Control)
Camblin, Roy F. (Deputy in charge Quarantine, Nursery Inspection, Surveys)
Stone, Wayne H. (Deputy in charge of Standardization, Seed Inspection, and Certification)
Pratt, Cecil E. (Deputy in charge of Rodent and Weed Control)
Burr, Warren A. (Inspector, Surveys, Statistics, Records and Reports)
Harper, Gene M. (Inspector - Entomologist)
Young, Wendell R. (Inspector - Plant Pathologist)
Myers, Ralph A. (Inspector - Eggs and Markets)
Reed, Robert H. (Inspector - Apiary)
Hert, Opel L. (Predatory Animal Control Officer)
Sever, Clayton H. (Inspector - Insectary and Bait Mixing)
Crause, Naomi M. (Clerk in charge of Office, Office Business)
Lamar, Lottie E. (Steno-clerk, Reports, Statistics, Dictation)
Smith, Nancy J. (Steno-clerk, Records, Filing, Dictation)

George, Stuart M. (Orchard Heater Control Officer)
Casey, Flora T. (Steno-clerk, Orchard Heater Control)
Archibald, Gordon R. (Investigator, 6 mo. Orchard Heater Control)
Goetsch, Roland G. (" " " " ")
Hawes, Lee L. (" " " " ")
Reid, Howard J. (" " " " ")

DISTRICTS - INSPECTOR IN CHARGE

Location	Inspector	Office Address	Telephone
Chino	Worthy, Merle J.	5258 "D" Street	Lycoming 8-1266
Colton	Anderson, C. E.	171 E. "H" Street	Colton 274
Cucamonga	Anderson, H. B.	8076 Archibald	Yukon 318-151
Fontana	Brock, David	County Building	Valley 2-1122
Highland	Moore, George W.	27286 Main Street	Heather 8-8163
Ontario	Palmer, Kenneth E.	715 S. Euclid	Yukon 6-7396
Ontario-Upland	Alf, Walter S.	130 E. 9th Street	Yukon 321-201
East Redlands	Huckaby, D. H.	325 No. 3rd Street	Redlands 2-6880
West Redlands	Newland, Clinton C.	325 No. 3rd Street	Redlands 2-6880
Rialto	Birdsall, Roger L.	110 So. Riverside Ave.	Rialto 48-J
San Bernardino	Prescott, Paul M.	566 Lugo Avenue	S.B. 6811 Ext.203
Upland	Cavers, Harry V.	130 E. 9th Street	Yukon 321-201
Victorville	Dolch, Lee	County Building	Victorville 5389
Yucaipa	Pope, Ted C.	113 W. Yucaipa Blvd.	Yucaipa 7-0123

COUNTY DEPARTMENT OF AGRICULTURE
566 Lugo Avenue
San Bernardino, California

FUNCTIONS

The County Department of Agriculture, under the direction of the State Department of Agriculture, conducts regulatory and service functions required by State Law; also other local functions authorized by County ordinances or requested by the County Board of Supervisors. Its primary purpose is to protect and conserve the agricultural interests of the County. The Agricultural Commissioner is the Department head. The following is a brief explanation of the major functions of the Department:

I. PLANT QUARANTINE INSPECTION (Div. 2, Chap. 1, Agric. Code)

A. Preventing the entry and dissemination of dangerous plant and animal pests by enforcement of California and Federal plant quarantine laws and regulations; also County Ordinances approved by the Director of Agriculture.

B. Inspect at destination plants and articles named by law as:

1. All plant material for propagation, various plant products from specified areas, empty fruit containers, railroad cars, household goods, farm machinery from cotton boll weevil areas, agricultural seeds for noxious weed seed content, etc.

2. Reject or treat infested shipments, reject contraband shipments, destroy highly dangerous shipments.

3. Prosecute violators.

C. Inspect packing houses, nurseries, and other points of distribution to prevent local movement of infested articles, and enforce local quarantine provisions, or clean-up measures.

II. INSPECTION OF FRUIT TREE AND ORNAMENTAL PLANT NURSERIES (Div. 2, Chap. 1, Agric. Code)

A. Inspect plant nurseries to prevent the dissemination of dangerous plant pests through the movement of nursery stock. Also supervise the treatment of pests or diseases which attack nursery stock.

B. Inspect plant nurseries at request of nurserymen who wish to qualify for use of "Certificates of Inspection and Release" on shipments or sales within the County. (Ref. Sec. 123 Agric. Code)

C. Inspect plant nurseries at request of nurserymen who wish to quality for use of "Intercounty Nursery Stock Certificates" on shipments to other Counties. (Ref. Sec. 123.55 Agric. Code)

NOTE: Procedures mentioned in B. and C. are considered the most logical and effective way of maintaining pest cleanliness in plant nurseries and preventing the spread of pests by means of nursery stock.

III. PLANT PEST CONTROL OR ERADICATION (Div. 2, Chap. 1, Agric. Code except when otherwise noted)

A. Field and Orchard Inspection

1. Inspection of growing trees and crops for presence of destructive insect pests and plant diseases and require their control when justifiable. State law requires that "The Commissioner shall advise himself with reference to all pests that may exist in his County", etc.

2. Serve notice on owners of infested property and abate the nuisance under provisions of the State Agricultural Code.

3. Recommend removal of abandoned plants and trees and supervise removal under order of the Superior Court.

4. Propagate beneficial insects in the County Insectary for the control of various pests of citrus.

5. Enforce regulations pertaining to commercial pest control operators.

a. Register applicants licensed by the State who desire to operate within the County.

b. To examine applicants to ascertain if they are familiar with pest control problems under local conditions.

c. Inspect equipment of registrants.

d. Issue regulations governing operation of commercial pest control under local conditions.

e. Refuse or cancel registrations if equipment unsuitable or operators incompetent.

6. Issue permits for use of herbicides injurious to crops.

7. To issue permits for use of pest control materials which the Director finds and determines to be injurious to persons, animals, or other crops, other than the pest or vegetation which it is intended to destroy.

B. Inspect fields growing crop seeds and certify as to freedom from weed pests.

C. Inspect seed cleanings from crop seed and if found infested with any seed pests, to cause such infested material to be treated in order to render it incapable of reproduction.

IV. PLANT PEST SURVEY (Div. 2, Chap. 1, Agric. Code)

A. Inspect Properties:

1. For serious plant pests liable to be present.

2. For specific plant pests of major importance.

   a. Likely to be introduced:
   Oriental Fruit Fly, Mediterranean Fruit Fly, Mexican Fruit Fly, Citrus Black Fly, Citrus White Fly, Melon Fly, Mango Fly, Japanese Beetle, European Corn Borer, European Earwig, Virus diseases of stone fruits, Citrus Canker, and others.

   b. Newly found in the State or being eradicated:
   White Snails, Walnut Obscure Scale, Peach Mosaic, Olive Scale, White Pine Blister Rust, Khapra Beetle, Ozonium Root Rot, Citrus Quick Decline, and others.

   c. More or less distributed but susceptible of eradication or delay in spread by means of quarantine:
   Numerous weed and plant pests.

3. As a basis of certification of outgoing shipments to foreign countries, other states, and other counties when specific certification is required as a condition of entry thereto.

V. STANDARDIZATION INSPECTION OF FRUITS, NUTS, VEGETABLE, EGGS, AND HONEY (Div. 5, Chap. 2 and 2-A, and Chap. 8, Art. 1, Agric. Code)

A. Inspection of fruits, nuts, vegetables, and honey for compliance with State standards.

   1. Inspect at time of packing, transportation, and display for sale; to check for deceptive pack, maturity, hidden defects, and improper labeling.

   2. To issue certificates as to standardization compliance upon request.

   3. Test and certify grapes for by-products when purchase price based on sugar content.

B. Inspection of eggs for compliance with State standards of quality and size and for the prevention of sale of eggs unfit for human consumption.

C. Prosecute violators.

D. Cooperate with growers and the State Bureau of Markets in inspection and certification of peaches and plums for compliance with marketing order grades.

VI. SEED LAW ENFORCEMENT (Div. 5, Chap. 5, Art. 1, Agric. Code)

A. Inspect Agricultural Seed

   1. To determine if properly labeled with name, purity, germination, date of test, etc.

   2. To determine if seed conforms to label statement.

3. Issuance of "Stop Sale" orders until violations have been corrected.

4. Prosecution of flagrant violators.

B. Cooperate with California Crop Improvement Association sponsored by the University of California, by:

1. Checking for cleanliness of harvesting and cleaning equipment used in the processing of certified seed.

2. Safeguarding the identity and labeling of such seed.

VII. RODENT AND PLAGUE RODENT CONTROL (Div. 2, Chap. 1, Agric. Code)

A. Suppression of rodents such as ground squirrels, gophers, rabbits, rats, and mice, which are destructive to agricultural crops and food storages in rural areas.

1. Organize and direct community rodent control programs.

2. Prepare and sell at cost poison baits for rodent control.

B. Control or eradicate rodents which harbor serious diseases transmissible to humans. Such diseases are bubonic, sylvatic, and pneumonic plague, typhus, relapsing fever, Rocky Mountain spotted fever and tularemia.

1. Areas designated by State Board of Health.

2. Control work financed by State Department of Agriculture and County under mutual contract.

C. We also cooperate with the County Flood Control District in the elimination of ground squirrels and gophers in Flood Control embankments.

VIII. WEED CONTROL (Div. 2, Chap. 1, Agric. Code)

A. Supervising and enforcing control of serious weed pests to prevent their dissemination and conserve farm crops, pastures, and ranges.

1. Organize and direct community weed control programs.

IX. APIARY INSPECTION (Div. 2, Chap. 3, Art. 4, Agric. Code)

A. Registration of apiaries as to ownership and location.

B. Inspect apiaries within the County and certify outgoing shipments of bees.

1. Prevent dissemination of American and European Foulbrood.

2. Prevent the introduction of other bee diseases.

3. Eradicate serious bee diseases where found.

C. Regulate movement of apiaries.

D. Prosecute violators.

X. STATISTICS AND REPORTS (Sec. 65, Agric. Code)

A. Submit an annual report to the Director of Agriculture and to the County Board of Supervisors setting forth the pest condition in the County and a resume of the other activities of the local County Department.

B. Issue an annual crop report showing acreage, production, and valuation of all crops in the County.

C. Compile and disseminate a monthly crop report as to the acreage and condition of crops in the County.

D. Conduct special surveys and issue special reports when required.

XI. ADMINISTRATION (Div. 1, Chap. 2, Art. 1, Agric. Code)

The County Department of Agriculture is mandatory by State law. The Commissioner is the Department head and is appointed by the Board of Supervisors from a list of eligibles supplied by the State Director of Agriculture and County Personnel Director. Deputy Commissioners and Inspectors must also have been qualified by examination by the Director as well as being recommended by local Civil Service. Technical training in agriculture is a pre-requisite as well as experience. Other employees must meet local civil service requirements. Department costs are mostly paid by the County and all fees collected are returned to the County Treasurer. Supervisorial responsibilities are divided between the Commissioner, Chief Deputy, three Deputies, and the Orchard Heater Control Officer. Senior Clerk (IV) supervises office procedure.

XII. OTHER DUTIES

A. Orchard Heater Control (County Ordinance 660)

1. Purpose is to reduce smoke through elimination of objectionable orchard heaters and required regulation and cleaning of approved heaters. A permit to operate heaters is required.

B. Predatory Animal Control (Act of Board of Supervisors)

1. Trapping coyotes, bobcats, lions, and other wild animals that prey upon livestock, poultry, and wild game.

C. Beneficial Insects (Act of Board of Supervisors)

1. Rearing of beneficial insects recommended by the University of California Experiment Station for liberation in citrus groves in attempt to control red scale and other pests.

D. Assist in the functions of County government when requested by the Board of Supervisors and assist in the fulfillment of other functions of the State Department of Agriculture when requested by the Director.

PLANT QUARANTINE

Agricultural Commissioners, Deputy Commissioners, and qualified inspectors are official State Plant Quarantine Officers.

The policy of using plant quarantines to exclude dangerous plant pests and diseases has been employed by California for a long time. Several factors brought about this situation: (1) California was, and is, a comparatively new agricultural area; (2) specific pests of individual crops were not present; (3) the State is so geographically bounded as to be protected on all sides by barriers against the natural spread of pests; (4) it was feared that mild climate and the absence of natural enemies would aid and accelerate the life cycle of the pest; (5) the early citrus growers had a calamitous experience when a succession of serious introduced pests came in one after another, each adding its share to the cost and difficulties of production. These included cottony cushion scale, black scale, red scale, purple scale, citrus mealybug, and citrus white fly.

It is felt that every year a pest is kept outside our borders, is another year of considerable saving to the grower and consumer. Pest control is an expensive item in the production of farm crops. California, as the leading grower of the nation, needs the protection of plant quarantines.

In general, a plant quarantine is a State law prohibiting the entry of a specific pest and specific hosts from specified states or portions of states. A quarantine is sometimes modified to permit entry of such host plants or things by the use of certificates of treatment or cleanliness. Such certificates to be issued by the officials at origin.

This office enforces three kinds of quarantines:

I. State Exterior Quarantines - There are now 19 Exterior Quarantines in force. These are quarantines against other states. Some of the important pests included in these are Cotton Boll Weevil, European Corn Borer, Colorado Potato Beetle, Plum Curculio, Apple Maggot, Dutch Elm Disease and Peach Wart Disease. None of these now occur in California.

II. Federal Domestic Quarantines - There are 7 Federal Domestic Quarantines in effect. This office cooperates with the United States Department of Agriculture in the enforcement of these, which include those against Gypsy and Brown-tail Moths, Japanese Beetle, Pink Bollworm and Mexican Fruit Fly.

III. State Interior Quarantines - There are 15 State Interior Quarantines to enforce. These are designed to prevent the spread of a pest from an establishment within the State of California. These pests include Peach Mosaic, Quick Decline of Citrus, Grape Leaf Skeletonizer, Citrus White Fly, Khapra Beetle and Mexican Fruit Fly.

California quarantine laws require that post offices, railroads, trucking terminals and all other common carriers hold for inspection all incoming plants and plant products. It is at these points that the actual mechanics of inspection are undertaken.

New Quarantines

Three new quarantines were promulgated in 1954. The finding of Mexican Fruit Fly in San Diego County set in motion a tremendous program of survey and control within the State of California and in Mexico which is the reservoir of infestation. Thousands of detection traps were placed throughout southern California and thousands of acres were treated in Baja California, San Diego County, and Imperial County. A new quarantine was established to protect the fruit growing areas of California from this very serious threat.

A very detrimental interloper moved into the State this year from India. The Khapra Beetle (Trogoderma granarium) was found to be established at 57 different locations in California. One of these was in San Bernardino County. It is the most serious pest of stored grain ever encountered. A quarantine was planned for these areas within the State. It became officially active on January 12, 1955. Discovery of the beetle in Arizona and New Mexico brought about an exterior quarantine to prevent new infestations here.

The following statistical data represents the volume of shipments, the number of quarantine violations, and the pest interceptions as compiled from the 14 inspector's districts in San Bernardino County. There are a total of 278 destination points in the County where plant products are held for inspection.

Intrastate Quarantine Inspections

	By Truck	By Mail	By Rail or Boat	By Air	Total
No. Shipments passed	2,566	743	575	1	3,885
No. Plants passed	888,311	44,886	461,168	4	1,394,369 *
No. Shipments rejected	76	1	11	1	89
No. Plants rejected	8,385	3	10,528	1	18,917 *

Pests Intercepted

	No. Times Intercepted		No. Times Intercepted
Crown Gall	32	Root Lesion Nematode	1
Root Knot Nematode	12	Yellow Star Thistle	1
Purple Scale	11	Red Spider	1
Black Scale	6	White Horse Nettle	1
Morning Glory	5	Perennial Sow Thistle	1
Quack Grass Seed	5	Khapra Beetle	1
Johnson Grass	2		

Total number of shipments in violation of Intrastate Quarantines - 3

Interstate Quarantine Inspections

	By Truck	By Mail	By Rail or Boat	By Air	Total
No. Shipments passed	2,066	3,327	561	11	5,965
No. Plants passed	969,424	78,836	412,714	20,476	1,481,450 *
No. Shipments rejected	1,088	54	35	1	1,178
No. Plants rejected	377,787	3,645	28,445	15,000	424,877 *

*Regarding Bulk Grain - 100# equal 1 unit.

