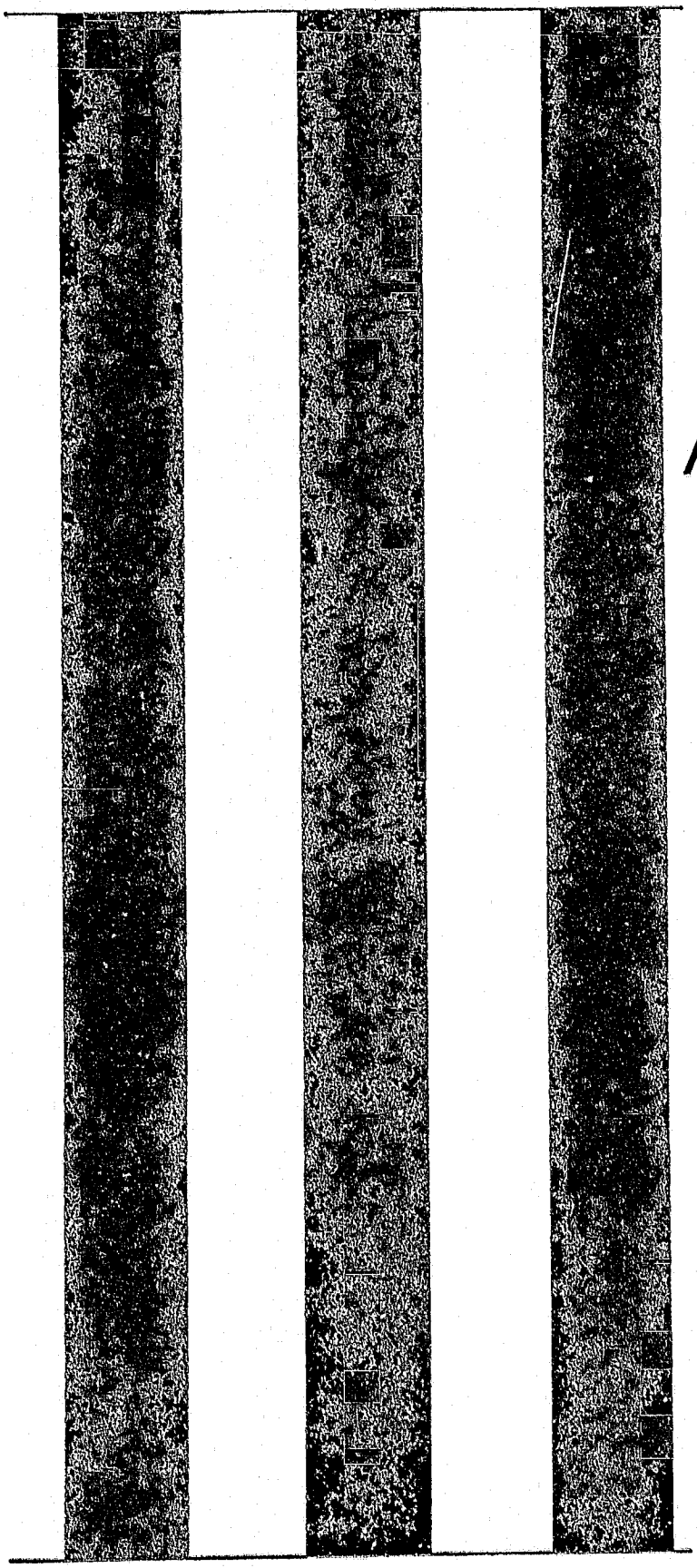
California Department of Food and Agriculture

Agricultural Commissioners' Crop Reports

Ventura County

1956-1958



1956

VENTURA COUNTY

ANNUAL REPORT

AND

CROP STATISTICS

1956

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, 1956

BOARD OF SUPERVISORS

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Inspector II, Oxnard	W. M. Dunning
Inspector II, Oxnard	Clyde W. May
Inspector II, Moorpark-Simi	I. L. Clements
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Inspector I, Fillmore-Bardsdale	Harold Hawkins
Inspector II, Camarillo	W. M. Jones
Inspector II, Santa Paula - Entomologist	Wm. E. Simonds
Inspector II - Survey for Fruit Fly	Fred Lewis
Inspector I - Weed & Rodent, Santa Paula	C. C. Burleson
Inspector I - Weed & Rodent, Santa Paula	Floyd Ward
Inspector I - Weed & Rodent, Camarillo	Marvin Paregin
Inspector I - Weed & Rodent, Moorpark-Simi	Bruce Burns
Agricultural Aide	Robert Burleson
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Record Clerk II (Part of Year)	Mary Simpson
Record Clerk II (Part of Year)	Necia Gaffey

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

1956

We submit the annual report of the activities of the Agricultural Commissioner's office for the year of 1956.

The Commissioner's office is charged with the enforcement of state laws, county regulations and local restrictions relative to the agricultural industry. The enforcement of the laws and regulations is not only a benefit to the growers of our county and state, but serves to protect all individuals who purchase or consume agricultural commodities.

Our duties are varied and are constantly being increased due to new laws and demands by the public. The principal activities included in this report are plant quarantine, nursery inspection, plant disease inspection, field and orchard inspection, port inspection, seed inspection, standardization inspection of fruits, vegetables, nuts, honey, eggs and poultry meat, weed control, rodent control, surveys for new pests, general surveys, apiary inspection, and compilation of agricultural statistics.

We have lost several members of our staff and have been unable to recruit qualified persons to fill these vacancies. This loss of personnel, together with an increased work load, has thrown an extra burden on the remainder of the staff, and in many cases, has required overtime to keep up with the work.

QUARANTINE

One of the most important phases of our work is the enforcement of plant quarantines. Quarantine is basically our first line of defense against the dissemination of serious insects and diseases. Many serious insects not now known to be present in California would, if introduced, cause a tremendous expense to the state as well as additional costs to the growers, large losses of important crops and in turn make higher prices to the consumers who purchase these necessary agricultural products. Increased population, increased planting, and fast transportation are some of the factors that make quarantine measures more important, and at the same time more difficult.

Quarantine inspections of all plant material entering the county, both from within the state and from outside the state are required by law. Inspections are made daily at all post offices, express offices, freight line offices, and all other receiving points. Good cooperation has been offered by all persons handling these shipments by holding them for inspection. Any material found arriving in violation of state or federal quarantines or infested material is properly handled

to insure protection to agriculture. All citrus fruits which are offered for retail sale are held and inspected for serious insect pests. All shipments of nursery stock arriving at the retail nurseries are held for inspection before being released.

The following is a summary of the quarantine work during the year 1956:

INTERSTATE QUARANTINE

No. of shipments inspected	1,422
No. of plants inspected	921,690
No. of shipments rejected	18
No. of plants rejected	245
No. of shipments passed	1,404
No. of plants passed	921,445
No. of shipments of grain	344
No. of tons of grain	6,932

Plant material was rejected for the following reasons:

Ozonium Root Rot - 2; Armored Scale - 4; Citrus White Fly - 5; Plum Curculio & Apple Maggot - 4; Chestnut Bark Disease - 1.

Grain infested with primary noxious weed seed was required to be cleaned or milled before being released.

INTRASTATE QUARANTINE

No. of shipments inspected	9,460
No. of plants inspected	19,612,849
No. of shipments rejected	97
No. of plants rejected	348
No. of shipments passed	9,363
No. of plants passed	19,612,501
No. of shipments of grain	669
No. of tons of grain	11,351
No. of shipments of hay	15
No. of tons of hay	131

The following were rejected and held until treatment was applied:

No. of shipments	1,154
No. of plants	409,107

Number of hours spent on quarantine inspection 9,355

TREATMENTS

County policy requires treatment by fumigation of all citrus and walnut trees, or their propagative parts, before planting. All plants infested with serious insect pests are treated at the county fumatorium to insure freedom from insects and then released.

We are well equipped to do this work at a low cost to the grower and yet insure him of insect-free planting material. The county maintains a HCN vacuum chamber, a methyl bromide vacuum chamber, an atmospheric methyl bromide chamber and a circulating oil dripping vat.

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

VACUUM FUMIGATION (HCN)

Citrus Fruit (boxes)	9 lots	274
Citrus Trees	986 "	221,443
Walnut Trees	78 "	5,264
Ornamental Plants	3 "	142
Rose Bushes	2 "	965
Budwood (bundles)	35 "	205
Seedlings	22 "	114,490
Bags	1 "	400
Miscellaneous	1 "	27

METHYL BROMIDE VACUUM

Citrus Trees	1 lot	28
Used Bags	34 "	52,251
Boxes	1 "	3
Miscellaneous	1 "	2

METHYL BROMIDE - ATMOSPHERIC

Seedlings	4 lots	23,000
Budwood (bundles)	2 "	2

Number of hours spent on fumigation 1,862

NURSERY INSPECTION

Nursery stock moving into the county must be held for inspection at time of entry. During the year, quarterly inspections are made of all nurseries. During these inspections all adjoining properties are also inspected. When infestations are found in nurseries, they must be controlled or erradicated before stock is allowed to be moved. This is done to help protect the nurseries from infestations or recurring infestations. All such clean up measures are under direct supervision of the Department.

Aonidiella aurantii, a serious pest of citrus, was found in one nursery in 1956. Eradication of this pest is required. All hosts were vacuum fumigated with HCN at the county fumatorium and all other stock in the nursery was sprayed with the required pest control material. An infestation of the same scale was found in an adjoining yard on a plant that had been brought into the county without inspection. The infested host was removed and burned. All remaining hosts received a thorough spray treatment with oil and malathion. Reinspection of this nursery and adjoining yard showed no recurrence of the pest.

Odonaspis penicillata, an armored scale, was discovered in one nursery. This is the first record of this pest in Ventura County. Control measures were applied to eradicate this pest.

Twenty-five (25) specimens of diseased nursery stock were submitted to the Bureau of Plant Pathology for diagnosis. Control measures were outlined where possible for the nurseryman. One disease new to Ventura County, Virus Ring Spot, was discovered in an orchid collection, belonging to a private party.

In cooperation with the USDA, a survey of nurseries for the presence of Radopholus similis, burrowing nematode, was made. One hundred and eleven samples were submitted from 14 nurseries. The results were negative.

The following is a summary of nursery inspections made during the year 1956:

Number of nursery inspections	173
Number of reinspections	21
Number of nurseries with "A" pests (Eradication mandatory)	0
Number of nurseries with "B" pests (Eradication required in Ventura County)	1
Number of nurseries with "C" pests (Of common occurrence)	66
Number of nurseries required to clean up	67
*Number of hours spent on nursery inspection	822

*This figure includes 126 hours spent on origin inspection of tomato plants and 40 hours spent on burrowing nematode inspection in nurseries.

PLANT DISEASE INSPECTION

An increase of about thirty per cent in the number of calls relating to disease problems was noted for the year 1956. Inspections were made in fields, orchards, nurseries, and residential properties covering a wide variety of problems including fungus, bacterial, virus and nematode infection as well as troubles resulting from minor element deficiencies or excesses, salt and alkali injury, fertilizer burn, chemical injury involving pest control materials, etc.

We wish to acknowledge again the fine cooperation of the State Bureau of Plant Pathology and Dr. Alex French, who greatly aided county personnel in plant disease inspection.

Following is a summary of the work done on plant disease inspections:

Commodity	No. of Inspections
Avocados	30
Citrus	56
Deciduous (Fruits, Nuts, Grapes, Berries)	49

(Continued - page 5)

Vegetables	46
Bulbs and Flowers	32
Ornamental Shrubs and Trees	143
Lawns	21
Alfalfa	7
Melons and Cucumbers	5
Sugar Beets	2
Strawberries	4
Miscellaneous	17
Total Inspections	412

Number of hours spent on plant disease inspection 543

FIELD AND ORCHARD INSPECTION

Inspections of orchards and field crops are a regular part of our duties. These inspections give us a knowledge of pest conditions and aid us in making proper recommendations for their control. We are constantly on the alert for new pests and are anxious to know of their presence so that proper control measures may be taken or suggested.

