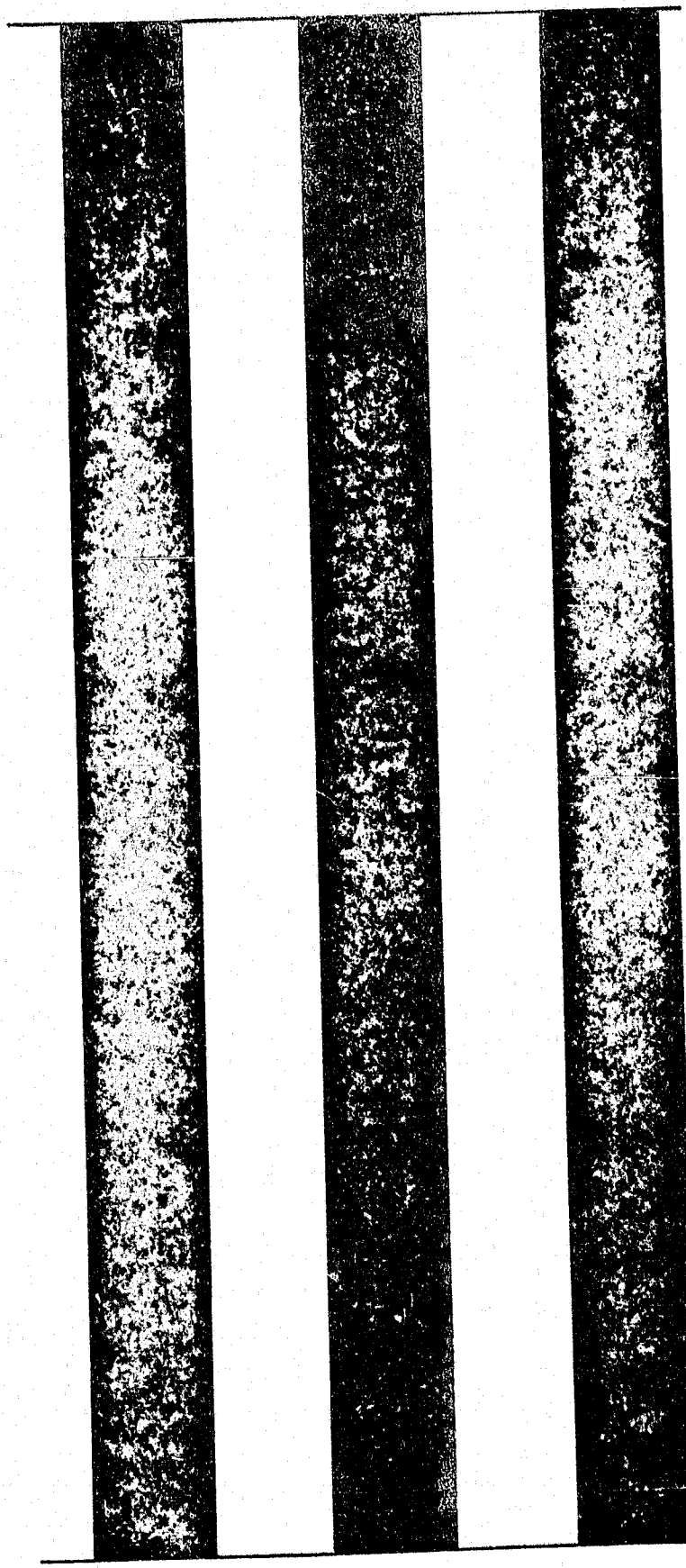
California Department of Food and Agriculture

Agricultural Commissioners' Crop Reports

Ventura County

1951-1953



1951

VENTURA COUNTY

ANNUAL REPORT

CROP STATISTICS

1951

AGRICULTURAL COMMISSIONER

A G R I C U L T U R A L C O M M I S S I O N E R

COUNTY OF VENTURA, CALIFORNIA

A N N U A L R E P O R T
YEAR ENDING DECEMBER 31, 1951

BOARD OF SUPERVISORS

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District Inspector, Ventura	Albert Bicker
District Inspector, Ventura	Dan Fraser
District Inspector, Oxnard	W. M. Dunning
District Inspector, Moorpark - Simi	I. L. Clements
District Inspector, Santa Paula	Harry Bronson
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Inspector, Weeds & Rodent - Moorpark-Simi	Bruce Burns
Inspector, Weeds & Rodent - Camarillo	Oscar Olsen
Inspector, Charge of Survey	Lonnie Nasalroad
Account Clerk	Shirley Carter
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C O N T E N T S

ANNUAL REPORT TO THE BOARD OF SUPERVISORS

COUNTY OF VENTURA

AND

THE DIRECTOR

STATE DEPARTMENT OF AGRICULTURE

1951

We submit to you the annual report of the activities of the Agricultural Commissioner's office for the calendar year 1951.

Certain phases of the work have increased in volume, requiring special attention and additional expense to the county. Increased population, increases in crop acreages and favorable climatic conditions have tended to increase the chance for major pests and in a way has added to our work. In the administration of the activities of the office of Agricultural Commissioner, we are charged with the various phases of law enforcement, yet we have attempted to be of service to our people through this enforcement.

QUARANTINE

Because we feel that quarantine is the best and cheapest means of keeping out serious pests and diseases that would be a definite threat to our agricultural crops we have devoted a great deal of time and effort to this phase of work.

In enforcing quarantine proceedures, we have tried to be thorough in our efforts, yet we have also tried not to hinder the movement of those plants that are free from serious insects and diseases. We also have relied upon certain treatments to insure this cleanliness without damage to the plants. We sincerely believe that growers are entitled to at least a start with clean stock and thus aid them in the production of better products with less costs.

Inspections are made daily at all points of entry in the county including post offices, express offices and rail road depots. The fine cooperation on the part of the general public has been fully appreciated and has helped us to do a better job at less cost.

Infested or infected shipments and those failing to meet the requirements of the state quarantine law have been properly disposed with to insure the best possible protection. Scale insectsthat are a serious threat to the citrus industry of our county have caused us to be alert as to their probable presence and therefore we have spent a great deal of time in the inspection of plants and fruits that are offered for sale in our county. County policies call for the treatment of many plants before planting to insure proper cleanliness, and many plants are given precautionary treatment before being released for planting.

The following is a summary of the quarantine work during the year 1951:

INTERSTATE QUARANTINE

No. of shipments inspected	2,255
No. of plants inspected	833,996
No. of shipments rejected	34
No. of plants rejected	1,399
No. of shipments passed	2,221
No. of plants passed	822,597

INTRASTATE QUARANTINE

No. of shipments inspected	10,668
No. of plants inspected	11,351,827
No. of shipments rejected	123
No. of plants rejected	1,808
No. of shipments passed	10,565
No. of plants passed	11,350,019

The following were rejected until fumigation treatment was applied:

No. of shipments	1,086
No. of plants	334,326

Number of hours spent on quarantine inspection . . . 9,591

TREATMENTS

With the development of newer methods and new materials, quarantine has changed somewhat from the old method of rejecting plant material and having it returned to point of origin. Now that most plants can be properly treated to destroy the insect life that infests growing plants and cause untold damage if allowed to build up to damaging stages, we have practiced the policy to insure the plants are free of these damaging insects. This is done with the least possible delay to the grower. Methods used are vacuum fumigation, atmospheric chamber fumigation, dipping and spraying.

The following is a summary of the work done by the Agricultural Commissioner's office during the year:

VACUUM FUMIGATION

Citrus Fruit (boxes)	31 lots		338
Citrus Fruit (bags)	1 "		9
Ornamentals	13 "		2,634
Citrus Trees	738 "		157,995
Walnut Trees	94 "		10,058
Wheat (Lbs.)	1 "		20,100
Fumigation Tents	1 "		144
Citrus Seedlings	7 "		73,200
Citrus Budwood (Bundle)	5 "		36
Walnut Grafts (Bags)	2 "		10
Citrus Trees (Bare root)	2 "		719
Picking Bags	1 "		2

METHYL BROMIDE - ATMOSPHERIC

Ornamentals	14 lots	466
Citrus Seed (Bag)	1 "	1
Citrus Fruit (Boxes)	1 "	6
Citrus Fruit (Bag)	1 "	1
Empty Boxes	1 "	39
Citrus Budwood (Bundles)	52 "	74
Citrus Trees	4 "	23
Citrus Seedlings (Bundles)	23 "	67,600
Avocado Trees	7 "	310
Avocado Budwood (Bundles)	5 "	5
Walnut Graftwood	1 "	1
Apricot Trees	1 "	500
Walnut Trees	1 "	1

METHYL BROMIDE - VACUUM

Pieces of Furniture	3 lots	3
Walnut Trees	1 "	2
Popcorn	1 "	1
Rugs	1 "	2

Number of hours spent on fumigation 5,171

MEXICAN BEAN BEETLE QUARANTINE

One of the most important phases of the Mexican Bean Beetle eradication program is that of enforcement of quarantine. This calls for the patrolling of the quarantined area to see that all equipment mentioned in the state quarantine is treated prior to time of moving from the infested or quarantined area.

Equipment used in the harvesting of beans must be fumigated when moving from infested fields or when moving outside the quarantined area. All beans from infested fields are required to be treated in a like manner. Certifying the shipments of fresh processed lima beans consigned to other counties requires a great deal of time on behalf of the inspectors.

No. of inspection certificates issued 707
No. of hours spent on Mexican Bean Beetle Quarantine... 4,725

NURSERY INSPECTION

One of the greatest means of disseminating pests is through the movement of infested nursery stock. Not only are the plants that are imported to our nurseries inspected at the time of arrival, but all nurseries in the county are inspected every three months to insure clean stock. When infestations of pest are found in nurseries these pests must be properly controlled or eradicated before the stock is allowed to move in trade channels. Through this service to our nurserymen fine cooperation has been gained and thus the chance of insect and disease spread has been cut to a low degree.

One Senior inspector is assigned to nursery inspection and he is assisted

by the various district inspectors of the county.

Following is a summary of nursery inspection work completed during 1951:

Number of Nursery Inspections	118
Number of re-inspections	12
Number of Nurseries with "A" pests or (Pests with eradication nature)	0
Number of Nurseries with "B" pests	0
Number of Nurseries with "C" pests or (Pests of common occurance)	54
Number of Nurseries required to cleanup	54
Number of hours spent on Nursery Inspection	524

FIELD AND ORCHARD INSPECTION

Field and orchard inspections are a part of our regular tasks and play an important part in keeping us informed as to pest conditions and aid in making recommendations for proper pest control practices. During most of the year the shortage of water in many areas presented a problem to many growers, especially those engaged in the production of citrus and other orchard crops. Many times when the trees were suffering from lack of proper moisture certain types of pest control applications were reduced because of the danger of damage by the use of some of the more severe treatments.

In general pests were active and about in normal numbers, however there were increases in some while in others there was a decline in population.

The following is a summary of the pests recorded during the year of 1951:

CITRUS

Black Scale: This pest of citrus has shown a definite decrease over the preceeding year, however, there were certain groves that warranted treatment. Materials used were oil and rotenone sprays, oil sprays and field fumigation with HCN.

Citrus Aphids: Aphid populations were about normal for the year with some severe buildups during the early season. Most of the orange acreage was treated.

Citrus Mites: Citrus red spider was normal with some areas showing a definite increase in population counts. Treatment was applied over most of the lemon acreage for citrus red spider and citrus budmite in combination sprays.

Silver rust mite was found in new areas and was also noted in previously infested areas. This pest relatively new to the county is capable of doing extreme damage if allowed to buildup to heavy populations. Treatments were applied whenever the pest was found, using sulphur as the insecticide.

Lewis mite was recorded in several orchards, however, the total damage was not severe. Treatments were applied when the insect warranted treatment.

Mealy Bug: Mealy bug populations were extremely high in certain areas of the county despite the heavy introduction of parasites. Some cases warranted treatment with insecticides, with parathion being used as a spray.

Yellow Scale: This insect has shown a definite spread over most of the Santa Clara Valley area and is found from the Ventura County line in the eastern portion of the county to the ocean on the west. Treatment for Black scale and oil sprays have aided in some cases in holding the pest in check.

Red Scale: This insect, under eradicative measures in the county, was again found in several groves in the county. Infestations were located in definite areas rather than throughout the entire county. Parathion was used in two districts for the first time in combating this pest. In most of the county, however, to interval treatments using HCN were applied as a regular treatment. Infestations are found by a tree to tree inspection.

WALNUTS

Codling Moth: This pest, a major one to walnuts, has for years required general treatment to hold it in check. The use of DDT has reduced the actual infestation to a low degree in Ventura county. Parathion has been added to relieve the buildup of other walnut pests following DDT treatments. Most of the acreage in the county received codling moth treatment.

Walnut Aphid: Infestations of walnut aphids were heavy during most of the season. Several treatments were necessary to hold this pest in check.

Frosted Scale: Frosted scale infestations continued to be heavy in most groves. Parasites that normally gave good control were not in sufficient number to aid greatly in combating this pest. The effect of frosted scale parasites was reduced to such a low ebb following the use of some of the insecticides that chemical control was necessary.

European Red Spider: This pest again was a major problem in walnuts and required general treatment to hold it in check. Some of the newer miticides gave good control.

Walnut Husk Fly: One of the newer pest of walnuts in this county showed a definite increase in certain areas over last year. Population counts were extremely heavy in the eastern portion of the Moorpark-Simi area. Surveys are conducted each year in the county by use of bait traps. Cooperative measures by the various walnut cooperatives aided greatly in determining the presence of the pest. For the first time considerable damage was noted to nuts when processed in the walnut houses. This damage was not wide spread but was found in isolated groves in the simi area. Treatments using cryolite were applied in most of the infested groves in the Simi area and indications point to the necessity of general treatments in that area from now on.

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Leaf Roller: This pest again builtup to such proportions that general treatment was necessary over most of the walnut growing areas. DDT was used as a spray to keep this pest in check.

FIELD CROPS

The increase in vegetable acreage caused the need for more inspections and the need for more control work on pests that menace vegetable and field crops.

Spider Mites: Spider infestations were heavy on certain field crops during seasons of the year and treatments were applied generally over most of the area.

Beans were generally treated with sulphur to give relief from the spider damage. Two-spotted mites that normally cause severe damage to beans if not treated were about normal with most of the acreage receiving treatment one or two times during the year.

Lygus: Surveys were again conducted over the bean acreage to determine the presence of lygus in the fields. This pest is capable of doing extensive damage to beans, especially those intended for freezing. This is aggravated by the difficulty in grading out damaged beans, which tend to reduce the quality of grade.

Mexican Bean Beetle: Cooperative action with the State Department of Agriculture was again conducted against the Mexican Bean Beetle. For the first time since 1946 no beetles were found in the county.

Insects of Vegetables: Many pests too numerous to give in detailed account, were found on vegetable crops. Control measures were applied and proved satisfactory in preventing serious damage. Among the most numerous pests were aphids, ground beetles, cut worms, mites, thrips, leaf tiers, pepper weevils, various types of worms and leaf miners.

DISEASES

Quick Decline of Orange: Survey reports show a definite decrease in the number of affected trees found during the past year as compared to previous years. Quarantine measures were enforced in the affected area to prevent spread of this serious disease.

Dry Bark of Lemons: This malady continues to take its toll of trees in the coastal area of the county with the average number affected about the same as in previous years. Replacement of affected trees continues to be the control measure.

Celery Mosaic: For the first time in many years Celery Mosaic was found affecting celery plants in the Oxnard area. Surveys were conducted over the entire acreage and revealed that about three fourths of the acreage had some affected plants.

The total damage to the crop was nil but this serious disease will bear constant watching to keep it from becoming a deciding factor in celery production in the county.

Hours spent on Orchard and Field Inspection..... 14,469

PARASITIC CONTROL OF INSECTS

Natural control of serious insects by Parasites and Predators has always played a great part in production of food crops. To assist the natural parasites always present, the citrus organizations by use of insectaries produced parasites for release to control and prevent the buildup of certain pests that do not readily re-act to chemical means.

Following is a summary of the type and numbers of parasites reared and released in the county.

Parasite	Host	Number
Cryptoleamus	Mealybug	42,731,170
Leptomastix	Mealybug	33,017,000
Pauridia	Mealybug	3,344,710
Metaphycus Helvolus	Black Scale	2,960,000
Metaphycus Lounsburyi	Black Scale	50,000
Scutellista Cyanea	Black Scale	75,000
Aphytis Species	Yellow Scale	10,000
Comperiella bifasciata	Yellow Scale	4,000

PEST CONTROL ENFORCEMENT

To comply with state laws governing the issuance of permits and registration of pest control operators, many hours were spent in inspection of pest control operations, issuance of permits and registration of operators.

Inspections were made on spray operations, dusting operations, and fumigations of citrus groves. Much of the work is done at night and requires extra long hours for the staff personnel to make these inspections.

Hours spent on Pest Control 506

MATERIALS USED IN PEST CONTROL

Pest control in agriculture is a big business and the amount of money spent in the production of crop is a staggering total. Yet without proper protection against the many insects and diseases that threaten agricultural crop, poor quality and little or no production would result, so it has become increasingly important to the growers.