Pests Intercepted

	No. Times Intercepted		No. Times Intercepted
White Horse Nettle	842	Morning Glory	1
Johnson Grass	414	Red Stele Disease of Strawberries	1
Canada Thistle	70	Spanish Moss	1
Quack Grass	50	Hoary Cress	1
Crown Gall	12	Large Walnut Weevil (Curculio proboscideus)	1
Nematode	9	Chipmunk	1
Texas Blue Weed	4	Pecan Nut Borer	1
Holly Scale	3	Bulb Mite	1
Bagworm	2	Dodder	1
Citrus White Fly	1		
Lepidosaphes camelliae (Camellia scale)	1		

Number of shipments in violation of State Quarantines - 42
Number of shipments in violation of Federal Quarantines - 4

Destination Inspection Points in San Bernardino County

84 Post Offices
151 Nurseries
43 Other miscellaneous points
278 Total number of points where plant products are held for inspection.

San Bernardino County Quarantine Restrictions

There are several pests, not established in San Bernardino County, which occur in nearby counties against which no State Quarantines exist. Our own policy and restrictions are set up to keep these pests out.

Included in these are citrus bud mite, purple scale and Glover's scale, all serious pests of citrus. This office requires that all citrus fruits and used citrus picking equipment from outside the County be held for inspection. Their inspection or release is contingent upon the presence of insects, certifion of cleanliness, or certificate of treatment. In addition, all incoming citrus plants must be treated with three percent spray oil emulsion as a precaution against the citrus bud mite. The citrus growers of the County have repeatedly favored this protection.

Our large grape acreage is apparently free of grape phylloxera, a very serious pest that attacks grape roots. County policy requires that all grape stock entering San Bernardino County from other states or California counties that are listed as infested, be certified as being grown in an area free from phylloxera or treated in an approved manner.

Certification

An additional function in regard to quarantine work is that of certification as to pest conditions or pest treatments, when such certification is required, as a condition of entry into other counties, other states, or foreign countries. Three quarantined areas extend into San Bernardino County. These

are against three virus diseases of fruit trees: Quick Decline of citrus; Peach Mosaic; and Yellow Bud Mosaic. Certificates are issued by this office for the legal movement of the various hosts of the diseases within the quarantined areas.

Certificates are also issued by this office regarding interstate shipments, some requiring treatment done under our supervision and some requiring pest conditions determined by our surveys and inspections. The following certificates were issued:

Certificates of condition - 1,579
Certificates of treatment - 689

Fees received -$5,479

By action of the Board of Supervisors, fees were increased this year to more properly cover the cost of inspection and certification. Demand for certification service also increased.

Grain Inspection

All interstate and part of the intrastate shipments of grain into San Bernardino County are inspected by this office. Many of these shipments are infested with noxious weed seeds. Such seeds could be spread by sowing contaminated seed grain, by scattering in feed yards, or by spreading manure from animals fed infested grain. There is a list of 25 weed seeds that are especially looked for during inspection. All are serious pests and either do not occur here or are of limited distribution. When these seeds are found, the grain must be cleaned to the inspector's satisfaction. The resultant screenings must be processed in such a way that the weed seed will not germinate. All of our major grain mills are approved to receive infested grain. They are approved only after it has been determined that such mills are equipped to safely accept and clean the grain and process the screenings. Milo, corn, barley, oats, and wheat are most frequently imported. In the order of incidence, the following weed seeds were most often found: Johnson Grass; White Horse Nettle; Canada Thistle; Quack Grass; Texas Blue Weed; and Perennial Sow Thistle.

An additional pest has now become a part of grain inspection. All shipments must be carefully inspected for the presence of Khapra Beetle. One shipment of cottonseed meal was found to be infested. It was rejected and fumigated.

Following are the grain inspection statistics for 1954:

Shipments Grain Inspected:	Carloads	582
	Truckloads	1,961
	Total	2,543
Amount Grain Inspected:	By Carloads . . .	32,000 Tons
	By Truckloads . .	32,306 Tons
	Total	64,306 Tons

Number of Grain Shipments Rejected and Processed under Supervision of Inspectors:

No. of Shipments 989
No. of Tons 16,253

Military Airplane Inspection

An inspection procedure has been set up between this office and the Norton Airforce Base with regard to military planes arriving at that field from any area outside the continental United States. Planes are held for our inspection irrespective of the time of arrival. Six planes have been inspected. Two were treated with D.D.T. spray. Contraband was removed from one plane.

Desert Post Office Inspection

Plant shipments arriving at our isolated desert post offices have always presented an inspection problem. An agreement has been reached between some desert area postmasters and the County whereby delivery is expedited. The shipments are mailed to the nearest post office in the County where an inspector is available; they are then inspected and returned. As a service to the desert residents, the County pays the postage both ways.

NURSERY INSPECTION

This office is charged with the inspection of all the nurseries in the County. There were 151 licensed nurseries in San Bernardino County during 1954. All of these are inspected at least once a year for the presence of any insect or disease pests.

The nurseries are divided into three categories, "Blue Tag", "Pink Tag", and "Pinto Tag". These names refer to the color of the shipping permits issued by the Agricultural Commissioner's office. A shipping permit must accompany any shipment of plants. The blue tag on a shipment indicates that it must be held for inspection by a California Plant Quarantine officer. We have 22 "Pinto Tag" and 19 "Pink Tag" nurseries in the County. Use of these special shipping permits obviates the necessity for destination inspection of shipments covered by them. The "Pink Tags" are valid only in San Bernardino County. The "Pinto Tags" are valid in all but two counties in the State. Nurseries using these special tags are inspected twice a year and must meet certain specified high standards of cleanliness in relation to insects and diseases. This office also issues interstate shipping permits for the out-of-state shipments of plants.

A trained and experienced crew does the bulk of nursery inspection. Knowledge of the appearance, habits, and plant hosts of the pest is essential to the inspector. The crew includes an entomologist and a pathologist. Constant study of new pests must be maintained.

All the nursery stock is inspected and a list compiled including the pest, the host, degree of infestation or infection, the number of plants, and the location in the nursery. Copies of this list are given to the nursery and the district Agricultural Inspector, under whose supervision the pests are controlled or eradicated. All inspectors are kept appraised of the newest and best control measures and work closely with the nurseryman in his pest control program.

The purpose of nursery inspection is threefold. It has long been recognized that nursery stock is a prime means of introducing and disseminating new and harmful insect pests and diseases. This is often forestalled by important pest discoveries during routine nursery inspection. The second purpose is more in the field of standardization of plant material relative to cleanliness as to the more common and less serious insects and diseases. Any plants found infected

or infested, even though the pest is of common occurrence, are held in quarantine until cleaned up. This assures the nursery customer of a clean item to plant. Finally, the nurseryman is also benefited. Nursery inspection shows where the pests are, what they are, and what he can do to get rid of them. He is then assisted in selling a commodity that will give consumer satisfaction.

Our program of restricting to only clean plants that are saleable also protects the nursery industry and its reputation on the interstate nursery market. It is hoped that out-of-state buyers will feel the sense of security and assurance when buying plants from California.

165 complete nursery inspections were made in 1954 with 65 being required to use pest control. 236 man days were expended on nursery inspection for the year.

Deciduous Nursery Stock Inspection

The Chino Valley continues to be one of the major rose growing areas in the United States. A total of 253 acres of roses were harvested there this season. Approximately 16,000 roses are growin on one acre. 31 acres of other plants were also dug this year. These included shade trees, fruit trees, berry plants, and other garden plants. These plants are dug and shipped under the supervision of our inspectors who require that diseased or infested plants be removed from sales channels.

The handling and marketing of all these plants has become both highly mechanized and modernized. Efficient defoliators and digging machines are used. Processing and packaging is done in assembly line fashion. One concern is well equipped with cold storage facilities.

Dominent and Serious Nursery Pests

Agrobacterium rhizogenes, a serious bacterial root disease of roses was the outstanding nursery pest this season. Much time and effort was expended toward keeping diseased plants from market. Stress was put upon the education of the field workers. An attempt was made to have the nurseries maintain a few men in the field who could recognize the disease symptoms and who would concentrate entirely on the problem of grading them out. Good cooperation was received. This disease, which is commonly called "hairy root", is receiving much attention from the pathologists of the State and Country and a great deal of research is being carried on.

The presence of the root-leison nematode (Pratylenchus sp.) and the root knot nematode (Meloidygne sp.) in the nursery stock growing fields continued to be a serious problem. Proper fumigation of the ground before planting would hold the invading nematodes down to a minimum. This office has had a long continuing fight to keep nematode infested plants from being sold.

Brevipalpus inornatus, a false spider mite, was the most frequently found pest of container grown nursery stock. It is especially damaging to azaleas.

The absence of red scale, greedy scale, black scale, white fly, and mealybug from this list of dominent nursery pests attests to the good job the inspectors and nurserymen are doing in pest control. Many pests that were common a few years ago are now difficult to find in the nursery. Much credit must also be given to the new and very efficient insecticides now in use, especially those containing Malathion.

PEST SURVEYS

Pest surveys are an important phase of our work. They enable us to control incipient infestations when discovered and to retard or check the spread of serious diseases and insects that are established within our County.

Khapra Beetle (Trogoderma granarium)

During this last year, Khapra beetle has become a serious menace to stored grain and grain products in the United States. Khapra beetle was first found in California in barley stored in warehouses at Alpaugh and Angiola in Tulare County in 1953. This find not only represented the first established find in California, but the first in the entire Western Hemisphere. Since that time, extensive inspection has been undertaken to determine its spread. It is now known to exist in California, Arizona and New Mexico. All known infestations are under supervisory control with hope of eradication.

Khapra beetle is a native of India where it is considered the most destructive insect of stored wheat. It has spread through other Asiatic areas and through Europe, Africa, Madagascar and Australia where it is considered to be the most serious storage grain pest. The beetle larvae not only are more difficult to control than other storage pests, but have an amazing ability to withstand long periods of starvation (said by some to be three years or more). One factor greatly in our favor is that the Khapra beetle is strictly a storage pest and will not exist outside of storage as a field pest. Thus, man is responsible for the spread of Khapra beetle. It is hoped that rigid inspection and control of the dissemination of infested feedstuffs will check the spread of this pest.

57 man days were spent inspecting, 132 properties for Khapra beetle. This inspection paid off in the finding of one isolated infestation in ranch stored grain. Clean-up was begun immediately.

Mexican Fruit Fly (Anastrepha ludens)

The Mexican fruit fly came to our direct attention this last year with the findings in Tijuana and the subsequent finding of a single specimen or fly in San Ysidro in San Diego County. This pest, though new to us, isn't new to North America. The Mexican fruit fly, true to its name, is a native insect of northeastern Mexico. It is a yearly menace to Texas citrus growers.

Nearly all citrus and deciduous fruits except sour limes and lemons, are fed upon by the white, legless maggot which burrows through the fresh ripening fruit, destroying the flesh as it goes. Other possible host material grown in our area are lima beans, cantaloup, honeydew melons, and cucumbers.

Considerable time was given to this survey with 85 man days spent by the County and 63 days by the United States Department of Agriculture in trap inspection and the cutting of fallen fruit. 436 properties were inspected during this survey.

102 inverted jar type traps were maintained from April to November for detection of the Mexican fruit fly. The recommended lure was brown sugar and water mixed at the ratio of five pounds of brown sugar to one gallon of water. Traps were serviced once a week.

Grapefruit groves were inspected for prematurely fallen fruit. The fallen fruit inspection consisted of removing both ends of a grapefruit and inspecting the flesh and rag for the presence of maggots. Inspection results were negative. The vigilance of our southern counties was of considerable importance in determining the import policy of other states on California produce.

Yellow Clover Aphid (Therioaphis ononidis)

The yellow clover aphid is another new pest to California agriculture coming originally from India. This pest appears to be of major importance. The first recovery of the aphid in the State was made in San Diego on February 7, 1954, on bur clover. It then appeared early in May at Yuma, Arizona on alfalfa; Bard, California, June 17; and in the Orita district of Imperial Valley on June 24. Since that time spotted and ever increasing infestations of aflalfa have been found with the latest northern-most infestation at Newberry and Palmdale, California. The food preferences of the yellow clover aphid are focused on the legume family of plants with alfalfa being the only harvested crop known to be infested in California.

The yellow clover aphid causes considerable damage to alfalfa. The greatest damage occurs on the lower leaves which soon fall off from the effects of the aphid feeding. Copious amounts of sticky honeydew are secreted causing immense difficulties in bailing the crop. Added to this, the unsightly blackened appearance of the alfalfa, due to the development of the sooty mold fungus in the honeydew, makes the freshly cut field look as if it had been burned off. To add to its importance, the aphid is capable of reproducing to damaging proportions between cuttings even though treatments have been applied. Losses due to this pest are: less production of hay and seed; lower quality of hay; destruction of seedling stands of alfalfa; and cost of additional control measures.

Elm Leaf Beetle (Galerucella xanthomelaena)

The program designed to eradicate the beetle from the desert area elms is high-lighted by control work at Daggett. The beetle was eradicated in the city of Barstow. No beetle activity has been seen there the past four years.

European Corn Borer (Pyrausta nubilalis)

Annually we maintain traps about our County grain mills for European corn borer. Trapping is done at a time that will concur with the flights of the adult moth. This is done as a precautionary measure to add support to our constant quarantine vigilance against the entrance of the State's most important corn menace. Molasses is used as an attractant for the adult moths. It is placed in traps at the rate of twenty percent molasses to water. The results of trappings were negative.

Oriental Fruit Fly (Dacus dorsalis)

The Oriental fruit fly is still a dangerous pest to California agriculture although there hasn't been the focusing of attention on it this year. Constant inspection is carried out throughout the year on materials arriving from the Hawaiian Islands and other infested areas. We feel our County's borders are open to exposure by air, therefore, maintain the greater part of our traps about the airports with the remaining traps placed out in areas of suitable foodstuffs. Twenty-four traps of the pickle jar type were used. Methyl eugenol,

a lure material, was used as an attractant. It is said to draw male Oriental fruit flies for a radius of one mile from the trap. Traps may locate infestations in time for eradication work to be effective. Our trapping results were negative. A similar program is being carried on in other major fruit growing counties.

Egyptian Alfalfa Weevil (Hypera brunneipennis)

In the early spring months Egyptian alfalfa weevil was discovered in alfalfa plantings in the Chino area. This pest had been found in most of our adjoining counties previous to this find. This recovery is the first report of the weevil in our County.

Japanese Beetle (Popillia japonica)

This year, as before, our Department cooperated with the State Department of Agriculture in maintaining Japanese beetle traps. Sixteen traps were placed out, either on or near, airports and golf courses. The traps contain a lure, called Eugenol, attracting Japanese beetles, if present, by color, scent, or both. The traps are constructed in a way that any beetles trying to reach the lure will fall into a small container where they are trapped for our later inspection.

This year the importance of the trapping program for possible Japanese beetle was further enhanced with the finding of a female Japanese beetle in a trap near the Los Angeles Municipal Airport. As a result of this find, the traps in our County were kept operating longer at the above locations. We are happy to report that all findings were negative.

Domestic Cricket (Acheta domestica)

A recovery was made of a single specimen of this household nuisance on one property in Redlands this year. No previous collections have been made in our area.

Carnation Budmite (Aceria paradianthi)

A small planting of carnation plants growing on a residential property in Redlands was found to be heavily infested with this mite. This infestation was the first recovery of carnation budmite in San Bernardino County.

African Earwig (Euborellia cineticollis)

During an inspection of the agricultural plantings at Vidal (in our desert area) this year, an African earwig was recovered.

Quick Decline (Virus)

In keeping with our policy of protecting the valuable citrus industry of the County, the survey for quick decline disease this year was concentrated in the eastern part of the lightly infected quarantined area. This area included the districts of East and West Redlands, Highland, and Yucaipa. Previously infected properties in the Colton, Rialto, Fontana, and Etiwanda districts, also in the lightly infected area, were surveyed for possible spread.

The results of this year's survey are as follows:

Total orange acreage in County	28,005
Total orange acreage in heavy infected area	7,092
Total orange acreage in lightly infected area	20,913
Total orange acreage surveyed	15,991
Total man days expended by County personnel	118
No. properties previously infected found to have additional Q. D. trees	21
No. new properties found to have Q.D.	29

As can be seen by the number of new properties found with quick decline, the incidence of quick decline continues to increase each year. Considerable spread was found in the Bryn Mawr district.

The heavily infected area in San Bernardino County remains the same as it was the previous year. The citrus districts of Alta Loma, Cucamonga, Upland, Ontario, and Chino constitute this heavily infected area. Spread of the disease in this area continues to take its toll. Many orange groves on sour rootstock are being top worked to lemons or being removed.