A summary of the pest conditions in the county during 1956 follows:

CITRUS

Black Scale: Generally distributed over most of the citrus acreage. With the exception of lemons in the Oxnard area, it was heavier in all areas of the county, and especially so in the Fillmore and Tapo areas. Treated with oil, oil and rotenone, HCN fumigation, kerosene and DDT, and in combination with red scale, treated with oil and parathion, oil and malathion, or straight malathion or parathion.

Citrus Aphids: Appeared a little earlier than usual in some locations, but did not build up seriously in most cases. Less treatment applied than in past years, with exception of Santa Paula area.

Citrus Mites: Citrus red mite--Received more treatment than any other citrus pest. 1956 was an especially bad year, except in the Fillmore-Bardsdale area. It is believed that the lighter populations in this area may be due to the fact that the scale control program here depends mainly on oil and natural control. Ovatran, oil, and Aramite used in treatments. Ovatran no longer effective in some areas of the county.

Lewis mite--Found mainly around Santa Paula, but is gradually increasing its range in the county. It is usually held down by treatments for other pests.

Silver or rust mite--Isolated infestations may now be found in most areas of the county, some new infestations noted last year. In general, less special treatment given for this pest than in previous years. Chlorobenzilate now commonly used, sulfur still good.

Six-spotted mite--In limited areas, especially near the coast, infestations may be heavy and damage severe. Usually treated in combination with other pests.

Two-spotted mite--Is becoming an increasingly important pest on citrus, especially on young lemons, where it is often forced over from beans or cover crops. Aramite mainly used if separate treatment given.

Bud mite--About same as usual, with some increase noted in groves not treated with oil. Oil commonly used on much of lemon acreage. Chlorobenzilate used where oil is not desirable.

Mealybugs: Heavier and more general, more treatment necessary in many cases. Some of the heaviest infestations are believed due to the adverse effect on natural control of some pest control materials applied on adjacent crops, with resulting drift. Some cooperative insectaries are planning to drastically increase the production and release of natural predators, especially Cryptolaemus montrouzieri during 1957, in effort to at least partially compensate for the increasing losses due to this cause. Good ant control aids in keeping infestations under control. Parathion, oil and rotenone, and rotenized oil are the main materials used in control, with malathion used in locations where parathion is too hazardous.

Orange Tortrix: Infestations heavier and more general. Oranges most commonly infested. More special treatments necessary, but combined treatments, timed for tortrix used where possible. Since infestations of this insect tend to be cyclic in nature, natural control may cause a drop after 1956. Cryolite and parathion commonly used for treatment.

Greenhouse Thrips: Infestations continue to decrease, and very little treatment was applied for this insect.

Citrus Thrips: Infestations light and very little treatment necessary. Sugar and tartar emetic is still effective in Ventura County and is usually used, although some dieldrin was applied.

Red Scale: On the average, fewer infested trees were found. All infestations received treatment. Treatment usually consists of combined spray and HCN fumigation, although some trees were treated with malathion and parathion, either alone or in combination with oil.

Yellow Scale: Generally lighter than in years past. More commonly found on oranges, possibly because lemons tend to receive more oil sprays. Oil in combination with malathion or parathion is the usual treatment, often combined with treatment for other pests.

Dictyospermum Scale: Very few infested trees found during the past year. Infestations treated with HCN fumigation.

Brown Rot of Citrus: More treatment required during the past year in all areas of the county. Bordeaux and other forms of copper used in control.

Botrytus Rot of Citrus: Especially serious near the coast, during the damp, cool weather of late winter, where it caused a heavy drop of buds, small fruit, and damaged leaves and small twigs of lemons. No treatment was attempted.

AVOCADO

Brown Mite: Infestations were lighter than during previous year, and very little treatment applied. Materials applied when absolutely necessary were sulfur, Aramite, and Ovatran.

Two-Spotted Mite: Only a few instances were noted where mites were forced over to avocado from drying beans or cut cover crops.

WALNUTS

Husk Fly: Now found in most areas of the county, and treatment is usually necessary. Parathion normally used, cryolite sometimes used.

Codling Moth: Most walnut plantings are infested, and usually require treatment to hold infestations to an acceptable level. DDT is now the most commonly used material for control.

Walnut Aphids: Present in most groves and one or more treatments usually needed. Systox was more widely used in 1956 than in the past. Parathion, malathion, nicotine, OMPA also used.

European Red Mite: Infestations heavy in many cases and difficult to control. Systox gave erratic results for reasons as yet unknown. Aramite and Ovatran widely used in control. Heavy applications of parathion for husk fly gave late season control where used.

FIELD CROPS AND VEGETABLES

The many different field and vegetable crops now grown in this county, with some fields double cropped, with crops maturing at different times, have led to increased difficulty with some pest control problems. Difficulty may be due to a carry-over of pests from one crop to another, to the effect of drifting insecticides on natural parasites and predators, or to residues in excess of legal tolerances.

Spider Mites: With some conspicuous exceptions, infestations during 1956 were generally not as bad as usual. Systox was increasingly used in treatment, especially as a combination treatment for Lygus bugs and mites. Aramite, Ovatran, sulfur, and parathion were also used.

Aphids: Nearly always present, and usually require treatment. During the latter part of the season, were worse than usual. Lindane, Perthane, TEPP, malathion, parathion were used for control.

Worms: Beans less affected than usual. Loopers and cutworms worse than usual on lettuce, cabbage, broccoli. Beet armyworms were highly parasitized. Resistance to DDT by the loopers now seems quite apparent. Use of endrin as a control material increased during the past year, but DDT is still used in large amounts. Parathion, Perthane, malathion, toxaphene were also used.

BIOLOGICAL CONTROL OF INSECTS

For many years citrus growers of Ventura County have recognized the value and importance of biological control of citrus pests. This idea is now coming into its own because mass production of parasites and predators can be done at a cost below that of chemical treatment. Many serious pests can be controlled far better by natural parasites than by chemicals.

Five insectaries are located in various parts of the county. The cost of mass production is very low and growers are benefited to a great measure by frequent release of beneficial parasites and predators.

Following is a summary of the kinds and numbers of parasites reared and released in the county during the year of 1956:

Parasite	Host	Number
Cryptolaemus montrouzieri	Mealybug	37,191,880
Leptomastix sp.	Mealybug	36,517,000
Pauridea sp.	Mealybug	2,315,000
Metaphycus helvolus	Black Scale	6,363,000
Scutellista cyanea	Black Scale	100,000
Anagyrus pseudococci	Mealybug	24,500
Hyperaspis sp.	Mealybug	7,350
Brumus sp.	Mealybug	5,290

SEED INSPECTION

The Commissioner is named as the enforcing officer of the California Seed Law, Sections 910 - 920 inclusive, in the Agricultural Code. The purpose of this law is to afford protection to the buyer by insuring that the seed is properly labeled under the provisions of the Seed Law, which requires proper germination tests, freedom from noxious weeds, etc. Enforcement is directed by one member of the staff, whose duty it is to see that all lots of seed offered for sale in the county are properly labeled, and comply in all other respects.

Following is a summary of the work performed during the year 1956:

Number of dealers' lots inspected	1,512
Number of interstate lots inspected	152
Number of intrastate lots inspected	994
Total number of lots inspected	2,630
Number of lots in violation	86
Number of official samples drawn	2
Number of service samples drawn	1
Number of stop-sale orders issued	9
Number of lots released for destruction	33
Number of grade samples drawn	131
Number of Crop Improvement Assoc. samples drawn	5
Number of quarantine samples drawn & inspected	17

In cooperation with the California Crop Improvement Association the cleaning of threshers and seed cleaning machinery was supervised. Crop seed, produced under the rules of this organization was inspected and sampled, and, for those lots of seed eligible for certification, official labels and seals were issued and identity maintained.

Section 1543 of the Agricultural Code regulates movement of seed screenings and provides for disposal of those lots infested with weed seeds. A list of approved mills is maintained and grinding for feed was permitted for most lots in violation. Inspection of seed screenings to determine whether or not they contain weed seed was made regularly throughout the season.

Number of hours spent on seed inspection 617

PEST CONTROL SUPERVISION

The Agricultural Code requires that every person engaged in the business of pest control shall first qualify for and obtain a pest control operators license from the State Department of Agriculture. In addition, he is required to register with the Commissioner of any county in which he operates. The Commissioner, in turn, makes certain that each registrant has suitable equipment, properly maintained, that it is operated by competent and qualified men, that all state and county regulations are complied with, and that all work is properly performed. During 1956, 35 pest control operators were registered to engage in pest control operations in Ventura County.

Section 1080 of the Agricultural Code requires that all persons using injurious pest control materials, defined by law, first obtain from the Commissioner a permit for such use. The permit to use must be obtained before the materials may be purchased from a dealer. During 1956, there were 157 such permits issued on a seasonal basis.

A similar permit from the Commissioner is required for the use of injurious herbicides, such as 2,4-D, and must be obtained before the material may be purchased. Permits for small scale operations, such as weed control in orchards, etc., are issued on an annual basis. Permits for large scale

operations, such as weed control in grain, other large fields, and brush control are issued on a seasonal basis from November 1st to February 15th. For the rest of the year, they are only issued for each separate job. This is done in order to reduce the chances of possible damage from drift. During 1956, 268 seasonal permits, and 55 individual permits were issued.

The problem of drifting insecticides is becoming increasingly important in this county, both because of the residues left on adjacent crops as such, and the effect of the residues and drift on beneficial parasites and predators. In an effort to counteract this effect, larger numbers of beneficial insects are released, but this is only partially effective, and of course is more expensive. Several meetings were held during the year, attended by pest control operators, growers, and others interested in this problem. The question was discussed and attention was called to the desirability of using sprays instead of dusts. The use of spray materials, whenever possible, is strongly urged and recommended by this department, in order to reduce the chance of drift.

Number of hours spent on pest control enforcement . . . 1753

MATERIALS USED IN PEST CONTROL

Pest control is a big business in Ventura County and is very essential to the production of paying agricultural crops. To give some idea as to the types of materials used, and the amount, we offer the following summary of materials reported by commercial pest control operators only. These figures do not include those materials used by persons on their own property and applied with their own equipment.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Aramite 3%	4,[illegible]	Avoc., Berries, Beans, Veg., Walnuts	Mites	13,[illegible] lbs.	109,[illegible] lbs.	123,300 lbs.
Aramite 15% W.	11,338	Avoc., Apples Citrus, Walnuts	Mites	92,491 lbs.	38,250 lbs.	130,741 lbs.
Aldrin 2#/Gal. E.	20	Bareland	Wireworms		65 gal.	65 gal.
Aminotriazol	Unknown	Various	Weeds	237 lbs.		237 lbs.
B.H.C. 2%	38	Seed Crops	Aphids		1,150 lbs.	1,150 lbs.
B.H.C. 1#/gal. E.	20	Seed Crops	Aphids		5 gal.	5 gal.
Captan 5%	715	Berries, Flowers, Vegetables	Mildew	10,550 lbs.	28,750 lbs.	39,300 lbs.
Chlordane 40% W.	1,353	Bareland, Yards, Citrus	Wireworm, Ants, Seed Corn Maggot	6,062 lbs.		6,062 lbs.
Chlorobenzilate 25% W.	3,821	Citrus	Bud Mite	22,929 lbs.		22,929 lbs.
C.M.U. 80%	Unknown	Roadways, Bare-land, R.R. Right of ways.	Annual Weeds	420 lbs.		420 lbs.
Copper 7%	23	Veg., Flowers	Mildew		1,050 lbs.	1,050 lbs.
Copper 10%	435	Vegetables	Mildew	5,650 lbs.	12,500 lbs.	18,150 lbs.
Copper 15%	78	Vegetables	Mildew	3,800 lbs.		3,800 lbs.
Copper 20 & 22%	1,889	Citrus, Decid. Vegetables	Brown Rot, Fungus	49,987 lbs.	100 lbs.	50,087 lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Copper Sulfate [illegible]	[illegible]	Citrus	Brown Rot	[illegible] lbs.		[illegible] lbs.
Copper 53%	10,[illegible]	Citrus, Seed l., Veg., Walnuts	Brown Rot, Mildew, Blight	[illegible],410 lbs.		67,410 lbs.
Copper Phosphate	996	Citrus	Brown Rot	13,844 lbs.		13,844 lbs.
Copper 90%	370	Citrus	Brown Rot	527 lbs.		527 lbs.
Cryolite	1,260	Citrus, Walnuts	Thrips, Tortrix, Husk Fly	17,000 lbs.	3,000 lbs.	20,000 lbs.
Dalapon	Unknown	Various	Weeds	26 lbs.		26 lbs.
DBCP (Nemagon)	14	Bareland	Nematode	30 gal.		30 gal.
DD	1,610	Bareland	Nematode	386,153 lbs.		386,153 lbs.
DDT 4%	739	Veg., Flowers, Seed Crops	Worms	34,300 lbs.		34,300 lbs.
DDT 5%	11,042	Veg., Flowers, Seed Crops	Worms	190,720 lbs.	188,350 lbs.	379,070 lbs.
DDT 10%	28,933	Veg., Walnuts, Flowers, Seed Crops	Worms, Wireworms	730,810 lbs.	283,650 lbs.	1,014,460 lbs.
DDT 25% E.(2#/gal.)	11,163	Veg., Flowers	Lygus, Worms	5,800 gals.	5,732 gal.	11,532 gal.
DDT 50% W.	9,127	Bareland, Citrus, Veg., Walnuts, Flowers, Wheat	Scale, Wireworms, Worms, Leafrollers, Wheat Sawfly	112,796 lbs.	315 lbs.	113,111 lbs.
DDT 3#/gal. E.	7,415	Vegetables	Worms	52 gal.	7,319 gal.	7,371 gal.