The following is a summary of the material, dosages and the acreage and pests for 1954. This includes only work done by commercial pest control operators and does not include those materials used by the growers themselves.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNTS BY AIR	TOTAL AMOUNT
Aramex	4,481	Citrus-Walnuts	Spider-Mites	3,609 Gals.	9 Gal.	3,618 Gal.
Aramite 15%	18,806	Citrus-Walnuts	Spider-Mites	89,360 Lbs.		89,360 Lbs.
Aramite 3%	414	Citrus-Beans	Spider-Mites		20,250 Lbs.	20,250 Lbs.
Aramite 2%	65	Walnuts	Spider-Mites		1,877 Lbs.	1,877 Lbs.
B.H.C. 10%	1,194	Vegetables	Aphids-Worms		943 Lbs.	943 Lbs.
B.H.C. 5%	803	Vegetables	Aphids-Worms		8,300 Lbs.	8,300 Lbs.
B.H.C. 2%	914	Flowers-Bareland	Aphids-Wireworm	11,167 Lbs.	3,550 Lbs.	14,717 Lbs.
B.H.C. 1%	1,609	Flowers	Aphids	3,550 Lbs.	48,443 Lbs.	51,993 Lbs.
Calcium Arsenate	52	Tomatoes	Worms		1,300 Lbs.	1,300 Lbs.
Chlordane 40% Wettable	1,140	Citrus	Ants	6,010 Lbs.		6,010 Lbs.
Chlordane 1%	110	Bareland	Ants		2,700 Lbs.	2,700 Lbs.
Copper 50%	2,845	Citrus-Walnuts	Brown Rot-Blight Deficiency	15,826 Lbs.		15,826 Lbs.
Copper 22%	2,285	Citrus	Brown Rot	33,518 Lbs.		33,518 Lbs.
Copper 10%	35	Vegt.-Flowers Seed Crops	Blight-Mildew	50 Lbs.	1,950 Lbs.	2,000 Lbs.
Copper 5%	516	Vegt.-Flowers Seed Crops	Blight-Mildew	3,250 Lbs.	21,300 Lbs.	24,550 Lbs.
Cryolite 45%	2,416	Citrus-Walnuts	Tortrix-Husk Fly	41,745 Lbs.		41,745 Lbs.
DDT 50% Wettable	14,038	Citrus-Walnuts	Black Scale-Leaf roller-Codling Moth	71,988 Lbs.		77,918 Lbs.
DDT 25% Wettable	4,353	Vegt.-Beans Flowers	Lygus-cut worms		6,808 Lbs.	6,808 Lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNTS BY GROUND	AMOUNTS BY AIR	TOTAL AMOUNT
D.D.T. 10%	1,971	Vegts.-Flowers	Lygus-Beetles Leaf Miner	33,085 Lbs.	27,460 Lbs.	60,545 Lbs.
D.D.T. 5%	33,134	Beans-Vegt.-Seed	Lygus-Thrip-Worm	118,593 Lbs.	864,799 Lbs.	983,392 Lbs.
D.N. 8	160	Citrus-Walnuts	Spider-Mites	4,600 Lbs.	6,150 Lbs.	10,750 Lbs.
D.N. 111	1,831	Citrus	Spider-Mites	10,353 Lbs.		10,353 Lbs.
D.N. 289	16	Citrus	Spider	74 Pts.		74 Pts.
Fungerex	8,601	Citrus	Brown Rot	66,804 Lbs.		66,804 Lbs.
Hexamite	62	Citrus	Spider-Mite		3,750 Lbs.	3,750 Lbs.
HCN	143,090 Trees	Citrus	Red-Black-Yellow Scale	71,988 Lbs.		71,988 Lbs.
Lead Arsenate	688	Walnuts	Codling Moth	14,585 Lbs.		14,585 Lbs.
Lindane 25% Wettable	55	Citrus	Aphids		3,000 Lbs.	3,000 Lbs.
Lindane 25% Wettable	43	Vegt.-Flowers	Aphids		70 Gal.	70 Gal.
Lindane 20%	27	Vegetables	Aphids		27 Gal.	27 Gal.
Lindane 10%	69	Vegt.-Flowers	Aphids		1,590 Lbs.	1,590 Lbs.
Lindane 2%	7	Vegt.-Flowers	Aphids		59 Lbs.	59 Lbs.
Lindane 1%	39	Vegt.-Flowers	Aphids		2,050 Lbs.	2,050 Lbs.
Manganeze	5,158	Citrus-Avocado	Deficiency	13,524 Lbs.		13,524 Lbs.
Neotran	5,512	Citrus-Walnuts	Spider-Mites	15,253 Lbs.		15,253 Lbs.
Nicotine 40%	3,407	Citrus-Walnuts	Aphids	19,212 Pts.		19212 Pts.
Nicotine 10%	644	Citrus-Walnuts Vegetables	Aphids	1,857 Lbs.	20,100 Lbs.	21,957 Lbs.
Oil	21,485	Citrus	Spider-Mites Black & Red Scale	267,658 Gals.		267,658 Gal.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNTS BY GROUND	AMOUNTS BY AIR	TOTAL AMOUNT
D.D.T. 10%	1,971	Vegts.-Flowers	Lygus-Beetles Leaf Miner	33,085 Lbs.	27,460 Lbs.	60,545 Lbs.
D.D.T. 5%	33,134	Beans-Vegt.-Seed	Lygus-Thrip-Worm	118,593 Lbs.	864,799 Lbs.	983,392 Lbs.
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Lindane 10%	69	Vegt.-Flowers	Aphids		1,590 Lbs.	1,590 Lbs.
Lindane 2%	7	Vegt.-Flowers	Aphids		59 Lbs.	59 Lbs.
Lindane 1%	39	Vegt.-Flowers	Aphids		2,050 Lbs.	2,050 Lbs.
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Nicotine 40%	3,407	Citrus-Walnuts	Aphids	19,212 Pts.		19212 Pts.
Nicotine 10%	644	Citrus-Walnuts Vegetables	Aphids	1,857 Lbs.	20,100 Lbs.	21,957 Lbs.
Oil	21,485	Citrus	Spider-Mites Black & Red Scale	267,658 Gals.		267,658 Gal.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Ovatran	9,931	Citrus-Walnuts	Spider-Mites	33,941 Lbs.		33,941 Lbs.
Para-Bli-D-Toxsul	185	Vegetables		2,250 Lbs.		2,250 Lbs.
Parathion 25% Wettable	160.5	Citrus	Red Scale	3,975 Lbs.		3,975 Lbs.
Parathion 25% Wettable	24,868	Walnuts	Spider-Aphids Combination with DDT	33,712 Lbs.		33,712 Lbs.
Parathion 2%	2,902	Beans-Vegt.	Aphids-Mites Leaf Miner-Worms	48,510 Lbs.		48,510 Lbs.
Parathion 1%	6,382	Beans-Vegt.	Aphids-Mites Leaf Miner-Worms	54,760 Lbs.	179,182 Lbs.	233,942 Lbs.
Parzate 10%	155	Vegt.-Flowers	Mildew	2,000 Lbs.	5,200 Lbs.	7,200 Lbs.
Parzate 5%	1,092	Vegt.-Flowers	Mildew	100 Lbs.	44,250 Lbs.	44,350 Lbs.
Parzate 5%	289	Vegt.-Flowers	Mildew	124 Gal.	321 Gal.	445 Gal.
Pryethrum 20%	46	Citrus	Thrip	638 Pts.		638 Pts.
Rotenone 4%	722	Citrus	Aphids-Black Scale	280 Gal.		280 Gal.
Rotenone 3%	5,043	Citrus	Aphids-Black Scale		30,060 Lbs.	30,060 Lbs.
Rotenone 1%	10,443	Beans	Mexican Bean Beetle	61,800 Lbs.	373,450 Lbs.	435,250 Lbs.
Rotenone .05%	954	Citrus	Aphids	836 Gal.		836 Gal.
Sulphur 100%	18,017	Beans-Vegt.-Citrus Walnuts-Seed Crop	Blight-Spider Mites	23,853 Lbs.	339,292 Lbs.	363,145 Lbs.
Sulphur 50%	3,238	Beans-Vegt.	Spider-Blight		169,925 Lbs.	169,925 Lbs.
Sulphur Bentonite 10%	90	Tomatoes	Mites	1,350 Lbs.		1,350 Lbs.
TEPP 20%	189	Citrus-Vegt.	Aphids-Mites	671 Pts.		671 Pts.
TEPP 20%	24	Citrus-Vegt.	Aphids-Mites		591 Lbs.	591 Lbs.
TEPP 10%	217	Citrus-Vegt.	Aphids-Mites	5,350 Lbs.		5,350 Lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
TEPP 3%	54	Citrus-Vegt.	Aphids-Mites	2,300 Lbs.		2,300 Lbs.
TEPP 2%	1,400	Vegetables	Aphids-Mites	4,975 Lbs.	94,093 Lbs.	99,068 Lbs.
TEPP 1%	200	Vegetables	Aphids-Mites		8,460 Lbs.	8,460 Lbs.
Toxophene 20%	150	Vegt.-Seed Crop	Lygus-Miners		7 Gal.	7 Gal.
Toxophene 10%	4,328	Vegt.-Seed Crop	Lygus-Miners	2,850 Lbs.	59,190 Lbs.	62,040 Lbs.
Toxophene 10%	2,753	Vegt.-Seed Crop	Lygus-Miners		1,753 Gal.	1,753 Gal.
Toxophene 100%	568	Vegetables	Lygus		442 Lbs.	442 Lbs.
Zinc	12,637	Citrus-Avocado	Deficiency	54,631 Lbs.		54,631 Lbs.
Zinc 10%	185	Vegt.-Seed-Flowers	Blight-Mildew		8,500 Lbs.	8,500 Lbs.
Zinc 5%	1,108	Vegt.-Seed-Flowers	Blight-Mildew		59,915 Lbs.	59,915 Lbs.
Zinc 3%	153	Vegt.-Seed-Flowers	Blight-Mildew		1,326 Lbs.	1,326 Lbs.
Zinc-Manganeze	2,121	Citrus	Deficiency	24,477 Lbs.		24,477 Lbs.
Zineb 10%	197	Vegt.-Flowers	Mildew	3,050 Lbs.	2,900 Lbs.	5,950 Lbs.
Zineb 6%	13	Vegt.-Flowers	Mildew		550 Lbs.	550 Lbs.
Zineb 5%	1,400	Vegt.-Flowers	Mildew	15,400 Lbs.	33,100 Lbs.	48,500 Lbs.
Zineb 3%	146	Vegt.-Flowers	Mildew	4,400 Lbs.		4,400 Lbs.
2,4-D	1,503	Citrus	Regulator	7,371 Oz.		7,371 Oz.
2,4-D	2,425	Grain	Weeds	181 Gal.	427 Gal.	608 Gal.
2,4-D	30	Range Land	Sage Brush		90 Gal.	90 Gal.
245-T	29	Lemons	Regulator	3¼ Pts.		3¼ Pts.

SURVEYS - 1951

Surveys to determine the possible presence of pests not of general occurrence within the county or state are becoming increasingly more important. With the large growth of population in recent years within the state, the chances of introduction of new pests into California, either by means of out-of-state traffic entering California borders or by means of large shipments of plants into the state, are greatly enhanced.

If a new insect or disease can be discovered before it has become well established over a considerable area, the chance of eradication is much greater and can be accomplished at a minimum expense to the taxpayer. The use of surveys as a supplement to plant quarantine in keeping the county free from new pests is therefore quite important.

GENERAL PEST SURVEY

Yearly inspections are made of all city and rural yards in order to discover any incipient infestations of pests new to Ventura County.

New agricultural pests are generally found in residential areas where they have been introduced by means of ornamentals used in landscaping. If these pests can be discovered before they spread to commercial plantings it is often possible to eradicate them at a relatively small cost. Inspectors trained to be on the lookout for new pests make a carefull inspection of the yards. Hosts of scale insects and white fly are given special attention and any specimens found are sent to the State Department of Agriculture at Sacramento for positive identification.

If serious citrus pests now under eradication in Ventura County are found, all host plants on the infested property are treated with an oil spray and two interval fumigations with HCN. This treatment is a cooperative program between the County Department of Agriculture and the Citrus Protective Districts.

Following is the summary of yard work done during 1951:

DISTRICT	YARDS INSP.	HOST PLTS. INSPECTED	YARDS INFES.	SCALE INSECTS			TREATMENT	
				Red	Chaff	Dicto.	Host Fumig.	Host rem.
Ventura	2,200	15,400	7	2	3	2	53	-
Oxnard	1,400	9,800	19	19	-	-	127	4
Santa Paula	2,800	19,600	5	1	-	4	7	3
Moorpark	250	1,750	2	2	-	-	7	-
Camarillo	1,300	9,100	27	27	-	-	396	11
Ojai	900	6,300	1	1	-	-	11	-
Fillmore	800	5,600	2	2	-	-	43	-

MEXICAN BEAN BEETLE

The annual Mexican Bean Beetle survey was again made in the county in collaboration with the State Department of Agriculture. The county furnished a crew of 11 survey men who made inspections within the 1949 and 1950 infested areas. In addition the county furnished one supervising inspector and a deputy in charge of the county project.

A total of 4,406 county man hours was spent on this survey. For the first time since the project started no bean beetles were found.

QUICK DECLINE OF ORANGE

Again this year a survey of all the orange acreage in the county was made to determine the possibility of the spread of quick decline of orange within the county. This was a cooperative program between the county and State Department of Agriculture. Bark samples were taken from 31 suspected trees and sent to the state plant pathology laboratory to determine whether a microscopic examination would reveal symptoms resembling quick decline. No trees resembling quick decline were found outside of the present quarantine lines.

ORIENTAL FRUIT FLY

Again this year the county department has maintained 100 oriental fruit fly traps throughout the county. Traps and bait materials are furnished by the state while the county furnishes labor to maintain them. The traps are distributed throughout the county in all districts and are placed near host plants of the oriental fruit fly. They are examined once a week and any insects found in them are sent to the State Department of Agriculture, Sacramento, for positive identification. No oriental fruit flies have been found.

WALNUT HUSK FLY

The walnut husk fly bait-pan-trapping survey was carried on this year in cooperation with the various walnut houses throughout the county. Pans and bait were furnished by the county and in some districts were maintained by county personnel. In other areas the walnut houses maintained the traps. For the first time the husk fly built up in population in some groves to a point where some commercial damage was encountered.

RED SCALE

County inspectors made a tree to tree inspection of citrus groves not affiliated with any citrus protective league when these properties were suspected of being infested with red scale. Walnut groves under suspicion were also inspected. When infestations were found the orchards were treated in a manner prescribed for eradication of red scale.

JAPANESE BEETLE

Japanese beetle traps were placed throughout the county during the season of adult beetle flight. The traps were concentrated around airports, depots and other likely ports of entry. District inspectors regularly serviced the traps. No Japanese beetles were taken.

LYGUS BUG

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LYGUS BUG

The county again made a survey of bean acreage in an attempt to secure information concerning the degree of lygus bug infestations in relation to the

amount of damage sustained by them. The survey was made during a two month growing period.

A total of 141 properties totaling approximately 13,500 acres was surveyed. Growers were contacted and treatment recommended when populations reached a point where damage was indicated.

CLOVER NEMATODE

This year specimens of a clover lawn showing yellow spots were sent to the State Department of Agriculture, Sacramento, from Camarillo. Laboratory examinations revealed the presence of clover nematode, a species never before reported as occurring in California. A survey of the area was made in cooperation with the state department. Ten properties in Camarillo were inspected, three of which were found to be infested with the clover nematode. Although new to California, it is not believed by nematologists that this species will become a serious pest.

QUACK GRASS

A survey was made this year to determine whether or not quack grass, a primary noxious weed, occurs in Ventura County. One yard, near Camarillo, was found to be infested. The quack grass was removed and fumigated with an herbicide.

CELERY MOSAIC

This year, for the first time in many years, celery mosaic was found to be present in Ventura County. The disease was first found in a field which had been planted to seed. This gave a longer exposure period in the field and increased the possibility of infestation. Upon verification of the disease by the State Bureau of Plant Pathology a survey was made of all celery plantings in the county. It was found that approximately 2/3 of the acreage was lightly infected with the mosaic virus.

TOMATO CANKER

As a service to the seed growers, the county department made surveys of the tomato acreage which is planted for seed production. Three inspections of each planting are made during the growing season to determine whether or not tomato canker is present in the field. If at harvest time all findings are negative the seed may bear a label certifying that it has been grown in a field apparently free from bacterial canker infection. The program also provides for supervision of the disinfection of all machinery and equipment used in processing the fruits and seeds.

SWEET POTATO WEEVIL

District inspectors made a survey of the sweet potato plantings within the county. The relatively small acreage was inspected for the presence of the sweet potato weevil, a very serious pest in parts of southeastern United States. All findings were negative.

PORT INSPECTION

The inspection of incoming ships at our local harbor is carried out by the staff members of the Commissioner's office. Ship stores, cargo and other items are carefully inspected to reveal the presence of foreign insects that are serious to agricultural interests. Supervision of ship garbage is handled under the supervision of the agricultural inspector.

All infested material is held on ship under seal or is properly cleaned before being released.

No. of Boat inspections	17
No. of hours used in inspection	57

TOMATO SEED CERTIFICATION

Working under the supervision of the State Department of Agriculture, county personnel inspected tomato plants to be used in the production of tomato seed for the purpose of determining the presence or absence of Bacterial Canker.

At least three inspections were made over the entire acreage at various stages of growth. Harvesting and processing of the seed was also under the supervision of inspectors. Certificates were issued on those lots of seed that met the requirements.

INSPECTION OF CITRUS FRUIT SHIPPED TO FLORIDA

Florida regulations for citrus fruits from California require inspection and certification of all fruit destined for the state of Florida. Inspections are made at the time of washing and packing to see that no fruit infected with Brown Rot is allowed to be placed in the container. This requires an inspector to be present at all times during the packing process.

No. of cars inspected	82
No. of trucks inspected	11
No. of hours spent on inspection	227

SEED INSPECTION

Inspections are made on lots of seed to insure proper labeling as to germination and purity. The work is carried out by a seed inspector and inspections are made in warehouses, seed stores, supply stores, retail stores, etc.

No. of lots of local seed inspected	669
No. of lots of interstate shipments	340
No. of lots of intrastate shipments	1,121
No. of lots in violation	20
No. of service samples drawn	1
No. of official samples drawn	2
No. of stop sale orders issued	2
Hours spent on seed inspection	323

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STANDARDIZATION

Citrus fruits were regularly checked at packing houses for frost damage and other defects, and all fruits and vegetables were inspected at the time of packing to insure that the produce met the minimum state standards.

Increased acreage in vegetable products resulted in more man hours for inspection and certification. Retail outlets were also checked to insure that commodities offered for sale met the state requirements.

Eggs were inspected at retail channels by one egg inspector. Three meetings were held to acquaint the egg producers with changes in the egg law.

Enforcement work was made easier and better by the fine cooperation of the packers and shippers.

Following is the summary of the work:

No. of containers inspected	789,012
No. of containers rejected	607
No. of shipments certified	3,509
No. of containers certified	731,345

EGGS:

No. of premises visited	168
No. of lots inspected	582
No. of dozens inspected	47,283
No. of dozens rejected	878

Hours spent on Standardization 3,560.8

WEED CONTROL

The offices weed control program was comprised of the control of primary and some secondary noxious weeds along all county roads. Cooperative contracts were entered into with the California Division of Highways and the Southern Pacific Railroad, for the control of noxious weeds on all state highways and right-of-ways.

Cooperative agreements were worked out with the County Park Departments for the control of poison oak in most county parks.

Surveys were conducted by staff members throughout the county for new infestations of weed pests. The findings consisted of one small infestation of Purple Star Thistle, and one of Quack Grass, both new to Ventura County. Stringent measures were taken toward eradication.

Particular attention was given to primary noxious weeds, such as Russian Kap weed and Hoary Grass. These were placed under eradication measures. Johnson Grass, Poverty Weed, Puncture vine and Yellow Star Thistle were among some secondary noxious weeds that received considerable attention.

Materials used on Weed Control were:

2,4-D	2,964 gal.
Weed Oil	2,553 gal.
Weed Oil and Dinitro	2,373 gal.
Polybar Chlorate	2,110 lbs.

Principal Weeds:

Texas Blue Weed	Dog Bane
Russian Knapweed	Milk Thistle
Bermuda Grass	Guara
Kikuyu Grass	Hoary Cress
Pig Nut	Yellow Star Thistle
Morning Glory	Puncture Vine
White Horse Nettle	Johnson Grass

Total hours spent on Weed Control 1,262

RODENT CONTROL

Strenuous measures were taken during the past year, over the entire county, towards the control of the ground squirrel. Carbon Bisulphide and Methyl Bromide were used during the early spring, followed with 1080 poisoned grain, where feasible.

Experiments were conducted with the fairly new poison, Warfarin, in areas heavily populated with humans and domestic animals, with a fair degree of success.

Gopher demonstrations were held in all sections of the county to assist growers on proper methods of control. Poisoned wheat and strychnine for cut baits, such as carrots, sweet potatos, etc., were sold to the growers at cost, to combat one of the heaviest gopher populations we have experienced for several years.

Rat programs were carried out in agricultural areas where complaints were received using Warfarin, with an excellent degree of success.

Staff members assisted growers upon request, in the control of other miscellaneous rodents and predators, such as cotton tail rabbits, jack rabbits, skunks, weasels, coyotes, bob cats and deer. Each individual species requiring separate attention, with many methods of control. Poisoned grain, traps, guns and repellents, being most popular recommendation for individual cases.

Following is a summary of the rodent control program:

Acres treated	556,189
Strychnine treated grain	177 Lbs.
Thallium treated grain	210 Lbs.
Zinc Phosphide treated grain	45 Lbs.
1080 treated grain	8,754 Lbs.
Methyl Bromide	1,443.62 Lbs.
Warfarin	150 Lbs.
Carbon Bisulphide	310 Gal.

Hours spent on Rodent Control 10,082

APIARY INSPECTION

The regular inspection and registration of apiaries was carried out this year by staff members of the office.

Following is a summary of the work done:

	No. Apiaries	No. Colonies
Registered	149	5,297
Entering California	2	214
Leaving California	3	304
Entering County	51	6,746
Leaving County	63	7,581
Moving within county	8	1,228
Inspected	45	1,308
Infected with American Foulbrood.	7	27
Burned for American Foulbrood....		25
Infected with European Foulbrood.		2
No. of hours spent on Apiary Inspection		688

FINANCIAL STATEMENT

VENTURA COUNTY DEPARTMENT OF AGRICULTURE

1951

Salaries & Wages			
Commissioner, Deputy Commissioners, Inspectors & Office Help	$ 82,455.78		
Extra Help	21,682.00	$ 104,137.78	
Maintenance & Operation		21,398.05	
Capital Outlay		1,388.81	$ 126,924.64
Revenue			11,649.61

Classification of estimated expenditures by functions:

Plant Quarantine (Interstate)	$ 6,723.18	
Plant Quarantine (Intrastate)	13,446.38	
Standardization	7,532.82	
Field and Orchard Inspection	12,879.53	
Nursery Inspection	2,227.48	
Seed Inspection	2,150.10	
Rodent Control (County Expense)	3,417.42	
Plague Suppression (County expense)	21,633.33	
Weed Control (County expense)	5,013.22	
Apiary Inspection	2,040.57	
Crop Statistics	2,912.80	
Other Items*	45,559.00	$ 125,535.83
Capital Outlay		1,388.81

* Functions included in other items include:

Miscellaneous, General Pest Survey, Mexican Bean Beetle, Vacuum Fumigation.