Quick decline is a disease of which every citrus grower in the County should be conscious. Every suspected tree should be carefully checked, especially those in the lightly infected area. The case should be reported to us at once for further examination and routine tests. Cooperation of the growers directly concerned with Q.D. has been better than previous years in regard to prompt removal of infected trees.

Yellow Bud Mosaic and Peach Mosaic (Virus)

The survey for yellow bud mosaic, a virus disease of peaches first found in 1950 in the Cucamonga area and later in 1952 in the Lytle Creek area, was started on April 12, and completed on June 15. All peach trees within the quarantined areas, including commercial and dooryard plantings, were inspected with County and State personnel. Working in conjunction with the Federal-State Peach Mosaic Project, the yellow bud mosaic survey also served as a peach mosaic survey. A total of 48 yellow bud mosaic infected trees were found on 7 properties of which 6 were commercial and one a dooryard planting. This is exactly the same number of infected trees found in 1953. 734 properties consisting of 38,516 trees were inspected. 30 peach mosaic trees on 18 properties were found during the survey. 72 county man days were expended for this survey. All yellow bud mosaic and peach mosaic infected trees were removed.

Fan Leaf of Grape (Virus)

A survey for fan leaf of grapevines was made at the request of the State Department. Fan leaf, a virus disease, is now definitely known to have been in California for many years. It was brought into this Country from Europe where it is one of the most serious diseases confronting grape growers. Perhaps the chief reason it has not been recognized here until recently is the vast divergence of symptoms which vary with different varieties of grapes.

Generally dependent on variety and location, the symptoms consist of leaf mottle and also leaf deformity, which causes the petiole sinus to make the leaf appear like a closing fan; the effect from which the disease received its name.

Additional symptoms are a zig-zag effect on the canes. The flower clusters are straggly and bunches of fruit shattered.

The Commissioners of all counties having grape acreage cooperated in this survey by supplying men and equipment. A spot-check was made of all known varieties. In this County, several varieties were found to have some infection present. However, there was no evidence to support the belief that this disease was responsible for any serious losses within this County.

In addition to fan leaf, Pierce disease, yellow mosaic and measles were reported.

Grape Leaf Skeletonizer (Harrisina brillans)

The grape leaf skeletonizer has been very detremental to grapes in portions of Riverside and San Diego Counties and proposes a serious potential threat to this County. While surveying for fan leaf of grape, the crews were also watchful for grape leaf skeletonizer. No evidence of this pest was found.

Plant, Plant Disease, and Insect Identification

In addition to field inspection for pests, a laboratory is maintained within the offices of this Department for the puspose of examining suspect material for more thorough and critical study through the use of highly refined optical instruments and other analytical apparatus by trained specialists. Often photographs of pests are made for educational purposes as well as for legal evidence and record maintenance. Frequently assistance in this work is sought from the State Bureaus in Sacramento, Los Angeles and Riverside; and also from the University of California Citrus Experiment Station in Riverside.

Weed identification, seed inspection, and fruit maturity testing are also part of our regular laboratory duties.

PLANT PEST SITUATION AND PEST CONTROL

It is the responsibility of our Department to at all times be as well informed as possible, not only of the agricultural pests existant in the County, but their economical importance as well.

No attempt has been made to appraise the loss of income to farmers due to ravages of insects and diseases, weeds, and rodents. It is known, however, that the cost to farmers of San Bernardino County for pest control during 1953 may be closely estimated at almost $3,000,000.

Citrus Pest Control

Citrus Red Mite (Paratetranychus citri)

Citrus red mite has become the No. 1 pest of citrus. In many localities, red mite has been difficult to control with the latest recommended acaracides as well as the older recommended materials. Two treatments have been common and even three or more treatments have been necessary for control. Materials used have been oil, DN 111, neotran, ovotran, aramite and Systox.

The necessity of accomplishing control of this pest is apparent by the rapid build-up of mites to tremendous numbers within a short time, with severe tree and fruit damage. Leaves and fruit are weakened and drop. The fact that the pest builds up year around makes it necessary to depend on special sprays for control with considerable extra cost to growers.

Citrus Red Scale (Aonidiella aurantii)

Citrus red scale is still a very serious pest of citrus, but in most localities has been kept under good commercial control by use of organic phosphates. Poor control of red scale occurred during August of 1954 and could only be attributed to weather conditions. Otherwise, control has been very satisfactory and some groves have been able to skip a season for the first time in many years. Many growers used spray oil to try a combination red scale-red mite control. The control was good except during the month of August when both oil and organic phosphates failed.

Black Scale (Saissetia oleae)

Populations of black scale built up in some locations in our County to a degree that special treatments were necessary. Combination treatment for red and black scale can be accomplished if the treatment occurs between August and November and heavier dosages of materials used. Control of black scale was very good.

Cottony Cushion Scale (Icerya purchasi)

Cottony cushion scale has been controlled biologically in our County by the Vedalia lady-bird beetle. Whenever sprays of D.D.T. are used on citrus for other purposes, this scale has an opportunity to build up. A small area in the eastern part of the County was infested with cutworms to a degree that D.D.T. sprays were used for control. Many of these groves required a parathion spray to control the "flare up" of cottony cushion scale.

Cutworms (Xylomyges curialis)

A small area in the eastern part of the County was heavily infested with cutworms. The infestation occurred just as the small fruit was setting. Growers became alarmed at the heavy build-up of larvae and the damage caused by their feeding habits. Blossoms, foliage, and small fruit were damaged by the caterpillars. D.D.T. or D.D.D. was used as a spray and effectively controlled them.

Citrus Thrips (Scirtothrips citri)

Citrus thrips has not been a serious pest of citrus for several years. Special treatments for thrips control has been the exception, even on lemons, probably due to the use of parathion for scale control. A late fall build-up occurred in the eastern part of the County on navels in 1954. A few growers sprayed their groves with dieldrin to knock down the pest.

Citrus Aphis (Aphididae)

The timing of control of aphis presents a problem to many growers each year. However, more than the usual number of orchards were sprayed for aphis control during the spring of 1954 because of a prolonged foggy period. Good control resulted with sprays of malathion, systox, T.E.P.P. and nicotine sulphate.

Fruit Tree Leafroller (Archips argyrospila)

Fruit tree leafroller is still a pest in the western part of the County. Careful inspection for egg masses and larvae emergence have enabled us to let pest control operators know the optimum period for control. This fact has held the infested area from enlarging to any great extent and enabled growers to receive very adequate control. D.D.T. and D.D.D. have been the most effective materials for control due to the fact that the trees are blossoming at that time of year, and materials injurious to bees may not legally be used.

Deciduous Fruit and Pest Control

APPLES: D.D.T. is very effective against codling moth (Carpocapsa pomonella) in apples and pears. In fact, codling moth is now a relatively unimportant pest in apple orchards where regular D.D.T. sprays have been used. Mites and wooly apple aphid (Eriosoma lanigera) populations are easily controlled with sprays of parathion, malathion or DN 111.

PEACHES: Shot-hole fungus (Coryneum carpophilum) and peach leaf curl (Taphrina deformans). Bordo sprays and lime sulphur sprays are still used in fall and spring to control shot-hole fungus and peach leaf curl. These diseases are the two major disease pests of peaches. A combination disease and twig borer (Anarsia lineatella) control is obtained in the spring by adding basic lead arsenate to the material. However, in cases where twig borer has been a very serious pest, a second basic lead spray is required when the jackets are shedding from the small fruits.

California Grass Bug (Irbisia californica): The grass bug develops on the stands of brome grass inside and adjacent to the peach orchard. They move from grass to peach trees and cause a severe dimpling and malformation of the fruit. Elimination of the brome grass in the orchard and spraying the trees when the jackets are falling from the young fruit with 2 pounds 50% wettable D.D.T. per hundred gallons, gives good control. The grass along the orchard borders should also be sprayed with this material to present a barrier to the insects.

Pacific Peach Borer (Sanninoidea exitiosa): This borer is a serious pest of both young and old trees. It bores into the trunk near the ground level and can kill a tree by girdling when several larvae burrow in the same trunk. Control can be effected by spraying the trunks with D.D.T. as the moths are emerging, usually about the 10th of May and again the 10th of June.

PLUMS: Plum trees infested with brown apricot scale (Lecanium corni) have been sprayed with malathion or parathion. Good control of the scale has been accomplished. Clover mites (Bryobia praetiosa) have been controlled by DN 111, malathion, or parathion sprays. Trees, especially plum, affected by little leaf have been sprayed during the dormant period with sprays of zinc sulphate with very satisfactory elimination of the little leaf symptoms.

Walnut Pests

Codling Moth (Carpocapsa pomonella)

Codling moth can easily and very successfully be controlled by D.D.T. sprays. Groves with histories of light populations of codling moth can usually get by with one treatment, while those groves with past histories of heavy populations need two treatments.

Proper timing of spray applications is very important for good control. Bait traps located in several orchards in an area give the best indication as to the major moth flights and, therefore, the best time to spray.

Aphis (Aphididae)

Aphis control can be accomplished as a combination spray for codling moth and aphis by adding parathion or malathion to the D.D.T. spray.

Walnut Husk Fly (Rhagoletis completa)

The maggots of the husk fly infest the walnut husk and convert them to a black, wet, rotten mass. This causes a staining of the shell which is practically impossible to bleach out. For this reason, many walnuts have to be sent to cracking plants rather than be sold in shell.

This pest is very difficult to control by present known materials. Timing of treatment is determined by recoveries from bait traps. Cryolite is the most widely used material for control but results are only fair. Two applications of parathion give best control. However, the cost is considerably higher than cryolite and not many growers feel they can afford parathion sprays.

Two Spotted Mite (Tetranychus bimaculatus)

This mite is the most common mite attacking walnuts. They build up during hot weather and unless controlled, can defoliate a tree in a short time. The exposed walnuts will sunburn and be worthless commercially. This pest will build up very readily and should be controlled before the actual drying of the leaves manifests itself.

Navel Orange Worm (Myelois venipars)

This pest is a very serious problem to walnut growers. The groves with the most codling moth damage usually suffer the most navel orange worm damage due to the entry of the worm in the codling moth tunnels. Also, any nuts lying

on the ground for any length of time may become infested. Practically all nuts are fumigated as they move into the packing house to control this pest and prevent it from infesting the premises.

Control in the field has not been satisfactory. The best prevention of orange worm damage is good codling moth control.

Frosted Scale (Lecanium pruinosum)

The control of this scale is effected by sprays of D.D.T. and kerosene. Growers do not have to treat regularly for this pest. Treatment depends entirely upon the build-up of scale populations.

Fruit Tree Leafroller (Archips argyrospila)

Parathion sprays will effectively control this pest when the foliage is coming out in the spring. Unless controlled, serious damage to the foliage results where populations are heavy.

Grape Pest Control

Cutworm (Noctuidae)

Cutworms are a pest problem on grapes when the vineyards are disked in the spring. With the elimination of weeds in the vineyard, the cutworms move to the vines and feed on the swelling grape buds. 10% D.D.T. dust applied to the trunk and arms of the vines gives very good control.

Grape Leafhopper (Erythroneura comes)

Several vineyards reported difficulty controlling grape leafhopper with the recommended 5% D.D.T. plus 50% sulphur dust at 20 pounds per acre. They found that in order to get effective control, 10% D.D.T. plus 50% sulphur dust at 20 to 30 pounds per acre had to be used. 4% malathion and 50% sulphur dust at 20 to 25 pounds per acre was tried, but considered too expensive as compared with 10% D.D.T. dust. Malathion was not very effective when applied during periods of cool weather.

False Chinch Bugs (Nysius ericae)

Some vineyards suffer heavy damage from this pest when the weeds are disked under. This bug builds up on the London rocket mustard and migrates to the grapevines when the weeds dry up or are disked under. 5% chlordane or 1½% dieldrin dusted on trunks of vines and to soil adjacent to infested vines gives good control. 2% B.H.C. dust is also used, but should not be applied if foliage is wet at time of application because burning of foliage might result.

White Lined Sphinx Moth (Celerio lineata)

The build-up of this pest is erratic. It hits certain areas one season and may show up in other areas the next season. However, when the pest appears, severe damage to foliage will result unless controlled. Infestations have been stopped when the larvae were migrating to vineyards from drying weed fields by ditch barriers in which the bottom of the ditch was lined with an insecticide such as 10% D.D.T., 10% D.D.D., or 2% B.H.C. If the larvae actually infest the vines, dusting with D.D.T. or D.D.D. will give control.

Black Measles

Some vineyards suffer considerable loss by this disease unless preventitive treatment is given. The disease causes vines to become devitalized. Crop can be entirely lacking and, if any crop is present, the berries are spotted and worthless. Severe cases may cause the death of the vine.

Vineyards showing disease symptoms one season should be sprayed with sodium arsenite at the rate of 4 pounds actual per 100 gallons. Vines should be completely dormant when sprayed.

Truck Crop Pest Control

Nematode (Meloidogyne and Pratylenchus spp.) and Wireworms (Limonius spp.)

Underground pests often are overlooked because they are not easily seen. The loss in production is tremendous on certain crops and quality of root crops is often so damaged as to cause a total loss. Successful farmers are presently using soil fumigants to control both wireworms and nematodes. The soil fumigants, Ethelene dibromide and Dichloropropane-Dichloropropene are the most widely used materials where both pests are present. If wireworms only are to be controlled, a cheaper and very effective method of dusting or spraying the ground with D.D.T. or Aldrin is done, followed by a thorough disking of the field.

Corn Earworm (Heliothis armigera)

The corn earworm is the most serious pest of corn. D.D.T. is being used very effectively for worm control applied as a dust or spray. Careful timing of application is essential. Several treatments, a few days apart, are needed to protect the crop. Dusting by hand with stencil brush to each individual ear is one method of application. Specially constructed mechanical sprayers and dusters are used by many farmers for applications of D.D.T. to the ears.

Tomato Worms (Heliothis armigera, Keiferia lycopersicella, Protoparce sexta)

Tomatoes are attacked by tomato fruitworms, pinworms and hornworms. These worms are the larvae of night flying moths. The caterpillars damage the foliage and fruit by their voracious feeding. The most commonly used materials for tomato worm control are dusts of D.D.T., D.D.D., cryolite or calcium arsenate.

Tomato Russett Mite (Phyllocoptes destructor)

This microscopic mite attacks tomato plants in hot weather and, if not controlled, will blast the foliage and expose fruit to sunburn. Sulphur dust controls the mite very well when applied at regular intervals to keep the new growth covered.

Potato Tuber Moth (Gnorimoschema operculella)

This very serious pest of potatoes was present in greater populations than previous years. Many fields, even though dusted, suffered some loss because of infested tubers. D.D.T. applied by airplane was used for control. Much experimental work on tuber moth control is necessary to assure growers of optimum control of this serious pest in the future.

Leafhopper (Empoasca fabae)

An acreage of potatoes planted for fall harvest was very heavily infested with this pest and had to be treated by plane with parathion to control leafhopper. D.D.T. and parathion was used as a spray for control of the leafhopper and tuber moth.

Field Crop Pest Control

Alfalfa growers found it necessary to treat their fields with parathion for pea aphid control. Spraying for this pest is necessary when the plants start growing in the spring. Very often a second treatment is necessary.

A new pest now threatens to become a regular pest problem of alfalfa. This is the newly found yellow clover aphid which has been found in several of our desert alfalfa growing sections. It was discovered last fall and several growers treated with parathion with good results. We have not had a full season with the pest and, therefore, do not yet have a complete control program worked out.

Household and Garden Pests

Our Department has been willing to help residential property owners with their pest problems of the garden as well as the household. We identify the pest and recommend the best known materials and methods of control. It is through these contacts that we are kept appraised of the pest problems in the city areas where regular inspections are not made. We also are on the lookout for new pests that might get started in these areas and, unless discovered, might spread to our commercial agriculture.

Pest Control Remedies

Chemical companies have been able to keep an ample supply of all insecticides and fungicides available for all types of pest control. Many new chemicals have been registered for various uses. Some of the chemicals are quite specific in their controls while others are very effective on a large variety of pests.

The work goes on continually to find better and safer materials for pest control. It is through science and experimentation that we are able to increase food supplies for an ever increasing population. The battle against pests is a very serious and never ending project. We must continue to progress with new ideas.

Costs of materials and application for the control of both insect and disease pests take a considerable percentage of each dollar of production costs. Practically all crops require some protection or control to assure the grower of both quality and quantity production. Some crops require very specialized equipment for application because of plant spacing, type of growth, or type of land on which the crop is growing. Many novel pieces of equipment have been made up for better and more economical treatments.

Pest control costs are compiled each year from actual operator reports. We have found it necessary to add 25%, and in some cases a greater percentage, to cover the individuals doing their own work with their own equipment and not required by law to submit reports to this office.