PESTICIDE	ACRES	CROP	PEST	APPLIED BY GROWER	APPLIED BY AIR	TOTAL AMOUNT
Dieldrin 1.5%	9	Vegetables	Thrips		270 lbs.	270 lbs.
Dieldrin 1.5#/gal. E.	185	Bareland, Citrus	Seed Corn Maggot, Thrips, Ants	9 gal.	11 gal.	20 gal.
Dieldrin 50% W.	50	Citrus	Thrips		50 lbs.	50 lbs.
DM-111 20% W.	2,261	Citrus	Mites	10,598 lbs.		10,598 lbs.
Duraset 20% W.	184	Vegetables	Fruit Set	48 lbs.	92 lbs.	140 lbs.
EDB. 40%	9	Bareland	Nematode, Wireworm	73 gal.		73 gal.
EDB. 83%	8,707	Bareland	Nematode, Wireworm	28,399 gal.		28,399 gal.
Endrin 1 & 1.25%	1,571	Vegetables	Worms	61,650 lbs.		61,650 lbs.
Endrin 19.5% E.(1.6#/gal.)	914	Vegetables	Worms	143 gal.	85 gal.	228 gal.
Ferbam 11%	6	Veg., Flowers	Mildew, Rust	28 lbs.		28 lbs.
HCH	83,385 Trees	Citrus	Scale Insects	27,017 lbs.		27,017 lbs.
Heptachlor 25%	37	Veg., Citrus	Leafminer, Ants.	190 lbs.	450 lbs.	640 lbs.
Heptachlor 2#/gal. E.	27	Bareland	Seed Corn Maggot		14 gal.	14 gal.
Heptachlor 25% W.	22	Citrus	Ants	50 lbs.		50 lbs.
Karathane 1%	369	Veg., Flowers	Mildew	3,230 lbs.	12,500 lbs.	15,730 lbs.
Kelthane 18.5 %	148	Berries, Citrus	Mites	159 lbs.		159 lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Kerosene	580	Citrus	Black Scale	17,296 gal.		17,296 gal.
Lead Arsenate (Basic)	7	Walnuts	Codling Moth	160 lbs.		160 lbs.
Lindane 1%	541	Veg., Flowers	Aphis	16,660 lbs.	1,440 lbs.	18,100 lbs.
Lindane 20% E.	763	Veg., Bareland	Aphis, Seed Corn Maggot	66 gal.	65 gal.	131 gal.
Lime	12,246	Citrus, Decid., Walnuts	Safener	89,493 lbs.		89,493 lbs.
Malathion 4%	866	Beans, Veg.	Aphis	25,650 lbs.	5,950 lbs.	31,600 lbs.
Malathion 5%	188	Berries, Veg., Walnuts	Aphis	2,250 lbs.	5,350 lbs.	7,600 lbs.
Malathion 25% W.	7,906	Citrus	Mealybugs, Scale	86,663 lbs.		86,663 lbs.
Malathion 25% E.	95	Alfalfa, Citrus, Veg., Walnuts	Aphis	91 gal.		91 gal.
Malathion 5#/gal. E.	210	Citrus, Walnuts, Veg., Flowers	Aphis, Worms	4 gal.	29 gal.	33 gal.
Malathion 8#/gal. E.	456	Vegetables	Aphis, Worms	19 gal.	53 gal.	72 gal.
Manganese	9,617	Avoc., Citrus	Deficiency	25,472 lbs.	132 lbs.	25,604 lbs.
Manzate 5%	60	Vegetables	Mildew	1,900 lbs.		1,900 lbs.
Methoxone-Chlorax	Unknown	RR Right of Way	Weeds	5,491 gal.		5,491 gal.
Nabam 19%	229	Vegetables	Blight	81 gal.	78 gal.	150 gal.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Neotran 40% W.	12	Citrus, Walnuts	Mites	107 lbs.		107 lbs.
Nicotine 1.8% (#5)	99	Citrus, Walnuts	Aphis	3,360 lbs.		3,360 lbs.
Nicotine 3.6 (#10)	133	Veg., Citrus, Walnuts	Aphis	1,000 lbs.	5,000 lbs.	6,000 lbs.
Nicotine 40% (Bl.-40)	185	Citrus, Walnuts	Aphis	209 gal.		209 gal.
Oil	45,206	Citrus	Mites, Scale	782,579 gal.		782,579 gal.
Oil - Diesel	300	Grain	Wheat Sawfly		630 gal.	630 gal.
Oil - Dormant	4	Apples	General	96 gal.		96 gal.
Oil - Weed	Unknown	Misc.	Weeds	2,135 gal.		2,135 gal.
Oil - Rotenized	1,998	Citrus	Aphis, Scale	18,655 gal.		18,655 gal.
OMPA	941	Walnuts	Aphis, Mites	270 gal.		270 gal.
Ovotran 5%	40	Vegetables	Mites	1,200 lbs.		1,200 lbs.
Ovotran 50%	11,953	Avoc., Citrus, Veg., Walnuts	Mites	65,004 lbs.		65,004 lbs.
Parathion 1%	5,295	Flowers, Walnuts, Veg., Seed Crops	Aphis, Mites, Worms	111,650 lbs.	81,904 lbs.	193,554 lbs.
Parathion 1.5%	100	Flowers, Walnuts Veg., Seed Crops	Aphis, Mites, Worms		3,300 lbs.	3,300 lbs.
Parathion 2%	8,452	Flowers, Walnuts, Veg., Seed Crops	Aphis, Mites, Worms	187,630 lbs.	102,810 lbs.	290,440 lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Parathion 25% E (2#/gal)	1,826	Citrus, Veg	Aphis, Mites, Worms	159 gal.	926 gal.	1,385 gal.
Parathion 25% W.	3,904	Veg., Citrus, Walnuts	Aphis, Scale, Husk Fly, Worms	[illegible] lbs.		65,776 lbs.
Parathion 4#/gal E.	1,[illegible]4	Veg. Flowers	Aphis, Lyrus, Worms	12 gal.	377 gal.	389 gal.
Perthane 5%	90	Vegetables	Aphis, Worms		3,700 lbs.	3,700 lbs.
Perthane 10%	297	Vegetables	Aphis, Worms	1,350 lbs.	11,250 lbs.	12,600 lbs.
Perthane 2#/gal. E.	93	Vegetables	Aphis, Worms		91 gal.	91 gal.
Phosdrin 2#/gal. E.	355	Vegetables	Aphis, Worms		75 gal.	75 gal.
Pyrethrum	15	Vegetables	Aphis		600 lbs.	600 lbs.
Rotenone 2.5% E.	572	Citrus	Aphis	599 gal.		599 gal.
Rotenone 3-4-5%	9,829	Citrus	Scale	69,461 lbs.	600 lbs.	70,061 lbs.
Sugar	96	Citrus	Thrips	625 lbs.		625 lbs.
Sulfur 10 & 15%	776	Vegetables	Mildew	10,450 lbs.	20,800 lbs.	31,250 lbs.
Sulfur 25%	1,000	Veg., Flowers	Mildew	11,100 lbs.	22,600 lbs.	33,700 lbs.
Sulfur 50%	17,978	Veg., Flowers, Seed Crop	Mildew, Mites	151,460 lbs.	496,950 lbs.	648,410 lbs.
Sulfur 70 & 80 %	825	Veg., Citrus	Mites	5,065 lbs.	25,550 lbs.	30,615 lbs.
Sulfur 90 & 100%	944	Vegetables	Mildew, Rust		28,100 lbs.	28,100 lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Systox (Demeton)	16,732	Beans, Citrus, Veg., Flowers, Seed Crops, Walnuts	Aphis, Mites, Stemborers	3,987 gal.	558 gal.	4,545 gal.
Tartar Emetic	54	Citrus	Thrips	320 lbs.		320 lbs.
TEPP 1 & 2%	3,042	Veg., Citrus, Walnuts	Aphis	27,100 lbs.	108,850 lbs.	135,950 lbs.
TEPP 20% E.	477	Alfalfa, Veg., Citrus, Flowers, Seed Crops	Aphis, Mites	16 gal.	131 gal.	147 gal.
Toxaphene 10%	8,968	Veg., Flowers, Seed Crops	Lygus, Worms	45,650 lbs.	281,460 lbs.	327,110 lbs.
Toxaphene 15%	3,220	Vegetables	Lygus	85,365 lbs.	21,300 lbs.	106,665 lbs.
Toxaphene 20%	54	Vegetables	Worms	950 lbs.	950 lbs.	1,900 lbs.
Toxaphene 40% E.	938	Vegetables	Worms	542 gal.	332 gal.	874 gal.
Toxaphene 4#/gal. E.	1,633	Veg., Seed Crops	Seed Corn Maggot, Lygus, Leaf Miner, Worms	71 gal.	1,070 gal.	1,141 gal.
Toxaphene 60% E.	3,463	Alfalfa, Beans, Veg.	Worms		2,492 gal.	2,492 gal.
Toxaphene 6#/gal.	3,696	Vegetables	Worms	213 gal.	2,529 gal.	2,742 gal.
Toxaphene 8#/gal. E.	2,976	Vegetables	Worms		1,517 gal.	1,517 gal.
Urea	7,833	Citrus	Nitrogen Foliage Spray	196,897 lbs.	2,510 lbs.	199,407 lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Vapam	465	Bareland	Pink Rot, Rhizoctonia, Weeds, Citrus Nematode	6,675 gal.		6,675 gal.
Zinc	20,872	Avoc., Citrus	Deficiency	135,012 lbs.	3,507 lbs.	138,519 lbs.
Zinc Manganese Combination	21,852	Avoc., Citrus	Deficiency	207,146 lbs.	1,807 lbs.	208,953 lbs.
Zinc-Manganese-Copper	1,797	Citrus	Deficiency	39,698 lbs.		39,698 lbs.
Zinc-Manganese-Phosphoric Acid	6,479	Citrus	Deficiency	59,567 lbs.		59,567 lbs.
Zineb 65% W.	181	Vegetables	Mildew	367 lbs.	36 lbs.	403 lbs.
Zineb 3.25%	532	Vegetables, Flowers	Mildew	8,550 lbs.	13,150 lbs.	21,700 lbs.
Zineb 5%	570	Vegetables, Flowers	Mildew	13,050 lbs.	6,400 lbs.	19,450 lbs.
Zineb 6%	2,382	Veg., Flowers	Mildew	38,940 lbs.	52,700 lbs.	91,640 lbs.
2,4-D; 2,4,5-T	5,255	Grain, Brush, Bareland	Weeds	141 gal.	821 gal.	962 gal.
2,4-D; 2,4,5-T	6,447	Citrus	Tree Conditioner	142 gal.		142 gal.