OFFICE OF
VENTURA COUNTY
DEPARTMENT OF AGRICULTURE
PHONE 258

C. J. BARRETT
COMMISSIONER

JOHN L. SCHALL
JOHN C. ALLEE
DEPUTIES

AGRICULTURAL BUILDING
SANTA BARBARA AND EIGHTH STREETS
SANTA PAULA, CALIFORNIA

ANNUAL CROP PRODUCTION AND ACREAGE REPORT

COUNTY OF VENTURA

1951

Pursuant to Sections of 65.5 of the Agricultural Code, We submit the crop production, crop value and acreage report for the year 1951.

This report is in no way an indication of net return to Ventura County growers, but is merely a tabulation of acreage, production and F.O.B. values of the agricultural crops grown in Ventura County.

Values used in the totals include all cultural, labor, producing and harvesting costs, and one should remember that these costs in many cases amount to almost as much as the gross returns and therefore leave very little profit for the growers.

The total value is somewhat higher than in 1951 and shows a trend in crop varieties and acreage changes.

We are indebted to many individuals, firms and marketing agencies for their assistance in compiling this report, and we hereby express our sincere thanks and acknowledgment to them for their cooperation.

C. J. Barrett

C. J. BARRETT
AGRICULTURAL COMMISSIONER

CJB:bp

1951

VENTURA COUNTY CROP REPORT

Compiled by
VENTURA COUNTY DEPARTMENT OF AGRICULTURE

C. J. BARRETT, AGRICULTURAL COMMISSIONER

PRODUCT	PRODUCTION	UNIT	F.O.B. VALUE	BEARING ACREAGE
APRICOTS				1,125
Dried	257	Tons	$ 118,220.00	
Fresh	110	Tons	11,000.00	
Pits	45	Tons	2,025.00	
			131,245.00	
AVOCADOS	1,071,521	Lbs.	188,405.00	512
BEANS				
Limas	649,000	Bags--100#	7,788,000.00	28,970
Blackeyes	18,000	" "	74,000.00	1,330
Garbanzos	400	" "	3,900.00	70
Pintos	150	" "	1,200.00	15
Seed Beans	85,825	" "	1,050,944.00	4,937
	743,375		8,918,044.00	35,322
CITRUS				
LEMONS				16,318
Pkd. Boxes	2,941,879	Boxes	17,738,946.99	
By-Product	66,106.27	Tons	2,118,608.68	
			19,857,555.67	
ORANGES, Valencias				17,033
Pkd. Boxes	2,072,572	Boxes	7,674,154.76	
By-Product	65,244.14	Tons	1,713,616.31	
			9,387,771.07	
ORANGES, Navels				1,587
Pkd. Boxes	278,160	Boxes	1,169,824.12	
By-Products	2,752.18	Tons	55,043.60	
			1,224,867.72	
GRAPEFRUIT				727
Pkd. Boxes	93,437	Boxes	227,594.78	
By-Product	908.7	Tons	10,904.40	
			238,499.18	
HAY				
Alfalfa (Gr.)	84,013	Tons	378,058.50	2,897
Barley	3,994	Tons	99,850.00	4,000
			477,908.50	6,897

PRODUCT	PRODUCTION	UNIT	F.O.B. VALUE	BEARING ACREAGE
MISC. FRUITS				
Apples	25,857	Boxes	50,150.00	87
Grapes	217	Tons	12,356.00	206
Peaches	7,261	Lugs	10,893.00	72
Pears	2,200	Lugs	2,530.00	50
Strawberries	6,608	Trays	16,357.00	11
			92,286.00	426
SUGAR BEETS	43,941.8	Tons	512,527.23	2,455
Gov't. Payment			118,555.00	
			631,082.23	
WALNUTS	8,895	Tons	4,507,670.90	16,984
VEGETABLES				
Green Limas	10,916.93	Tons	1,601,285.55	5,812
Broccoli	923.81	Tons	120,095.30	338
Broccoli	11,762	Crates	21,697.00	63
Cabbage	126,754	Crates	324,012.00	347
Cabbage	6,432	Sacks	21,786.44	35
Cabbage	990	Tons	12,840.00	23
Carrots	158,033	Crates	609,026.85	592
Carrots	133,670	Sacks	189,954.04	
Cauliflower	94,998	Crates	80,782.47	216
Celery	465,625	Crates	633,474.82	403
Cucumbers	48,718	Lugs	55,459.90	78
Endive	2,250	Crates	1,687.50	15
Egg Plant	1,539	Crates	1,494.24	3
Lettuce	356,225	Crates	1,691,331.04	1,533
Romain	12,902	Crates	15,099.50	48
Parsley	1,000	Tons	35,000.00	40
Peas	3,486.87	Tons	252,990.25	2,435
Peas	442,057	Lbs.	35,415.75	147
Peppers				
Bells	297.14	Tons	45,178.08	34
Chili-Gr.	869.10	Tons	47,800.00	145
Pimientos	3,083.56	Tons	185,013.90	397
Dried Chili	1,074.67	Tons	379,254.40	801
Spinach	1,976.31	Tons	52,289.27	255
Squash-Winter	136.8	Tons	3,264.60	34
Tomatoes				
Market	477,561	Lugs	525,099.00	1,431
Canning	70,788.69	Tons	1,944,703.00	3,888
Misc. Vegetables	65,728	Crates	171,752.00	
Mushrooms	100,000	Lbs.	40,000.00	
			9,097,786.90	19,079
NURSERY STOCK				
Vegt. Plants	64,348	Flats	55,538.00	
Bedding Stock	362	Flats	2,810.75	
Ornamentals	88,150	Cans	106,315.00	
Cut Flowers			289,419.00	
Citrus Trees	166,213	Trees	337,781.14	

PRODUCT	PRODUCTION	UNIT	F.O.B. VALUE	BEARING ACREAGE
MISC. FRUITS				
Apples	25,857	Boxes	50,150.00	87
Grapes	217	Tons	12,356.00	206
Peaches	7,261	Lugs	10,893.00	72
Pears	2,200	Lugs	2,530.00	50
Strawberries	6,608	Trays	16,357.00	11
			92,286.00	426
SUGAR BEETS	43,941.8	Tons	512,527.23	2,455
Gov't. Payment			118,555.00	
			631,082.23	
WALNUTS	8,895	Tons	4,507,670.90	16,984
VEGETABLES				
Green Limas	10,916.93	Tons	1,601,285.55	5,812
Broccoli	923.81	Tons	120,095.30	338
Broccoli	11,762	Crates	21,697.00	63
Cabbage	126,754	Crates	324,012.00	347
Cabbage	6,432	Sacks	21,786.44	35
Cabbage	990	Tons	12,840.00	23
Carrots	158,033	Crates	609,026.85	592
Carrots	133,670	Sacks	189,954.04	
Cauliflower	94,998	Crates	80,782.47	216
Celery	465,625	Crates	633,474.82	403
Cucumbers	48,718	Lugs	55,459.90	78
Endive	2,250	Crates	1,687.50	15
Egg Plant	1,539	Crates	1,494.24	3
Lettuce	356,225	Crates	1,691,331.04	1,533
Romain	12,902	Crates	15,099.50	48
Parsley	1,000	Tons	35,000.00	40
Peas	3,486.87	Tons	252,990.25	2,435
Peas	442,057	Lbs.	35,415.75	147
Peppers				
Bells	297.14	Tons	45,178.08	34
Chili-Gr.	869.10	Tons	47,800.00	145
Pimientos	3,083.56	Tons	185,013.90	397
Dried Chili	1,074.67	Tons	379,254.40	801
Spinach	1,976.31	Tons	52,289.27	255
Squash-Winter	136.8	Tons	3,264.60	34
Tomatoes				
Market	477,561	Lugs	525,099.00	1,431
Canning	70,788.69	Tons	1,944,703.00	3,888
Misc. Vegetables	65,728	Crates	171,752.00	
Mushrooms	100,000	Lbs.	40,000.00	
			9,097,786.90	19,079
NURSERY STOCK				
Vegt. Plants	64,348	Flats	55,538.00	
Bedding Stock	362	Flats	2,810.75	
Ornamentals	88,150	Cans	106,315.00	
Cut Flowers			289,419.00	
Citrus Trees	166,213	Trees	337,781.14	

PRODUCT	PRODUCTION	UNIT	F.O.B. VALUE	BEARING ACREAGE
NURSERY STOCK CONT.				
Avocado Trees	64,780	Trees	145,755.00	
Avocado Seed	45,000		4,500.00	
Avocado Seedlings	22,174		8,493.00	
Walnut	43,523	Trees	45,279.50	
			995,891.39	
SEED				
Vegetable	286,134	Lbs.	345,809.65	631
Flower	94,826	Lbs.	70,096.00	173
			415,905.65	804
POULTRY				
Turkeys	262,000	Birds	1,980,720.00	
Chicken Meat	927,600	Lbs.	278,280.00	
Chicken Eggs	2,037,517	Doz.	1,059,508.44	
			3,318,508.44	
LIVESTOCK				
Hogs	5,257	Head	233,077.00	
Cattle	16,423	Head	3,941,520.00	
Rabbits	412,000	Lbs.	115,360.00	
Rabbit Furs	10,000	Lbs.	4,000.00	
			4,293,957.00	
MILK				
Number of Dairies		16		
Number of Dairy Cows		4,684		
Average Yearly Production of Milk		5,465,510 Gals.		
Revenue to Ventura County Dairymen			$ 2,528,760.15	
GOAT MILK				
Number of Goats		60		
Average yearly production of Milk		4,226.7 Gals.		
Revenue			3,967.72	
GRAND TOTAL		$ 66,310,112.52		

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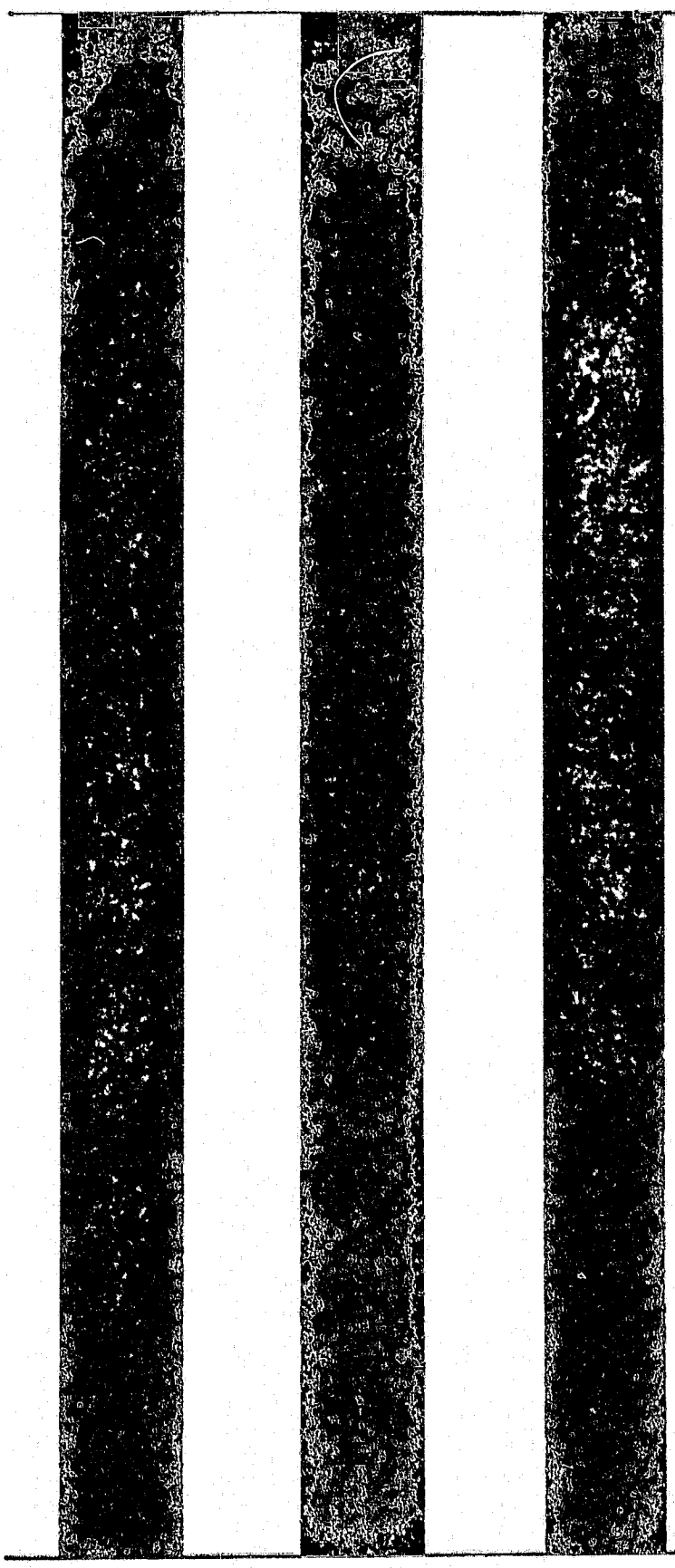
PRODUCTION AND ACREAGE COMPARISONS OF 1950 AND 1951 IN VENTURA COUNTY

CROP	1951 PRODUCTION	BEARING ACREAGE	1950 PRODUCTION	BEARING ACREAGE
APRICOTS		1,125		1,848
Dried	257 Tons		745 Tons	
Fresh	110 Tons		120 Tons	
AVOCADOS	1,071,521 Lbs.	512	653,546 Lbs.	497
BEANS				
Limas	649,000 Bags	28,970	675,000 Bags	29,271
Blackeyes	8,000 Bags	1,330	10,420 Bags	1,040
Garbanzos	400 Bags	70	990 Bags	76
Pintos	150 Bags	15	380 Bags	38
Seed Beans	85,825 Bags	4,937	69,428 Bags	3,571
CITRUS				
LEMONS		16,318		16,537
Pkd. Boxes	2,941,879 Boxes		2,786,062 Boxes	
By-Product	66,106 Tons		51,426 Tons	
ORANGES, Valencias		17,033		18,081
Pkd. Boxes	2,072,572 Boxes		2,914,729 Boxes	
By-Product	65,244 Tons		48,670 Tons	
ORANGES, Navels		1,587		1,506
Pkd. Boxes	27,160 Boxes		311,735 Boxes	
By-Product	2,752 Tons		2,04[illegible] Tons	
GRAPEFRUIT		327		277
Pkd. Boxes	93,437 Boxes		95,300 Boxes	
By-Product	908 Tons		342 Tons	
HAY				
Alfalfa	84,013 Tons	2,897	90,540 Tons	3,018
Barley	3,994 Tons	4,000	11,980 Tons	11,980
MISC. FRUITS				
Apples	25,857 Boxes	87	22,211 Boxes	87
Grapes	217 Tons	206	159 Tons	206
Peaches	7,261 Lugs	72	6,767 Lugs	69
Pears	2,200 Lugs	50		
Strawberries	6,608 Trays	11	9,414 Trays	
SUGAR BEETS	43,941 Tons	2,455	70,182 Tons	4,127
WALNUTS	8,895 Tons	16,984	7,531 Tons	17,768

CROP	1951 PRODUCTION	BEARING ACREAGE	1950 PRODUCTION	BEARING ACREAGE
VEGETABLES				
Green Limas	10,916 Tons	5,812	8,579 Tons	4,444
Broccoli	923 Tons	338	610 Tons	242
Broccoli	11,762 Crates	63	993 Crates	20
Cabbage	126,754 Crates	347	60,963 Crates	284
Cabbage	6,432 Sacks	35		
Cabbage	990 Tons	23		
Carrots	158,033 Crates	592	227,953 Crates	650
Carrots	133,650 Sacks			
Cauliflower	94,998 Crates	216	92,595 Crates	203
Celery	465,625 Crates	403	125,652 Crates	159
Cucumbers	48,718 Lugs	78	59,041 Lugs	95
Endive	2,250 Crates	15		
Eggplant	1,539 Crates	3		
Lettuce	356,285 Crates	1,533	229,493 Crates	1,478
Romain	12,902 Crates	48		
Parsley	1,000 Tons	40	1,049 Tons	40
Peas	3,486 Tons	2,435		
Peas	442,057 Lbs.		2,511,525 Lbs.	1,189
Peppers				
Bells	297 Tons	34	187 Tons	158
Chili-Gr.	869 Tons	145	656 Tons	101
Pimientos	3,083 Tons	397	3,891 Tons	667
Dried Chili	1,074 Tons	801	986 Tons	930
Spinach	1,976 Tons	255	41,000 Crates	225
Squash, Winter	136 Tons	34		
Tomatoes				
Market	477,561 Lugs	1,431	424,405 Lugs	996
Canning	70,788 Tons	3,888	22,453 Tons	956
Misc. Vegetables	65,728 Crates			
Mushrooms	100,000 Lbs.		100,000 Lbs.	
NURSERY STOCK				
Vegetable Plants	64,348 Flats		76,429 Flats	
Bedding Stock	362 Flats		2,760 Flats	
Ornamentals	88,150 Cans		134,655 cans	
Citrus Trees	166,213 Trees		172,763 Trees	
Avocado Trees	64,780 Trees		45,726 Trees	
Avocado Seed	45,000 Seed		65,000 Seed	
Avocado Seedlings	22,174			
Walnut	43,523 Trees		25,638 Trees	
SEED				
Vegetable	286,134 Lbs.		551,162 Lbs.	
Flower	94,826 Lbs.		22,375 Lbs.	
POULTRY				
Turkeys	262,000 Birds		198,000 Birds	
Chicken Meat	927,600 Lbs.		800,000 Lbs.	
Chicken Eggs	2,037,517 Doz.		900,000 Doz.	

CROP	1951 PRODUCTION	BEARING ACREAGE	1950 PRODUCTION	BEARING ACREAGE
VEGETABLES				
Green Limas	10,916 Tons	5,812	8,579 Tons	4,444
Broccoli	923 Tons	338	610 Tons	242
Broccoli	11,762 Crates	63	993 Crates	20
Cabbage	126,754 Crates	347	60,963 Crates	284
Cabbage	6,432 Sacks	35		
Cabbage	990 Tons	23		
Carrots	158,033 Crates	592	227,953 Crates	650
Carrots	133,650 Sacks			
Cauliflower	94,998 Crates	216	92,595 Crates	203
Celery	465,625 Crates	403	125,652 Crates	159
Cucumbers	48,718 Lugs	78	59,041 Lugs	95
Endive	2,250 Crates	15		
Eggplant	1,539 Crates	3		
Lettuce	356,285 Crates	1,533	229,493 Crates	1,478
Romain	12,902 Crates	48		
Parsley	1,000 Tons	40	1,049 Tons	40
Peas	3,486 Tons	2,435		
Peas	442,057 Lbs.		2,511,525 Lbs.	1,189
Peppers				
Bells	297 Tons	34	187 Tons	158
Chili-Gr.	869 Tons	145	656 Tons	101
Pimientos	3,083 Tons	397	3,891 Tons	667
Dried Chili	1,074 Tons	801	986 Tons	930
Spinach	1,976 Tons	255	41,000 Crates	225
Squash, Winter	136 Tons	34		
Tomatoes				
Market	477,561 Lugs	1,431	424,405 Lugs	996
Canning	70,788 Tons	3,888	22,453 Tons	956
Misc. Vegetables	65,728 Crates			
Mushrooms	100,000 Lbs.		100,000 Lbs.	
NURSERY STOCK				
Vegetable Plants	64,348 Flats		76,429 Flats	
Bedding Stock	362 Flats		2,760 Flats	
Ornamentals	88,150 Cans		134,655 cans	
Citrus Trees	166,213 Trees		172,763 Trees	
Avocado Trees	64,780 Trees		45,726 Trees	
Avocado Seed	45,000 Seed		65,000 Seed	
Avocado Seedlings	22,174			
Walnut	43,523 Trees		25,638 Trees	
SEED				
Vegetable	286,134 Lbs.		551,162 Lbs.	
Flower	94,826 Lbs.		22,375 Lbs.	
POULTRY				
Turkeys	262,000 Birds		198,000 Birds	
Chicken Meat	927,600 Lbs.		800,000 Lbs.	
Chicken Eggs	2,037,517 Doz.		900,000 Doz.	