The following costs were compiled for the 1953 estimated cost of pest control materials and application in San Bernardino County:

Estimated total cost of material	-	$ 1,577,888.00
Estimated cost of application	-	1,183,416.00
Total estimated cost of P.C.	-	$ 2,761,304.00

Pest Control Operators

Pest control operators are licensed by the State Department of Agriculture to do pest control work within the State. The operator is required to register in each county in which he intends to work. San Bernardino County had 84 operators registered to do pest control work. 45 of these operators have their headquarters in our County. The others have headquarters in other counties and register to work in this County. 37 permits to use injurious materials were issued to such operators and 21 permits to use injurious materials issued to individual farmers doing their own work. 45 permits to use injurious herbicides were issued for ground rig operators and 3 permits to airplane operators. Many of the permits included several individual locations.

Backyard Sprayers

We mention these commercial operators separately because they play a very important part in keeping down pests on town lots which might otherwise spread to agricultural areas. Most of these operators have smaller, more manuverable rigs with extra long hoses. It is unprofitable for large operators to tie up their equipment for small jobs and much of the equipment would not be adapted to yard work. These backyard sprayers do a good job by specializing and making door to door calls. There are 12 operators registered to do pest control work in San Bernardino County specializing in this type of work.

Orchard and Field Inspection

Deputies and inspectors make a great number of crop inspections each year. Many inspections are made at the request of growers, but each inspector makes regular routine inspections in his district. Growers are advised as to the pest condition of the crops inspected. The information, in writing, is either mailed or given to the grower personally. A recommendation for control is given upon request.

Inspectors give freely of their personal time when necessary. Many non-resident owners are only available on week-ends or holidays for personal contacts.

Pest Abatement

When pests build up on a premise and become a hazard to neighboring crops, such condition is considered a public nuisance. The Agricultural Commissioner has authority under Section 129 of the Agricultural Code to abate such nuisance by legal action. Personal contact is made first by the district Agricultural Inspector and the Deputy in charge of abatement work. If the grower refuses to take care of the pest problem, the Commissioner starts the legal procedure to get it done. The work is done by the County and a lien is recorded against the property. Such lien takes precidence over all other encumbrances, present and future, except taxes and assessments.

We feel very fortunate that during 1954 not one legal procedure for pest abatement was necessary. At least 40 citrus growers were personally contacted about the pest condition of their grove and 8 growers were contacted by letter. All growers took care of the problem without any legal procedure being necessary.

Abandoned Orchards

Neglected and abandoned orchards and crops which, because of the presence of pests, present a hazard to neighboring orchards or crops, are also declared public nuisance. The Commissioner has authority under Section 141 of the Agricultural Code to notify the District Attorney of the County and ask him to start legal procedure to clear up the condition by Superior Court action.

We would like to point out that citrus groves, when completely neglected, do not often present a pest hazard. Scale insects are the most common pest likely to be involved. In a few cases, however, tree condition remains favorable for scale build-up and we require such orchards to be removed. A total of six such orchards were removed in 1954. Personal contacts and a few letters convinced growers that the trees should be removed and they were removed.

Deciduous orchards present an opposite situation. As trees lose vigor, they are more vulnerable to insect attack. This is especially true with respect to wood boring insects. Completely dead trees are not a problem but, as it usually takes several years for such trees to die, we ask the growers to remove the orchards when borers start to build up or upon evidence of other serious insects or diseases. A total of 14 persons were contacted personally and all responded to our request and removed their trees. No legal action was necessary.

Beneficial Insects

An attempt at biological control of California red scale in citrus groves is being continued by the periodic release of parasitic insects recommended by the scientists at the Citrus Experiment Station at Riverside.

900,000 Aphytis "A" (Golden Chalcids) were liberated in San Bernardino County during 1954. Most of the liberations were made in the Upland area hoping that the average humidity there would be sufficient for the parasites to survive and become beneficial. The results have been disappointing. Liberations of the same parasite have previously proven a failure in the Redlands-Highland areas.

STANDARDIZATION

Fruit and vegetable standards were originally enacted in a special standardization act by the California Legislature in 1915. Prior to this time, growers and packers in portions of the State had banded together for the purpose of raising the quality of deciduous fruits for the protection of their markets and promotion of the industry. Orange growers in Tulare County were trying to regulate the shipping of immature fruit. They, with several other commodity groups, requested the 1915 session of the Legislature to enact laws on a statewide basis requiring compliance with minimum standards. The first standardization act included such standards for six deciduous fruits, including grapes. At the present time the standardization laws contain specific standards and requirements for over 34 fruits and vegetables.

Prior to 1935 the enforcement of egg standards was delegated to the State Department of Public Health. In 1935 these standards were assigned to the State Department of Agriculture and the County Agricultural Commissioners for enforcement. Honey standards were also enacted in 1935. All the original standards for fruits, vegetables, eggs and honey have been improved or changed by legislative action at different sessions.

The Department of Agriculture cooperates in the enforcement of marketing order programs. The market orders are industry self-help programs undertaken by the industry to improve the marketing conditions for an agricultural commodity. Provisions that are most commonly authorized and used in marketing orders are those dealing with quality controls and uniform inspection of the products.

Apples: The mountain apple crop harvest for 1954 was excellent in yield and quality. No serious problems in inspection were encountered.

Berries: Boysenberry yield and quality was very good this year. Some acreage harvest was reduced by a heavy mite infestation.

Corn: Rejections on early harvested corn were for corn earworm damage. Later rejections were for undeveloped corn due to poor pollination.

Oranges: Freezing damage to navels was light. Water spot resulted from heavy winds that scarred the fruit and rains that followed. The January and February harvest in the Ontario-Upland districts was reduced by 50% because of this one defect.

Valencia crop was light this year. Freezing damage in some groves was light to medium.

Lemons: The major portion of lemon acreage is located in the Alta Loma, Upland and Ontario districts. Strong winds in December, 1953, reduced the crop by scarring the fruit and causing a heavy drop of small size lemons.

Grapefruit: Crop and quality good.

Peach and Plum: Peach and plum growers have marketed their fruits under the Freestone Peach and Plum Marketing Orders. This order requires a higher grade of quality and larger sizes for packing than State minimum standards. Inspection and certification of each lot was accomplished under a working agreement between the State Department of Agriculture and the County of San Bernardino. Our Department hired three extra inspectors and supervised their work during the

harvest period of these two crops. The County was refunded the expense of salaries and transportation for these three men.

Grapes: The major portion of our grape acreage is planted in wine varieties. The grapes were excellent in quality and fair in yield. The Agricultural Code requires that when grapes are purchased on a sugar content basis, the Agricultural Commissioner shall inspect and certify as to the sugar content. Five extra part time men were qualified and hired to test grapes this year. The wineries requiring this service are billed for the expense incurred.

Potatoes: Long, white potatoes shall be packed in grades meeting Federal or State standards. It is our duty to inspect and check the grade of potatoes to see that they meet the grade as marked on the container. Rejections were written for mislabeling, excessive tuber moth damage, scab, rots, cuts, etc.

Numerous fruits and vegetables are grown, other than those mentioned above, which have required our attention.

Fruit, Nut and Vegetable Standardization Statistical Report

Total man days	996
Total containers inspected and passed	2,477,705
Total containers found in violation	4,476
Violation notices issued	34

3,547 certificates of inspection and compliance were written on 1,307,393 containers.

Egg Standardization

Less time was spent on egg inspection this year than in previous years due to being assigned for a period to certain emergency duties. We had more violations, however, this year as compared to last year. We found more inedible eggs and eggs below grade as marked. Marking requirements are always a problem at the retail level.

Many requests were received from ranchers to check quality of eggs. Egg quality at the retail level is affected by improper handling at the ranch level. Poultry diseases can also effect egg quality. Calls were received from ranchers who requested information on how to candle eggs and properly mark containers.

Our inspector has cooperated with the Extension Service in checking with ranchers for egg quality and has been called on to settle disputes between growers and egg dealers regarding quality and weight of eggs. Another phase of service is to adjust egg graders and give helpful advice in the construction of egg rooms at ranch level to maintain higher egg quality.

We are called on to give talks to groups of people on the proper care of the eggs. This is in keeping with our policy that education must go hand in hand with enforcement.

Number of Premises Visited	986
Total number dozen eggs inspected	605,421 Dozen
Total number dozen eggs rejected	14,411 "
Total number of violation notices issued	55
Total number of hearings	2

Reasons for Rejections:

Inedible	3,007 Dozen
Mislabeled as to quality	3,853 "
Mislabeled as to size	1,581 "
Incomplete or no markings	5,970 "
Total	14,411 Dozen

SEED INSPECTION

The California Seed Law requires all agricultural seed, as defined in the Agricultural Code, to be correctly labeled to show the percent of purity, percent of germination, date of germination test, percent of other crop seed, percent of weed seed if present, etc.

Our inspectors check shipments of seed at time of delivery to the nurseries and seed houses and reinspect it from time to time to insure that the seed on hand is in compliance with the seed law. When a seed lot is found to be in violation, "Stop Sale" orders are issued. Official samples are drawn from several lots to check the correctness of the label and are sent to the State Seed Laboratory for testing. If the test proves the label to be incorrect, "Stop Sale" orders are issued and the seed is held until properly labeled or otherwise properly disposed of under the supervision of our inspector.

Lots of seed inspected	1,526
Lots found defectively labeled	84
Official samples drawn	10
"Stop Sale" orders issued	25
"Stop Sale" orders removed	14
Number of seed houses in County	72
Number of seed houses inspected	72

Seed Certification

We cooperate with the California Crop Improvement Association in the processing of certified seed. Our duties under this program are supervision of harvesting, cleaning and packaging of seed, drawing official samples, affixing labels and seals to containers, and performing such other services as may be necessary to maintain the identity and quality of certified seed.

Approximately 150 hours and 1,200 miles of travel were spent on this work.

Certified seed produced in San Bernardino County:

Ranger Alfalfa	232,000 pounds
Buffalo "	198,800 "
Caliverde "	41,000 "
Rojo Barley	35,300 "
Onas #53 Wheat	34,800 "
Calif. #5 Blackeyes	64,700 "
Sudan	4,000 "

WEED CONTROL

Special attention is given to noxious, perennial weeds that are established to a limited extent within the County. These include White Horse Nettle, Hoary Cress, Gaura, Blue Weed, Russian Knapweed and Camel Thorn. Special attention is also given to control of an annual weed commonly called Yellow Star Thistle, plus any other weeds that present local problems. 2,4-D has been used for control of most of the weed pests, but where sterilents can be safely used, chlorate-borax mixtures have been applied successfully.

Blueweed (Helianthus ciliaris)

This noxious perennial is limited to five locations in the County. The latest infestation was found in Yucaipa in 1949, the others being in the Chino area. Continued treatments with 2,4-D and chlorate-borax have reduced all infestations to a point where careful survey is now made for individual plants that may have been missed by treatment. Three plants were found in Yucaipa and four were found in Chino during 1954. Chlorate-borax was applied to exterminate these.

White Horse Nettle (Solanum elaegnifolium)

This is a deep rooted perennial of the tomato family and is the most widely distributed of the noxious perennials in the County. By work agreement with the Santa Fe and Southern Pacific Railroads, this weed is being treated on railroad property by our Department. Many of the original infestations on the railroads have been eradicated during the past few years. In 1954 control work was concentrated in the railroad yards of the Santa Fe between San Bernardino and Colton and on the Southern Pacific from Colton, southeast to Riverside County line. Spot work was done on Santa Fe property at Hodges, Barstow and Needles. 790 pounds of chlorate-borax was applied. District Inspectors check all known white horse nettle locations within their district where 2,4-D is used in treatment.

Gaura (villosa, coccinea, odorata, and sinuata)

There are four species of gaura in the County. In Yucaipa all four species have been found and are being controlled with 2,4-D. Scarlet gaura (coccinea), in 50 acres of vineyard south of Fontana, has been reduced to a few scattered plants since it was first treated in 1952. 300 gallons of material was used in 1952 and only 15 gallons in 1954. Low volatile 2,4-D emulsive acid has been used successfully to control the gaura with very slight effect on grape vines. This program has been a cooperative undertaking between the vineyardist and our Department. A late survey indicates very little to be done in 1955. Knapsack sprayers were used to assure thorough coverage of all gaura plants in the vineyard.

Hoary Cress (Cardaria draba)

This hardy perennial is commonly called "white top" and is located in numerous parts of the County, though not widely distributed. Infestations of "white top" show up in early spring and plants are nearly mature before other perennial weed pests are well started. Two or three applications of 2,4-D per year have proven more effective than a single treatment. This perennial lives up to its reputation of being hard to control. Excellent cooperation of property owners presents a more promising outlook for control of "white top".

Russian Knapweed (Centaurea repens)

The largest infestation of this noxious perennial of the thistle family is in the Chino area with smaller locations in San Bernardino and Redlands. Subdivisions have practically eliminated those in San Bernardino with 2,4-D finishing the job. Chlorate-borax was applied to the area in Redlands. The 20 acre field in Chino has been ideal for test plots of weed control chemicals. Two plots treated with 2,4-D amine salt and emulsive acid resulted in 98% control and held up during the past year. Materials applied in 1953 and 1954 have yet to be evaluated.

Camel Thorn (Alhagi camelorum)

Camelthorn, a member of the pea family, is a primary noxious weed and a relatively new discovery in the County. The Agricultural Code specifies that this perennial be controlled and eradicated wherever found. Approximately 200 acres have been mapped along the Mojave River in Afton Canyon. Out of numerous materials tested during the past two years, 2,4-D low volatile esters were chosen for the over-all treatment. Three aircraft applications were made in May, July and September of 1954. State, County and property owners share in the costs of control. A large area was surveyed and one new location was discovered in 10 acres of abandoned farm land. This latest discovery was made in October which led to many more miles of survey of other abandoned farms with no further findings.

Yellow Star Thistle (Centaurea solstitialis)

This annual is getting special attention because of its limited distribution in the County. It occurs in Chino, Yucaipa and did occur in Cucamonga. Spraying with oil, 2,4-D, burning, and soil sterilents along fence rows has been successful in controlling yellow star thistle. Property owners are giving special attention to this pest and our Department is cooperating and assisting to prevent further spread.

Weed Identification

Alertness to weed problems, especially specific weeds that appear hazardous, is the best approach to weed control. Any weed problem should be brought to our attention. Identification can be made by bringing in a specimen. Materials, equipment and personnel are on the job to help with any weed problem that needs special attention.

RODENT AND ANIMAL PEST CONTROL

The rodents with which we are concerned are ground squirrels, gophers, various rats and mice, jack rabbits and any other rodents that affect agriculture. Within the realm of animal pest control are also predatory bird pests that damage agricultural products or interfere with other phases of the agricultural industry.

Strychnine alkaloid treated baits are the most widely used and most familiar to those having rodent problems. Warfarin has been supplemented with Pival, which is a similar product. The proper use of strychnine, Warfarin or Pival baits is the responsibility of the individual who uses them. Another very effective material commonly called "1080" (sodium fluoroacetate), is restricted in its use and application. Proper use of "1080" is the responsibility of the Agricultural Commissioner and his qualified staff. This material, by State law, is restricted in its use and application to authorized agencies and can only be used under the direction and supervision of our Department. All bait materials are supplied to County residents at cost.

Ground Squirrels

Approximately 3,850 pounds of strychnine whole barley was supplied to individuals and 2,055 pounds of "1080" was applied under supervision. Three consecutive winters of rather mild weather conditions have encouraged growth of the ground squirrel population. 100% control is always hoped for, but seldom attained. When property owners are alert to possible consequences and immediate attention is given to a rodent problem, maximum control can be obtained by the use of strychnine baits or, if necessary, with the use of "1080" applied under our supervision.

Pocket Gophers

Approximately 1500 pounds of strychnine grain and 250 quarter-ounce containers of strychnine alkaloid powder were supplied to control the gopher population during the year. Practically all owners of land, from a city lot to a section, have this pest to deal with. Strychnine alkaloid powder or strychnine on grain bait has been widely used in 1954. In most instances these have given successful control. Strychnine powder on vegetable bait is considered to be the most acceptable to gophers, but requires fresh bait be used.

Jack Rabbits

2,000 pounds of strychnine on rolled barley was supplied for jack rabbit control in 1954. This is the third year which jack rabbits have continued to plague ranchers in the desert farming districts. Strychnine on rolled barley has been used with increasing success by addition of moisture to the bait material. Maximum success of baiting programs has been dependent upon the proper procedure of pre-baiting before poisoned material was placed.