PORT INSPECTION

Inspection of ships is made by staff members of the Agricultural Commissioner's office. State and Federal Quarantines restrict the movement of certain materials likely to introduce serious insect and disease pests. Ships stores, as well as the crew's quarters, cargo and passenger baggage, are checked for restricted articles. Whenever found in violation of the quarantines, they are properly disposed of to safeguard the agricultural industry.

Disposal of garbage also comes under our control to prevent the introduction of foot and mouth disease.

Number of ship inspections 15
Number of hours spent on ship inspection 65

TOMATO SEED CERTIFICATION

In collaboration with the Bureau of Plant Pathology and under the authority of the Director of Agriculture, county personnel inspected plantings of seed tomatoes. Inspections are for the purpose of determining the presence or absence of bacterial canker (Corynebacterium michiganense), a seed borne disease.

A total of 370.75 acres consisting of 131 varieties were inspected during the 1956 season. Fourteen varieties totalling 93.25 acres were found infested. This is the most serious outbreak of bacterial canker in Ventura County since 1947. The infection resulted in all probability from planting uncertified seed in the seed beds since the regular foundation seed has shown no infection for several years. The land on which the infected varieties were planted will be taken out of use for tomato seed growing for the next four years.

Diseased specimens taken from 21 varieties were submitted to the Bureau of Plant Pathology for diagnosis. Of these, the fourteen mentioned above showed bacterial canker infection.

All equipment used in the seed production process is sterilized under our direct supervision. The sterilization treatment is repeated for each variety.

Number of hours spent on tomato seed certification inspection . . 379

INSPECTION OF CITRUS FRUIT SHIPPED TO FLORIDA

Florida regulations call for inspection of citrus fruit to be shipped to that state to meet certain inspection requirements for scale insects and certification of each shipment. Considerable time was spent on this phase of work to insure scale free fruit for that purpose.

Number of cars inspected and certified 172
Number of containers inspected and certified 151,464
Number of hours spent on inspections 24

STANDARDIZATION

The enforcement of the State Standardization Law, as defined in Division V of the California Agricultural Code, is a function of the office of the County Agricultural Commissioner. The law specifically relates to the quality, pack, labeling and maturity of the fresh fruits, nuts, vegetables, eggs, honey and poultry meat.

One supervising inspector is in charge of this work and is assisted by the district inspectors. The Standardization Law is enforced, at the local level, by origin inspections in packing houses and in the field; and at wholesale and retail outlets. The bulk of egg and poultry meat inspection is done at retail stores by the supervising inspector. The poultry meat law, recently adopted by the State Legislature, became effective in July 1956, and is a new phase of enforcement work. The latter part of 1956, when the law was enforceable, was spent in acquainting the local producers and merchants with the law.

The ever changing picture of residential and industrial development during 1956 increased the amount of work to be done with the same personnel. More produce and eggs went through the local outlets, and necessarily caused an extra amount of inspection. Ventura County harvested more than 13,000 acres of vegetables, 40,000 acres of all varieties of beans; and shipped 15,192 cars of citrus fruits, 5,500 tons of walnuts and approximately 101,520 field boxes of avocados during the year. There are 30 citrus packing houses; 14 vegetable packing plants and avocado operations that required inspection for the purposes of certification, for which a fee was charged, a source of revenue to the County. Ninety-one (91) lots of avocados were tested for maturity, twenty-four (24) of which failed to meet the required eight percent (8%) of oil by weight.

No difficulties were experienced in the work, due to the fine cooperation of retailers, wholesalers and shippers.

Following is the summary of work done during 1956:

Fruits Nuts and Vegetables	
Containers inspected	2,836,142
Containers certified	2,687,556
Number of lots certified	9,683
Number of containers rejected	1,011
Number of rejections issued	22
Eggs	
Premises visited	130
Number of lots inspected	471
Number of dozens in lots inspected	91,629
Number of dozens rejected	344
Number of rejection notices issued	7
Total hours spent on Standardization	5,123

APIARY INSPECTION

The inspection of apiaries within the county to determine the possible presence of disease is one of the duties of the Agricultural Commissioners office. The county bee inspector in cooperation with the State Department of Agriculture, made a thorough inspection in the county during the spring of 1956. All colonies found to be infected with American Foulbrood were burned according to law.

The county bee inspector has now retired and there is at present no person qualified to inspect for and diagnose the various bee diseases.

Following is a summary of work carried on during 1956:

	No. Apiaries	No. Colonies
Registered	37	2,159
Entering county	107	13,725
Leaving county	72	9,435
Moving within the county	31	2,350
Inspected	43	4,495
Infected with American Foulbrood	2	114
Burned--American Foulbrood	2	114
Number of hours spent on apiary inspection		304

RODENT CONTROL

SQUIRRELS

Ground squirrels and other rodents throughout the western states have long been recognized as carriers of bubonic plague, along with the fleas which accompany them, and such is the case in Ventura County. The larger portion of our county is designated as a plague area and drastic measures are undertaken to control these rodents. The county is partially reisbursed by the State of California for costs in controlling field rodents in the plague areas.

Due to a human death in June 1956 resulting from bubonic plague an intensive rodent eradication program was instituted in the northern portion of the county. This intensive program was against field rodents that were carriers of this dreaded disease. It covered some 300 acres, which contained all of the actual infestation of bubonic plague plus a surrounding area as a margin of safety. In this area, a program of rodent control was continued for about two months. In addition, in cooperation with the Ventura County Health Department, and the California Department of Public Health, we dusted all buildings, corrals, rodent burrows, rodent trails, trash and brush piles, etc., with DDT dust to kill all fleas in this infested area. The areas immediately surrounding places of habitation in the upper Cuyama Valley were treated in the same manner. All of the Cuyama Valley and most of the remaining northern portion of the county were given an extra coverage for control of rodents.

Extra men were hired for a part of the year to augment our regular personnel

so that complete coverage of the rest of the county could be made during the proper time for best results. Thallium sulfate, methyl bromide, carbon bisulphide were used as the general treatment in the winter and spring months. Warfarin was used in areas around heavy human population to reduce the danger from secondary poisoning. Strychnine treated barley was used during the late summer and fall months.

GOPHERS

This rodent continues to be our most serious pest to orchards and trees, and a constant campaign must be waged by growers to eliminate or reduce the damage that results each year. Strychnine baits are provided at cost to growers and the best known methods of control are demonstrated at various times during the year and upon request.

FIELD MICE

Several growers reported serious damage to young citrus trees due to the working of these rodents. Demonstrations of methods of applying poisoned baits were held and poison baits (strychnine treated rolled barley) were mixed and sold at cost to growers.

RATS

Rats were high on the list of rodents controlled during the year, not only because they might be carriers of disease, but due to the fact that they were reported as doing severe damage to young avocado trees.

Rats in storage facilities can be blamed for loss of important food materials and because of this many calls were made and cleanup programs were started. Warfarin was used as the poison for controlling rats.

BIRDS

Most of the bird control was confined to the following species, when it was determined that they were doing actual damage to agricultural crops; linnets, English sparrows, brown sparrows, blackbirds, horned larks and crows. Many calls were received from poultry ranches regarding loss of feed materials and suspected disease problems. The calls were answered and assistance given to the poultry ranches.

PREVENTION ANIMAL RABIES

Ventura County was declared a quarantine area because of rabies and in December 1956, the Agricultural Commissioner's office was instructed by the Board of Supervisors to begin a trapping program to decrease the number of skunks and other small animals that were or presumed to be infected with this disease. The area was so designated because a number of people had been bitten by rabid skunks. With the start of the program, staff personnel were used to trap in the Ventura area where rabies had been recorded as being present. Three men were assigned to this task with good results.

During July, 1956, an agreement was entered into with the Fish and Wildlife Service, United States Department of the Interior, in cooperation with the

California Department of Agriculture, to furnish a predatory animal trapper to augment the program.

The following is a tabulation of the results of this joint program:

ANIMAL	FISH AND WILDLIFE	COMMISSIONER'S OFFICE	TOTAL
Skunks	207	182	389
Opossum	108	121	229
Foxes	73	26	99
Coyotes	43	—	43
Bob cats	48	5	53
Badgers	19	1	20
Raccoons	29	1	30
	527	326	863

Following is a summary of the rodent control program for 1956:

Squirrels (Plague Area)

No. of acres treated in plague area	105,137
No. of pounds of strychnine-treated grain	2,152
No. of pounds of thallium-treated grain	6,539
No. of pounds of warfarin-treated grain	1,271
No. of pounds of 1080-treated grain	35
No. of pounds of methyl bromide	1,823
No. of gallons of carbon bisulfide	552
No. of waste balls (used with carbon bisulfide)	30,065
No. of hours spent on rodent control, plague area	4,075

Other Rodents (Non-Plague Area)

No. of acres treated for squirrels	31,494
No. of pounds of bait material for squirrels	2,726
No. of acres treated for gophers	9,438
No. of pounds of bait material for gophers	2,545
No. of acres treated for field mice	245
No. of pounds of material for field mice	219
No. of acres treated for rabbits	4,432
No. of pounds of bait material for rabbits	1,714
No. of baits for coyote control	150
No. of pounds of warfarin for rat control	25
No. of hours spent on rodents, non-plague area	1,767

WEED CONTROL

The department continued to make surveys throughout the county to determine the presence of new infestations of noxious weeds and to bring about their control. Contracts with the California Division of State Highways and the Southern Pacific Railroad were entered into and work was done on a cooperative basis.

Among the weeds receiving control measures in the county during 1956 are:

Spiny clotbur	Texas blue weed
Gaura	White horse nettle
Hoary cress	Purple star thistle
Russian knapweed	Milk thistle
Kikuyu grass	Dog bane
Pig nut	Russian thistle
Puncture vine	Poison oak
Yellow star thistle	Bermuda grass
Johnson grass	Annual weeds

All county roads were sprayed for primary and secondary noxious weeds.

The following is a table of the amount of materials used in 1956:

2,4,5-T	[illegible] Gallons
2,4-D	[illegible] Gallons (70%)
Weed oil	[illegible] Gallons
TCA	[illegible] Pounds
Amino triazol	[illegible] Pounds
Polybor-chlorate	[illegible] Pounds

An area of [illegible] sq. ft. was treated at a total cost of $ 3,028.77

SURVEYS

During 1956, two fruit flies, both of an extremely serious nature, were found in the United States. One of these, the Mediterranean Fruit Fly, was found to be present in twenty-eight counties of Florida. An eradication program is now being carried out in that state.

In July, 1956 a single adult female melon fly was trapped on the U.C.L.A. campus in Los Angeles. This is the first time that this insect has been found in the United States. An extensive statewide trapping program is now underway by the California Department of Agriculture. To date no further flies have been found.

Of the four most serious known fruit fly pests, three have been taken in the United States. Of these three, two, the Mexican fruit fly and the melon fly, have been found in California. This situation tends to emphasize the increased importance of surveys within the county. Should any one of the above mentioned pests become established here the cost of eradication or control would probably run into millions of dollars.

Surveys made in 1956 show two new insect pests in the county. A single larva of the wheat stem sawfly, Pachynematus sporai, was found infesting wheat in a portion of Cuyama Valley located in Ventura County. This pest has been under eradication in the Cuyama Valley since 1954. Although the program has been effective in decreasing the total population, and has greatly cut down the number of infested acres, there has been a slight increase in the range of the insect. This single specimen in Ventura County is the result of natural spread.

The only other insect pest found this year for the first time in Ventura county was the bamboo scale. Odonaspis penicillata. This was taken in a routine nursery inspection and was found infesting an ornamental grass in one of the local nurseries.

Since wheat is a minor crop in Ventura County and, the bamboo scale has never been a serious pest in other locations, it is doubtful whether either of these new finds would become serious economic pests here. As a precaution, however eradication proceedures were carried out on both of these insects.