CROP	1951 PRODUCTION	BEARING ACREAGE	1950 PRODUCTION	BEARING ACREAGE
LIVESTOCK				
Hogs	5,257 Head		7,890 Head	
Cattle	16,423 Head		14,786 Head	
Rabbits	412,000 Lbs.		412,000 Lbs.	
Rabbit Furs	10,000 Lbs.		10,000 Lbs.	
MILK				
Number of Dairies		16		17
Number of Dairy Cows		4,684		4,441
Average Yearly Production of Milk		5,465,510 Gals.		5,119,855 Gals.
Revenue to Ventura County Dairymen		$ 2,528,760.15		$ 2,778,070.90
GOAT MILK				
Number of Goats		60		
Average yearly production of milk		4,227 Gals.		
Revenue		$ 3,967.72		



1952

VENTURA COUNTY

ANNUAL REPORT

AND

CROP STATISTICS

1952

AGRICULTURAL COMMISSIONER

A G R I C U L T U R A L C O M M I S S I O N E R

COUNTY OF VENTURA, CALIFORNIA

A N N U A L R E P O R T
YEAR ENDING DECEMBER 31, 1952

BOARD OF SUPERVISORS

Lester A. Price — Chairman

Robert W. Lefever	Edward Carty
R. E. Barrett	Edward S. Pierce

DEPARTMENT PERSONNELL

COMMISSIONER	C. J. BARRETT
Deputy Commissioner	John L. Schall
Deputy Commissioner	John C. Allee
Supervisor-Standardization	Paul B. Travis
Nursery & Seed Inspector	Verner E. Holmer
Vacuum Fumigation	Murl Boren
District Inspector, Ventura	Albert Bicker
District Inspector, Ventura	Dan Fraser
District Inspector, Oxnard	W. M. Dunning
District Inspector, Moorpark - Simi	I. L. Clements
District Inspector, Santa Paula	Harry Bronson
District Inspector, Ojai	Fred Lewis
District Inspector, Fillmore - Piru	Wilbur Mayhew
District Inspector, Camarillo	W. M. Jones
Inspector	Clyde W. May
Inspector, Weeds & Rodent - Santa Paula	C. C. Burleson
Inspector, Weeds & Rodent - Santa Paula	Floyd Ward
Inspector, Weeds & Rodent - Moorpark - Simi	Bruce Burns
Inspector, Weeds & Rodent - Camarillo	Oscar Olsen
Inspector, Charge of Survey	Lonnie Nasalroad
Account Clerk	Shirley Carter
Account Clerk	Barbara Porter

DEPARTMENT PERSONNELL

COMMISSIONER	C. J. BARRETT
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District Inspector, Moorpark - Simi	I. L. Clements
District Inspector, Santa Paula	Harry Bronson
District Inspector, Ojai	Fred Lewis
District Inspector, Fillmore - Piru	Wilbur Mayhew
District Inspector, Camarillo	W. M. Jones
Inspector	Clyde W. May
Inspector, Weeds & Rodent - Santa Paula	C. C. Burleson
Inspector, Weeds & Rodent - Santa Paula	Floyd Ward
Inspector, Weeds & Rodent - Moorpark - Simi	Bruce Burns
Inspector, Weeds & Rodent - Camarillo	Oscar Olsen
Inspector, Charge of Survey	Lonnie Nasalroad
Account Clerk	Shirley Carter
Account Clerk	Barbara Porter

C O N T E N T S

C O N T E N T S

ANNUAL REPORT TO THE BOARD OF SUPERVISORS

COUNTY OF VENTURA

AND

THE DIRECTOR

STATE DEPARTMENT OF AGRICULTURE

1952

We submit to you the annual report of the activities of the Agricultural Commissioner's office for the calendar year 1952.

While the Commissioners office is primarily charged with law enforcement, we have tried to be of additional service to the people in the county. Changing conditions in the county are responsible for increases in certain phases of our work. These are changes in variety of crops, increased population, new laws governing our work, increased uses of certain dangerous insecticides and increased truck shipments of fruit and vegetables. In preparing this report we have mentioned only the more important duties carried out during the year and can only summarize certain phases of our work.

QUARANTINE

History has proven that man, through the movement of plant material, has been one of the principal means of disseminating pests and diseases. This fact, together with our own personal experience, has led us to regard quarantine as our first line of defense against new insects and diseases, both from a county view point as well as that of state-wide protection.

Considerable time is spent on this phase of work both in inspection and treatment. We have tried to avoid undue interference with the normal flow of plant material, however, we believe that it is better to plant clean nursery stock than to spend money and time in an effort to clean up the pests later on in order to assure its growth. For this reason we have given treatments to certain types of nursery stock at no additional cost to the receiver, and required inspection of all plants entering the county.

Inspections of all incoming shipments are made daily at post offices, express offices, truck terminals and railroad depots. All lots of citrus fruits are inspected before they are offered for sale in retail channels. Infested or infected shipments and those failing to meet the requirements of state quarantine have been properly disposed of to insure the best possible protection. Scale insects that are a serious threat to the citrus industry of our county have caused us to be alert to their possible presence and therefore we have spent a great deal of time in the inspection and treatment of plants and fruits that are host of these insects.

The following is a summary of the quarantine work during the year 1952:

INTERSTATE QUARANTINE

No. of shipments inspected	1,869
No. of plants inspected	1,139,431
No. of shipments rejected	47
No. of plants rejected	1,166
No. of shipments passed	1,822
No. of plants passed	1,138,265

INTRASTATE QUARANTINE

No. of shipments inspected	9,568
No. of plants inspected	17,927,209
No. of shipments rejected	113
No. of plants rejected	55,887
No. of shipments passed	9,455
No. of plants passed	17,871,322

The following were rejected until fumigation treatment was applied:

No. of shipments	963
No. of plants	210,807

Number of hours spent on quarantine inspection 9,796

TREATMENTS

New developments in insecticides and fumigants used in treatments for insect pests have somewhat changed our old policy of rejecting infested plant material and returning it to point of origin. We now find that most infested plant material can be properly treated to insure freedom of insect pests without damaging the plant and as we are equipped to give most of desired treatments our policy is to treat and release the material. This policy not only results in the delivery of clean plants to residents of the county, but also makes it possible for them to secure varieties and types that formerly were excluded because of the pest risk involved.

Ventura County is equipped with two vacuum fimigation chambers, one atmospheric methyl bromide chamber, tarpaulins, spray rigs and dipping equipment.

The following is a summary of the work done by the Agricultural Commissioner's office during the year:

VACUUM FUMIGATION

Citrus Fruit (boxes)	7 lots	186
Ornamentals	16 "	2,746
Citrus Trees	687 "	75,111
Walnut Trees	96 "	10,063
Fumigation tents	3 "	134

VACUUM FUMIGATION CONT.

Citrus Seedlings	9 lots	69,250
Citrus Budwood (bundles)	16 "	61
Walnut Grafts (bags)	2 "	9
Citrus Trees (bare root)	8 "	1,455
Empty Boxes	1 "	1,279
Picking Bags	1 "	100

METHYL BROMIDE - ATMOSPHERIC

Citrus Budwood (bundles)	70 lots	153
Ornamentals	9 "	1,118
Citrus Seedlings	17 "	46,299
Avocado Budwood (bundles)	7 "	7
Avocado Trees	4 "	561
Avocado Seedlings	2 "	82
Citrus Trees	5 "	64
Lawn Grass (bags)	1 "	1

METHYL BROMIDE - VACUUM

Pieces of Furniture	2 lots	2
Blankets	2 "	150
Rugs	1 "	6
Grain (lbs.)	1 "	900

Number of hours spent on fumigation 3,318

MEXICAN BEAN BEETLE QUARANTINE

Although this was the third year of the Mexican bean beetle eradication program in which no beetles were found, quarantine procedures were carried out during growing and harvesting period. Equipment used in harvesting beans was treated according to the requirements of the quarantine. Certificates for movement of fresh beans and recleaned beans were issued as a condition of movement.

1952 was the last year that treatments will be applied for this insect and during the latter part of November the State quarantine was removed by the Director of Agriculture.

Number of hours spent on Mexican bean beetle quarantine . . . 3,656

NURSERY INSPECTION

Nursery inspection has become one of the most important phases of our activities. The movement of nursery stock is one of the principal means of pest dissemination and we have tried to be thorough in our protective measures. All incoming plants are inspected at destination on arrival and quarterly inspections

VACUUM FUMIGATION CONT.

Citrus Seedlings	9 lots	69,250
Citrus Budwood (bundles)	16 "	61
Walnut Grafts (bags)	2 "	9
Citrus Trees (bare root)	8 "	1,455
Empty Boxes	1 "	1,279
Picking Bags	1 "	100

METHYL BROMIDE - ATMOSPHERIC

Citrus Budwood (bundles)	70 lots	153
Ornamentals	9 "	1,118
Citrus Seedlings	17 "	46,299
Avocado Budwood (bundles)	7 "	7
Avocado Trees	4 "	561
Avocado Seedlings	2 "	82
Citrus Trees	5 "	64
Lawn Grass (bags)	1 "	1

METHYL BROMIDE - VACUUM

Pieces of Furniture	2 lots	2
Blankets	2 "	150
Rugs	1 "	6
Grain (lbs.)	1 "	900

Number of hours spent on fumigation 3,318

MEXICAN BEAN BEETLE QUARANTINE

Although this was the third year of the Mexican bean beetle eradication program in which no beetles were found, quarantine procedures were carried out during growing and harvesting period. Equipment used in harvesting beans was treated according to the requirements of the quarantine. Certificates for movement of fresh beans and recleaned beans were issued as a condition of movement.

1952 was the last year that treatments will be applied for this insect and during the latter part of November the State quarantine was removed by the Director of Agriculture.

Number of hours spent on Mexican bean beetle quarantine . . . 3,656

NURSERY INSPECTION

Nursery inspection has become one of the most important phases of our activities. The movement of nursery stock is one of the principal means of pest dissemination and we have tried to be thorough in our protective measures. All incoming plants are inspected at destination on arrival and quarterly inspections

are made in all nurseries during the year. Surrounding yards are inspected and if serious pests are found treatment is required to protect the nursery.

When infestations of pests are found in the nursery, these pests must be properly controlled or eradicated before the stock is allowed to move in trade channels. Fine cooperation was given by all nurseries during the year.

One nursery inspector has charge of this work and he is assisted by the various district inspectors.

Following is a summary of nursery inspection work carried on during 1952:

Number of Nursery Inspections	101
Number of re-inspections	21
Number of Nurseries with "A" pests or (Pests with eradication nature)	0
Number of Nurseries with "B" pests	0
Number of Nurseries with "C" pests or (Pests of common occurence)	47
Number of nurseries required to cleanup	47
Number of hours spent on Nursery Inspection	523

FIELD AND ORCHARD INSPECTION

Field and orchard inspection is carried on as a part of our routine duties and gives us an idea of pest conditions in general and aids us greatly in making proper recommendations for pest control.

Many pests have increased in numbers and have become more serious to the growers, other have maintained a normal status throughout the years and other have decreased in number. Many new insecticides have made their appearance and have aided greatly in controlling the pests. Others, when used for specific pests, have brought about a build up in other insects and have more or less upset the balance of insect population normally found in many crops.

The change to a greater variety and increased acreage of truck crops has increased the number of species of insects found as compared to former years.

The following is a summary of major pests recorded during the year 1952:

CITRUS

Black Scale: General distribution, slight increase over last year. Treated generally in all districts with one of the following; oil spray, parathion or HCN fumigation.

Citrus Aphids: General distribution over the county with a normal intensity. Treatments were general, using nicotine, TEPP, oil, etc.

Citrus Mites: General distribution:
Citrus red spider - general, treatments were made with oil, Aramite, Ovotran.
Lewis Mite - distribution localized in Santa Paula area, infested groves treated with oil and various miticides.
Silver Rust Mite - light infestation with increase in

spread over previous year. Treatment required whenever found with sulfur spray or dust.
Six-spotted mite - light infestation along the coastal area.

Mealybugs: General infestation over most areas of the county. Intensity of build-up showed a definite increase over previous years. Some treatment with parathion, however most reliable control was due to parasites.

Yellow Scale: Infestation general over Fillmore, Santa Paula and Saticoy area. Intensity of infestation was normal for previous years. Treatments were applied at times with oil sprays and HCN fumigation.

Red Scale: Infestations were spotted and light in nature. Parathion sprays were applied in one area, while in other areas HCN fumigation and oil was used as an eradication measure.

Tortrix: Infestations were light over most of the county. Some treatment was necessary in the Santa Clara Valley area. Treatments were made with cryolite.

Citrus Thrips: Infestations were scattered in the interior areas; degree of infestation was light.

Brown Rot of Citrus: Due to the heavy rains during the winter months, brown rot became serious and general treatments were necessary to protect the crop. Incidence of this disease was the heaviest recorded in many years. Copper was used as the major control material.

Quick Decline of Citrus: This disease showed a great increase over previous years and has become a serious threat to some orange groves on sour root stock.

WALNUTS

Codling Moth: This pest has long been a major pest of walnuts in Ventura County and this year was no exception, especially in some areas. DDT has been the principal material used in control measures. Some groves were not treated because of the light infestation the previous year, and the percentage of infested nuts showed a definite increase. Lead arsenate was used for control measures in some groves with erratic results. Parathion was used in several groves.

Walnut Husk Fly: This serious pest of walnuts showed a large spread during the past year. By use of bait traps the fly was found over the major portion of the eastern part of the county. Infestations in new areas were from light to heavy with Concord, Eureka and Payne varieties the worst affected. Where parathion or cryolite was applied the amount of damage was held to a minimum, however, where treatments were not applied, the infestations were heavy. This pest is rapidly becoming the major pest of walnuts in Ventura County.

Walnut Aphids: Infestation of walnut aphids were general over the entire county and several treatments were necessary to hold the infestation in check.

European Red Spider: While most infestations were not as heavy as in the year of 1951, infestations were general and treatments were necessary to combat this pest. Parathion, Ovotran, and Aramite were used as insecticides.

Leaf Roller: Treatments were applied in most coastal orchards for this pest and results were better this year than in the past due to better timing of the applications. DDT was used for treatments.

Frosted Scale: Frosted scale continued to be a problem in some groves. Infestations were scattered and no general treatments were applied especially for this pest.

FIELD CROPS

Spider Mites: Spider infestations were about the same as during 1951, with most of the fields being treated. Materials used were sulfur, Ovotran, Aramite and TEPP.

Lygus: Surveys were again conducted by sweeping to give indication of the degree of infestation with Lygus spp. Treatments were applied generally over most of the bean acreage with DDT. Injury to the crop was in no degree as heavy as in past years.

Aphids: Aphid infestations were heavy in some of the major crops and required repeated treatments to hold damage in check. Among the crops affected were celery, beans, cauliflower, broccoli, and other vegetable crops.

False Chinch Bugs: Heavy infestations of false chinch bugs were noted in several areas of the county. The crops affected were lemons, avocados and lima beans. Treatments of DDT were applied to the area surrounding the lemons and avocados. Infestations in weed areas that were endangering the beans were treated with BHC.

Various Types of Worms: Lettuce was treated repeatedly for various species of worms that at times did considerable damage.

Pepper Weevil: All pepper fields were treated for pepper weevil which in the past has been one of the major pests of peppers.

PARASITIC CONTROL OF INSECTS

Natural control of serious insects by parasites and predators has always played an important part in the production of food crops. To aid the natural parasites and predators normally found in fields and orchards, the citrus organizations by use of insectaries produced parasites for release in groves to control and prevent the build-up of certain pests that normally do not react or are not efficiently controlled by chemical means.

Following is a summary of the type and numbers of parasites reared and released in the county during 1952:

Parasite	Host	Number
Cryptoleamus	Mealybug	46,580,790
Leptomastix	Mealybug	40,215,000
Pauridea	Mealybug	6,261,500
Metaphycus helvolus	Black Scale	3,530,500
Metaphycus Lounsburyi	Black Scale	130,000
Coccophagus Hawaiiensis	Black Scale	1,500
Coccophagus Japonica	Black Scale	3,700
Anicetis annulatus	Black Scale	500
Aneristes ceroplastis	Black Scale	500

PEST CONTROL ENFORCEMENT

To comply with state laws governing the issuance of permits and registration of pest control operators, many hours were spent in the inspection of pest control operations, issuance of permits and the registration of pest control operators.

Permits were issued on all applications of herbicides containing 2,4-D and on insecticides containing parathion. Inspections were made in many cases before the granting of permits.

Inspections were made on spray operations, dusting operations, and fumigation of citrus groves. Much of this work takes place at night and requires overtime and extra long hours for staff personnel.

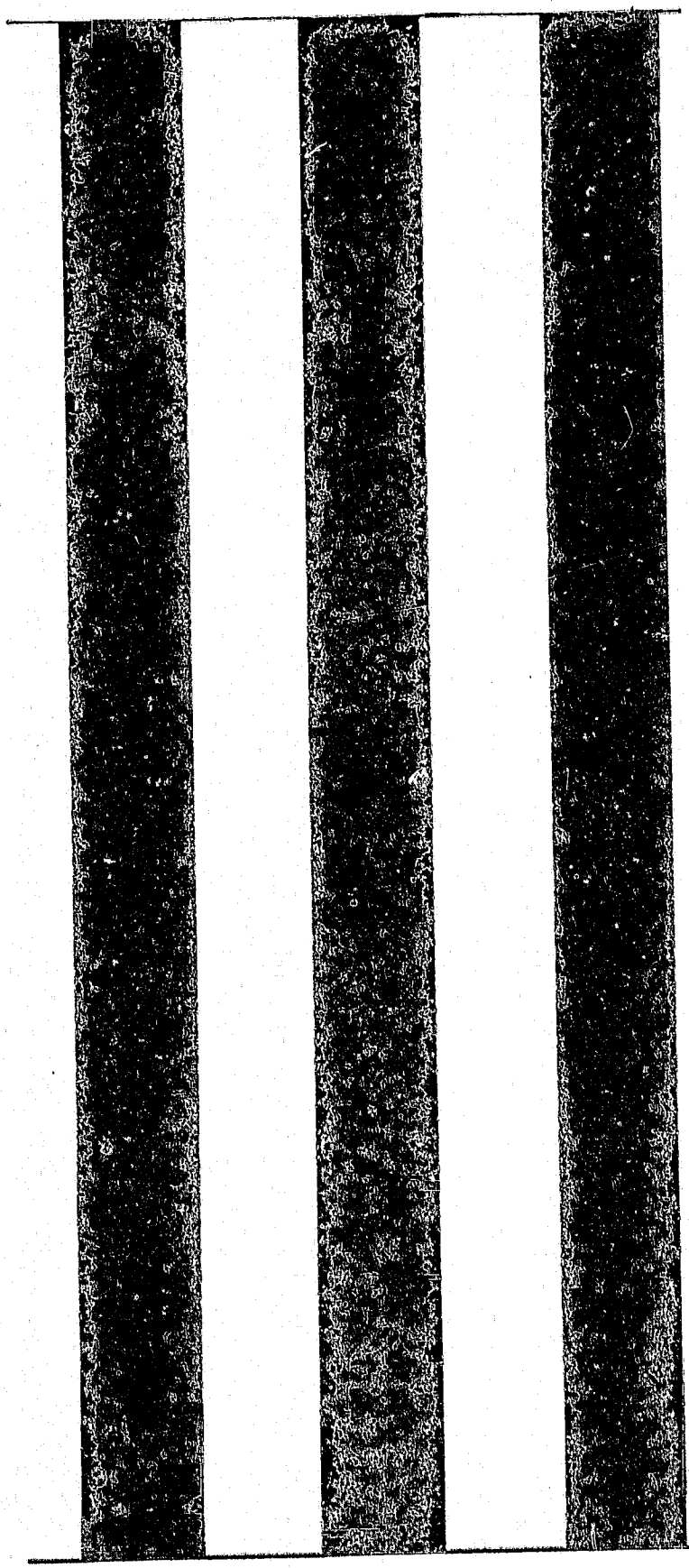
Hours spent on pest control enforcement 713

MATERIALS USED IN PEST CONTROL

Many new insecticides have made their appearances during the past year and many old line materials are still used to give proper protection against the many insect pests that cause serious damage to agricultural crops.