Rats and Mice

1,000 pounds of Pival and Warfarin were supplied in 1954. This material on steel cut oats has been the answer to many rat or mouse problems. In the Redlands district, Warfarin has been used successfully to control field mice in an orange grove since 1953 and this year Warfarin was used on another citrus property in Yucaipa. Bait boxes are recommended where Warfarin or Pival are used and instructions have been prepared for assistance in the correct use.

Bird Control

Authority is given the Agricultural Commissioner to control certain bird pests detrimental to agriculture. Procedure methods and formulas have been tested by government agencies. Bird control operations adhere to the recommendations of the California Division of Fish and Game and the United States Bureau of Fish and Wildlife. Supervision and instruction is necessary to safeguard harmless bird species. Sparrow control is necessary in association with poultry ranches and linnet control is necessary to protect deciduous fruit crops.

Plague Area Rodent Control

The State Department of Public Health has designated the territory through the mountains from Wrightwood, at the Los Angeles County line, to the Riverside County line south of Yucaipa Valley as a plague area. Protection of health is accomplished by keeping the rodent population to a minimum. Cost of control is shared by the State Department of Agriculture.

Warfarin or Pival baits, placed in redwood bait boxes, have been used with success to control small rodents. Strychnine grain baits have proven effective in control of the larger ground squirrels. Careful bait placement has resulted in little, if any, ill effects to the tree squirrels that inhabit the area. During 1954, three qualified workers were located at Arrowhead, Barton Flats and Yucaipa. Operations of these men were regularly supervised and the plague area was surveyed at intervals in order to obtain maximum results from the control operations. Rodent control in the Wrightwood area was handled by the Victorville district inspector.

Increase in the use of the San Bernardino National Forest by the public is reflected markedly in the following table obtained from the United States Forest Service in San Bernardino. These and local residents are the people the program is intended to protect.

	Number of Visitors	
	1952	1954
Camp Grounds	174,800	242,826
Picnic Areas	51,800	92,222
Winter Sports Areas	136,000	151,000
Organization Camps	23,800	48,323
Hotels & Resorts	7,500	32,265
Cabins & Residences	75,000	118,449
Total	468,900	685,085
Total Travelers into the Area	1,800,000	2,607,532
Grand Total	2,268,900	3,292,617

PREDATORY ANIMAL CONTROL

Total catch covering period January 1, to December 31, 1954:

162 Coyotes	17 Wild House Cats	1 Lion
99 Bob Cats	35 Skunks	2 Horned Owls
17 Wild Dogs	17 Racoons	1 Ringtail Cat
48 Fox	4 Badgers	

A large percent of the animals listed above are caught on ranches and under difficult circumstances at times. The traps are usually set at some distance from the house to avoid catching pet cats and dogs. Often traps cannot be set in best locations due to likelihood of livestock stepping on them and springing them. Considerable time is often spent in catching a few sly animals that are responsible for killing chickens, turkeys, livestock, etc.

Ranch calls continue to increase. We received 51 requests for assistance during the year and, at the present time, we have traps out on six different ranches. We furnish and set the traps and make periodic checks on same. In most cases, the ranchers are given instruction on trapping and tend the traps until the predators are caught. One ranch being trapped is located near Barstow and another near Twenty-nine Palms. Owing to the large territory to be covered, the above system is working out very well. The animals involved in most ranch calls are coyotes, bob cats, wild dogs, wild house cats, opossums, coons, and in one case two horned owls.

We had one call to a poultry ranch in Chino where wild dogs had killed 125 choice chickens. In a case of this kind, the dogs do not eat what they kill. They will chew and tear their way through good fences and kill as long as there is anything left to kill.

Our part in the conservation of game animals and birds is continuing as usual. The mountains and foothills are checked regularly for predators. We have access to all forest service roads. We try to trap out the areas where predatory animals are doing the most killing.

At the present time coyotes are killing numerous deer in the burned-over areas. The deer come into these places to eat the tender shoots at the base of the trees and bushes. Coyotes can keep the deer in sight in such places and run them down before they can reach heavy brush.

Bob cats, coyotes, fox, wild house cats and skunks are being trapped in locations where they are preying on quail, chickens, pheasants, tree squirrels and song birds.

One lion was caught which, no doubt, saved many deer. These animals kill on the average a minimum of one deer every five days.

13 Cooper hawks, 2 horned owls and 19 rattle snakes were also killed.

For the fiscal year July 1, 1953 through June 30, 1954, total expenditures were $4,241.42.

APIARY INSPECTION

Apiarists move thousands of colonies into San Bernardino County each year to gather nectar from citrus bloom. The bulk of these colonies come from Utah, Idaho, Wyoming, Nebraska and a few from Oregon. Besides producing orange honey, nuclei are made out of these colonies. Most of these nuclei, along with the old colonies, are moved back to the above states to produce alfalfa and clover honey. Package bees and queens are also produced in these colonies while here for subsequent use in other states. Besides the interstate movement of bees, thousands of colonies of bees are also brought into San Bernardino County from other California counties not having sufficient citrus acreage. In years of heavy rainfall, many of these colonies are left here to produce sage and buckwheat honey before being moved out. Early blooming plants such as mustard, filaree, eucalyptus and citrus bloom, coupled with warm spring weather, makes it possible for the beekeepers to rear early queens and package bees which, ofcourse, is impossible to do in states and counties having cold, late winters. By July these nuclei are usually strong enough in bees and brood to be put into honey production or leased out for pollination service. Bees have been very much in demand for pollination of crops which has caused a decrease in the production of sage and buckwheat honey.

Increased activity in apiculture has made more inspections necessary. With the use of modern equipment, the beekeeper may operate more colonies. Some apiaries may be left only a few days on one location which makes the bee inspector's work much more difficult.

American Foulbrood and other bee diseases have, through regular inspections, been kept at a minimum, especially in our resident apiaries. The feeding of antibiotics to American Foulbrood colonies has caused extra inspection work due, we believe, to the treatment masking the disease.

Very few European Foulbrood colonies have been found for the past several years. We have no answer for this as science apparently has been unable to find out how the organism spreads.

At present, there are two State approved methods of handling colonies of bees infected with American Foulbrood. One of those is by killing the bees in the hive and burning the contents, including the bees, honey and wax, in a pit burying the ashes no less than two feet below the surface of the ground. The other method is by gassing the bees in the hive, sealing the hive to prevent access by live bees, and transporting under permit from the Commissioner to a State and County approved wax salvage plant. At such a plant the equipment is sterilized, after which the beekeeper may use it again. Beeswax is salvaged. All honey is boiled and run into the sewer as it is unlawful to take or expose honey from a colony of bees infected with American Foulbrood.

We are fortunate in having two licensed wax salvage plants in San Bernardino County. The Miller Honey Company plant is located at 125 Laurel Street, Colton, and A. B. Addleman owns and operates a plant at Allen and Larion Streets, approximately three miles west of Colton. These plants are licensed annually by the Commissioner and operated under the supervision of the County Apiary Inspector.

Wax salvage plants have resulted in a substantial saving of the inspector's time and has eliminated the difficult problem of finding a safe place to burn diseased colonies, plus time required to obtain fire permits.

Shortage of water is causing considerable trouble in many areas. Even where beekeepers provide water, there is no way in which bees can be made to water at any given place. Although we have no authority in the matter, we investigate complaints when they are called to our attention.

San Bernardino County owns considerable acreage purchased for flood control and water conservation. Some of these properties offer places suitable for apiary locations. Whenever a request is made for one of these sites, we are authorized to investigate. If we determine that the bees will not become a nuisance, we lease the property for a period of one year. This lease is renewed upon request providing there are no objections. Splendid cooperation has been realized from beekeepers and others involved.

Apiary Inspection - 1954

	Number of Apiaries	Number of Colonies
Registered in County	534	13,465
Entering California	55	11,385
Leaving California	36	12,163
Entering County	273	24,042
Leaving County	258	21,809
Moving within County	241	13,602
Inspected	534	20,458
Infected with American Foulbrood	77	195
Infected with European Foulbrood	2	3
To Wax Salvage Plant	75	193
Burned for American Foulbrood	2	2

Where American Foulbrood was Found

Apiaries Originating from:

San Bernardino County	94	Colonies A.F.B.
Riverside County	23	" "
Los Angeles County	9	" "
Ventura County	28	" "
State of Nevada	1	" "
State of Utah	31	" "
State of Nebraska	9	" "
Total	195	Colonies A.F.B

DEPUTY AND INSPECTOR STUDY GROUPS

Deputies and Inspectors have spent many evenings together in study and discussion of subjects pertaining to our work.

It is worthy of note to report that, with two exceptions, all of our inspectors are fully qualified by both State and County examinations for the positions they hold. A number of our Deputies and Inspectors hold State certificates for positions above which they now hold. It has taken much extra effort and study to do this. This will be appreciated, we are sure, by the people of our County. They have their Commissioner's sincere appreciation.

MEETINGS

Monthly meetings of all Deputies and Inspectors were held during the year as an important means of maintaining uniformity throughout the County district relative to law enforcement and recommendations. New developments and methods in our work were discussed. Valuable information was received from guest speakers who are generally experts in some phase of agriculture. Informative contacts with members of the State Department of Agriculture were also made at the meetings.

FINANCIAL STATEMENT 1953-1954

Division of Work	Approximate Total Cost of Each Division
Quarantine	$ 32,939.91
Quarantine Certification	3,677.80
Pest Survey	11,744.35
Nursery Inspection	5,964.88
Orchard, Vine Inspection	14,404.68
Field, Truck Crop Inspection	2,215.73
Pest Control	10,078.81
Beneficial Insects	1,558.92
Seed Law, Seed Inspection	1,377.11
Weeds	6,013.28
Rodents - Plague	14,350.43
Standardization	19,940.26
Standardization Certification	10,909.79
Crop Reports - Monthly and Annual	10,413.73
Apiary	6,512.28
Meetings	3,664.86
Special Assignments	851.86
Predatory Animal Control	4,241.42
TOTAL	$160,860.10

Office Receipts

July 1, 1953 to June 30, 1954

For Standardization during fiscal year	$ 11,121.10
For Quarantine Certification during fiscal year	4,063.00
For Poison and Poison Baits sold	2,030.34
Rodent Control Work done in Flood Control Districts	390.19
Refund from State for Bubonic Plague Work	2,530.84
For Weed Control Work under Agreements	326.97
Bee Location Rentals	180.90
TOTAL	$ 20,643.34

CROP AND LIVESTOCK REPORT
Calendar Year - 1954

The total income from the agricultural industries of the County herein listed amounts to $98,488,660 for 1954. This figure represents a slight decrease from the previous year, but is still some 9 million dollars over and above the past 11 year average of $89,500,000. Increases in production of apples, peaches, plums, irrigated pasture, alfalfa seed, milk and poultry are noted over the previous year. Although poultry and egg production reached a new peak, as can be seen by the accompanying tables, the total valuation of all poultry dropped over 10 million dollars below the 1953 figure due to a reduction in the prices received for poultry meat and eggs.

It should be explained that these valuation figures represent gross receipts and not net returns to the grower. High production costs and short crops in some instances have kept the grower net returns at a low level. It may also be stated that the many business enterprises, both small and large, that are totally dependent upon agriculturalists for their trade may, if similarly appraised, show a continued gross income nearly equal to the 1954 figure given above. The combined figures should give a more accurate appraisal of the position agriculture holds in the total economy of the County.

Citrus: The total citrus acreage for San Bernardino County for 1954 was 35,955 acres. Navel oranges account for one-half this acreage with 18,038 acres, while Valencia oranges account for one-quarter with 9,308 acres. Lemons with 5,650 acres, grapefruit 2,296 acres, miscellaneous oranges at 659 acres, plus 4 acres of limes make up the balance. The total acreage is 2,664 acres less than the previous year with 2,284 acres of oranges, 300 acres of grapefruit and 181 acres of lemons removed during the year. An additional 157 acres of lemons were added to our total the past year by resurvey and grafting, plus 42 acres of new plantings. This more than offset the 131 acres lost through removals. Plantings of all oranges amounted to only 35 acres.

Total production for all citrus was 6,053,618 boxes, including fruit sold for by-products. This figure represents a drop of 37% in production from the previous year. Total valuation was $21,753,413 and is also a reduction from the previous year of 18%.

These decreases are reflected to a great degree by the fact that 1953 was a good citrus year and 1954 was a more normal year, except for Valencias, as can be seen by the accompanying chart showing trends over the past 17 years. Valencia production dropped below the million box figure for the first time and was considered one of the poorest Valencia crops in history.

Production and gross receipts for navel oranges show a marked decrease from 1953. Production dropped 31% while valuation decreased only 19%. Valencia orange production decreased 70% while valuation dropped 35%. Lemons increased some 30% in production over the previous year while the valuation of the same dropped a mere 3%. Acreage and production of lemons in San Bernardino County seem to remain quite constant. Grapefruit production decreased 35% while gross returns dropped only 13%.

It should be explained that the valuation figures given for citrus are F.O.B. as fruit leaves the packing house.

Subtropical fruits (693 acres): This figure includes 598 acres of olives and 65 bearing acres of avocados. With persimmons making up the balance, the total valuation of all subtropicals was $66,245 which is considerably more than 1953.

Deciduous fruits (3,034 acres): Acreage of all deciduous fruits is 140 acres less than 1953. Peach and apricot orchard removals are responsible for this reduction. Apple, peach, and plum production was back to normal after a poor year in 1953 due to a late frost. With good production all deciduous amounted to $2,149,220, an increase of 95% over 1953.

Grapes (27,818 acres): Grapes show a reduction of 1835 acres from the previous year. Production remained practically the same with valuation increased by $100,000.

Berries (357 acres): A decrease of 55 acres of berries is also reflected in decreased production. With prices somewhat the same as the proceeding year, the total gross income was $550,425.

Nuts (2,326 acres): Walnuts continue to show a decline in acreage with 307 acres removed during the year. Almond acreage was also reduced by the abandonment of 42 acres. Total valuation of all nuts was $397,350.

Vegetables (6,957 acres): A decrease of 2,263 acres of vegetables is noted as compared with 1953. Reductions were found in cabbage, carrots, cauliflower, corn, Irish potatoes and tomatoes. In spite of this reduced vegetable acreage, the total valuation increased 27% over the previous year due to higher prices received for Irish potatoes and a good sweet potato crop. All vegetable crops combined totaled $5,622,234.

Field Crops (47,864 acres): Field crop acreage increased 2,542 acres over the previous year. A good portion of this increase was in vegetable acreage in the 1953 year and accounts for the decrease in that category. Alfalfa, with 17,769 acres, is again our leading field crop showing a gross return of $2,382,402. Blackeye beans are second with returns amounting to $970,670 on 5,415 acres. Other important field crops are irrigated pasture, corn, barley, oats, grain hay, and cotton. Total gross returns for all field crops amount to $5,339,335, or an increase of 5%.

Seed Crops (1,248 acres): Alfalfa, barley, wheat, and two newcomers dichondra and zinnia, comprise our list of seed crops. Alfalfa leads with 1,120 acres producing 503,775 pounds certified seed. Combined gross returns amount to $235,682.

Nursery Stock (354 acres): Of this total acreage, 253 acres were devoted to rose production. The balance of the acreage was devoted to fruit trees, deciduous and citrus, and ornamental nursery stock. The estimated gross return for all nursery stock was $3,067,724 which represents an increase of 13% over the previous year.

Bees: Honey and beeswax production show an increase over the previous year. Honey production doubled that of 1953 with 2,545,874 pounds. However, due to hot, dry weather citrus bloom was earlier this year resulting in low production of orange honey. Heavy rainfall during the latter part of March caused wild sage and buckwheat to produce average crops of honey. Total gross income from honey and other products amounted to $347,876.

Livestock: The estimated figures shown in this report for livestock are, we believe, the best available.

34,057 beef cattle were sold during the year with a total beef and feed lot gain of about $2,349,941. This represents an increase of 3,426 head, although income is practically the same as a year before.

Dairy cows again show an increase with an additional 2,000 cows on hand over the previous year. In spite of this increase in number of cattle and corresponding increase in milk production, total gross income from dairying including milk, calves, stock sold for beef and fertilizer, amounted to $13,951,261; a reduction of $680,000 from the previous year. This was due mainly to low prices received by the producers.

Producing hens increased 7% during 1954. We now have around 4,385,360 producing hens in the County. Egg production correspondingly increased to over 73 million dozen with a valuation of over 28 million dollars. However, this valuation figure is a reduction of almost 7 million dollars due to lower prices received for eggs in 1954. A reduction was also noted in the number of fryers sold and also in value. Total gross income from hens and their products amounted to $36,057,913, ducks $101,250 and turkeys $2,103,392, or a total gross income from all poultry of around $38,262,555 or a reduction of 22% from the previous year.