In surveys made for plant diseases, three pests new to the county were found. The stem nematode, Ditylenchus sp., was found infecting one field of alfalfa in the Oxnard area. Although this is the first time the nematode has been taken in Ventura County, it is relatively widespread in Southern California.

Inspections in avocado plantings revealed the presence of cinnamon fungus, Phytophthora cinnamomi, for the first time in avocados in Ventura County. This is a serious fungus with a wide host range. It has, during the past several years, become a serious pest of avocados in other areas.

Nursery inspectors also revealed the presence of a new orchid virus. The disease, mosaic of Cattleyas, was found in one private orchid collection. The disease apparently does not harm the plant and is of academic interest only.

Of the three diseases found this year only the cinnamon fungus appears to be of serious potential importance. With the avocado industry becoming increasingly important in the county, this disease could cause considerable loss to the orchards.

Following is a list of the surveys made in 1966:

Insect Surveys.

General Pest Survey	Mexican Fruit Fly
Khapra Beetle	Red Scale
Wheat Stem Sawfly	Spotted Alfalfa Aphid
Mediterranean Fruit Fly	Sugar Beet Leafhopper
Melon Fly	Oak Moth

Plant Disease Surveys

Quick Decline of Orange	Cinnamon Fungus
Burrowing Nematode	Alfalfa Stem Nematode

GENERAL PEST SURVEY

With the development of subdivisions within the county assuming more importance each year the work of inspectors making yard surveys becomes more difficult. Again in 1966, a general pest survey was made to determine the possible presence of pests new to the county.

Inspectors are particularly on the alert for scale insects not of common occurrance. They are, however, also trained to look for any insect pest or plant disease new to the area.

Following is a summary of the 1956 survey:

District	Yards Insp.	Host Plts. Inspected	Yds. Inf.	Scale Insects — Red	Chaff	Purp.	Dicto.--	Hosts Fum.	Spr.	Renov.
Ventura	[illegible]	39,500	30	12	1	7		27	231	4
Oxnard	[illegible]	28,200	20	20				208	13	8
Santa Paula	[illegible]	36,000	5	3			2		28	
Moorpark	350	3,150	15	15				36		
Camarillo	[illegible]	30,600	23	23				5		
[illegible]	[illegible]	[illegible]	1	1					25	4
[illegible]	[illegible]	[illegible]	2	2						

[illegible] yards in Simi and Santa Susana were sprayed with oil and malathion as a [illegible].

KHAPRA BEETLE

Survey for the Khapra Beetle, now under eradication in California, was continued in Ventura County throughout the year. All warehouses, feed dealers, cattle feed yards, and most chicken ranches were inspected to determine the possible presence of this most serious insect of stored grain.

A survey crew made a complete examination of all properties early in 1956. Following this comprehensive survey an inspector was assigned to make periodic checks of properties most likely to become infested through importing of infested material. Several species of insects closely related to the Khapra Beetle were taken but no Khapra Beetles were found.

Summary of the 1956 survey follows.

Man Hours	Properties Inspected	Properties Infested
[illegible]	161	0

WHEAT STEM SAWFLY

In cooperation with the California Department of Agriculture, a survey was again made in the Cuyama Valley for the wheat stem sawfly. This insect, a serious pest of wheat, is under eradication in the State.

A single larva of the sawfly was taken in Ventura County, indicating that the insect has increased its range somewhat. As a result of this find all wheat fields in the Ventura County portion of the Cuyama Valley received an air application of DDT in oil.

Summary of the 1956 survey.

County Man Hours	Properties Inspected	Properties Infested	Acres Inspected	Acres Infested	Acres Treated
1[illegible]	4	1	300	84	300

MEDITERRANEAN FRUIT FLY

This year the California Department of Agriculture started a statewide trapping program for the Mediterranean Fruit Fly. New effective bait lures have recently been developed for this pest which makes the program more effective than previous attempts. Bait and traps have been furnished by the State, and a county inspector has been given the task of servicing the traps together with traps for other fruit flies.

With the Mediterranean fly now existing in the United States the chances of the pest becoming established in California is greatly enhanced. Although to date all results from the trapping have been negative we feel that the program is well worth the effort.

Summary of the 1956 survey:

County Man Hours	Properties Surveyed	Traps During Peak of Operation	Total Number Traps Serviced
[illegible]	[illegible]	[illegible]	733

MELON FLY

An extensive statewide trapping program for the melon fly was started following the taking of a female adult in a trap on the U.C.L.A. campus. This insect which is a very serious pest of the Hawaiian Islands had never before been found in the United States. Although the State is concentrating their traps in the area immediately surrounding West Los Angeles, they have also maintained cooperation with counties adjoining Los Angeles County and have distributed traps to be serviced by county personnel.

Ventura County has been busy since early August, 1956 systematically placing traps throughout the county. All agricultural areas except the Lockwood and Ojai Valleys have been included in the program.

This insect has a very wide host range with all type of cucurbits, tomatoes and many fruits and vegetables on the preferred list. Should it become established in California it would be a very serious threat to the agricultural industry. To date no further finds have been made in the State.

Summary of the 1956 trapping survey

Man Hours	Properties Serviced	Traps During Peak of Operation	Number of Traps Serviced	Gallons of Bait Used
210	120	56	401	42

MEXICAN FRUIT FLY

The third member of the fruit fly family which is causing concern to the California agricultural industry is the Mexican Fruit Fly. This insect has become

established in Lower California near Tia Juana. The fly has been taken above the Mexican Border at San Isidro, California and an eradication program is underway in portions of San Diego County.

Ventura County has traps placed throughout the county with an inspector assigned to service them weekly. This fly is a serious pest to all varieties of citrus, except lemons and limes, to avocados and most deciduous fruits.

Summary of the 1956 trapping survey:

Man Hours	Properties Surveyed	Number of Traps
180	28	28

RED SCALE

The County Department of Agriculture again this year conducted a red scale survey. This citrus pest is under eradication throughout the county with the various protective leagues assisting in furnishing treatment and inspection.

The Department inspects properties not affiliated with any of the protective leagues whenever there is reason to believe these properties are infested with red scale. In addition this office may assist in making surveys of properties of league members.

Summary of the 1956 survey:

Man Hours	Acres Inspected	Acres Infested
338	492	450

SPOTTED ALFALFA APHIS

At the request of alfalfa producers, the Agricultural Department conducted a survey of alfalfa acreages in the county to determine the status of the Spotted Alfalfa Aphis in this area. District inspectors checked most of the fields in their districts and found the insect to be present in all alfalfa plantings.

Damage by this pest has been relatively light this year although some treatment has been necessary. A population increase was noted in some fields during late fall and early winter.

Summary of the 1956 survey:

Man Hours	Properties Inspected	Properties Infested	Acres Inspected	Acres Infested	Acres Treated
20	26	26	1800	1800	215

OAK MOTH

Following the severe attack on live oaks throughout the county in 1955 by the oak moth, the Agricultural Department made a survey of county parks in the spring of this year to determine the present status of the pest. Checks were made in several of the county parks with special attention being given Foster and Steckel Parks where the damage last year was most severe.

Spring inspection revealed that the larva population was greatly reduced, and it was decided that treatment this year would not be necessary. This proved to be the correct decision as damage in 1956 was light.

Summary of 1956 survey:

Man Hours	Parks Inspected	Parks Infested	Parks Severly Damaged
[illegible]	[illegible]	[illegible]	0

SUGAR BEET LEAFHOPPER

Again in 1956 a survey was made on the vector of western yellow blight of tomatoes, the Sugar Beet Leafhopper. A check of potential breeding grounds within the county revealed that the spring vegetation this year was unfavorable for the reproduction of the insect. This leafhopper favors sparse, low vegetation and whenever winter rains cause flush growth, this insect will not usually build up a heavy population within the county.

Following is a summary of 1956 survey:

Man Hours	Acres Surveyed	Acres Lightly Infested	Acres Heavily Infested
8	650	650	0

QUICK DECLINE OF ORANGE

The annual survey for Quick Decline of Orange was made this year during the summer rather than in late fall and winter, as the previous inspections have been made. With the completion of the Mexican Bean Beetle program in 1955 which was carried on during each season, it was decided to take advantage of available help from agricultural students during the summer school vacation. This work was done in cooperation with the State Department of Agriculture who also furnished inspectors.

The survey for 1956 indicates that the virus disease is still confined to the Santa Clara Valley. With the exception of the Ojai Valley, no good suspects were found outside this area. A few suspects were found in the Ojai Valley and rubbed samples and budwood taken from these. No transmissions, however, were obtained from these trees.

In charting orchards in the originally infected areas of Bardsdale and Sespe, it was found that in nearly every grove there were fewer trees infected in 1956 than in 1955. This may be partly due to the fact that the survey was made approximately three months earlier than in previous years. Trees often show first symptoms following the dry fall winds encountered in the valley.

Summary of 1956 survey:

Man Hours	Properties Surveyed	Acres Surveyed	Suspects Found	Phloem Taken	Budwood Taken
1,[illegible]6	725	16,398.4	99	31	26

BURROWING NEMATODE

In cooperation with the United States Department of Agriculture, a countywide survey was made for the Burrowing Nematode. This pest, the cause of spreading decline in Florida, has at times been intercepted in shipments of plants from Florida. The U.S.D.A. has undertaken a survey of all citrus producing areas in the United States. In California they worked in cooperation with the County Agricultural Departments.

In Ventura County the district inspectors worked with the Federal Inspectors in making surveys of properties upon which favorable host plants were growing. Although no Burrowing Nematodes were found in California, some interesting facts were brought out. The citrus nematode, Tylenchulus semipenetrans, was found infecting 93% of the citrus groves and 87.5% of the citrus nurseries from which soil samples were taken.

Summary of 1956 survey:

Man Hours	Citrus Groves Inspected	Avocado Groves Inspected	Citrus Nurseries Inspected	Ornamental Nurseries Inspected	Yards Inspected
1[illegible]2	29	7	1	10	11

CINNAMON FUNGUS

This year for the first time Cinnamon Fungus was found infecting avocados in Ventura County. The disease has been a pest of this crop in other areas of Southern California for several years. It has a wide host range and is difficult to control.

A survey was made of suspected plantings by county inspectors in cooperation with a State Plant Pathologist. Two properties were found to be infected with a total of 115 trees showing the disease.

Following is a summary of the 1956 survey:

Man Hours	Properties Surveyed	Acres Surveyed	Properties Infected	Acres Infected
36	20	27	2	1.5

ALFALFA STEM NEMATODE

Early in 1956 a field of alfalfa in the Oxnard area showed an unusual type of decline. Examination proved the trouble to be due to a rather heavy infection of Alfalfa Stem Nematode. Although the pest has been present in Southern California for a long time this was the first recorded infection in Ventura County.

Following the find, a survey was made of other alfalfa plantings throughout the county. All other findings, however, were negative.

Summary of the 1956 survey follows:

Man Hours	Properties Inspected	Samples for Laboratory Diagnosis	Properties Infected
17	11	7	1

FINANCIAL STATEMENT
FOR FISCAL YEAR ENDING JUNE 30, 1956
VENTURA COUNTY DEPARTMENT OF AGRICULTURE

Salaries & Wages			
Commissioner, Deputy Commissioners, Inspectors and Office Help	$105,347.00		
Extra Help	25,324.51	$130,671.51	
Maintenance and Operation		24,337.47	
Capital Outlay		406.31	$155,415.29
Reserve			27,329.07

Classification of Estimated Expenditures by Functions:

Plant Quarantine (Interstate)	7,973.67	
Plant Quarantine (Intrastate)	15,947.34	
Standardization	13,102.38	
Field and Orchard Inspection	11,267.23	
Nursery Inspection	3,319.35	
Seed Inspection	2,537.78	
Rodent Control (County expense)	7,869.93	
Plague Suppression (County expense)	17,799.93	
Weed Control (County expense)	6,696.86	
Apiary Inspection	2,988.89	
Crop Statistics	4,533.63	
Other Items*	60,962.99	$155,008.98
Capital Outlay		406.31

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*Functions Included in "Other Items" are:

General Pest Surveys	$ 21,131.61
Vacuum Fumigation	9,861.68
Entomology	1,193.48
Pest Control	3,621.63
Fair	10,039.75
Miscellaneous	15,134.84

VENTURA COUNTY
DEPARTMENT OF AGRICULTURE

Agricultural Building
Santa Barbara and Eighth Streets
Santa Paula, California

ANNUAL CROP PRODUCTION AND ACREAGE REPORT

COUNTY OF VENTURA

1956

Pursuant to Section 65.5 of the Agricultural Code, we submit the crop production, crop value and acreage report for the calendar year 1956.