Pest control is a huge business in the growing of food crops and to give some idea as to the materials and amount used in Ventura County during the year of 1952, we are giving a summary of the materials used only by commercial operators. This summary does not include the materials used by growers on their own property.

Aramex	2,929 trees	Citrus	Spider-Mites	26 3/4 Gal.		26 3/4 Gal.
Arames	11	Beans	Lygus-Mites		10 Gal.	10 Gal.
Aramite	341,937 trees	Citrus-Walnuts	Spider-Mites	21,270 Lbs.	4,300 Lbs.	25,570 Lbs.
Aramite 2%	14	Beans	Mites		600 Lbs.	600 Lbs.
Aramite 3%	351	Beans	Lygus-Spider	6,189 Lbs.	4,400 Lbs.	10,589 Lbs.
Aramite 5%	60	Beans	Lygus	2,400 Lbs.		2,400 Lbs.
Aramite 15%	75	Beans	Spider		228 Lbs.	228 Lbs.
B.H.C. 1%	284	Vegt.-Walnuts Flowers	Aphis-Worms	2,950 Lbs.	9,050 Lbs.	12,000 Lbs.
B.H.C. 2%	1,650	Vegt.-Walnuts Flowers	Aphis-Worms	25,720 Lbs.	28,880 Lbs.	54,600 Lbs.
B.H.C. 10%	673	Bareland	Wireworm	1,811 Lbs.	2,546 Lbs.	4,357 Lbs.
B.H.C. 10%	1,617	Vegt.-Flowers Seed Crops	Aphis		536 Gal.	536 Gal.
B.L. -40	4,550	Citrus-Walnuts Deciduous	Aphis	1,776 Gal.		1,776 Gal.
Calcium Arsenate	24	Vegetables	Worms	24 Lbs.		24 Lbs.
Chlordane 40% W.	2,529	Citrus-Bareland	Ants	17,993 Lbs.		17,993 Lbs.
Chlordane 2%	66	Vegetables	Preventive	76 Lbs.	1,508 Lbs.	1,584 Lbs.
Copper 5%	524	Vegt.-Flowers Seed Crops	Blight-Mildew	5,372 Lbs.	17,240 Lbs.	22,612 Lbs.
Copper 7%	937	Vegt.-Flowers	Mildew		47,250 Lbs.	47,250 Lbs.
Copper 10%	239	Vegt.-Flowers Seed Crops	Blight-Mildew	2,650 Lbs.	3,800 Lbs.	6,450 Lbs.



1953

VENTURA COUNTY

ANNUAL REPORT

AND

CROP STATISTICS

1953

AGRICULTURAL COMMISSIONER

A G R I C U L T U R A L C O M M I S S I O N E R

COUNTY OF VENTURA, CALIFORNIA

A N N U A L R E P O R T
YEAR ENDING DECEMBER 31, 1953

BOARD OF SUPERVISORS

Lester A. Price - Chairman

A. C. Ax	C. H. Andrews
E. L. Carty	R. W. Lefever

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DEPARTMENT PERSONNEL

COMMISSIONER	C. J. BARRETT
Deputy Commissioner	John L. Schall
Deputy Commissioner	John C. Allee
Supervisor--Standardization	Paul B. Travis
Supervisor--Pest Control	Harry Bronson
Nursery & Seed Inspector	Verner E. Holmer
Vacuum Fumigation	Murl Boren
District Inspector, Ventura	Albert Bicker
District Inspector, Ventura	Dan Fraser
District Inspector, Oxnard	W. M. Dunning
District Inspector, Oxnard	Clyde W. May
District Inspector, Moorpark--Simi	I. L. Clements
District Inspector, Santa Paula	Harry Michel
District Inspector, Ojai	Fred Lewis
District Inspector, Fillmore--Piru	Wilbur Mayhew
District Inspector, Camarillo	W. M. Jones
Inspector--Weeds & Rodent, Santa Paula	C. C. Burleson
Inspector--Weeds & Rodent, Santa Paula	Floyd Ward
Inspector--Weeds & Rodent, Moorpark--Simi	Bruce Burns
Inspector--Weeds & Rodent, Camarillo	Oscar Olsen
Account Clerk	Shirley Carter
Account Clerk (Part of Year)	Barbara Porter
Account Clerk (Part of Year)	Maxine Walton

C O N T E N T S

ANNUAL REPORT TO THE BOARD OF SUPERVISORS

COUNTY OF VENTURA

AND

THE DIRECTOR

STATE DEPARTMENT OF AGRICULTURE

1953

We submit to you the Annual Report of the activities of the Agricultural Commissioner's office for the calendar year 1953.

While the Commissioner's office is primarily charged with enforcement of state laws pertaining to the agricultural industry of the state, we have tried to be of service to the many persons who make up the agricultural industry of our county. We have cooperated with the various county offices as well as with the State Department of Agriculture and the Federal Government.

Due to changes in the types of crops grown today, as well as the increase in plantings both in commercial acreage and yard landscaping, our work still continues to increase. Standardization has shown the largest increase in the phases of work carried out by the department.

In preparing this report we have mentioned only the most important activities carried out by staff personnel during the year 1953 and have tried to summarize only the general activities.

QUARANTINE

Because of increased movement of plant material and plant appliances, the danger of spread of serious insects and disease is enlarged. Rapid transportation facilities have brought all of the pests that are found in other sections of the world and other sections of the United States to our doorstep in a matter of a few hours. Because quarantine offers the best possible chance to protect ourselves against these pests, we consider quarantine one of the best and most economical means of protection.

Inspection of all incoming shipments is made daily at post offices, express offices, truck terminals and railroad depots. All lots of citrus fruits are inspected before they are offered for sale in retail channels. Infested or infected shipments, and those failing to meet the requirements of state quarantine, have been properly disposed of to insure the best possible protection. Scale insects that are a serious threat to the citrus industry of our county cause us to be especially alert to their possible presence and therefore we spend a great deal of time in inspection and treatment of plants and fruits that are hosts to these insects.

ANNUAL REPORT TO THE BOARD OF SUPERVISORS

COUNTY OF VENTURA

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The following is a summary of the quarantine work during the year 1953:

INTERSTATE QUARANTINE

No. of shipments inspected	1,621
No. of plants inspected	202,055
No. of shipments rejected	46
No. of plants rejected	2,223
No. of shipments passed	1,575
No. of plants passed	199,832
No. of shipments passed Hay & Grain	108
No. of tons passed Hay & Grain	2,658.5

INTRASTATE QUARANTINE

No. of shipments inspected	10,143
No. of plants inspected	21,789,248
No. of shipments rejected	141
No. of plants rejected	4,433
No. of shipments passed	10,002
No. of plants passed	21,784,815
No. of shipments passed Hay & Grain	75
No. of tons passed Hay & Grain	9,087.5

The following were rejected until fumigation treatment was applied:

No. of shipments	988
No. of plants	340,967

Number of hours spent on quarantine inspection 9,303

TREATMENTS

Ventura County is well equipped to treat, in various manners, most of the material we find infested with serious plant pests. Treatments are also made upon many shipments that are of such a nature that inspection is most difficult or of such a nature that inspection would not be positive to insure freedom from these insects. Time and money is saved in many of the treatments as well as giving us a positive assurance that the plants are free of insects.

While this plan may seem drastic to many people, it also gives a service to our people. Often delay would occur if the plants were returned to the point of origin. Fine cooperation was found upon the part of all parties receiving these plants as well as the nurserymen of the county who desire to maintain clean planting stock.

The following is a summary of the work done by the Agricultural Commissioner's office during the year:

VACUUM FUMIGATION

Citrus Fruit (boxes)	17 lots	190
Ornamentals	11 "	3,137
Citrus Trees	757 "	153,464
Walnut Trees	75 "	7,114
Fumigation Tents	1 "	89
Citrus Seedlings	10 "	76,484
Citrus Budwood (bundles)	10 "	55
Walnut Grafts (bags)	1 "	1
Citrus Trees (bare root)	5 "	423

METHYL BROMIDE - ATMOSPHERIC

Citrus Budwood (bundles)	63 lots	106
Ornamentals	5 "	440
Citrus Seedlings	30 "	99,450
Citrus Trees	3 "	14

METHYL BROMIDE - VACUUM

Bedding (pieces)	1 lot	4

Number of hours spent on fumigation 4,523

NURSERY INSPECTION

Constant survey of the nursery stock grown in the county offers a chance to keep not only the planting stock clean but also helps give the grower with commercial acreage the protection he deserves against the possibility of infested plant material being a source of trouble to him. Inspection of all incoming nursery stock is made at the time of arrival, and quarterly inspections are made during the year. Surrounding yards are also inspected and if found infested with serious plant pests, are made to clean up.

When infestations of pests are found in the nursery, these pests must be properly controlled or eradicated before the stock is allowed to move in trade channels.

One nursery inspector has charge of nursery inspection work and is assisted by the various district inspectors. One hundred and ten (110) complete nursery inspections were made during the year. Twenty-one (21) reinspections to determine results of the required cleanup program were made.

Infestations of Red Scale (Aonidiella aurantii) and Lesser Snow Scale (Pinnaspis strachani) were found in two nurseries. Eradication of both these scales is mandatory so all hosts were fumigated with methyl bromide at the rate of 2 Lbs. per 1,000 cu.ft. at 80 degrees for a period of two hours. Subsequent inspections proved that eradication was accomplished.

Virus, fungus, bacterial and physiological diseases of minor importance were found in several nurseries infecting a variety of ornamentals. Diagnosis in each case was made or confirmed by the Bureau of Plant Pathology, State Department of Agriculture. Whenever possible, control measures were outlined to the owner of the stock.

Following is a summary of nursery inspection work carried out during the year 1953:

Number of nursery inspections	110
Number of reinspections	21
Number of nurseries with "A" pests or pests with eradication nature	1
Number of nurseries with "B" pests	1
Number of nurseries with "C" pests or pests of common occurrence	59
Number of nurseries required to clean up	61
Number of hours spent on nursery inspection	528

PLANT DISEASE INSPECTION

During the year 1953, numerous calls were received relative to disease problems both in commercial plantings and in yards and nurseries. The problems were varied and of wide scope. Inspections were made by staff personnel with the aid of Dr. Alex French of the State Department of Agriculture. We wish to acknowledge the cooperation and service the State Department was able to render in assisting with viewing the problems and in making the determinations on plant material submitted to them.

Following is a summary of the plant disease inspections made during 1953:

Citrus	14
Avocados	22
Deciduous	11
Ornamentals	42
Bulbs and flowers	10
Vegetables	14
Miscellaneous Plants	4
Total inspections	117
Number of hours spent on plant disease problems	211

FIELD AND ORCHARD INSPECTION

Field and orchard inspections are a part of routine work of the department and consume considerable time and mileage on the part of the staff personnel. These inspections give us a knowledge of pest conditions in the county and aid in making proper recommendations for the control of specific pests.

Many pests maintain almost an even balance during the year and require constant pest control measures to combat them. Others vary in intensity from year to year and when they are on the upswing in intensity, require prompt and effective measures of pest material to keep them in check.

During recent years, new insecticides have made their appearance on the market and replaced many of the old "standby" materials that gave partial control on several types of insects. The newer materials seem to be more specific for certain insects and this, in many cases, allows for a buildup of several types not affected by these specific materials.

Following is a summary of major pests found during the year 1953:

CITRUS

Black Scale: General distribution over entire county. Infestation was medium to heavy with treatment over most of the infested area. Treatments were made with oil plus rotenone and HCN fumigation.

Citrus Aphids: General distribution over the county. Treatments were general, using oil, TEPP, nicotine, etc.

Citrus Mites: General over all citrus acreage. Degree of intensity varies in different districts.
Citrus red spider--Treatments applied with oil, aramite and ovotran.
Lewis mite--Localized in Santa Paula area. Treated with oil.
Silver rust mite--This mite has shown a definite spread over last year. Infestations varied from light to medium. Treatments with sulfur were applied whenever the mite was found.
Six-spotted mite--Light infestation along coastal area.
Two-spotted mite--For the first time, two-spotted mites were found damaging citrus. These infestations were apparently spread from adjacent bean fields.

Mealybugs: General infestation over most of the county varying in intensity in groves. Treatments consisted of liberation of beneficial parasites and predators. Some treatments were made in heavily infested groves using parathion.

Yellow Scale: Yellow scale continues to be found generally over the area from the county line to the ocean in the Santa Clara Valley area. While on occasion this scale requires treatment with fumigation, sprays with oil for other insects and scales keep it pretty well in check.

Red Scale: Infestations were found as a result of tree to tree survey. They were light and spotted over most of the citrus area. Treatments consisted of parathion and HCN fumigation.

Tortrix: Infestations were light on both oranges and lemons. Treatments using cryolite were made where needed.

Citrus Thrips: Infestations were light and spotted. Treatments where control was needed consisted of tartar emetic with some experimental use of aldrin.

Brown Rot of Citrus: Treatments for this disease were made in the late fall to protect the fruit. Copper and Bordeaux were used chiefly to combat brown rot of citrus.

WALNUTS

Codling Moth: Treatment was made over most of the walnut growing area. DDT was generally accepted as the material for the control of this pest. However, many groves were treated with lead arsenate. Infestations were held in check when treated with adequate dosages, properly timed. Due to the short crop of nuts, some groves were not treated and as a result as high as 22% damage was recorded in the packing house.

Walnut Husk Fly: This pest showed a great increase in spread through the major portion of the county during 1953. Trapping was carried on throughout most of the walnut area. Spread of this serious pest of walnuts was found to have included the Ventura District, Upper Ojai, Ojai Valley and Saticoy District. Treatments were general in the area previously infested. Parathion was used as the insecticide. As usual with this pest, the thick husk variety of walnuts showed the greatest degree of infestation.

Walnut Aphids: The intensity of this pest was normal for the season. Treatments were made throughout all of the walnut groves. Several treatments were necessary in many cases to hold the insect in check. Parathion and nicotine sulfate were the materials used.

European Red Spider: Infestations were general throughout the county and treatments were applied to all groves. Aramite and ovotran were used to combat this pest.

FIELD CROPS

Increased planting of a variety of crops allows more chance for insects to build up and survive. Double cropping of vegetables has given the insects a better chance to maintain themselves.

Spider Mites: Spider infestations were not as severe as in 1952. Sulfur, aramite, ovotran and TEPP were used to combat these pests.

Lygus: Surveys were conducted to determine the degree of population in seed crops and in lima beans. Treatments were generally applied to all seed and bean acreage. DDT and toxophene were used.

Aphids: This pest is always a threat to many of our crops and requires general treatment. Among the crops most severely affected were celery, beans, cauliflower, cabbage, lettuce, broccoli, etc.

Leaf Hoppers: Some damage to early plantings of tomatoes resulted due to the beet leaf hopper spreading western yellow blight. Later plantings did not show serious damage.

Worms: Cabbage and lettuce were treated several times during the season for protection against these pests. DDT was used as a protective measure.

Number of hours spent on field and orchard inspection 2,636

PARASITIC CONTROL OF INSECTS

Parasites for the control of citrus insects are raised and released in great numbers by the several citrus organizations throughout the county. Growers are becoming more aware of the value of natural control of pests by parasites and predators. Many insects can be controlled to a commercial degree by natural enemies, and the cost of producing these beneficial parasites is very low as compared to the use of insecticides.

Following is a summary of the types and number of parasites reared and released in the county during 1953 by the citrus association insectaries:

Parasite	Host	Number
Cryptoleamus	Mealybug	39,581,470
Leptomastix	Mealybug	38,396,000
Pauridea	Mealybug	4,344,500
Metaphycus helvolus	Black scale	2,013,000
Metaphycus lounsburyi	Black scale	100,000
Metaphycus stanleyi	Black scale	150,000
Metaphycus flavis	Black scale	50,000
Diversinerus elegans	Black scale	595,900
Hyperaspis	Black scale (Predatora)	3,650
Aphytis sp.	Yellow scale	475,000
		85,709,520

PEST CONTROL ENFORCEMENT

To comply with state laws governing the issuance of permits and registration of pest control operators, many hours were spent in the inspection of pest control operations. Permits were issued on all applications of herbicides containing 2-4-D and insecticides containing parathion. Inspections were made in many cases before granting permits. Inspections were made on spray operations, dusting operations and fumigation practices. The latter requires night inspection, and much overtime accumulated as a result of this practice.

Number of hours spent on pest control enforcement 620

MATERIALS USED IN PEST CONTROL

Pest control is a big business in Ventura County and is essential in the production of food crops. To give some idea as to the materials and amounts used during the year 1953, we offer a summary of materials used by commercial pest control operators only and do not include those used by growers themselves on their own property.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Aldrin 23% E	24	Bareland	Seed Corn Maggot	56 Gal.		56 Gal.
Aramite 3%	4,761	Vegt.-Walnuts	Spider	46,704 Lbs.	100,528 Lbs.	147,232 Lbs.
Aramite 5%	7	Vegetables	Spider		300 Lbs.	300 Lbs.
Aramite 15% W	7,598	Avoc.-Citrus Walnuts	Spider	30,778 Lbs.		30,778 Lbs.
Aramite 25% E	52	Vegetables	Spider		4 Gal.	4 Gal.
B.H.C. 2%	99	Vegetables Seed Crops	Aphis	1,000 Lbs.	3,000 Lbs.	4,000 Lbs.
B.H.C. 23%	16	Flowers	Aphis		10 Gal.	10 Gal.
Captan 5%	16	Flowers	Mildew		150 Lbs.	150 Lbs.
Chlordane 5%	142	Vegt.-Flowers	Ants, Worms	3,150 Lbs.	1,800 Lbs.	4,950 Lbs.
Chlordane 40% W	945	Bareland-Citrus	Seed Corn Maggot, Ants	5,111 Lbs.		5,111 Lbs.
Chlordane 50% W	2,986	Citrus	Ants	16,506 Lbs.		16,506 Lbs.
Chlordane 74%	77	Bareland	Seed Corn Maggot		20 Gal.	20 Gal.
C.M.U. 80%	1	Annual Weeds		10 Lbs.		10 Lbs.
Copper 5%	1,005	Vegetables	Blight, Mildew	41,350 Lbs.	1,400 Lbs.	42,750 Lbs.
Copper 7%	1,913	Vegt.-Flowers	Mildew	13,300 Lbs.	70,983 Lbs.	84,283 Lbs.
Copper 10%	333	Vegetables	Mildew	19,250 Lbs.	550 Lbs.	19,800 Lbs.
Copper 22%	4,574	Citrus-Decid.	Brown Rot	76,333 Lbs.		76,333 Lbs.
Copper 42%	1,038	Vegt.-Citrus	Brown Rot, Mildew	11,355 Lbs.		11,355 Lbs.
Copper 53%	10,892	Citrus-Decid. Vegt.-Walnuts	Brown Rot, Blight, Mildew	64,673 Lbs.		64,673 Lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Aldrin 23% E	24	Bareland	Seed Corn Maggot	56 Gal.		56 Gal.
Aramite 3%	4,761	Vegt.-Walnuts	Spider	46,704 Lbs.	100,528 Lbs.	147,232 Lbs.
Aramite 5%	7	Vegetables	Spider		300 Lbs.	300 Lbs.
Aramite 15% W	7,598	Avoc.-Citrus Walnuts	Spider	30,778 Lbs.		30,778 Lbs.
Aramite 25% E	52	Vegetables	Spider		4 Gal.	4 Gal.
B.H.C. 2%	99	Vegetables Seed Crops	Aphis	1,000 Lbs.	3,000 Lbs.	4,000 Lbs.
B.H.C. 23%	16	Flowers	Aphis		10 Gal.	10 Gal.
Captan 5%	16	Flowers	Mildew		150 Lbs.	150 Lbs.
Chlordane 5%	142	Vegt.-Flowers	Ants, Worms	3,150 Lbs.	1,800 Lbs.	4,950 Lbs.
Chlordane 40% W	945	Bareland-Citrus	Seed Corn Maggot, Ants	5,111 Lbs.		5,111 Lbs.
Chlordane 50% W	2,986	Citrus	Ants	16,506 Lbs.		16,506 Lbs.
Chlordane 74%	77	Bareland	Seed Corn Maggot		20 Gal.	20 Gal.
C.M.U. 80%	1	Annual Weeds		10 Lbs.		10 Lbs.
Copper 5%	1,005	Vegetables	Blight, Mildew	41,350 Lbs.	1,400 Lbs.	42,750 Lbs.
Copper 7%	1,913	Vegt.-Flowers	Mildew	13,300 Lbs.	70,983 Lbs.	84,283 Lbs.
Copper 10%	333	Vegetables	Mildew	19,250 Lbs.	550 Lbs.	19,800 Lbs.
Copper 22%	4,574	Citrus-Decid.	Brown Rot	76,333 Lbs.		76,333 Lbs.
Copper 42%	1,038	Vegt.-Citrus	Brown Rot, Mildew	11,355 Lbs.		11,355 Lbs.
Copper 53%	10,892	Citrus-Decid. Vegt.-Walnuts	Brown Rot, Blight, Mildew	64,673 Lbs.		64,673 Lbs.