Hogs grossed $464,058 with some 9,365 being sold for pork, an increase over the previous year while rabbits continue to decline in number and value.

There seems to be a steady increase in numbers of certain types of livestock in the County such as beef cattle, dairy cows and producing hens while other types of livestock continue to decline. Total gross income from all livestock amounts to $55,592,449 which is about average for the past five years. Comparisons can be made by consulting the tables that follow.

CITRUS

Year	*Acreage	Production (Boxes)	Valuation (Gross Receipts)
1938	50,445	7,024,281	$ 11,767,447
1939	49,663	7,296,182	14,109,169
1940	48,078	8,120,227	17,170,447
1941	51,689	9,588,997	20,071,630
1942	51,320	8,998,780	21,195,403
1943	51,728	7,485,209	23,970,155
1944	50,794	10,980,405	40,075,086
1945	50,615	10,820,769	50,364,665
1946	49,167	10,660,414	39,140,244
1947	50,470	9,781,380	28,524,393
1948	50,000	8,463,319	23,546,951
1949	44,854	4,866,902	14,653,270
1950	43,239	8,523,115	24,056,853
1951	42,036	6,601,573	22,203,826
1952	40,790	6,130,929	19,790,436
1953	38,619	9,602,736	26,640,302
1954	35,955	6,053,618	21,753,413
17 Years' Average		8,294,047	$ 24,649,040

* Includes Bearing and Non-Bearing Acreage.

TOTAL CROP, POULTRY, OTHER LIVESTOCK, AND TOTAL VALUATION FOR THE PAST TWELVE YEARS AS OF RECORD FOR SAN BERNARDINO COUNTY

YEAR	ALL CROPS	ALL POULTRY	OTHER LIVESTOCK	TOTAL
1943	$ 42,123,408	$ 9,894,927	$ 9,242,599	$ 61,260,934
1944	60,563,406	10,621,257	11,389,403	82,574,066
1945	67,114,424	15,469,053	11,879,364	94,462,841
1946	64,167,052	12,746,496	12,548,564	89,462,112
1947	44,524,547	17,725,625	17,013,715	79,263,887
1948	40,055,839	24,234,080	20,639,282	84,929,201
1949	30,441,086	29,206,756	17,063,785	76,711,627
1950	43,343,662	29,713,980	18,249,401	91,307,043
1951	43,747,168	40,555,572	21,672,010	105,974,750
1952	44,402,152	39,614,254	22,674,515	106,690,921
1953	44,655,332	49,199,028	18,689,452	112,543,812
1954	42,896,211	38,262,555	17,329,894	98,488,660

TOTAL POULTRY AND EGG PRODUCTION FOR THE PAST SEVEN YEARS AS OF RECORD FOR SAN BERNARDINO COUNTY

YEAR	PRODUCING HENS	EGG PRODUCTION	EGG VALUATION
1948	2,130,000	29,820,000 Dozen	$ 16,102,800
1949	2,850,000	40,850,000 "	20,833,500
1950	3,135,000	47,025,000 "	19,280,250
1951	3,460,000	53,341,666 "	29,337,916
1952	3,792,660	60,050,592 "	27,623,273
1953	4,083,845	68,064,083 "	35,393,323
1954	4,385,360	73,089,333 "	28,504,840

FRUIT, NUT AND VINE CROPS

	ACREAGE		PRODUCTION	VALUATION
	Bearing	Non-Bearing		
CITRUS				
Oranges: Navels	17,948	90	2,499,574 Pkd. Bxs.*	$ 10,120,944
Valencias	9,296	12	760,967 " "	3,633,972
Misc.	647	12	39,708 " "	142,983
Lemons	5,304	346	920,953 " "	4,983,037
Grapefruit	2,279	17	345,218 " "	1,169,490
Limes	4	--	460 " "	4,120
CITRUS BY-PRODUCTS				
Oranges: Navels			547,230 Bxs.	421,212
Valencias			168,256 "	252,267
Misc.			11,743 "	15,662
Lemons			566,023 "	952,338
Grapefruit			193,486 "	57,388
SUBTROPICAL				
Avocados	65	14	59 Tons	16,250
Olives	598	--	250 "	43,750
Persimmons	15	1	16 "	6,245
DECIDUOUS				
Apples	558	108	174,700 Bxs.	393,075
Apples: Cider			46,000 Gals.	39,100
Apricots	44	5	89 Tons	6,230
Cherries	25	11	11 "	4,400
Peaches: Cling	498	46	2,531 "	139,205
Frees	1,095	124	5,633 "	901,280
Pears	39	2	83 "	7,470
Plums	399	80	2,993 "	658,460
GRAPES				
Table	989	--	--	--
Wine	26,651	178	86,738 Tons **	3,296,044
BERRIES				
Bushberries	295	--	1,360 Tons	380,800
Strawberries	62		67,850 Trays	169,625
NUTS				
Almonds	42		6 Tons	3,600
Walnuts	2,251	33	1,125 "	393,750
TOTALS	69,104	1,079		$ 28,212,697

* Standard half box cartons converted to standard boxes.
** Includes table grapes.

COMMERCIAL VEGETABLE CROPS

	SIZE	ACRES	PRODUCTION	VALUATION
Beans: Green	50 lbs.	7	575 crts.	$ 2,012
Beets	3 doz.	10	2,250 "	2,250
Cabbage	60 lbs.	105	31,025 "	62,050
Carrots	50 lbs.	178	65,800 "	83,600
Cauliflower	40 lbs.	68	36,900 "	36,900
Corn: Green	5 doz.	1,273	327,065 "	735,897
Cucumbers	30 lbs.	2	380 lugs	190
Eggplant	20 lbs.	1	400 "	180
Lettuce	65 lbs.	9	1,000 crts.	2,750
Melons:				
Cantaloupe	65 lbs.	58	11,100 crts.	13,875
Water		67	811 tons	20,275
Other	60 lbs.	11	2,300 crts.	5,000
Onions: Green	30 lbs.	2	900 crts.	765
Dry	50 lbs.	161	125,700 sks.	157,125
Peppers: Bell	25 lbs.	1	300 lugs	255
Potatoes:				
Sweet	32 lbs.	878	366,203 lugs	769,027
Irish	100 lbs.	3,850	1,367,500 sks.	3,620,625
Pumpkins		5	5 tons	200
Spinach	35 lbs.	6	1,950 crts.	1,560
Squash:				
Summer	30 lbs.	7	2,600 lugs	4,090
Winter		49	450 tons	2,700
Tomatoes:				
Fresh	32 lbs.	12	5,950 lugs	4,463
Can		31	200 tons	11,400
Turnips	50 lbs.	16	5,020 crts.	6,275
Misc. Veg.		150	45,000 crts.	78,750
TOTALS		6,957		$ 5,622,234

FIELD CROPS

	ACRES	PRODUCTION	VALUATION
Beans: Blackeye	5,415	97,067 sks.*	$ 970,670
Baby Lima	20	160 "	1,920
Pinto	25	125 "	1,250
Corn: Ensilage	1,078	8,880 tons	106,560
Grain	71	885 "	61,950
Maize	270	4,050 sks.	12,150
Cotton	318	318 bls.	50,880
Grain: Barley	3,840	70,205 sks.	193,064
Oats	2,126	40,765 "	138,601
Wheat	555	10,620 "	40,887
Hay: Alfalfa - Dry and Green	17,769	101,696 tons	2,382,402
Grain	7,008	14,976 "	374,400
Mushrooms		10,000 lbs.	6,500
Pasture: Perm. Irrigated	8,754		962,940
Planted Dry Range	425		10,625
Sudan Grass	90		3,600
Sugar Beets	97	1,940 tons	19,400
Tobacco	3	3,200 lbs.	1,536
TOTALS	47,864		$ 5,339,335

* All 100# sacks.

SEED CROPS

	ACRES	PRODUCTION	VALUATION
Alfalfa	1,120	503,775 lbs.	$ 201,510
Barley	90	2,150 sks.	10,750
Dichondra	10	4,000 lbs.	16,000
Wheat	10	157 sks.	942
Zinnias	18	4,900 lbs.	6,480
TOTALS	1,248		$ 235,682

CONSERVATION EARNINGS AND SOIL BUILDING PRACTICES

	1953	1954
Payments	$ 141,000 (P.M.A.)	$ 70,663 (A.S.C.)

NURSERY STOCK

		VALUATION
Grown and Sold	354 acres	$ 3,067,724

APIARY

	PRODUCTION	VALUATION
Honey Production	2,545,874 lbs.	$ 295,806
Beeswax	50,900 "	25,450
Nuclei with Queens	4,664	23,320
Pollination Fees		3,300
TOTAL		$ 347,876

ESTIMATED LIVESTOCK PRODUCTION

	PRODUCTION	VALUATION
BEEF CATTLE		
Feeders	22,610 *	$ 1,395,980
Range	11,447	953,961
Fertilizer	18,100 tons	36,200
DAIRY		
Producing Cows	20,935	
Milk: Wholesale	21,311,660 gal.	9,377,130
Retail	4,537,977 "	3,630,382
Calves	976	4,685
Slaughter	4,708	564,960
Fertilizer	187,052 tons	374,104
POULTRY		
Producing Hens	4,385,360	
Eggs	73,089,333 doz.	28,504,840
Hens sold for Meat	3,508,288	2,104,973
Fryers sold for Meat	4,773,800	4,296,420
Baby chicks	4,893,590	1,027,654
Fertilizer	41,342 tons	124,026
DUCKS		
Sold for Meat	81,000	101,250
TURKEYS		
Sold for Meat	284,110	1,562,605
Poults	720,250	540,187
Eggs	166 doz.	600
HOGS		
Breeding Stock	95	7,600
Slaughter	9,365	449,520
Fertilizer	2,775 tons	6,938
RABBITS		
Fryers Sold	224,756	202,280
Fertilizer	272 tons	816
CHINCHILLA		
Breeders Sold	142	21,300
Pelts Sold	514	19,018
SHEEP		
Slaughter	3,650	76,650
Feeders	10,750 **	23,762
FOX		
Pelts Sold	40	1,600
GAME BIRDS	14,062	56,248
MISCELLANEOUS		126,760
TOTAL		$ 55,592,449

* Beef and feed lot gain
** Value increase in County

RECAPITULATION

	ACREAGE *		VALUATION	
	1953	1954	1953	1954
Citrus	38,619	35,955	$ 26,640,302	$ 21,753,413
Subtropical	695	693	22,680	66,245
Deciduous	3,174	3,034	1,104,284	2,149,220
Grapes	29,653	27,818	3,205,430	3,296,044
Berries	412	357	684,990	550,425
Nuts	2,673	2,326	252,000	397,350
Vegetables	9,220	6,957	4,436,245	5,622,234
Field Crops	45,322	47,864	5,080,560	5,339,335
Seeds	973	1,248	117,920	235,682
Nursery Stock	352	354	2,721,866	3,067,724
Apiary			248,055	347,876
Livestock Including Poultry			67,888,480	55,592,449
Government Payments (A.S.C. County Committee)			141,000	70,663
TOTALS	131,093	126,606	$ 112,543,812	$ 98,488,660

* Includes bearing and non-bearing.

NOTE: The above valuation figures represent gross receipts and not net returns to the grower.

COUNTY OF SAN BERNARDINO
DEPARTMENT OF AGRICULTURE
By STUART M. GEORGE
ORCHARD HEATER CONTROL OFFICER

1954-55

This report covers primarily the winter season of 1954-55 dealing with the operations of the Orchard Heater Control Officer and Investigators up to Mar. 1, 1955 and shows comparative figures with previous seasons.

The duty of enforcing county control of orchard heaters was directed to the County Agricultural Commissioner by Ordinance No. 660 in October of 1950. This control normally has jurisdiction only within unincorporated areas but in July of 1952 the City of Redlands contracted with county officials to administer and enforce a similar ordinance within the City's limits. Soparate figures are shown in this report for the City of Redlands. Some of the other cities in the County have orchard heater ordinances but conduct their own policing activities while others have no controls over such equipment or practices.

Figures shown apply only to those heaters placed where they could be used for frost protection, including those under trees in citrus orchards.

Acreage shown, with little exception, pertain mostly to citrus crops. Small acreages of apples, apricots and avocados are also using orchard heaters.

DEFINITIONS OF TERMS USED IN THIS REPORT

1. FIRING--Acreage concerned contains orchard heaters intended to be burned if necessary for frost protection. Heaters are inspected prior to approval and issuance of permits.

2. NON-FIRING--Acreage concerned contains orchard heaters that would not be burned during the winter of 1954-55. Grower has submitted a signed affidavit to this effect. No fee is received and no permit action is taken except to record the location, type and number of heaters.

3. STORAGE--Grower has signed a "Storage Statement" whereby he is authorized to retain in his orchard various heater bowls or garbage pails for auxiliary oil storage purposes. Such bowls or containers to be maintained adjacent to or alongside a complete heater for which a permit has been issued. These containers must be clean and contain clean oil but no fee is assessed for them.

4. COUNTY--Refers to the unincorporated areas of San Bernardino County.

5. REDLANDS--Refers to the City of Redlands.

APPLICATIONS AND PERMITS

COUNTY

SEASON	FIRING	NON-FIRING	VOIDED*	TOTALS
1950-51	1,263	180	33	1,476
1951-52	1,288	157	4	1,449
1952-53	1,228	146	134	1,508
1953-54	1,184	120	112	1,416
1954-55	1,172	89	89	1,350
REDLANDS**				
1952-53	293	41	0	334
1953-54	297	35	9	341
1954-55	286	33	19	338

RECEIPTS

COUNTY

SEASON	FEES	PENALTIES	REFUNDS	TOTALS
1950-51	$4,381.50	0	$ 66.00	$ 4,447.50
1951-52	9,878.66	$176.00	380.63	10,435.29
1952-53	9,279.34	177.00	176.55	9,632.89
1953-54	8,874.69	114.50	47.39	9,036.58
1954-55	8,806.29	113.50	47.32	8,967.11
REDLANDS				
1952-53	2,321.86	52.00	33.37	2,407.23
1953-54	2,188.74	49.00	9.78	2,247.52
1954-55	2,140.63	5.00	8.00	2,153.63

* Figure represents number of applications which had heaters in previous seasons but had no heaters this season and also includes some groves that have been removed, subdivided, abandoned or because of boundary changes are now inside incorporated areas.

** Ordinance became effective 1952-53.

ACREAGE

COUNTY SEASON	FIRING (Permits approved) acres	NON-FIRING (No permit action) acres	TOTAL acres
1950-51	14,348	1,846	16,194
1951-52	14,562	1,548	16,118*
1952-53	14,119	1,390	15,509*
1953-54	13,471	1,184	14,655*
1954-55	13,364	731	14,095*
REDLANDS			
1952-53	3,141	359	3,500
1953-54	3,100	342	3,442*
1954-55	3,040	260	3,300*

HEATERS

COUNTY SEASON	CLASS I	CLASS II	CLASS III	TOTAL
		Heaters to be fired		
1950-51	44,923	445,914	95,610	586,474
1951-52	49,167	476,584	39,621	565,372
1952-53	60,616	464,410	10,953	535,979
1953-54	62,043	444,899	None	506,942
1954-55	66,599	444,648	None	511,247
REDLANDS				
1952-53	9,662	81,630	38,212	129,504
1953-54	13,352	89,411	17,239	120,002
1954-55	15,399	97,241	4,473	117,713

* Figure represents both gains and losses in acreage from previous season of groves removed, subdivided, abandoned or from which the heaters had been removed.

Heaters Not to be Fired*

COUNTY / SEASON	CLASS I	CLASS II	CLASS III	TOTAL
1950-51	3,680	34,875	17,161	55,716
1951-52	2,454	26,036	16,333	44,823
1952-53	4,152	26,942	9,182	40,276
1953-54	3,857	29,592	None	33,449
1954-55	1,533	19,997	None	21,530
REDLANDS				
1952-53	0	3,729	10,570	14,299
1953-54	0	4,209	7,606	11,815
1954-55	451	3,812	4,285	8,548

AUXILIARY OIL STORAGE CONTAINERS**

COUNTY / SEASON	HEATER BOWLS	GARBAGE PAILS	TOTAL
1950-51	24,820	12,488	37,308
1951-52	28,776	10,306	39,082
1952-53	25,651	10,713	36,364
1953-54	23,441	10,291	33,332
1954-55	19,036	10,815	29,851
REDLANDS			
1952-53	14,995	2,138	17,133
1953-54	20,794	1,601	22,395
1954-55	14,124	1,530	15,654

* See definition of Non-firing.
** Includes storage containers on both acreage to be fired and not to be fired.