This report is based only on the F.O.B. values of our agricultural production and in no way does it indicate the net returns of growers. All costs of soil preparation, seeding or planting, cultural costs, pest control costs, harvesting and packaging are included in the F.O.B. values.

This is the highest returns to the county ever recorded in F.O.B. values, and can be explained somewhat by the higher returns and production in our citrus crops, double planting and dual use of land for vegetables. With the removal of some tree acreage the land has been used for other crops that permit shorter growing time and multiple crop use. Some of the acreage in the vegetable returns was planted in 1955 and harvested in 1956. This explains somewhat the increased acreage. Bean acreage was reduced over former years while celery acreage was slightly increased.

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

C. J. Barrett

C. J. BARRETT
Agricultural Commissioner

CJB:ng

ACREAGE OF AGRICULTURAL CROPS

The following are the acres devoted to agricultural crops. The non-bearing acres are those on which the trees or vines are 5 years of age or under.

CROP	BEARING ACRES	NON-BEARING ACRES	TOTAL ACRES
Apricots	728.6		728.6
Almonds	84.9		84.9
Apples	67.1		67.1
Avocados	1,840.6	436.3	2,276.9
Berries-Bush	5.9		5.9
Cherimoya	.3		.3
Citron	2.2		2.2
Grapefruit	312.9	50.5	363.4
Grapes	152.1		152.1
Lemon-Eurekas	18,905.0	5,131.2	24,036.2
Lemon-Lisbons	591.3	454.7	1,045.9
Olives	13.7		13.7
Orange-Navels	1,539.0	220.2	1,759.2
Orange-Valencias	16,145.7	103.7	16,249.4
Pears	12.4		12.4
Peaches	64.3	5.6	69.9
Tangerines	10.6	3.0	13.6
Walnuts	12,744.7	406.7	13,151.4
Hay & Grain			21,313.0
Beans-Dry			27,636.0
Beans-Green			10,574.0
Vegetables			20,936.0
Sugar Beets			2,451.0
Seeds			786.0
Cut Flowers			536.0
			144,269.0

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				
Dried	307	Tons	$ 236,660.00	730.0
Fresh	696.44	Tons	47,977.50	
Pits	67.50	Tons	8,224.23	
			292,861.73	
Avocados	323,107	Flats	948,410.10	1,860.6
Beans				
Dry Limas	344,000	Bags	3,698,000.00	22,000.0
Blackeye	5,000	Bags	37,900.00	500.0
Seed Pordhook	117,205	Bags	1,512,031.50	5,122.0
Misc. Varieties	315	Bags	4,063.50	16.0
	466,600		5,251,995.00	
Citrus:				
Lemons				19,495.8
Packed	7,989,275	Cart.	24,004,360.11	
Juice	59,545.47	Tons	2,489,834.18	
			26,494,174.29	
Oranges - Valencia				16,145.7
Packed	6,126,823	Cart.	14,401,442.78	
Juice	59,491.18	Tons	2,522,109.30	
			16,923,552.08	
Oranges - Navel				1,539.9
Packed	724,949	Cart.	1,572,492.91	
Juice	3,636.58	Tons	77,227.25	
			1,649,720.16	
Grapefruit				312.7
Packed	217,192	Cart.	456,711.99	
Juice	1,076.40	Tons	16,155.00	
			472,866.99	
Grain				
Wheat	6,094	Bags	19,805.50	554.0
Barley	209,246	Bags	661,265.00	13,094.0
Oats	11,616	Bags	30,101.00	1,100.0
Sudan 23	1,900	Bags	14,700.00	225.0
	228,856		545,871.50	14,973.0
Hay				
Alfalfa (Green)	26,040.00	Tons	180,200.00	868.0
Barley	1,669.00	Tons	37,552.50	1,572.0
Oats	4,908.00	Tons	147,240.00	3,500.0
Rye	400.00	Tons	8,000.00	400.0
	33,017.00		372,992.50	6,380.0

PRODUCT	PRODUCTION	UNIT	F.O.B. VALUE	BEARING ACRE AGE
Misc. Fruits				
Apples	23,000	Boxes 40#	46,000.00	67.0
Grapes	206.00	Tons	9,240.00	[illegible]
Peaches	8,200	Lugs	14,350.00	62.0
Raspberries	6,996	Flats	24,486.00	5.5
Strawberries	470.82	Tons	112,997.28	41.0
Strawberries	384,200	Flats	1,112,344.00	269.0
			1,278,817.28	
Sugar Beets	47,933	Tons	514,800.42	2,45[illegible].0
Government			112,163.64	
			626,964.06	
[illegible]	6,410.95	Tons	3,[illegible]	12,7[illegible]
Vegetables				
[illegible] Green	14,830.28	Tons	2,[illegible]	10,35[illegible]
[illegible]-Green	2,256	Crts.	7,699.39	[illegible].0
String Beans	1,912.84	Tons	250,96[illegible].82	216.0
Beets Table	1,390	Crts.	[illegible],443.75	5.0
Broccoli, Processed	3,868.30	Tons	58[illegible],244.00	1,523.0
Broccoli, Fresh	28,952	Crts.	87,78[illegible].63	224.[illegible]
Cabbage	292.00	Tons	34,[illegible]20.87	30.0
Cabbage	520,643	Crts.	535,[illegible]9.77	930.0
Carrots	320,302	Crts.	96[illegible],8[illegible]3.75	
Carrots	1,082.00	Tons	9,690.00 —	1,252.0
Carrots	297,765	Sks.	262,033.[illegible]2	
Cauliflower	158,356	Crts.	17[illegible],172.23	278.0
Celery	1,[illegible]90,[illegible]	Crts.	2,39[illegible],398.05	1,486.0
Chinese Veg.	[illegible],260	Crts.	38,80[illegible].59	21.0
Corn Sweet	26,57[illegible]	Dzns.	9,[illegible]70.[illegible]6	30.0
Cucumbers	123,[illegible]10	Lugs	138,465.36	183.0
Cucumbers - Pickle	1,658.90	Tons	8[illegible],325.66	83.0
Cantaloupes	3,800	Crts.	7,220.00	17.0
Lettuce Head	833,240	Cart.	1,03[illegible],282.[illegible]0	2,112.0
Lettuce Romaine	[illegible]66,006	Crts.	18[illegible].5[illegible].[illegible]6	322.[illegible]
Lettuce - Native	45,522	Crts.	[illegible],[illegible]72.67	66.0
Onions Dry	[illegible],90[illegible]	Sks.	11,950.00	19.0
Peas, Processed	3,835.36	Tons	351,577.49	2,136.0
Peas, Fresh	5,270	Crts.	18,865.60	89.0
Parsley	[illegible],560	Tons	65,520.00	60.0
Peppers - Bell	[illegible]8,7[illegible]	Crts.	30,606.5[illegible]	[illegible].0
Peppers - Bell	2,992.00	Tons	150,200.00	232.0
Peppers - Gr. Chili	4,108.83	Tons	262,2[illegible].07	485.0
Peppers - Pimento	6,845.09	Tons	442,320.85	822.[illegible]
Peppers - Dry Chili	132.28	Tons	393,683.25	643.0
Squash - Winter	2,685.00	Tons	67,125.00	256.0
Squash - Summer	3,080	Lugs	7,525.88	26.0
Spinach, Processed	4,905.89	Tons	130,076.00	657.0
Spinach, Fresh	79,[illegible]8[illegible]	Crts.	112,056.99	89.0
Tomatoes - Market	936,063	Lugs	1,089,555.31	1,270.0
Tomatoes - Market	436,85[illegible]	Flats	530,580.20	303.0
Tomatoes - Canning	103,911.29	Tons	2,[illegible]89.[illegible]40.74	5,113.0
Turnip Greens	27[illegible].18	Tons	7,10[illegible].58	39.0
Bunch Vegetables	2[illegible],015	Crts.	50,[illegible]31.50	9[illegible].0
			15,719,257.56	31,510.0

PRODUCT	PRODUCTION	UNIT	F.O.B. VALUE	BEARING ACREAGE
Seed				
Vegetable	134,589	Lbs.	397,369.25	683.0
Flower	28,100	Lbs.	70,975.00	103.0
			468,344.25	786.0
Cut Flowers	1,179,200	Dzns.	589,600.00	536.0
Nursery Stock				
Citrus	306,332	Trees	512,793.60	
Avocados	23,000	Trees	44,100.00	
Walnuts	18,000	Trees	22,500.00	
Tomato Plants	53,000,000	Plants	378,000.00	210.0
Vegetable Plants	101,390	Flats	125,695.00	
Bedding Plants	430	Flats	1,290.00	
Ornamentals	127,700	Cans	110,125.00	
			1,294,503.60	
Livestock				
Hogs	10,614	Head	350,262.00	
Cattle	17,960	Head	2,260,360.00	
Rabbits	175,000	Lbs.	43,750.00	
			2,634,372.00	
Poultry				
Squabs	54,000	Birds	97,600.00	
Turkeys	337,000	Birds	1,920,900.00	
Chicken - Meat	985,110	Lbs.	108,362.10	
Eggs - Chicken	10,385,420	Dzns.	4,154,168.00	
			6,281,030.10	
Milk Production				
Number Dairies	11			
Number Cows	5,096			
Milk Fat	2,257,600	Lbs.		
Estimated Revenue			3,260,960.98	
GRAND TOTAL			$88,460,154.12	

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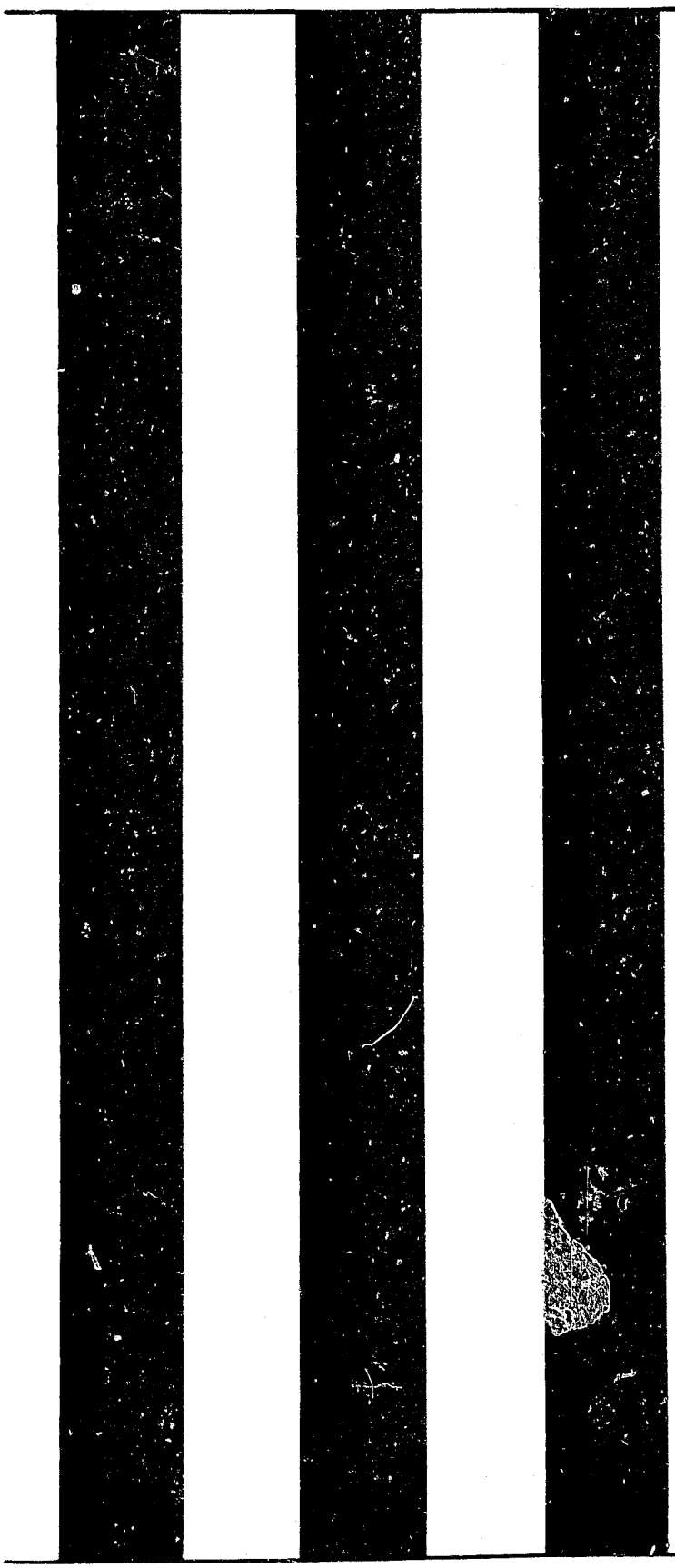
COMPARISON — 1955 and 1956