[illegible]	[illegible]	[illegible]	[illegible]ght	[illegible] Lbs.		[illegible] Lbs.
[illegible]	1,124	[illegible]	Rust Fly, Worms	28,093 Lbs.	100 Lbs.	28,693 Lbs.
[illegible]	229	Vegetables	Worms	7,350 Lbs.		7,350 Lbs.
DDT 5%	20,611	Vegt.-Flowers Seed Crops	Worms	210,437 Lbs.	519,701 Lbs.	730,138 Lbs.
DDT 10%	4,147	Vegt.-Walnuts Seed Crops Bareland-Flowers	Worms, Wireworms	59,150 Lbs.	88,850 Lbs.	148,000 Lbs.
DDT 25% E	7,659	Vegt.-Flowers	Lygus, Worms	817 Gal.	3,328 Gal.	4,145 Gal.
DDT 50% W	6,421	Bareland-Citrus Vegt.-Walnuts	Scale, Wireworms, Worms	94,399 Lbs.		94,399 Lbs.
Dieldrin 15% E	55	Bareland-Citrus	Seed Corn Maggot, Thrips	36 Gal.	5 Gal.	41 Gal.
DN-111 20% W	2,397	Citrus	Spider	11,890 Lbs.		11,890 Lbs.
E.D.B. 38%	3,037	Bareland	Nematode	17,260 Gal.		17,260 Gal.
E.D.B. 63%	3,833	Bareland	Nematode	15,350 Gal.		15,350 Gal.
Ferbam 11%	20	Vegetables	Rust	84 Lbs.		84 Lbs.
Ferbam 15%	6	Flowers	Mildew		9 Lbs.	9 Lbs.
HCN	216,234 trees	Citrus	Scale	85,860 Lbs.		85,860 Lbs.
Kerosene	1,395	Citrus	Scale	27,989 Gal.		27,989 Gal.
Lead Arsenate (Basic)	45	Walnuts	Worms	380 Lbs		380 Lbs.
Lindane 1½%	94	Vegt.-Flowers	Aphis		3,800 Lbs.	3,800 Lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY [illegible]	AMOUNT BY AIR	TOTAL AMOUNT
Lindane 20% E	775	Vegt.-Bareland	Apnis, Seed Corn Maggot	48 Gal	131 Gal.	179 Gal
Lindane 25% W	76	Bareland	Wireworms		125 Lbs.	125 Lbs.
Malathion 5%	52	Vegetables	Aphis		3,650 Lbs.	3,650 Lbs.
Malathion 55% E	35	Vegetables	Worms		7 Gal.	7 Gal.
Manganese	9,619	Avoc.-Citrus	Deficiency	23,423 Lbs.		23,423 Lbs.
Maneb 5%	39	Vegetables	Mildew		1,600 Lbs.	1,600 Lbs.
Metacide 50% E	251	Vegetables	Aphis, Lygus, Spider, Worms	19 Gal.	20 Gal.	39 Gal.
Nabam 3%	143	Vegetables	Blight, Mildew	70 Gal.		70 Gal.
Neotran 40% W	1,927	Citrus-Walnuts	Spider	2,664 Lbs.		2,664 Lbs.
Nicotine 1.8% (No.5)	4,272	Citrus-Walnuts	Aphis	104,121 Lbs.	31,800 Lbs.	135,921 Lbs.
Nicotine 3.6% (No.10)	2,219	Vegt.-Citrus Walnuts	Aphis	32,691 Lbs.	39,588 Lbs.	72,279 Lbs.
Nicotine 40% (BL-40)	2,766	Citrus-Walnuts	Aphis	3,419 Gal.		3,419 Gal.
Oil	32,118	Citrus	Mites, Scale, Spider	480,463 Gal.		480,463 Gal.
Oil (Weed)	103		Weeds	7,733 Gal.		7,733 Gal.
Ovotran 1%	17	Vegetables	Spider		1,000 Lbs.	1,000 Lbs.
Ovotran 5%	141	Vegt.-Citrus	Spider		5,900 Lbs.	5,900 Lbs.
Ovotran 18% E	8	Vegetables	Spider		1 Gal.	1 Gal.
Ovotran 50% W	20,542	Avoc.-Citrus Vegt.-Walnuts	Spider	78,525 Lbs.		78,525 Lbs.
Parathion 1%	7,614	Flowers-Walnuts Vegt.-Seed Crops	Aphis, Spider, Worms	138,437 Lbs.	131,050 Lbs.	269,487 Lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Aldrin 23% E	24	Bareland	Seed Corn Maggot	56 Gal		56 Gal
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Aramite 5%	7	Vegetables	Spider		300 Lbs.	300 Lbs.
Aramite 15% W	7,598	Avoc.-Citrus Walnuts	Spider	30,778 Lbs.		30,778 Lbs.
Aramite 25% E	52	Vegetables	Spider		4 Gal.	4 Gal.
B.H.C. 2%	99	Vegetables Seed Crops	Aphis	1,000 Lbs.	3,000 Lbs.	4,000 Lbs.
B.H.C. 23%	16	Flowers	Aphis		10 Gal.	10 Gal.
Captan 5%	16	Flowers	Mildew		150 Lbs.	150 Lbs.
Chlordane 5%	142	Vegt.-Flowers	Ants, Worms	3,150 Lbs.	1,800 Lbs.	4,950 Lbs.
Chlordane 40% W	945	Bareland-Citrus	Seed Corn Maggot, Ants	5,111 Lbs.		5,111 Lbs.
Chlordane 50% W	2,986	Citrus	Ants	16,506 Lbs.		16,506 Lbs.
Chlordane 74%	77	Bareland	Seed Corn Maggot		20 Gal.	20 Gal.
C.M.U. 80%	1	Annual Weeds		10 Lbs.		10 Lbs.
Copper 5%	1,005	Vegetables	Blight, Mildew	41,350 Lbs.	1,400 Lbs.	42,750 Lbs.
Copper 7%	1,913	Vegt.-Flowers	Mildew	13,300 Lbs.	70,983 Lbs.	84,283 Lbs.
Copper 10%	333	Vegetables	Mildew	19,250 Lbs.	550 Lbs.	19,800 Lbs.
Copper 22%	4,574	Citrus-Decid.	Brown Rot	76,333 Lbs.		76,333 Lbs.
Copper 42%	1,038	Vegt.-Citrus	Brown Rot, Mildew	11,355 Lbs.		11,355 Lbs.
Copper 53%	10,892	Citrus-Decid. Vegt.-Walnuts	Brown Rot, Blight, Mildew	64,673 Lbs.		64,673 Lbs.

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Lindane 20% E	775	Vegt.-Bareland	Aphis, Seed Corn Maggot	48 Gal.	131 Gal.	179 Gal.
Lindane 25% W	76	Bareland	Wireworms		125 Lbs.	125 Lbs.
Malathion 5%	52	Vegetables	Aphis		3,650 Lbs.	3,650 Lbs.
Malathion 55% E	35	Vegetables	Worms		7 Gal.	7 Gal.
Manganese	9,619	Avoc.-Citrus	Deficiency	23,423 Lbs.		23,423 Lbs.
Maneb 5%	39	Vegetables	Mildew		1,600 Lbs.	1,600 Lbs.
Metacide 50% E	251	Vegetables	Aphis, Lygus, Spider, Worms	19 Gal.	20 Gal.	39 Gal.
Nabam 3%	143	Vegetables	Blight, Mildew	70 Gal.		70 Gal.
Neotran 40% W	1,927	Citrus-Walnuts	Spider	2,664 Lbs.		2,664 Lbs.
Nicotine 1.8% (No.5)	4,272	Citrus-Walnuts	Aphis	104,121 Lbs.	31,800 Lbs.	135,921 Lbs.
Nicotine 3.6% (No.10)	2,219	Vegt.-Citrus Walnuts	Aphis	32,691 Lbs.	39,588 Lbs.	72,279 Lbs.
Nicotine 40% (BL-40)	2,766	Citrus-Walnuts	Aphis	3,419 Gal.		3,419 Gal.
Oil	32,118	Citrus	Mites, Scale, Spider	480,463 Gal.		480,463 Gal.
Oil (Weed)	103		Weeds	7,733 Gal.		7,733 Gal.
Ovotran 1%	17	Vegetables	Spider		1,000 Lbs.	1,000 Lbs.
Ovotran 5%	141	Vegt.-Citrus	Spider		5,900 Lbs.	5,900 Lbs.
Ovotran 18% E	8	Vegetables	Spider		1 Gal.	1 Gal.
Ovotran 50% W	20,542	Avoc.-Citrus Vegt.-Walnuts	Spider	78,525 Lbs.		78,525 Lbs.
Parathion 1%	7,614	Flowers-Walnuts Vegt.-Seed Crops	Aphis, Spider, Worms	138,437 Lbs.	131,050 Lbs.	269,487 Lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Parathion 2%	9,710	Citrus-Flowers Vegt.-Walnuts Seed Crops	Aphis, Lygus, Spider, Worms	189,300 Lbs.	179,997 Lbs.	369,297 Lbs
Parathion 25% E	1,830	Vegetables	Aphis, Spider, Worms	347 Gal.	91 Gal.	438 Gal.
Parathion 25% W	12,809	Vegt.-Citrus Walnuts	Aphis, Husk Fly, Scale, Worms	52,539 Lbs.		52,539 Lbs.
Parathion 45% E	2,878	Vegt.-Flowers	Aphis, Lygus, Worms	39 Gal.	668 Gal.	707 Gal.
Pyrethrum	45	Citrus	Aphis	48 Gal.		48 Gal.
Rotenone 2.5% E	819	Citrus	Aphis	493 Gal.		493 Gal.
Rotenone 3% W	1,308	Citrus	Scale	10,571 Lbs.		10,571 Lbs.
Rotenone 5% W	8,045	Citrus	Scale	42,530 Lbs.		42,530 Lbs.
Rotenized Oil	2,302	Citrus	Scale, Spider	17,295 Gal.		17,295 Gal.
Sinox W	120	Vegetables	Weeds		85 Gal.	85 Gal.
Sodium Chlorate 18%) Sodium Metaborate 9%)	104 miles	Right-of-way	Weeds	8,696 Lbs.		8,696 Lbs.
Sodium Chlorate	97	Vegetables	Defoliant		970 Lbs.	970 Lbs.
Sulfur 15%	588	Vegetables	Mildew	12,450 Lbs.	6,750 Lbs.	19,200 Lbs.
Sulfur 25%	966	Vegt.-Flowers	Mildew	16,700 Lbs.	13,550 Lbs.	30,250 Lbs.
Sulfur 50%	17,183	Vegt.-Flowers Seed Crops	Mildew, Spider	137,642 Lbs.	466,290 Lbs.	603,932 Lbs.
Sulfur 70---80%	744	Vegt.-Citrus	Scale, Spider	13,660 Lbs.	16,250 Lbs.	29,910 Lbs.
Sulfur 90---100%	249	Citrus-Grapes Vegetables	Mildew, Rust, Mites	2,224 Lbs.	4,550 Lbs.	6,774 Lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Parathion 2%	9,710	Citrus-Flowers Vegt.-Walnuts Seed Crops	Aphis, Lygus, Spider, Worms	189,300 Lbs.	179,997 Lbs.	369,297 Lbs.
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Rotenone 5% W	8,045	Citrus	Scale	42,530 Lbs.		42,530 Lbs.
Rotenized Oil	2,302	Citrus	Scale, Spider	17,295 Gal.		17,295 Gal.
Sinox W	120	Vegetables	Weeds		85 Gal.	85 Gal.
Sodium Chlorate 18%) Sodium Metaborate 9%)	104 miles	Right-of-way	Weeds	8,696 Lbs.		8,696 Lbs.
Sodium Chlorate	97	Vegetables	Defoliant		970 Lbs.	970 Lbs.
Sulfur 15%	588	Vegetables	Mildew	12,450 Lbs.	6,750 Lbs.	19,200 Lbs.
Sulfur 25%	966	Vegt.-Flowers	Mildew	16,700 Lbs.	13,550 Lbs.	30,250 Lbs.
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Sulfur 70--80%	744	Vegt.-Citrus	Scale, Spider	13,660 Lbs.	16,250 Lbs.	29,910 Lbs.
Sulfur 90--100%	249	Citrus-Grapes Vegetables	Mildew, Rust, Mites	2,224 Lbs.	4,550 Lbs.	6,774 Lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Systox (Demeton)	25	Seed Crops	Aphis, Spider		5 Gal.	5 Gal.
Tartar Emetic	35	Citrus	Thrips, Slugs	134 Lbs.		134 Lbs.
TCA	6		Weeds	300 Lbs.		300 Lbs.
TDE	30	Vegetables	Worms		1,200 Lbs.	1,200 Lbs.
TEPP 1 & 2%	4,084	Vegt.-Citrus Walnuts	Aphis	76,211 Lbs.	23,970 Lbs.	200,181 Lbs.
TEPP 20% E	7,434	Vegt.-Citrus Flowers-Seed Crops	Aphis, Spider	220 Gal.	2,479 Gal.	2,699 Gal.
Thane	236	Vegt.-Citrus Flowers	Mildew	10 Lbs.	9,650 Lbs.	9,660 Lbs.
Toxaphene 10%	1,010	Vegt.-Flowers Seed Crops	Lygus, Worms	14,397 Lbs.	17,650 Lbs.	32,047 Lbs.
Toxaphene 15%	292	Vegetables	Lygus		3,900 Lbs.	3,900 Lbs.
Toxaphene 20%	94	Vegetables Seed Crops	Lygus, Worms		3,150 Lbs.	3,150 Lbs.
Toxaphene 45% E	3,939	Vegetables Seed Crops	Lygus, Worms, Leaf Miner	96 Gal	2,571 Gal.	2,667 Gal.
Toxaphene 60% E	6,212	Vegetables	Worms		4,391 Gal.	4,391 Gal.
Toxaphene 71% E	35	Vegetables	Worms		9 Gal.	9 Gal.
Zinc 4%, Manganese 4%) Copper 3%, Sulfur 30%)	40	Citrus	Deficiency, Silver Mite	1,127 Lbs.		1,127 Lbs.
Zinc	20,015	Avoc.-Citrus	Deficiency	97,277 Lbs.		97,277 Lbs.
Zinc Manganese Combinations	17,183	Avoc.-Citrus	Deficiency	165,304 Lbs.		165,304 Lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Zineb 3%	1,458	Vegt.-Flowers	Mildew	19,370 Lbs.	29,350 Lbs.	48,720 Lbs.
Zineb 5%	781	Vegt.-Flowers	Mildew	10,550 Lbs.	17,500 Lbs.	28,050 Lbs.
Zineb 10%	35	Vegetables	Mildew		1,400 Lbs.	1,400 Lbs.
Zineb 65% W	92	Vegetables	Mildew	25 Lbs.	30 Lbs.	55 Lbs.
2,4-D	1,640		Weeds	110 Gal.	302 Gal.	412 Gal.
2,4-D; 2,4,5-T	322,085 trees	Citrus	Tree Conditioner	123 Gal.		123 Gal.

BOAT INSPECTION

Inspection of incoming ships at our local harbor is carried out by members of the Commissioner's staff. Ship stores, cargo, and other items are carefully inspected to safeguard against the spread of serious insect pests and diseases. Infested material is properly disposed of and infested cargo is required to be treated or thoroughly cleansed to meet state requirements. Garbage disposal is supervised by our staff members to safeguard against the danger of foot and mouth disease.

Number of boat inspections	10
Number of hours spent on inspections	71

TOMATO SEED CERTIFICATION

Working under authority of the Director and under supervision of the Bureau of Plant Pathology, county personnel inspected tomato plants, to be used in the production of seed, for the purpose of determining the presence or absence of Bacterial Canker (Corynebacterium michiganense).

Three inspections were made over the entire acreage at various times during the growth of the plant. Harvesting and processing of the seed was also under direct supervision of the inspectors. Certificates were issued on those lots of seed which met the requirements.

Number of acres inspected	150
Number of certificates issued	113
Number of pounds of seed certified	5,522

INSPECTION OF CITRUS FRUIT SHIPPED TO FLORIDA

Florida quarantine regulations for citrus fruits from California require inspection and certification of all fruit destined for the state of Florida. Inspections are made at the time of packing to see that no fruit infected with brown rot is allowed to enter the boxes. Special washing and storing procedures must be met to qualify for certification. Inspectors are present at all time during the packing process to certify as to the requirements.

Number of cars inspected and certified	172
Number of containers inspected and certified	141,560
Number of hours spent on inspections	239

SEED INSPECTION

Inspections were made on lots of seed offered for sale. This is done to insure proper labeling and proper germination and purity statements. These inspections were made at seed stores, supply stores, warehouses, retail stores, etc.

Following is a summary of seed inspections:

Number of dealers' lots inspected	658
Number of consumers' lots inspected	3
Number of interstate lots inspected	181
Number of intrastate lots inspected	930
Total number of lots inspected	1,772
Number of lots in violation	23
Number of stop sale orders issued	9
Number of service samples drawn	3
Number of official samples drawn	2

In cooperation with the California Crop Improvement Association, University of California, inspection and sampling was done to assist the grower in obtaining seed certification.

13 samples were drawn of large Limas, Fordhook, Blackeye, Kidney and Pink beans.
13 field inspections were made on harvesting equipment.
13 lots were labeled and sealed.

In cooperation with the Bureau of Field Crops, State Department of Agriculture, 226 samples were drawn and submitted for grading.

Number of hours spent on seed inspection 479

STANDARDIZATION

This phase of work has shown a great increase during the past year. Increased acreage of citrus and vegetable crops make for more inspections. Truck shipments have increased over previous years and thus more certificates were issued on out of state shipments.

Ventura County has twelve orange packing houses and eighteen lemon packing houses or a total of thirty. Fourteen vegetable packing houses are in operation most of the year and require inspection. A great deal of the vegetable produce is packed in the field and this great amount of produce added to that packed in the sheds keeps the inspectors busy.

One supervising inspector has charge of the work and is assisted by the various district inspectors. The supervising inspector is also charged with egg inspection.

The fine cooperation given by the packers and shippers continues to aid us greatly in the enforcement of standardization. Following is a summary of the work done on standardization:

Number of containers inspected	1,845,770
Number of containers rejected	688
Number of shipments certified	6,411
Numbers of containers certified	1,685,797
Number of violations issued	19

[illegible] (Continued)

[illegible]

Number of premises visited	178
Number of lots inspected	747
Number of dozens inspected	102,728
Number of dozens rejected	288
[illegible] hours spent on standardization	4,302

[illegible]

Because Ventura County is listed as having found plague in rodents, consid- attention is devoted to the control of field rodents. Squirrels have received considerable attention from this department. Squirrels, besides serious economic damage to growing crops, are capable of carrying disease to humans. Staff members, extra help and growers surveyed the entire placed poisoned baits for the control of ground squirrels. Methyl was used in season to give additional control measures. Special atten- given to those areas around new subdivisions and residential areas. placed in special traps, was used effectively to control ground squirrels.

rodent made itself felt throughout the major part of the county and be building up to a serious population. More damage to tree crops is from this rodent than all of the disease problems facing the growers. rations were held and poisoned baits were prepared and sold at cost to to aid them in their fight against the pocket gopher. Since the pocket not included as a carrier of plague, the problem of control becomes an one to the grower.