SUMMARY

COUNTY SEASON	Permit Fee*	AVERAGES Acres per Appln.	Heaters per acre**
1950-51	$3.42	11.22	39.65
1951-52	7.67	11.15	37.86
1952-53	7.56	11.28	37.15
1953-54	6.65	11.15	36.87
1954-55	7.52	11.18	37.80
REDLANDS			
1952-53	7.93	10.49	41.09
1953-54	7.37	10.21	38.29
1954-55	7.48	10.34	38.26

Application forms with necessary instructions for the 1954-55 season were mailed on Aug. 20th to Redlands and County growers who had orchard heaters the previous season.

Starting Oct. 1st the County Orchard Heater Control Officer occupied a desk twice a week at the Redlands City Hall to assist the City's growers with applications. This procedure continued until the first of November.

On Oct. 15th reminder notices calling the growers' attention to the Nov. 1st deadline for applications were mailed to all who had not submitted these forms. Newspaper releases were also made at this time.

As experienced in past years, the deadline rush to submit applications was again repeated.

Considerable difficulty was experienced with some growers who while not intending to fire their heaters, failed to declare their intentions until requested to do so. Most of these cases involved the maintenance of heaters under trees, filled with fuel, which could be set into position for firing on short notice. No fee was charged a grower for signing an affidavit of non-use for heater equipment and neither was a penalty charged for late filing of such intention. Due to this fact quite a number of non-firing affidavits were received late in the season and only after growers concerned had been contacted by mail or by investigators in the field.

A total of 36 warnings for various minor violations and 33 time notices to comply with the ordinance were sent to growers by registered mail.

* Exclusive of delinquent penalties.
** Figure does not include heater bowls or garbage pails authorized for auxiliary oil storage purposes.

Four investigators employed on a seasonal basis worked a total of 3300 man hours and travelled 16,286 miles by private conveyance. An additional 1,654 miles were travelled by the Control Officer during this same period. Frost patrols were made on the following nights:*

Dec. 27, 1954	Jan., 12, 1955	Feb. 3, 1955	Feb. 20, 1955
Dec. 28, 1954	Jan., 13, 1955	Feb. 4, 1955	Feb. 21, 1955
Dec. 29, 1954	Jan., 15, 1955	Feb. 5, 1955	Feb. 22, 1955
Dec. 30, 1954	Jan., 17, 1955	Feb. 6, 1955	Feb. 24, 1955
Jan. 9, 1955	Jan., 21, 1955	Feb. 19, 1955	

An interesting fact to note is that 107 groves, both County and Redlands covering 708 acres of citrus that contained 22,651 heaters last season have been removed from the records. In many of these cases the trees have been removed, in others the property has been subdivided or abandoned. Part of the heating equipment from these groves has been moved to other groves and is still in use for frost protection. There are 6,594 less heaters permitted (both County and Redlands) than last season.

The use of wind-machines for frost protection in citrus groves has increased rapidly in the last few years. The required elimination of older types of heaters has undoubtedly had some effect on the trend towards the use of this equipment. Orchard Heater Investigators noted 534 wind-machines (300 last season) of all types used in connection with heaters during the season. Many others are believed to be in both incorporated and unincorporated areas but licensing is not required so efforts to make an accurate count have not been made.

Growers gambling against the weather in the decision of whether to fire their heaters or not, often find themselves in a losing battle. Once they start heating few can afford to quit particularly so as the cold season draws to an end. One more night or a single hour when the temperature drops low may mean the loss of an entire crop representing a year of sweat and toil for the harassed grower. If he continues to burn expensive oil beyond a certain limit, coupled with high labor costs, his profits diminish to zero or less. If he quits he stands a good chance of losing everything to frost.

Last season the cold weather apparently had ended in the middle of January. All of February was exceptionally warm and many growers started to remove heating equipment for the season, then on Mar. 13th, 14th and again on the 16th the thermometer dropped to the low twenties. Much of the navel crop had been harvested but the new growth for setting the next crop and other citrus needed protection.

Labor required for firing crews remains a headache with many growers. The erratic requirements of unpredictable temperatures, necessitating usually short periods of cold, uncomfortable, dirty night work with inexperienced personnel is a real problem. Constant supervision is necessary if fuel conservation and smoke tolerance practices are adhered to.

Smoke from orchard heating operations has been greatly reduced and more will be eliminated as old heaters are replaced with new ones and heating practices continue to improve.

*Some light firing took place on a few nights when no frost patrols were considered necessary.

CENSUS OF ORCHARD HEATERS

1954-55

COUNTY	1950-51	1951-52	1952-53	1953-54	1954-55
Class I					
University Return Stack	15,685	23,159	37,344	41,229	46,606
Coke	17,796	15,079	10,561	8,943	7,960
Pipeline or Fugit	15,122	13,383	12,711	11,871	12,033
TOTALS	48,603	51,621	60,616	62,043	66,599
Class II					
Lazy Flame 18"	124,668	128,908	114,221	106,391	101,932
Lazy Flame 24"	237,441	258,531	254,114	243,500	247,492
Lazy Flame 20"	- - -	7,282	5,684	5,414	6,329
Kittle	1,786	1,481	1,837	1,829	3,559
Exchange 6" Stack	24,590	21,913	17,297	18,854	17,930
Exchange 7" Stack	2,522	2,481	2,161	1,976	1,722
Lemora	10,617	11,076	9,654	9,220	9,087
Hy Lo 1929	8,557	8,301	6,930	6,029	6,180
Hy Lo 149 Original	8,791	8,213	5,366	6,686	5,684
Hy Lo 148 Special	13,212	15,345	13,670	12,614	12,655
Hy Lo Drum	2,072	2,445	2,136	2,015	1,882
Jumbo Cone	32,683	33,311	28,270	28,181	28,093
Miscellaneous	13,102	3,333	3,071	2,190	2,103
TOTALS	480,041	502,620	464,410	444,899	444,648
Class III					
Exchange 5½" Stack	8,493	3,730	1,350		
Baby Cone	23,841	10,911	1,881		
Hy Lo Hot Blast	3,182	2,364	641		
Hy Lo Double Stack	3,475	1,417	216		
National Double Stack	9,000	3,490	807		
Citrus 15" Stack	14,817	6,361	1,489		
Citrus Regular	49,280	21,852	4,128		
Miscellaneous	1,458	5,829	441		
TOTALS	113,546	55,954	10,953	None*	
Heater Bowls for Oil Storage	24,820	28,776	25,451	22,395	29,356
Total all Classes for Heating	586,474	565,372	535,979	506,942	511,247
Total all Classes not Fired	107,410	44,823	40,276	33,449	21,530
TOTAL OF ALL HEATERS REPORTED	718,704**	610,195	576,255	540,391	532,777

* All Class III heaters have been outlawed as of Nov. 1, 1953.

** Figure includes 35,612 Class III and 16,082 Class IV recorded as having been removed the first year. Many others are believed to have been junked. It also includes the 24,820 storage bowls which were complete heaters prior to rendering unfit for burning purposes.

NOTE: In addition to the above heaters there was one mobile, tractor drawn fuel burning orchard heating unit, and 429 wind-machines of various types used in connection with orchard heaters during the 1954-55 season. (many other wind-machines are believed to be in use).

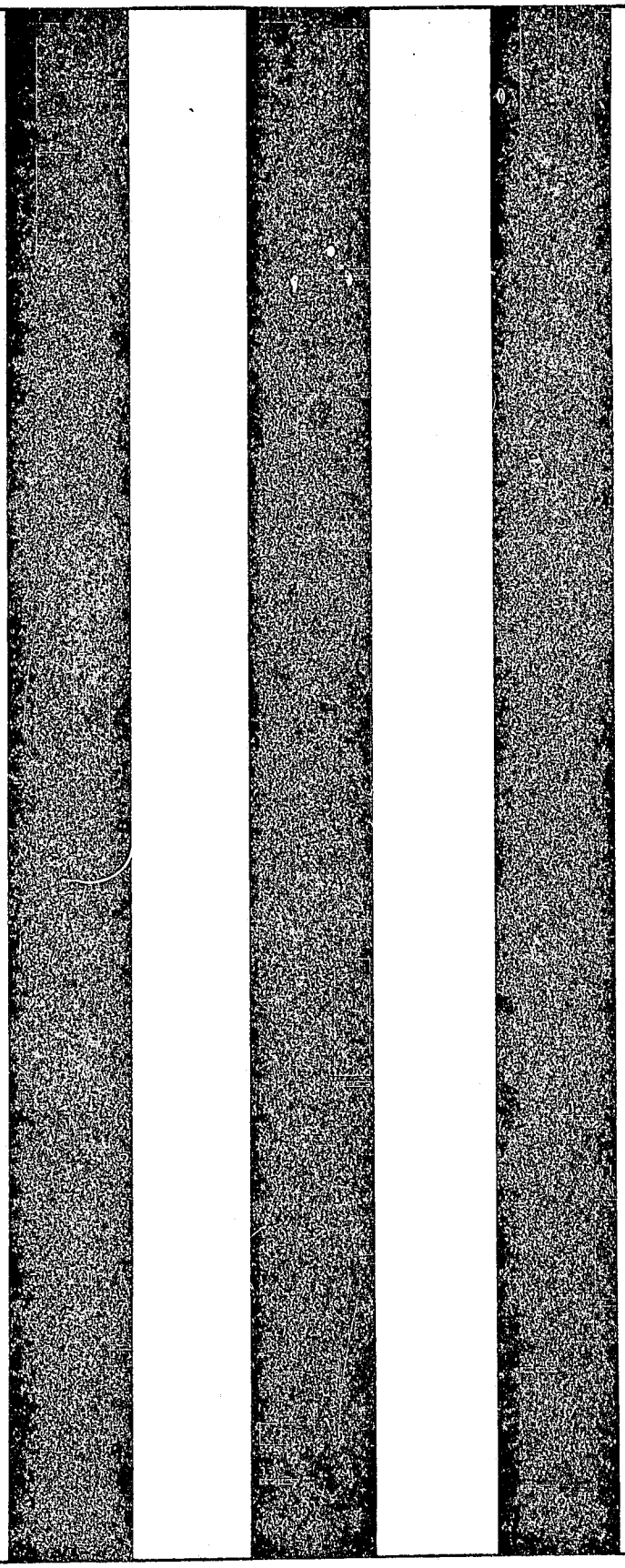
CENSUS OF ORCHARD HEATERS

1954-55

REDLANDS	1952-53	1953-54	1954-55
Class I			
University Return Stack	8,516	11,800	14,612
Coke	385	535	225
Pipeline or Fugit	761	1,017	1,162
TOTALS	9,662	13,352	15,999
Class II			
Lazy Flame 18"	17,374	18,695	20,160
Lazy Flame 24"	49,598	52,409	58,725
Lazy Flame 20"	1,299	1,929	1,549
Kittle	10	- - -	- - -
Exchange 6" Stack	4,118	5,127	4,881
Exchange 7" Stack	869	406	395
Lemora	2,139	2,172	1,570
Hy Lo 1929	691	579	527
Hy Lo 148 Original	2,200	1,965	2,091
Hy Lo 148 Special	1,156	824	2,017
Hy Lo Drum	26	88	88
Jumbo Cone	5,150	4,500	4,804
Miscellaneous	729	717	434
TOTALS	85,359	89,411	97,241
Class III			
Exchange 5½" Stack	2,188	729	266
Baby Cone	12,368	4,759	1,122
Hy Lo Hot Blast	306	328	105
Hy Lo Double Stack	2,064	315	208
National Double Stack	2,781	1,589	529
Citrus 15" Stack	8,195	3,206	796
Citrus Regular	19,073	6,091	1,319
Miscellaneous	1,807	222	128
TOTALS	48,782	17,239	4,473
Heater Bowls for Oil Storage	14,995	22,395	15,633
Total of All Classes Used for Heating	129,504	120,002	117,713
Total of All Classes Not to be Fired	14,299	11,815	8,548
TOTAL OF ALL HEATERS REPORTED*	143,803**	131,817	126,261

* Does not include garbage pails and other auxiliary oil storage containers.
** Does not include 13,169 Class III and 21,138 Class IV recorded as removed, many others are believed to have been junked.

NOTE: 105 wind machines of all types were recorded, during the 1954-55 season, many more are believed to be in use.



1955

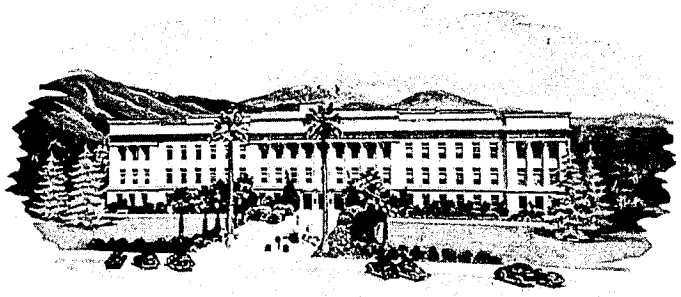
Annual Crop and Livestock Report

1955

DEPARTMENT OF AGRICULTURE

COUNTY DEPARTMENT OF AGRICULTURE
566 LUGO AVENUE PHONE 6811

HAROLD A. CRANE
COMMISSIONER
RAYMOND M. SCHNEIDER
CHIEF DEPUTY
STUART M. GEORGE
ORCHARD HEATER
CONTROL OFFICER



DEPUTIES
ROY F. CAMBLIN
WAYNE H. STONE
CECIL E. PRATT

COUNTY OF
SAN BERNARDINO
SAN BERNARDINO, CALIFORNIA

ANNUAL CROP AND LIVESTOCK REPORT

1955

To: Honorable W. C. Jacobsen, Director of Agriculture, and the Honorable Board of Supervisors, San Bernardino County

It is required by Section 65.5 of the Agricultural Code that the Agricultural Commissioner compile a report covering the conditions, acreage, production, and value of the agricultural products of the county. Herewith is submitted such a report for the County of San Bernardino.

It should be explained that the valuation figures herein given are gross receipts and not net returns to the grower. High production costs and short crops, in some instances, have kept the grower net returns at a low level. It may also be stated that the many business enterprises, both small and large, that are totally dependent upon agriculturalists fortheir trade may, if similarly appraised, show a combined gross income nearly equal to the 1955 figure given below. The combined figures should give a more accurate appraisal of the position agriculture holds in the total economy of the county. On the basis of gross returns to the grower, the total income from the agricultural industries of the county herein listed amounts to $108,352,100 for 1955 as compared with $98,488,660 for 1954. This value is well above the past twelve year average of $90,250,000. This increase is due largely to expansion of some of our industries, particularly poultry and livestock, and better production and higher prices in other instances.

Citrus: The total citrus acreage for San Bernardino County for 1955 was 33,528 acres. Navel oranges account for one-half this total with 16,753 acres, while valencia oranges account for one-quarter with 8,561 acres. Lemons with 5,521 acres, grapefruit 2,052 acres, miscellaneous oranges at 610 acres, plus 31 acres of limes make up the balance. This total figure includes 36 acres of lemons, 32 acres of oranges, plus 30 acres of limes that were added the past year through new plantings and budding. 2,116 acres of oranges, 253 acres of grapefruit, and 165 acres of lemons, or a total of 2,534 acres of citrus, were removed during the year. For the most part, these citrus removals were marginal orchards and the result of the extension of residential and industrial construction into farming areas.

Total production for all citrus was 6,514,093 standard boxes, including fruit sold loose as well as packed. This figure represents an increase of 8% in total production from the previous year. Total valuation was $22,946,140 and is also an increase over the previous year of 6%.

Production and gross receipts for navel oranges show only a slight increase over 1954. Production increased only 1% while valuation increased 8%. Valencia orange production, however, returned to normal in 1955 with an increase of some 64% over a very poor 1954 season while valuation increased 23%. Lemons decreased in production some 13% as compared with the 1954 season due to adverse weather conditions while the valuation decreased correspondingly about 15%. Acreage and production of lemons in San Bernardino County seem to remain quite constant, however. Grapefruit production increased 5% while gross returns increased 32% making it a fairly good grapefruit year.

It should be explained that the valuation figures given for citrus are f.o.b. as fruit leaves the packing house.

Subtropical fruits (690 acres): This figure includes 587 acres of olive trees, the bulk of which did not produce a commercial crop and were not harvested. With 65 acres of bearing avocados and 15 acres of persimmons, the total valuation of all subtropicals was $30,270 which is considerably less than 1954.