PRODUCT	1955	1956
Apricots	$ 122,611.00	$ 292,861.83
Avocados	566,2[illegible]4.37	9[illegible]8,[illegible]10.10
Beans	7,239,73[illegible].00	5,251,595.00
Lemons	2[illegible],817,67[illegible].52	26,[illegible]9[illegible],17[illegible].29
Oranges - Valencia	13,922,2[illegible]9.6[illegible]	16,923,552.08
Oranges - Navel	1,625,993.93	1,6[illegible]9,720.16
Grapefruit	365,312.87	[illegible]72,866.99
Grain	[illegible]85,895.50	5[illegible]5,871.50
Hay	371,6[illegible]3.00	372,992.50
Misc. Fruits	395,325.00	1,278,[illegible]17.28
Sugar Beets	550,990.29	626,96[illegible].06
Walnuts	[illegible],23[illegible],795.5[illegible]	3,[illegible]1[illegible],677.8[illegible]
Vegetables	13,099,128.92	15,719,257.56
Seed Crops	[illegible]08,886.82	[illegible]68,3[illegible]4.25
Nursery Stock	1,069,327.65	1,29[illegible],503.60
Cut Flowers	771,798.00	589,600.00
Livestock	2,821,956.00	2,63[illegible],372.00
Poultry	6,832,857.3[illegible]	6,2[illegible]1,030.10
Milk	2,580,800.00	3,2[illegible]0,9[illegible]0.98
TOTALS	$82,[illegible]53,21[illegible].39	$88,[illegible]60,15[illegible].12



1957

VENTURA COUNTY

ANNUAL REPORT

AND

CROP STATISTICS

1957

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, 1957

BOARD OF SUPERVISORS

Lester A. Price - - Chairman

A. C. Ax — C. P. Andrews

E. L. Carty — J. T. Appleton

C O N T E N T S

DEPARTMENT PERSONNEL

COMMISSIONER	C. J. BARRETT
Deputy Commissioner	John L. Schall
Deputy Commissioner	John C. Allee
Deputy Commissioner	Harry E. Bronson
Inspector III - Standardization Supervisor	Paul B. Travis
Inspector III - Nursery, Seed & Plant Disease Supervisor	Verner E. Holmer
Vacuum Fumigation	Kurl Boren
Inspector II, Ventura	Albert Picker
Inspector I, Ventura (Part of Year)	Donald Anderson
Inspector II, Oxnard	W. M. Dunning
Inspector II, Oxnard	Clyde W. May
Inspector I, Oxnard (Part of Year)	Arthur Spradling
Inspector II, Moorpark-Simi	I. L. Clements
Inspector I - Weed & Rodent, Moorpark-Simi	Bruce Burns
Inspector I, Ojai	Marvin Paregien
Inspector I, Fillmore-Bardsdale	Harold Hawkins
Inspector II, Camarillo	W. M. Jones
Inspector I, Camarillo (Part of Year)	Gene Fidel
Inspector II, Santa Paula - Entomologist	W. E. Simonds
Inspector I, Santa Paula (Part of Year)	Kenneth Weiss
Inspector I - Weed & Rodent, Santa Paula	C. C. Burleson
Inspector I - Weed & Rodent, Santa Paula	Floyd Ward
Inspector I - Apiary (Part of Year - Extra Help)	Glenn M. Smith
Agricultural Aide	Robert Burleson
Agricultural Aide (Part of Year)	Floyd Atmore
Agricultural Aide (Part of Year)	John Ax
Agricultural Aide (Part of Year)	Carroll Hannah
Account Clerk	Shirley Carter
Record Clerk II	Necia Gaffey

ANNUAL REPORT TO THE BOARD OF SUPERVISORS

COUNTY OF VENTURA

AND

THE DIRECTOR

STATE DEPARTMENT OF AGRICULTURE

1957

We submit the annual report of the activities of the Agricultural Commissioner's office for the year of 1957.

The Agricultural Commissioner's office was established by State law. The purpose was intended to protect and promote the agricultural industry of the State of California.

We are charged with the enforcement of State laws relative to the function of growing and marketing of agricultural crops. We have endeavored to carry out these functions in Ventura County for the protection of the agricultural industry, as well as affording protection to the city residents who depend upon the growers for their food.

Among the duties and activities mentioned in this report are plant quarantine; nursery inspection; plant disease inspection; survey inspections; field and orchard inspection; port inspection; seed inspection; standardization inspection of fruits, nuts, vegetables, eggs, honey and poultry meat; rodent control; weed control; apiary inspection; and compilation of agricultural statistics.

The work load of our office has continued to increase as the change of crops takes place and as population increases throughout the county.

QUARANTINE

Plant quarantine is one of the most active phases of our work, for it offers us the chance to determine the presence of serious insects and diseases that might be introduced into the county and State through the movement of plant material. The protection afforded by quarantine inspection is well worth the money spent on this phase of our work. Keeping serious pests out of the county is far cheaper than control or eradication measures, and is far more positive and thorough.

Quarantine inspection of all plant material entering the county, both from within the State and from outside the State is required by law. Inspections are made daily at all post offices, express offices, freight lines offices and all other receiving points. Good cooperation has been offered from all persons handling these shipments by holding them for inspection. Any material found arriving in violation of State or Federal quarantine is properly handled to insure protection to agriculture. All citrus fruits which are offered for retail sale are held and inspected for serious insect pests. All shipments of nursery

stock arriving at the retail nurseries are held for inspection before being released.

The following is a summary of quarantine work during the year 1957:

INTRASTATE QUARANTINE

No. of shipments inspected	2,604
No. of plants inspected	2,233,142
No. of shipments rejected	20
No. of plants rejected	3,539
No. of shipments passed	2,584
No. of plants passed	2,229,603
No. of shipments of grain	402
No. of tons of grain	7,513

Plant material was rejected for the following reasons:

Oronium Root Rot - 1; Crown Gall - 1; Florida Red Scale - 5; Pecan Weevil - 3; Plum Curculio & Apple Maggot - 1; Gypsy & Brown-tailed Moth - 1; Japanese Beetle - 4; Burrowing Nematode - 4.

Grain infested with primary noxious weed seed was required to be cleaned or milled before being released.

INTRASTATE QUARANTINE

No. of shipments inspected	10,036
No. of plants inspected	22,029,236
No. of shipments rejected	71
No. of plants rejected	566
No. of shipments passed	9,965
No. of plants passed	22,028,720
No. of shipments of grain	509
No. of tons of grain	9,958
No. of shipments of hay	7
No. of tons of hay	335

Plant material was rejected for the following reasons:

Red Scale - 57; Florida Red Scale - 1; White Root Rot - 1; Crown Gall - 1; Quick Decline - 1.

Number of hours spent on quarantine inspection 9,221

TREATMENTS

County policy requires treatment of all citrus and walnut trees by vacuum fumigation before being planted in the county. All plants infested with serious insect pests are treated and released. This treatment enables us to insure insect free plants and therefore, it is not necessary to return the plants to point of origin. This is an added service to the population of our county.

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

VACUUM FUMIGATION (HCN)

Citrus Fruit (boxes) . . .	5 lots	54
Citrus Trees	1,074 "	208,339
Walnut Trees	32 "	3,188
Ornamental Plants	1 "	52
Roses	2 "	33
Firewood (bundles)	47 "	92
Seedlings	13 "	59,100

METHYL BROMIDE VACUUM

Used Bags	32 lots	48,013
Ornamentals	5 "	97
Miscellaneous	4 "	314
Seedlings	1 "	19,000

METHYL BROMIDE - ATMOSPHERIC

Firewood (bundles)	1 lot	2

Number of hours spent on fumigation 1,530

NURSERY INSPECTION

All nursery stock moving into the county must be held for inspection at time of entry. All nurseries are given a complete inspection every three months. Adjoining properties are inspected during the year to assist in keeping nurseries free of serious pests. If serious pests are found upon adjoining properties, general treatment is required for cleanup.

If serious pests are found in the nursery, immediate cleanup programs are required before the stock is released for movement. All citrus and walnut stock is required to be vacuum fumigated as a condition of planting.

Aonidiella aurantii, a serious pest of citrus, was found in three nurseries during 1957. Eradication by sprays and fumigation was given to these nurseries in an eradication program. Two inspections following treatment show no recurrence of this pest in any of the three nurseries.

Eighteen (18) specimens of diseased nursery stock were submitted to the Bureau of Plant Pathology for diagnosis. Control measures or destruction were applied in each case.

Inspections were made under the program of the State Nursery Service and their assistance in inspections was appreciated and acknowledged.

A survey was made with the assistance of the State Nursery Inspector for Dark Brown Spruce Aphid, an "A" pest. The results of this survey were negative.

Origin certification of tomato plants free from nematode required 90 hours of field inspection in tomato seedling nurseries.

The following is a summary of nursery inspections for the year 1957:

Number of nursery inspections	173
Number of reinspections	20
Number of nurseries with "A" pests * . . .	0
Number of nurseries with "B" pests ** . . .	3
Number of nurseries with "C" pests *** . .	80
Number of nurseries required to cleanup . .	83

* Eradication mandatory.
** Serious pest of limited distribution, eradication mandatory in Ventura County.
*** Pests of common occurrence.

Hours spent by county personnel	928
Hours spent by State personnel	90

PLANT DISEASE INSPECTION

The number of calls relating to plant disease problems continues to increase. The year 1957 showed an increase of about 12% over 1956.

Inspections were made in fields, orchards, nurseries and residential properties covering a wide variety of problems including fungus, bacterial, virus and nematode infection as well as troubles resulting from minor element deficiencies or excesses, salt and alkali injury, fertilizer burn, chemical injury due to pest control materials as well as physiological conditions.

Fanleaf of Grapes, a virus disease, was found for the first time in the county in a back yard planting. This is one of the few soil borne virus and plant removal is the only control.

Phytophthora cinnamomi, cinnamon fungus, now occurs on three properties in the county, an increase of one over last year. The total land acreage affected is approximately five acres. Control measures include soil fumigation and tree removal. No treatment is known that will insure 100% eradication on fields at the present time. Nurserymen are becoming interested in growing trees in treated soil to help eliminate the hazard of this disease transmission.

We acknowledge again the fine cooperation of the State Bureau of Plant Pathology and especially Dr. Alex French who aided county personnel in disease determination and inspections.

Following is a summary of the work done on plant disease:

Host	No. of Inspections
Avocados	15
Citrus	45
Deciduous Fruits & Nuts	38

(Continued next page)

Grapes and Cane Berries	15
Vegetable Crops	23
Melons, Cucumbers and Squash	2
Flower Crops and Bulbs	29
Ornamental Shrubs and Trees	230
Lawns	21
Native Shrubs	3
Strawberries	2
Herbs	2
Tomatoes	42

Number of hours spent on plant disease inspection 512

SEED INSPECTION

The Agricultural Code names the Commissioner as the enforcing officer of the California Seed Law. Enforcement is accomplished through sections 51[illegible] - 52[illegible] of the Agricultural Code and sections 3390 - 3904 of the Administrative Code.