[illegible]

[illegible] increase in population of field mice was recorded in the county [illegible] to a serious threat to [illegible] especially citrus. [illegible] number of areas were reported as [illegible] Growers [illegible] bait material to [illegible]

[illegible]

[illegible] control was [illegible] areas for this pest. Warfarin baits were supplied by the [illegible] with seed

[illegible]

were also assisted in the control of [illegible] crops and animals. Where actual damage [illegible] due to birds, growers were assisted in protecting their crops by the depart- Assistance was also given to growers in [illegible] of skunks, coyotes etc.

Following is a summary of the Rodent Control Program:

Squirrels (Plague Area)

No. of acres treated in plague area	353,540
No. of pounds 1080-treated grain	8,065
No. of pounds strychnine-treated grain	639
No. of pounds zinc phosphide-treated grain	225
No. of pounds warfarin-treated grain	930
No. of pounds methyl bromide	3,017
No. of hours spent on rodent control, plague area	7,406

Other Rodents (Non-plague Area)

No. of acres treated	44,518
No. of acres treated for gophers	33,739
No. of pounds bait material for gophers	7,580
No. of acres treated for field mice	30
No. of pounds bait material for field mice	25
No. of acres treated for rabbits	10,749
No. of pounds bait material used for rabbits	3,510
No. of baits for coyote control	323
No. of properties treated for rats	84
No. of pounds baits for rats (warfarin)	570
No. of hours spent on rodent control, non-plague area	962

APIARY INSPECTION

Inspection of apiaries for diseases of bees was carried out by staff members of the Commissioner's office. Movement of bees showed an increase over past years. With the use of many insecticides harmful to bees, considerable work was necessary to inspect locations and to safeguard the colonies against injury.

Following is a summary of the work carried on during 1953:

	No. Apiaries	No. Colonies
Registered	108	5,220
Entering county	69	7,982
Leaving county	70	6,461
Leaving California	4	570
Moving within county	16	1,606
Inspected	30	874
Infected with American Foulbrood	8	92
Infected with European Foulbrood	2	6
Burned--American Foulbrood	4	83
No. of hours spent on inspection		519

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No. of pounds bait material for gophers	7,580
No. of acres treated for field mice	30
No. of pounds bait material for field mice	25
No. of acres treated for rabbits	10,749
No. of pounds bait material used for rabbits	3,510
No. of baits for coyote control	323
No. of properties treated for rats	84
No. of pounds baits for rats (warfarin)	570
No. of hours spent on rodent control, non-plague area	962

APIARY INSPECTION

Inspection of apiaries for diseases of bees was carried out by staff members of the Commissioner's office. Movement of bees showed an increase over past years. With the use of many insecticides harmful to bees, considerable work was necessary to inspect locations and to safeguard the colonies against injury.

Following is a summary of the work carried on during 1953:

	No. Apiaries	No. Colonies
Registered	108	5,220
Entering county	69	7,982
Leaving county	70	6,461
Leaving California	4	570
Moving within county	16	1,606
Inspected	30	874
Infected with American Foulbrood	8	92
Infected with European Foulbrood	2	6
Burned--American Foulbrood	4	83
No. of hours spent on inspection		519

WEED CONTROL

Weeds offer a serious threat to agricultural crops by harboring many diseases and insects. Weeds compete for moisture and soil elements necessary to [illegible] food crops, and in many cases require attention at time of harvest to [illegible] seed for planting purposes.

Because growers are becoming more weed conscious, and are doing a better [illegible] of controlling weeds on their own property, we have spent considerable time [illegible] county and state roadsides to control primary and secondary weeds. In some [illegible] a general weed control program was instituted to assist the grower in com[illegible]ing and reducing the chance of spread of these pests.

Contracts were entered into with the State Division of Highways for the [illegible]l of certain noxious weeds. Cooperative agreements were made with the [illegible] Pacific Railway for surveying and controlling certain types of weeds [illegible] their right-of-ways. Poison oak control was also carried out in the several county parks. Surveys were made to determine the presence of new and dangerous weeds in the county.

The following is a summary of the Weed Control Program carried on during 1951:

Chemicals Used (Actual)

No. of gallons weed oil	13,054
No. of pints 2,4-D (Amine salts)	2,400
No. of pints brush killer (2,4-D & 2,4,5-T)	672
No. of pounds Polybor chlorate	2,400
[illegible] sq. ft. cut and burned	[illegible]

Principal Weeds Treated

Puncture Vine	Yellow Star Thistle
Johnson Grass	Milk Thistle
Hoary Cress	White Horse Nettle
Cocklebur	Spiny Cocklebur
Russian Knapweed	Morning Glory
Poison Oak	Bull Nettle
Perennial Pepperweed	Fennel
White Artichoke	

SURVEYS--1953

Pest surveys have been conducted this year, as in the past, by county personnel. The purpose of these is to determine the possible presence of dangerous insects or plant diseases new to the county.

Following is a list of the surveys made during 1953:

General Pest Survey	Tomato Canker
Mexican Bean Beetle	Elm Leaf Beetle
Quick Decline of Citrus	Egyptian Alfalfa Weevel
Walnut Husk Fly	Sugar Beet Leafhopper
Red Scale	Khapra Beetle
Japanese Beetle	Lygus Bug

GENERAL PEST SURVEY

With the increase of acreage being converted into subdivisions within the county, a survey of all yards is becoming increasingly more difficult. Since, however, plants infested with serious pests may be moved by new owners from yards outside the county, inspection of these new residential areas is very important. A survey was made of all yards this year by county inspectors trained in survey inspection. Following is a summary of the work done:

District	Yards Insp.	Host Plts. Inspected	Yards Infest.	Scale Insects				Treatment		
				Red	Chaff	Purple	Dicto.	Host Fumig.	S.	Host Rem.
Ventura	1,800	12,600	4	4	0	0	0	28	40	0
Oxnard	300	3,600	1	1	0	0	0	4	0	0
Santa Paula	1,600	11,200	4	4	0	0	0	43	0	0
Moorpark	400	3,200	16	16	0	0	0	112	0	0
Ojai	600	4,200	2	2	0	0	0	31	31	0
Camarillo	3,200	22,400	38	38	0	0	0	392	392	18
Fillmore	750	9,000	5	5	0	0	0	60	0	0

MEXICAN BEAN BEETLE

This year was the first in the Mexican Bean Beetle Eradication Program in which chemical treatment was omitted. Because of this, the survey work became of greater importance. The county work was done in collaboration with the State Department of Agriculture.

County personnel consisted of ten survey men, one supervising inspector and one deputy in charge of the county project. As the Bean Beetle Program nears completion, it is felt that inspection of small gardens is very important as a few beetles surviving in a yard planting of beans could upset the entire program. Because of this, all yards near the areas where Mexican Bean Beetles have been found were checked by county survey crews every two weeks and all bean plantings found were carefully inspected. In addition, the county crews assisted state crews in inspection of commercial plantings. For the third consecutive season, no infestations were found.

Following is a summary of Bean Beetle inspection work done in 1953:

Man-Hours		Yards		Commercial Plantings	
County	State	No. Checked	No. Infested	Acres Inspected	Acres Infested
3,250	15,440	15,662	0	84,199	0

QUICK DECLINE OF CITRUS

The annual Quick Decline of Citrus Survey was started on October 26th and completed December 31st. This project is carried on in cooperation with the State Department of Agriculture. As a result of the survey, two trees known to be infected with Quick Decline were found outside the quarantined area. One of these was found near the Los Angeles County line east of Piru, and the other approximately two miles west of the Santa Paula city limits, showing that the disease has spread both east and west of the original focus of infection. Also, one tree found in the 1952 survey on Moorpark Road between Moorpark and Thousand Oaks transmitted the disease in 1953.

There was a slight increase in the number of infected trees within the infected area as compared with the previous year. A total of 663 suspects were found in 1953 as compared to 619 in 1952. Thirty-six properties were listed as infected for the first time. There were, however, several properties on which diseased trees were found on previous surveys which this year showed negative findings. Following is a summary of work done:

Man Hours		Acres	No. Properties	Samples	Total
County	State	Surveyed	Surveyed	Taken	Suspects
,074	1,188	20,127	971	54	663

SUGAR BEET LEAFHOPPER

A request was made by tomato growers that an investigation be made within the county to determine the status of the sugar beet leafhopper, the vector of Western Yellow Blight of tomatoes, within Ventura County.

State and county personnel are cooperating in making a survey of the potential breeding grounds of the sugar beet leafhopper within the county. The object of this work is to determine whether the insect could breed here in sufficient numbers to cause damage to tomatoes, and also to determine the feasibility from an economic standpoint of a control program provided the population was sufficiently high to cause damage.

To date, the survey shows that there is a considerable acreage within the county on which the leafhopper could breed provided weather conditions were good. Dry years with sparse vegetation on the foothills result in favorable conditions for a build-up. Periodic surveys were made throughout the season and population counts taken from various locations in the county. This work will continue in 1954. Following is a summary of work done:

Man-Hours		No. Inspections	Properties	Properties	Approximate
County	State	Made in 1953	Inspected Each Time	Infested	Acreage Incl. In Survey
35	35	5	14	14	1,400

RED SCALE

A survey was made for red scale in citrus groves not affiliated with any citrus protective league whenever there was any reason to believe that they might be infested. A tree to tree inspection was made and whenever red scale was found the grove was treated in a manner recommended as most effective for eradication of the pest. Following is a summary of work done:

Acres Inspected	Acres Infested
260	238

ELM LEAF BEETLE:

This was the second season in which eradication was carried on in the Cuyama Valley against the Elm Leaf Beetle. In conjunction with this program, a survey was made to determine if any spread had occurred from the original infestation. The inspection showed the beetle population in the original yard to be reduced and revealed no other infestations. Following is a summary of work done:

Man-Hours	Properties Surveyed	Properties Infested
70	6	1

EGYPTIAN ALFALFA WEEVIL

Early in 1953 the Egyptian Alfalfa Weevil, known to occur in California in the area west of Yuma, Arizona, was found infesting alfalfa in several other Southern California areas near the coast. Because of this, county inspectors, in cooperation with a state inspector, made a survey of alfalfa fields within the county. Results were negative in all fields. Following is a summary of work done:

Man-Hours		Properties	Properties	Acreage
County	State	Inspected	Infested	Included
10	5	4	0	150

TOMATO CANKER

As a service to seed growers, a survey of tomato fields grown for seed was made by county inspectors. Seed from fields in which periodic surveys are made, and in which no bacterial canker has been found, may be labelled as apparently

being free from this disease provided sanitary conditions are maintained during harvest.

For the first time in five seasons, two fields within the county were found to be infected with canker. Following is a summary of work done:

Man-Hours	Acres Inspected	Acres Infected
175	150.9	5.0

KHAPRA BEETLE

This year a beetle which is a serious pest to stored grain was found for the first time in California. This is the first record of this species being found in the United States. In cooperation with the State Department of Agriculture an inspection was made of grain storage bins within the county. Although this beetle has now been found in many areas of the state, no specimens have been taken in Ventura County. Following is a summary of work done:

Man-Hours		Properties	Properties
County	State	Inspected	Infested
28	8	5	0

WALNUT HUSK FLY

Traps and baits were furnished walnut houses and growers as a service to determine the presence of the Walnut Husk Fly. Also, district inspectors placed traps in areas where the insect was not known to occur in an attempt to determine the spread of the pest within the walnut groves of the county. The Husk Fly was found in the Ojai District for the first time and had also spread westward in the Santa Clara Valley almost to Wells Road.

JAPANESE BEETLE

The annual survey for Japanese Beetle was again carried out in the county by the placing of Japanese Beetle traps around airports, depots and likely places of entry. Traps were also installed on golf courses or areas of large lawns. The traps were regularly serviced by district inspectors during the period of adult beetle flight. No Japanese Beetles were taken.

LYGUS BUG

As a service to bean growers, the county once again made a survey of bean fields to determine population counts of Lygus Bug infestations. Growers were notified if populations were sufficiently great to warrant treatment.

FINANCIAL STATEMENT
FOR FISCAL YEAR ENDING JUNE 30, 1953
VENTURA COUNTY DEPARTMENT OF AGRICULTURE

Salaries & Wages			
Commissioner, Deputy Commissioners, Inspectors and Office Help	$ 92,081.98		
Extra Help	27,680.65	$ 119,762.63	
Maintenance and Operation		19,732.40	
Capital Outlay		916.71	$ 140,411.74
Revenue			18,610.93

Classification of Estimated Expenditures by Functions:

Plant Quarantine (Interstate)	$ 7,907.60	
Plant Quarantine (Intrastate)	15,815.20	
Standardization	11,537.10	
Field and Orchard Inspection	11,651.48	
Nursery Inspection	2,807.29	
Seed Inspection	2,489.01	
Rodent Control (County Expense)	5,308.79	
Plague Suppression (County Expense)	25,742.38	
Weed Control (County Expense)	6,309.68	
Apiary Inspection	1,718.54	
Crop Statistics	3,071.23	
Other Items*	45,136.73	$ 139,495.03
Capital Outlay		916.71

*Functions Included in Other Items Include:

General Pest Survey	-	$ 21,920.60
Vacuum Fumigation	-	6,888.11
Miscellaneous	-	16,328.02

FINANCIAL STATEMENT
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VENTURA COUNTY DEPARTMENT OF AGRICULTURE

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VENTURA COUNTY
DEPARTMENT OF AGRICULTURE

Agricultural Building
Santa Barbara and Eighth Streets
Santa Paula, California

ANNUAL CROP PRODUCTION AND ACREAGE REPORT

COUNTY OF VENTURA

1953

Pursuant to Section 65.5 of the Agricultural Code, we submit the crop production, crop value and acreage report for the year 1953.

This report is in no way an indication of net returns to Ventura County growers but is merely a tabulation of acreage, production and F.O.B. values of the agricultural crops grown in Ventura County.

Values are based on the price offered for the product here in this county and include all cultural, labor, production and harvesting costs. These costs, in many cases, are so high that very little profit is left for the producer after the crop is sold.

We are indebted to many individuals, firms, companies and corporations for their assistance in compiling such a report, and we hereby express our sincere thanks and acknowledgment to them for their fine cooperation.

C. J. BARRETT
Agricultural Commissioner

CJB:mw

FORWARD

The total value of agricultural returns for 1953 is slightly higher than that of 1952. The increase in value can be explained as showing a larger production figure for some of our major crops. Increased acreage and double cropping of vegetable land has accounted for most of the increase.

The year 1953 was not a good year for most of the growers of agricultural crops. Extremely warm weather during the winter months caused the blooming period to be greatly advanced. During the months of March and early April, extreme low temperatures destroyed most of the tree crops. Almonds, peaches and pears suffered a total crop failure, and walnuts were injured to the extent that only a 65% normal production was recorded.

Lemons recorded a higher packed box production with good returns to the growers. Oranges were recorded with a higher packed box figure, yet the price was poor to fair for most growers. In many cases, net profits to the growers barely exceeded the cost of production.

Bean acreage, especially for dry Limas, was reduced yet increased acreage of Limas for quick freeze was harvested.

Celery is fast becoming one of our major vegetable crops and showed an increase in acreage with poor to fair returns to the growers.

Hogs and poultry showed increases over previous years in production. Poultry is fast becoming a major factor in Ventura County.

1953

VENTURA COUNTY CROP REPORT
Compiled by
VENTURA COUNTY DEPARTMENT OF AGRICULTURE
C. J. BARRETT, AGRICULTURAL COMMISSIONER

PRODUCT	PRODUCTION	UNIT	F.O.B. VALUE	BEARING ACREAGE
APRICOTS				1,128
Dried	86	Tons	$ 51,600.00	
Fresh	233	Tons	18,530.00	
			70,130.00	
ALMONDS	Crop Failure	-	-	157.5
AVOCADOS	2,326,650	Lbs.	376,937.42	700
BEANS				
Limas	567,000	Bags-100#	6,520,500.00	25,500
Blackeye	8,598	" "	85,980.00	920
Seed Beans	53,670	" "	698,481.74	2,615
Miscellaneous	3,080	" "	33,880.00	220
	632,348		7,338,841.74	29,255
CITRUS:				
LEMONS				17,631
Pkd. Boxes	3,322,049	Boxes	21,977,073.55	
By-Products	41,680.82	Tons	3,699,459.03	
			25,676,532.58	
ORANGES---Valencia				17,532
Pkd. Boxes	3,455,467	Boxes	11,122,277.26	
By-Products	53,362.13	Tons	1,951,309.04	
			13,073,586.30	
ORANGES---Navel				1,581
Pkd. Boxes	382,853	Boxes	1,314,029.31	
By-Products	2,139.58	Tons	51,118.48	
			1,365,147.79	
GRAPEFRUIT				350
Pkd. Boxes	94,530	Boxes	308,257.25	
By-Products	1,112.52	Tons	11,420.17	
			319,677.42	
GRAIN				
Wheat	2,434	Bags	9,249.20	356
Barley	58,219	Bags	168,835.10	6,264
Oats	1,263	Bags	4,041.60	191
	61,916		182,125.90	6,811

PRODUCT	PRODUCTION	UNIT	F.O.B. VALUE	BEARING ACREAGE
HAY				
Alfalfa (Gr.)	56,944	Tons	$ 284,722.50	1,898
Alfalfa (Dry)	1,020	Tons	21,420.00	170
Barley	1,658.1	Tons	41,452.50	2,850
Oats	138	Tons	4,140.00	195
	59,760.1		351,735.00	5,113
MISC. FRUITS				
Apples	8,349	Boxes-40#	25,000.00	101
Grapes	107	Tons	7,755.00	206
Strawberries	562	Tons	184,140.00	137
			216,895.00	444
SUGAR BEETS	41,046.5	Tons	490,062.90	2,088.6
Government Payment			104,463.34	
			594,526.24	
WALNUTS	5,297.75	Tons	2,413,016.72	16,770
VEGETABLES:				
Green Limas	15,247.32	Tons	2,292,084.00	7,893
Beans--String	343.14	Tons	54,225.61	37
Broccoli	1,689.12	Tons	325,002.77	1,080
Cabbage	87,964	Crts.	141,139.62	266
Carrots	12,291	Crts.	46,191.25	32
Carrots	11,201.62	Tons	864,684.06	984
Cauliflower	199.46	Tons	31,913.60	317
Cauliflower	45,561	Crts.	61,010.25	159
Celery	1,028,127	Crts.	2,217,314.63	1,003
Cucumbers	95,281	Lugs	99,176.05	108
Corn--Green	84,490	Doz.	33,796.00	72
Lettuce	437,281	Crts.	1,190,970.18	2,353
Lettuce--Romaine	27,700	Crts.	50,082.41	74
Onions--Green	98	Tons	6,370.00	6
Parsley	1,406	Tons	56,240.00	40
Peas	1,353	Tons	130,325.22	1,869
Peppers:				
Bell	3,788.24	Tons	245,513.76	520
Chili--Green	2,378.90	Tons	152,873.75	339
Chili--Dried	644.1	Tons	257,637.44	390
Pimientos	4,862	Tons	322,937.00	597
Spinach	2,882.55	Tons	76,874.65	430
Tomatoes (Market)	381,464	Lugs-60#	610,121.31	952
Tomatoes (Canning)	32,583	Tons	808,765.50	1,719
Turnip Greens	225.53	Tons	5,538.25	33
Squash--Winter	600	Tons	12,000.00	40
Miscellaneous	38,794	Crts.	81,467.40	115
			10,174,254.71	21,428