Deciduous fruits (2,906 acres): Acreage of all deciduous fruits is 128 acres less than 1954. Peach orchard removals are responsible for this decrease although plum acreage increased 53 acres through new plantings and grafting. Decreases are noted in apple, apricot, pear, and plum production due to frosts during the blooming period last spring. With this reduced production, the gross income from all deciduous fruits amounted to $1,715,153.

Grapes (27,630 acres): Grapes show a reduction of 188 acres from the previous year. Production remained practically the same although valuation dropped 17% or a gross of $2,721,408.

Berries (363 acres): Bush berries (297 acres) and strawberries (66 acres) make up our berry acreage with a total valuation of $424,158.

Nuts (1,925 acres): Walnuts continue to show a decline in acreage with 403 acres removed during the year. Almond acreage was also reduced by the abandonment of 40 acres. A good walnut crop turned out to be very disappointing due to damage during the extreme hot spell in September. Many orchards were not harvested. As a result, the total valuation of the nut crop was $214,300, a drop of 46% from the previous year.

Vegetables (7,373 acres): An increase of 416 acres of vegetables is noted over the previous year. Increases were found in cabbage, cauliflower, onion, and sweet potato acreages. In spite of this slight increase in acreage, the total valuation of all vegetables dropped 30%. This drop in value can be attributed solely to a reduction in the price received for potatoes by the grower. All vegetable crops combined totaled $3,949,350.

Field crops (49,372 acres): Field crop acreage increased 1,508 acres over the previous year. Increases were noted in blackeye beans, field corn, alfalfa, and grain hay. Alfalfa, with 18,105 acres, is again our leading field crop showing a gross return of $2,481,867. Permanent irrigated pasture has surpassed blackeye beans in value as the second leading field crop due mainly to lower

prices received by the bean growers in 1955. Other important field crops are corn, barley, oats, wheat, grain hay, and sugar beets. Total gross returns for all field crops amount to $5,073,146.

Seed crops (1,237 acres): Alfalfa, sudan, grain, dichondra, and flower seed comprise our list of seed crops. Alfalfa with 933 acres leads the list producing 559,800 pounds of certified seed. Combined gross returns for all seed crops amount to $300,696, or an increase of $65,000 over the previous year.

Nursery stock (328 acres): Of this total acreage, 194 acres were devoted to rose production with fruit trees, both deciduous and citrus, shade trees, berries, and other field grown ornamental nursery stock making up the balance. Considerable value was also attained through stock grown under lath and in greenhouses. The estimated gross return for all nursery stock was $2,847,051 which represents a slight decrease from the previous year.

Bees (12,662 colonies): Honey and beeswax production show a decrease from 1954 due chiefly to weather conditions. Rainfall was normal for the first part of the winter, but wild honey plants became dry in February and March and did not respond to late spring rains. Orange trees bloomed heavily, but flowers secreted little or no nectar, probably due to cloudy, cold weather during the blooming period. The desert areas where most of our buckwheat honey is produced had very little rainfall. Colonies left on those locations produced little or no surplus honey. 1,527,727 pounds of honey were produced during the year. Total gross income of honey and other products amounted to $272,912.

Livestock: The estimated figures shown in this report for livestock are, we believe, the best available.

31,745 beef cattle were sold during the year with a total beef and feed lot gain of $1,775,270. This represents a decrease of 2,312 head plus a correspondin decrease in valuation from the previous year.

Dairy cows again show an increase with additional dairies being established in the Chino district. It is estimated that there are some 21,126 producing head in the county and over 200 dairies. Over 28 million gallons of milk were produced with a valuation close to 16 million dollars. Total gross income from dairying including milk, calves, stock sold for beef, and fertilizer amounted to $16,794,657, an increase of $2,840,000 over the previous year. This increase can be attributed to increased prices received for milk as well as the increased production.

Producing hens increased 11% during 1955 bringing the number of hens in the county to 4,882,404. Egg production correspondingly increased with 91 million dozen produced during the year with a valuation of over 37 million dollars. This valuation figure is an increase of 9 million dollars over the previous year due to better prices plus increased production per hen. Trends on the number of producing hens, egg production, and values can be observed by consulting the accompanying tables. Increases are also noted in hens sold for meat, fryers, and baby chicks. Total gross income from hens and their products amounted to $45,859,387; ducks and geese $137,680; and turkeys $2,558,501; or a total gross income from all poultry of $48,555,568, or an increase of over 26%.

Hogs grossed $261,508 with some 8,921 being sold for pork, a considerable decrease from the previous year, while rabbits continue to decline in number sold for meat and value.

There seems to be a steady increase in number and value of certain types of livestock in the county such as feeder beef cattle, dairy cows, producing hens, fryers, and turkeys while other types of livestock continue to decline. Total gross income from all livestock amounts to $67,792,302, or an increase of 12 million dollars over the previous year but comparable to the year 1953. Comparisons can be made by consulting the tables that follow.

The members of our department, including office personnel and district inspectors, have made an earnest endeavor to make this report as accurate as possible. Whenever we could, we have checked our figures with those of other agencies. We have also tried to present it in a form that will be most helpful. However, in this regard, suggestions from readers are welcomed.

We are particularly indebted to the deputies and inspectors of our own department who secured basic information for this report. We also extend our sincere appreciation to the Agricultural Extension Service and to other organizations and individuals who cooperated and assisted us in making this report possible.

Respectfully submitted,

H. A. Crane
Agricultural Commissioner

AND

Warren A. Burr
Agricultural Inspector II

SOME INDUSTRIES AND BUSINESS ENTERPRISES DEPENDENT UPON AGRICULTURE FOR THEIR TRADE AND NOT EVALUATED IN THIS REPORT

Agricultural Pest Control Operators
Dairy Equipment
Farm Machinery Manufacturers
Farm Equipment Dealers
Feed, Grain, and Seed Dealers
Fertilizer Dealers
Fruit and Vegetable Packing Houses
Irrigation Systems and Equipment
Fruit and Vegetable By-Product Plants
Meat Packers and Slaughter Houses
Orchard Heater Manufacturers
Pest Control Materials Dealers
Poultry and Egg Wholesalers
Wind Machine Companies

CITRUS

Year	*Acreage	Production (Boxes)	Valuation (Gross Receipts)
1938	50,445	7,024,281	$ 11,767,447
1939	49,663	7,296,182	14,109,169
1940	48,078	8,120,227	17,170,447
1941	51,689	9,588,997	20,071,630
1942	51,320	8,998,780	21,195,403
1943	51,728	7,485,209	23,970,155
1944	50,794	10,980,405	40,075,086
1945	50,615	10,820,769	30,364,665
1946	49,167	10,660,414	39,140,244
1947	50,470	9,781,380	28,524,393
1948	50,000	8,463,319	23,546,951
1949	44,854	4,866,902	14,653,270
1950	43,239	8,523,115	24,056,853
1951	42,036	6,601,573	22,203,826
1952	40,790	6,130,929	19,790,406
1953	38,619	9,602,736	26,640,302
1954	35,955	6,053,618	21,753,413
1955	33,528	6,514,093	22,946,140
18 Years' Average		8,195,160	$ 24,554,434

* Includes Bearing and Non-Bearing Acreage.

TOTAL CROP, POULTRY, OTHER LIVESTOCK, AND TOTAL VALUATION FOR THE PAST THIRTEEN YEARS AS OF RECORD FOR SAN BERNARDINO COUNTY

YEAR	ALL CROPS	ALL POULTRY	OTHER LIVESTOCK	TOTAL
1943	$ 42,123,408	$ 9,894,927	$ 9,242,599	$ 61,260,934
1944	60,563,406	10,621,257	11,389,403	82,574,066
1945	67,114,424	15,469,053	11,879,364	94,462,841
1946	64,167,052	12,746,496	12,548,564	89,462,112
1947	44,524,547	17,725,625	17,013,715	79,263,887
1948	40,055,839	24,234,080	20,639,282	84,929,201
1949	30,441,086	29,206,756	17,063,785	76,711,627
1950	43,343,662	29,713,980	18,249,401	91,307,043
1951	43,747,168	40,555,572	21,672,010	105,974,750
1952	44,402,152	39,614,254	22,674,515	106,690,921
1953	44,655,332	49,199,028	18,689,452	112,543,812
1954	42,896,211	38,262,555	17,329,894	98,488,660
1955	40,559,798	48,555,568	19,236,734	108,352,100

TOTAL POULTRY AND EGG PRODUCTION FOR THE PAST EIGHT YEARS AS OF RECORD FOR SAN BERNARDINO COUNTY

YEAR	PRODUCING HENS	EGG PRODUCTION	EGG VALUATION
1948	2,130,000	29,820,000 Dozen	$ 16,102,800
1949	2,850,000	40,850,000 "	20,833,500
1950	3,135,000	47,025,000 "	19,280,250
1951	3,460,000	53,341,666 "	29,337,916
1952	3,792,660	60,050,592 "	27,623,273
1953	4,083,845	68,064,083 "	35,393,323
1954	4,385,360	73,089,333 "	28,504,840
1955	4,882,404	91,545,070 "	37,533,478

FRUIT, NUT AND VINE CROPS

	ACREAGE		PRODUCTION		VALUATION
	Bearing	Non-Bearing			
CITRUS					
Oranges: Navels	16,650	103	2,640,436	Pkd. Bxs.*	$ 10,585,032
Valencias	8,553	8	1,054,955	" "	3,936,748
Misc.	595	15	33,446	" "	112,966
Lemons	5,226	295	941,130	" "	4,598,865
Grapefruit	2,026	26	413,881	" "	1,562,311
Limes	1	30	250	" "	2,500
CITRUS TO BY-PRODUCTS					
Oranges: Navels			442,004	Bxs.	771,804
Valencias			470,564	"	835,694
Misc.			20,358	"	28,610
Lemons			346,000	"	445,178
Grapefruit			151,069	"	66,432
SUBTROPICAL					
Avocados	65	22	61	Tons	18,300
Olives	587	--	35	"	7,350
Persimmons	15	1	33	"	4,620
DECIDUOUS					
Apples	585	92	134,288	Bxs.	241,719
Apples: Cider			45,800	Gals.	34,350
Apricots	76	5	144	Tons	11,520
Cherries	28	9	12	"	4,800
Peaches: Clings	460	44	3,447	"	248,184
Frees	978	86	5,587	"	893,920
Pears	19	2	250	Lugs	500
Plums	410	112	1,648	Tons	280,160
GRAPES					
Wine	27,452	178	85,044	Tons **	2,721,408
BERRIES					
Bushberries	297		1,064	Tons	263,508
Strawberries	66		71,400	Trays	160,650
NUTS					
Almonds	44		13	Tons	7,800
Walnuts	1,866	15	413	"	206,500
TOTALS	65,999	1,043			$ 28,051,429

* Standard half box cartons converted to standard boxes.
** Includes table grape varieties.

COMMERCIAL VEGETABLE CROPS

	SIZE	ACRES	PRODUCTION	VALUATION
Beans: Green	50 lbs.	6	531 crts.	$ 1,912
Beets	3 doz.	14	3,080 "	3,234
Broccoli	42 lbs.	1	65 "	237
Cabbage	60 lbs.	253	84,299 "	210,748
Carrots	50 lbs.	80	30,848 "	61,696
Cauliflower	40 lbs.	107	80,672 "	100,840
Corn: Green	5 doz.	1,252	298,038 "	596,076
Cucumbers	30 lbs.	2	390 lugs	234
Eggplant	20 lbs.	3	878 "	439
Lettuce	65 lbs.	8	763 crts.	1,908
Melons:				
Cantaloupe	65 lbs.	53	5,710 crts.	7,138
Water		46	324 tons	9,720
Other		3	10 "	300
Onions: Dry	50 lbs.	248	213,200 sks.	234,520
Peppers: Bell	15 lbs.	3	470 lugs	611
Potatoes:				
Sweet	45 lbs.	1,129	311,870 bxs.	873,236
Irish	100 lbs.	3,857	1,180,794 sks.	1,740,360
Spinach	35 lbs.	5	880 crts.	748
Squash:				
Summer	30 lbs.	20	5,005 lugs	5,005
Winter		28	380 tons	2,470
Tomatoes:				
Fresh	32 lbs.	60	8,106 lugs	10,133
Can		15	225 tons	6,075
Turnips	50 lbs.	3	600 crts.	360
Misc. Vegetables		177	52,900 crts.	81,350
TOTALS		7,373		$ 3,949,350

FIELD CROPS

	ACRES	PRODUCTION	VALUATION
Beans: Blackeye	5,539	84,533 sks. *	$ 676,264
Corn: Ensilage	2,225	21,490 tons	171,920
Grain	140	5,060 sks.	15,180
Cotton	76	60 bls.	9,840
Grain: Barley	2,543	50,402 sks.	126,005
Oats	1,489	42,200 "	126,600
Wheat	809	30,222 "	108,799
Hay: Alfalfa - Dry and Green	18,105	91,921 tons	2,481,867
Grain	8,380	13,202 "	330,050
Mushrooms		12,000 lbs.	7,800
Pasture: Perm. Irrigated	8,085		889,350
Planted Dry Range	1,654		41,350
Sugar Beets	327	8,011 tons	88,121
TOTALS	49,372		$ 5,073,146

* All 100 lb. sacks

SEED CROPS

	ACRES	PRODUCTION	VALUATION
Alfalfa - Certified	933	559,800 lbs.	$ 139,950
Alfalfa - Uncertified	213	127,800 "	23,004
Dichondra	10	10,000 "	50,000
Flower seed	20	5,000 "	6,250
Grain	150	750,000 "	37,500
Sudan - Certified	611	733,200 "	43,992
TOTALS	1,937		$ 300,696

CONSERVATION EARNINGS AND SOIL BUILDING PRACTICES

	1954	1955
Payments	$ 70,663 (A.S.C.)	$ 65,214 (A.S.C.)

NURSERY STOCK

		VALUATION
Grown and Sold	328 acres	$ 2,847,051

APIARY

	PRODUCTION	VALUATION
Honey Production	1,527,727 lbs.	$ 215,937
Beeswax	30,560 "	17,725
Nuclei with Queens	6,785	33,925
Pollination Fees		5,325
TOTAL		$ 272,912

ESTIMATED LIVESTOCK PRODUCTION

		SOLD	VALUATION
BEEF CATTLE			
Feeders		23,511 *	$ 962,858
Range		8,234	800,412
Fertilizer		6,000 tons	12,000
DAIRY			
Producing cows	21,126		
Milk: Wholesale		24,716,717 gal.	12,852,692
Retail		4,262,890 "	3,069,280
Young stock and calves		1,473	64,690
Slaughter		4,794	570,350
Fertilizer		187,460 tons	237,645
POULTRY			
Producing hens	4,882,404		
Eggs		91,545,070 doz.	37,533,478
Hens sold for meat		3,785,660	2,384,966
Fryers		5,522,980	4,694,533
Baby chicks		5,790,267	1,100,150
Fertilizer		58,504 tons	146,260
DUCKS			
Sold for meat		51,100	66,430
GEESE			
Geese and goslings sold for meat		36,000	71,250
TURKEYS			
Sold for meat		286,331	1,861,151
Fryers		24,000	50,400
Poults		772,440	617,952
Eggs		9,666 doz.	28,998
HOGS			
Breeding stock		60	3,000
Slaughter		8,921	249,788
Fertilizer		4,360 tons	8,720
RABBITS			
Fryers		186,659	210,925
Fertilizer		1,038 tons	3,114
CHINCHILLA			
Pelts sold		168	6,350
SHEEP			
Slaughter		1,050	21,000
Feeders		10,000 **	21,000
GAME BIRDS		12,000	48,000
MISCELLANEOUS			94,910
TOTAL			$ 67,792,302

* Beef and feed lot gain
** Gain in county

RECAPITULATION

	ACREAGE *		VALUATION	
	1954	1955	1954	1955
Citrus	35,955	33,528	$ 21,753,413	$ 22,946,140
Subtropical	693	690	66,245	30,270
Deciduous	3,034	2,906	2,149,220	1,715,153
Grapes	27,818	27,630	3,296,044	2,721,408
Berries	357	363	550,425	424,158
Nuts	2,326	1,925	397,350	214,300
Vegetables	6,957	7,373	5,622,234	3,949,350
Field Crops	47,864	49,372	5,339,335	5,073,146
Seeds	1,248	1,937	235,682	300,696
Nursery Stock	354	328	3,067,724	2,847,051
Apiary			347,876	272,912
Livestock Including Poultry			55,592,449	67,792,302
Government Payments (A.S.C.)			70,663	65,214
TOTALS	126,606	126,052	$ 98,488,660	$108,352,100

* Includes bearing and non-bearing.

NOTE: The above valuation figures represent gross receipts and not net returns to the grower.