PRODUCT	PRODUCTION	UNIT	F.O.B. VALUE	BEARING ACREAGE
SEED				
Vegetable	406,702	Lbs.	$ 346,316 37	749.2
Flower	50,175	Lbs.	82,470.95	241
	456,877		428,787.32	990.2
NURSERY STOCK				
Tomato Plants	18,000,000	Plants	102,000.00	70
Vegetable Plants	260,149	Flats	144,707.85	
Bedding Plants	47,500	Flats	5,275.00	
Bulbs	668,000	Bulbs	13,550.00	5
Ornamentals	63,107	Plants	65,141.00	
Citrus	171,156	Trees	401,954.09	
Citrus	18,000	Seedlings	1,830.00	
Avocados	19,501	Trees	49,244.95	
Avocados	22,500	Seeds	2,250.00	
Avocados	4,500	Seedlings	2,700.00	
Walnuts	20,403	Trees	40,806.00	
			829,458.89	
CUT FLOWERS			400,000.00	200
LIVESTOCK				
Hogs	11,110	Head	510,915.00	
Cattle	18,951	Head	2,225,169.00	
Rabbits	392,000	Lbs.	86,240.00	
			2,822,324.00	
POULTRY				
Turkeys	257,000	Birds	1,765,010.00	
Chicken Meat	815,000	Lbs.	195,600.00	
Eggs	6,355,258	Dozen	3,622,497.00	
Pigeons	30,000	Squabs	33,150.00	
			5,616,257.00	
MILK				
Number of dairies	13			
Number of dairy cows	5,146			
Milk Production	5,458,980	Gallons		
Estimated Revenue			3,589,913.90	
GOAT MILK				
Number of goats	60			
Milk Production	4,653	Gallons		
Estimated Revenue			6,500.00	
GRAND TOTAL			$ 75,846,647.93	

CJB:mw
700

COMPARISON

PRODUCT	1952 F.O.B. VALUE	1952 ACRES	1953 F.O.B. VALUE	1953 ACRES	INCREASE OR DECREASE
Apricots	$ 144,560.00	1,128	$ 70,130.00	1,128	$ 74,430.00 Dec.
Almonds	6,500.00	203	Crop Failure	157	6,500.00 Dec.
Avocados	380,299.00	548	376,937.42	700	3,361.58 Dec.
Beans	8,990,874.00	36,144	7,338,841.74	29,255	1,652,032.26 Dec.
Lemons	24,875,653.23	17,631	25,676,532.58	17,631	800,879.35 Inc.
Valencias	11,374,918.59	17,532	13,073,586.30	17,532	1,698,667.71 Inc.
Navels	993,155.16	1,581	1,365,147.79	1,581	371,992.63 Inc.
Grapefruit	401,682.65	350	319,677.42	350	82,005.23 Dec.
Hay	569,400.00	5,446	351,735.00	5,113	217,665.00 Dec.
Grain	910,112.00	19,080	182,125.90	6,811	727,986.10 Dec.
Misc. Fruit	101,884.39	282	216,895.00	471	115,010.61 Inc.
Sugar Beets	391,767.96	1,702	594,526.24	2,088	202,758.28 Inc.
Walnuts	5,358,007.28	17,003	2,413,016.72	16,770	2,944,990.56 Dec.
Vegetables	8,675,887.33	22,473	10,174,254.71	21,428	1,498,367.38 Inc.
Seed	331,860.00	999	428,787.32	990	96,927.32 Inc.
Nursery Stock	672,968.75	-	829,458.89	-	156,490.14 Inc.
Cut Flowers	193,900.00	110	400,000.00	200	206,100.00 Inc.
Livestock	4,124,126.00	-	2,822,324.00	-	1,301,802.00 Dec.
Poultry	3,642,194.31	-	5,616,257.00	-	1,974,062.69 Inc.
Milk	3,123,451.32	-	3,589,913.90	-	466,462.58 Inc.
Goat Milk	5,500.00	-	6,500.00	-	1,000.00 Inc.
Totals	$ 75,268,701.97		$ 75,846,647.93		$ 577,945.96 Inc.

ANNUAL REPORT TO THE BOARD OF SUPERVISORS

COUNTY OF VENTURA

AND

THE DIRECTOR

STATE DEPARTMENT OF AGRICULTURE

1953

We submit to you the Annual Report of the activities of the Agricultural Commissioner's office for the calendar year 1953.

While the Commissioner's office is primarily charged with enforcement of [illegible] laws pertaining to the agricultural industry of the state, we have tried [illegible] of service to the many persons who make up the agricultural industry of [illegible] County. We have cooperated with the various county offices as well as with [illegible] State Department of Agriculture and the Federal Government.

Due to changes in the types of crops grown today, as well as the increase [illegible] plantings both in commercial acreage and yard landscaping, our work still [illegible] tends to increase. Standardization has shown the largest increase in the [illegible] of work carried out by the department.

In preparing this report we have mentioned only the most important activities carried out by staff personnel during the year 1953 and have tried to summarize only the general activities.

QUARANTINE

Because of increased movement of plant material and plant appliances, the [illegible] of spread of serious insects and disease is enlarged. Rapid transportation facilities have brought all of the pests that are found in other sections of the world and other sections of the United States to our doorstep in a matter of a few hours. Because quarantine offers the best possible chance to protect ourselves against these pests, we consider quarantine one of the best and most economical means of protection.

Inspection of all incoming shipments is made daily at post offices, express offices, truck terminals and railroad depots. All lots of citrus fruits are inspected before they are offered for sale in retail channels. Infested or [illegible] infested shipments, and those failing to meet the requirements of state quarantine, have been properly disposed of to insure the best possible protection. [illegible] insects that are a serious threat to the citrus industry of our county [illegible] us to be especially alert to their possible presence and therefore we [illegible] a great deal of time in inspection and treatment of plants and fruits that [illegible] hosts to these insects.

The following is a summary of the quarantine work during the year 1953:

INTERSTATE QUARANTINE

No. of shipments inspected	1,621
No. of plants inspected	202,055
No. of shipments rejected	46
No. of plants rejected	2,223
No. of shipments passed	1,575
No. of plants passed	199,832
No. of shipments passed Hay & Grain	108
No. of tons passed Hay & Grain	2,658.5

INTRASTATE QUARANTINE

No. of shipments inspected	10,143
No. of plants inspected	21,789,248
No. of shipments rejected	141
No. of plants rejected	4,433
No. of shipments passed	10,002
No. of plants passed	21,784,815
No. of shipments passed Hay & Grain	75
No. of tons passed Hay & Grain	9,087.5

The following were rejected until fumigation treatment was applied:

No. of shipments	988
No. of plants	340,967

Number of hours spent on quarantine inspection 9,303

TREATMENTS

Ventura County is well equipped to treat, in various manners, most of the material we find infested with serious plant pests. Treatments are also made upon many shipments that are of such a nature that inspection is most difficult or of such a nature that inspection would not be positive to insure freedom from these insects. Time and money is saved in many of the treatments as well as giving us a positive assurance that the plants are free of insects.

While this plan may seem drastic to many people, it also gives a service to our people. Often delay would occur if the plants were returned to the point of origin. Fine cooperation was found upon the part of all parties receiving these plants as well as the nurserymen of the county who desire to maintain clean planting stock.

The following is a summary of the work done by the Agricultural Commissioner's office during the year:

VACUUM FUMIGATION

Citrus Fruit (boxes)	17 lots	190
Ornamentals	11 "	3,137
Citrus Trees	757 "	153,464
Walnut Trees	75 "	7,114
Fumigation Tents	1 "	89
Citrus Seedlings	10 "	76,484
Citrus Budwood (bundles)	10 "	55
Walnut Grafts (bags)	1 "	1
Citrus Trees (bare root)	5 "	423

METHYL BROMIDE - ATMOSPHERIC

Citrus Budwood (bundles)	63 lots	106
Ornamentals	5 "	440
Citrus Seedlings	30 "	99,450
Citrus Trees	3 "	14

METHYL BROMIDE - VACUUM

Bedding (pieces)	1 lot	4

Number of hours spent on fumigation 4,523

NURSERY INSPECTION

Constant survey of the nursery stock grown in the county offers a chance to keep not only the planting stock clean but also helps give the grower with commercial acreage the protection he deserves against the possibility of infested plant material being a source of trouble to him. Inspection of all incoming nursery stock is made at the time of arrival, and quarterly inspections are made during the year. Surrounding yards are also inspected and if found infested with serious plant pests, are made to clean up.

When infestations of pests are found in the nursery, these pests must be properly controlled or eradicated before the stock is allowed to move in trade channels.

One nursery inspector has charge of nursery inspection work and is assisted by the various district inspectors. One hundred and ten (110) complete nursery inspections were made during the year. Twenty-one (21) reinspections to determine results of the required cleanup program were made.

Infestations of Red Scale (Aonidiella aurantii) and Lesser Snow Scale (Pinnaspis strachani) were found in two nurseries. Eradication of both these scales is mandatory so all hosts were fumigated with methyl bromide at the rate of 2 Lbs. per 1,000 cu.ft. at 80 degrees for a period of two hours. Subsequent inspections proved that eradication was accomplished.

Virus, fungus, bacterial and physiological diseases of minor importance were found in several nurseries infecting a variety of ornamentals. Diagnosis in each case was made or confirmed by the Bureau of Plant Pathology, State Department of Agriculture. Whenever possible, control measures were outlined to the owner of the stock.

Following is a summary of nursery inspection work carried out during the year 1953:

Number of nursery inspections	110
Number of reinspections	21
Number of nurseries with "A" pests or pests with eradication nature	1
Number of nurseries with "B" pests	1
Number of nurseries with "C" pests or pests of common occurrence	59
Number of nurseries required to clean up	61
Number of hours spent on nursery inspection	528

PLANT DISEASE INSPECTION

During the year 1953, numerous calls were received relative to disease problems both in commercial plantings and in yards and nurseries. The problems were varied and of wide scope. Inspections were made by staff personnel with the aid of Dr. Alex French of the State Department of Agriculture. We wish to acknowledge the cooperation and service the State Department was able to render in assisting with viewing the problems and in making the determinations on plant material submitted to them.

Following is a summary of the plant disease inspections made during 1953:

Citrus	14
Avocados	22
Deciduous	11
Ornamentals	42
Bulbs and flowers	10
Vegetables	14
Miscellaneous Plants	4
Total inspections	117
Number of hours spent on plant disease problems	211

FIELD AND ORCHARD INSPECTION

Field and orchard inspections are a part of routine work of the department and consume considerable time and mileage on the part of the staff personnel. These inspections give us a knowledge of pest conditions in the county and aid in making proper recommendations for the control of specific pests.

Many pests maintain almost an even balance during the year and require constant pest control measures to combat them. Others vary in intensity from year to year and when they are on the upswing in intensity, require prompt and effective measures of pest material to keep them in check.

During recent years, new insecticides have made their appearance on the market and replaced many of the old "standby" materials that gave partial control on several types of insects. The newer materials seem to be more specific for certain insects and this, in many cases, allows for a buildup of several types not affected by these specific materials.

Following is a summary of major pests found during the year 1953:

CITRUS

Black Scale: General distribution over entire county. Infestation was medium to heavy with treatment over most of the infested area. Treatments were made with oil plus rotenone and HCN fumigation.

Citrus Aphids: General distribution over the county. Treatments were general, using oil, TEPP, nicotine, etc.

Citrus Mites: General over all citrus acreage. Degree of intensity varies in different districts.
Citrus red spider--Treatments applied with oil, aramite and ovotran.
Lewis mite--Localized in Santa Paula area. Treated with oil.
Silver rust mite--This mite has shown a definite spread over last year. Infestations varied from light to medium. Treatments with sulfur were applied whenever the mite was found.
Six-spotted mite--Light infestation along coastal area.
Two-spotted mite--For the first time, two spotted mites were found damaging citrus. These infestations were apparently spread from adjacent bean fields.

Mealybugs: General infestation over most of the county varying in intensity in groves. Treatments consisted of liberation of beneficial parasites and predators. Some treatments were made in heavily infested groves using parathion.

Yellow Scale: Yellow scale continues to be found generally over the area from the county line to the ocean in the Santa Clara Valley area. While on occasion this scale requires treatment with fumigation, sprays with oil for other insects and scales keep it pretty well in check.

Red Scale: Infestations were found as a result of tree to tree survey. They were light and spotted over most of the citrus area. Treatments consisted of parathion and HCN fumigation.

Tortrix: Infestations were light on both oranges and lemons. Treatments using cryolite were made where needed.

Citrus Thrips: Infestations were light and spotted. Treatments where control was needed consisted of tartar emetic with some experimental use of aldrin.

Brown Rot of Citrus: Treatments for this disease were made in the late fall to protect the fruit. Copper and Bordeaux were used chiefly to combat brown rot of citrus.

WALNUTS

Codling Moth: Treatment was made over most of the walnut growing area. DDT was generally accepted as the material for the control of this pest. However, many groves were treated with lead arsenate. Infestations were held in check when treated with adequate dosages, properly timed. Due to the short crop of nuts, some groves were not treated and as a result as high as 22% damage was recorded in the packing house.

Walnut Husk Fly: This pest showed a great increase in spread through the major portion of the county during 1953. Trapping was carried on throughout most of the walnut area. Spread of this serious pest of walnuts was found to have included the Ventura District, Upper Ojai, Ojai Valley and Saticoy District. Treatments were general in the area previously infested. Parathion was used as the insecticide. As usual with this pest, the thick husk variety of walnuts showed the greatest degree of infestation

Walnut Aphids: The intensity of this pest was normal for the season. Treatments were made throughout all of the walnut groves. Several treatments were necessary in many cases to hold the insect in check. Parathion and nicotine sulfate were the materials used.

European Red Spider: Infestations were general throughout the county and treatments were applied to all groves. Aramite and ovotran were used to combat this pest.

FIELD CROPS

Increased planting of a variety of crops allows more chance for insects to build up and survive. Double cropping of vegetables has given the insects a better chance to maintain themselves.

Spider Mites: Spider infestations were not as severe as in 1952. Sulfur, aramite, ovotran and TEPP were used to combat these pests.

Lygus: Surveys were conducted to determine the degree of population in seed crops and in lima beans. Treatments were generally applied to all seed and bean acreage. DDT and toxophene were used.

Aphids: This pest is always a threat to many of our crops and requires general treatment. Among the crops most severely affected were celery, beans, cauliflower, cabbage, lettuce, broccoli, etc.

Leaf Hoppers: Some damage to early plantings of tomatoes resulted due to the beet leaf hopper spreading western yellow blight. Later plantings did not show serious damage.

Worms: Cabbage and lettuce were treated several times during the season for protection against these pests. DDT was used as a protective measure.

Number of hours spent on field and orchard inspection 2,636

PARASITIC CONTROL OF INSECTS

Parasites for the control of citrus insects are raised and released in great numbers by the several citrus organizations throughout the county. Growers are becoming more aware of the value of natural control of pests by parasites and predators. Many insects can be controlled to a commercial degree by natural enemies, and the cost of producing these beneficial parasites is very low as compared to the use of insecticides.

Following is a summary of the types and number of parasites reared and released in the county during 1953 by the citrus association insectaries:

Parasite	Host	Number
Cryptoleamus	Mealybug	39,581,470
Leptomastix	Mealybug	38,396,000
Pauridea	Mealybug	4,344,500
Metaphycus helvolus	Black scale	2,013,000
Metaphycus lounsburyi	Black scale	100,000
Metaphycus stanleyi	Black scale	150,000
Metaphycus flavis	Black scale	50,000
Diversinerus elegans	Black scale	595,900
Hyperaspis	Black scale (Predatora)	3,650
Aphytis sp.	Yellow scale	475,000
		85,709,520

PEST CONTROL ENFORCEMENT

To comply with state laws governing the issuance of permits and registration of pest control operators, many hours were spent in the inspection of pest control operations. Permits were issued on all applications of herbicides containing 2-4-D and insecticides containing parathion. Inspections were made in many cases before granting permits. Inspections were made on spray operations, dusting operations and fumigation practices. The latter requires night inspection, and much overtime accumulated as a result of this practice.

Number of hours spent on pest control enforcement 620

MATERIALS USED IN PEST CONTROL

Pest control is a big business in Ventura County and is essential in the production of food crops. To give some idea as to the materials and amounts used during the year 1953, we offer a summary of materials used by commercial pest control operators only and do not include those used by growers themselves on their own property.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Aldrin 23% E	24	Bareland	Seed Corn Maggot	56 Gal		56 Gal
Aramite 3%	4,761	Vegt.-Walnuts	Spider	46,704 Lbs.	100,528 Lbs.	147,232 Lbs.
Aramite 5%	7	Vegetables	Spider		300 Lbs.	300 Lbs.
Aramite 15% W	7,598	Avoc.-Citrus Walnuts	Spider	30,778 Lbs		30,778 Lbs.
Aramite 25% E	52	Vegetables	Spider		4 Gal.	4 Gal.
B.H.C. 2%	99	Vegetables Seed Crops	Aphis	1,000 Lbs.	3,000 Lbs.	4,000 Lbs.
B.H.C. 23%	16	Flowers	Aphis		10 Gal.	10 Gal.
Captan 5%	16	Flowers	Mildew		150 Lbs.	150 Lbs.
Chlordane 5%	142	Vegt.-Flowers	Ants, Worms	3,150 Lbs.	1,800 Lbs.	4,950 Lbs.
Chlordane 40% W	945	Bareland-Citrus	Seed Corn Maggot, Ants	5,111 Lbs.		5,111 Lbs.
Chlordane 50% W	2,986	Citrus	Ants	16,506 Lbs.		16,506 Lbs.
Chlordane 74%	77	Bareland	Seed Corn Maggot		20 Gal.	20 Gal.
C.M.U. 80%	1	Annual Weeds		10 Lbs.		10 Lbs.
Copper 5%	1,005	Vegetables	Blight, Mildew	41,350 Lbs.	1,400 Lbs.	42,750 Lbs.
Copper 7%	1,913	Vegt.-Flowers	Mildew	13,300 Lbs.	70,983 Lbs.	84,283 Lbs.
Copper 10%	333	Vegetables	Mildew	19,250 Lbs.	550 Lbs.	19,800 Lbs.
Copper 22%	4,574	Citrus-Decid.	Brown Rot	76,333 Lbs.		76,333 Lbs.
Copper 42%	1,038	Vegt.-Citrus	Brown Rot, Mildew	11,355 Lbs.		11,355 Lbs.
Copper 53%	10,892	Citrus-Decid. Vegt.-Walnuts	Brown Rot, Blight, Mildew	64,673 Lbs.		64,673 Lbs.

COMPARISON

PRODUCT	1952 F.O.B. VALUE	1952 ACRES	1953 F.O.B. VALUE	1953 ACRES	INCREASE OR DECREASE
Apricots	$ 144,560.00	1,128	$ 70,130.00	1,128	$ 74,430.00 Dec.
Almonds	6,500.00	203	Crop Failure	157	6,500.00 Dec.
Avocados	380,299.00	548	376,937.42	700	3,361.58 Dec.
Beans	8,990,874.00	36,144	7,338,841.74	29,255	1,652,032.26 Dec.
Lemons	24,875,653.23	17,631	25,676,532.58	17,631	800,879.35 Inc.
Valencias	11,374,918.59	17,532	13,073,586.30	17,532	1,698,667.71 Inc.
Navels	993,155.16	1,581	1,365,147.79	1,581	371,992.63 Inc.
Grapefruit	401,682.65	350	319,677.42	350	82,005.23 Dec.
Hay	569,400.00	5,446	351,735.00	5,113	217,665.00 Dec.
Grain	910,112.00	19,080	182,125.90	6,811	727,986.10 Dec.
Misc. Fruit	101,884.39	282	216,895.00	471	115,010.61 Inc.
Sugar Beets	391,767.96	1,702	594,526.24	2,088	202,758.28 Inc.
Walnuts	5,358,007.28	17,003	2,413,016.72	16,770	2,944,990.56 Dec.
Vegetables	8,675,887.33	22,473	10,174,254.71	21,428	1,498,367.38 Inc.
Seed	331,860.00	999	428,787.32	990	96,927.32 Inc.
Nursery Stock	672,968.75	-	829,458.89	-	156,490.14 Inc.
Cut Flowers	193,900.00	110	400,000.00	200	206,100.00 Inc.
Livestock	4,124,126.00	-	2,822,324.00	-	1,301,802.00 Dec.
Poultry	3,642,194.31	-	5,616,257.00	-	1,974,062.69 Inc.
Milk	3,123,451.32	-	3,589,913.90	-	466,462.58 Inc.
Goat Milk	5,500.00	-	6,500.00	-	1,000.00 Inc.
Totals	$ 75,268,701.97		$ 75,846,647.93		$ 577,945.96 Inc.