Enforcement of the seed laws is done by one member of the staff with the assistance of the various district men, whose duty it is to see that all lots of seed offered for sale or sold complies in all respects with the requirements of the seed law. This affords protection to the buyer of seed by insuring that the seed is properly labeled to show germination, purity, weed seed contents and the variety of seed.

Following is a summary of this work performed during the year 19[illegible]:

Number of dealers' lots inspected	1,325
Number of consumers' lots inspected	[illegible]
Number of interstate lots inspected	115
Number of intrastate lots inspected	005
Total number of lots inspected	2,[illegible]
Number of lots in violation	103
Number of official samples drawn	[illegible]
Number of service samples drawn	5
Number of stop-sale orders issued	7
Number of lots released for destruction	58
Number of grade samples drawn	115
Number of Crop Improvement Assoc. samples drawn	2

The department, also, assists in the production and certification of certified seed for the California Crop Improvement Association. It is our duty to inspect and supervise the threshing and cleaning equipment to be used in the California Crop Improvement Association program. One lot was refused certification for failure to properly clean the threshing equipment. We also assist in the drawing of grade samples.

Section 154.3 of the Agricultural Code regulates movement of seed screenings and provides for disposal of those lots infested with weed seeds. A list of approved mills is maintained and grinding for feed was permitted for most lots in violation. There are three approved mills in Ventura County.

Number of hours spent on seed inspection 364

TOMATO SEED CERTIFICATION

The Ventura County tomato seed certification program operates under the authority of the Director of Agriculture and under the program established by the Bureau of Plant Pathology.

Three inspections during the growing season are made for the purpose of determining the presence or absence of Bacterial Canker (Corynebacterium michiganense), a seed borne disease. All equipment used in the seed production process is cleaned and sterilized under the direct supervision of this department.

Three seed companies submitted a total of 426.75 acres for inclusion in this season's program. There were 98.5 acres refused inspection because "land previously infected with Bacterial Canker cannot be used for tomato seed production during the five year period following the year of infection". Nine varieties in eleven fields, comprising 108.5 acres, were found infected with the disease and refused certification. Diagnosis of infected plants in each case was confirmed by Dr. Alex French of the Bureau of Plant Pathology.

There were 219.75 acres, twenty varieties in forty-one fields, found by inspection to be free of seed borne disease. Of this total, five varieties totalling seventy acres were refused certification for "insufficient hours of fermentation". There were 119.75 acres eligible to receive seed certification labels.

The supervision of this program is assigned to one member of the staff and he, in turn, is assisted by various district men in the field inspection.

Number of hours spent on tomato seed certification during 1957 . . . 327

PORT INSPECTION

Inspection of ships is made by staff members of the Agricultural Commissioner's office. State and Federal quarantines restrict the movement of certain materials likely to introduce serious insect and disease pests. Ship's stores, as well as the crew's quarters, cargo and passenger baggage are checked for restricted articles. Whenever found in violation of the quarantines, they are properly disposed of to safeguard the agricultural industry.

Disposal of garbage also comes under our control to prevent the introduction of foot and mouth disease.

Number of ship inspections	11
Number of hours spent on ship inspection	61

APIARY INSPECTION

The inspection of apiaries within Ventura County to determine the possible presence of serious diseases detrimental to the bee industry is one of the duties of the Agricultural Commissioner's office.

Ventura County has become a location for migratory beekeepers due to the large variety of crops produced in the county and the increased population in other areas.

For the first time in several years we have been able to employ a qualified bee inspector to carry out these functions. From the first of July to the end of the calendar year, inspections were made and diseased colonies were cleaned up. With the work already completed and the fact that we will be able to continue the good work, we can expect to be in fair shape as far as disease infection is concerned.

Following is a summary of the work carried on the latter part of the year:

	No. Apiaries	No. Colonies
Registered	261	17,618
Entering California	1	78
Leaving California	2	780
Entering county	74	11,039
Leaving county	80	8,125
Moving within the county	63	4,146
Inspected	148	10,061
Infected with American Foulbrood	47	1,284
Infected with European Foulbrood	3	4
Burned - American Foulbrood	39	1,204
Sent to Wax Salvage	3	80
Number of hours spent on apiary inspection		1,135

BIOLOGICAL CONTROL OF INSECTS

Although the citrus growers of Ventura County have long recognized the value and importance of biological control of citrus pests, this phase is assuming increasing importance. As more information becomes available regarding coordination between chemical and biological control, and as new parasites and predators are introduced, full advantage is taken of these advances.

Five insectaries are located in this county. The cost of mass production of beneficial insects has been kept low by improved techniques in rearing, and all growers are benefited by the properly timed release of these insects.

Following is a summary of beneficial insects reared and released in the county during 1957:

Parasite	Host	Number
Aphytus melinus (from Exp. Sta.)	Red Scale	25,000
Tryntolaemus montrouzieri	Mealybug	56,266,960
Leptomastix sp.	Mealybug	40,070,000
Metaphycus helvolus	Black Scale	6,390,000
Metaphycus lichtensiae	Black Scale	900,000
Pauridea sp.	Mealybug	13,695,000
Trichogrsma sp. (produced only)	Moths	28,000,000
	Total	145,346,860

STANDARDIZATION

The enforcement of the State Standardization Law, as defined in Division V of the California Agricultural Code, is a function of the County Agricultural Commissioner in cooperation with the State Department of Agriculture. The law deals specifically with fruits, nuts, vegetables, eggs, honey and poultry meat.

One department employee is in charge of this work and is assisted by the district inspectors. During 1957, Ventura County farmers grew and harvested more than [illegible] acres of vegetables; 30,974 acres of all varieties of beans; shipped [illegible] cars of citrus fruits; 5,471 tons of walnuts; and harvested approximately [illegible] field boxes of avocados.

The major portion of vegetable inspection is done in the field, and in the case of the lettuce shippers, an assessment of one-half (½) cent a carton was volunteered by the shippers for field inspection. This greatly expedited the operation, and together with certification fees, brought a revenue of $23,432.72 to the county for the calendar year.

Rainfall avocados created extra laboratory work in testing for the required minimum of eight percent (8%) of oil. The avocado industry responded to this situation in a very cooperative manner. Two hundred and seventy-eight (278) avocado laboratory tests were made by the county department, eighty-one (81) of which failed to meet the minimum requirements.

We wish to acknowledge the fine cooperation received from the industry.

Following is a summary of work done during 1957:

Fruits, Nuts and Vegetables:	
Containers inspected	[illegible],176
Containers certified	[illegible],166
Number of lots certified	11,[illegible]62
Number of containers rejected	5,[illegible]76
Number of rejections issued	35
Eggs:	
Premises visited	39
Number of lots inspected	355
Number of dozens in lots inspected	132,150
Number of dozens rejected	330
Number of rejection notices issued	4
Poultry:	
Number of inspections	57
Number of carcasses inspected	3,313
Number of carcasses rejected	12

Total man hours spent on standardization for 1957 6,624

SURVEYS

During the year of 1957, the survey program of Ventura County included several major projects. The most important of these are listed as Khapra Beetle, Multiple Fruit Fly Trapping Program, Quick Decline of Orange, and Wheat Sawfly. These are all programs in which the State, as well as the county are interested, consequently these were cooperative undertakings in which State aid was obtained. In the case of Khapra Beetle the U. S. Department of Agriculture also assisted.

In 1957, only one insect new to Ventura County was found. During the Khapra Beetle Survey, a single specimen of a Dermestid Beetle, Perimegatoma vesmulae, was found. This is a storage insect and was found in a stored lot of seed in one of the warehouses. The find represents the second record of the insect in California. A third infestation, however, was found in Stanislaus County almost at the same time as the local one was taken. The fact that the insect has been found in widely separated localities of the State, indicates that the beetle has probably been present in the State for a long period of time, but has not become a pest and consequently has gone unnoticed until inspections for Khapra Beetle revealed it.

In the field of plant pathology there was also one new pest found. This was Yellows of Grape, a virus disease attacking only grapes. Fanleaf is an important disease of grapes, but in a county as limited in grape acreage as Ventura County should not cause any great damage here.

Surveys are of primary importance among the Department of Agriculture duties. Should a pest serious to any one of the county's major crops be found in a survey before it has become firmly established, the saving to taxpayers will pay the cost of the survey many times over. In the case of a major pest such as the Mediterranean Fruit Fly or the Japanese Beetle, the savings would probably run into millions of dollars.

The following surveys were made in 1957:

Insect Surveys:

Khapra Beetle	Red Scale
Wheat Sawfly	Dark Brown Spruce Aphis
Spotted Alfalfa Aphis	Western Sycamore Borer
Oak Moth	Multiple Fruit Fly Trapping Program

General Pest Survey

Plant Disease Surveys:

Quick Decline of Orange	Camellia Flower Blight
Fanleaf of Grape	Alternaria of Tomatoes

Anthracnose Survey on Avocados

KHAPRA BEETLE

One of the important undertakings of the year was the survey for Khapra Beetle. Although this has been a duty of the Agricultural Department for some time, since eradication of the pest started in California several years ago, the survey during the fall of 1957 was more intense than previous surveys. Inasmuch as the State is attempting eradication of the insect, it is very important to find any inci-

[illegible] infestations that might occur anywhere in the State. Consequently the survey this year included checking all properties throughout the county where there was any possibility of finding stored grain. In addition to the regular grain houses and feed yards, all ranches were checked where any livestock was kept.

Both Federal and State Departments of Agriculture assisted in the survey. A very complete check was made and many specimens submitted for positive determination. We are pleased that to date no infestations of Khapra Beetle have ever been found in Ventura County.

Summary of the 1957 survey follows:

County Man Hours	Properties Inspected	Properties Infested	No. of Insects Identified
674	436	0	154

WHEAT SAWFLY

Again in cooperation with the California Department of Agriculture, Ventura County helped in a survey for Wheat Sawfly in the Cuyama Valley. This serious pest of wheat is under eradication by the State.

Due to the inauguration of the land bank program by the Federal Government, less wheat was grown than in previous years. There were, however, several volunteer fields of wheat which were carefully checked by State and County Inspectors. No infestations were found in Ventura County during the year.

The eradication program calls for treatment of all fields within the area. Since most grain fields have at one time or another been planted to wheat, nearly every field in the area contains some volunteer wheat plants. In an eradication program it is imperative to keep host plants under treatment. For that reason a relatively large acreage of grain in Ventura County received two treatments by air, consisting of DDT in oil.

Summary of 1957 survey:

County Man Hours	Acres Inspected	Acres Infested	Acres Treated	Number of Treatments
72	224	0	1,135	2

SPOTTED ALFALFA APHIS

A survey was again conducted to determine the status of the Spotted Alfalfa Aphis. Due to work by the University of California to develop parasites of the pest, a considerable reduction in damage by the aphis has resulted throughout the State. Ventura County has shown this trend. Although all fields show the presence of the insect, damage in 1957 was relatively light.

Summary of 1957 survey:

Man Hours	Acres Inspected	Acres Infested
6	868	868

OAK MOTH

A survey was again made to determine the status of the Oak Moth in county parks. This pest caused severe damage to live oaks throughout the county in 1955.

A characteristic of the pest is its periodic build-up of population so that about every seven years a serious outbreak occurs. Inspections this year revealed a low population and treatment was not necessary.

Summary of 1957 survey:

Man Hours	Parks Inspected	Parks Infested	Parks Requiring Treatment
16	8	3	0

RED SCALE

The annual survey for Red Scale was again conducted by the County Department of Agriculture. This citrus pest is under eradication in the county. The several citrus protective leagues are working on this project and assist in inspection and treatment of properties involved.

The Department inspects properties which are not affiliated with any of the protective leagues whenever there is reason to suspect that these groves are infested with Red Scale. When groves are found to be infested, the owner is required to eradicate it to the satisfaction of the Agricultural Commissioner.

Summary of 1957 survey:

Man Hours	Acres Inspected	Acres Infested
1,0[illegible]3	600	565

DARK BROWN SPRUCE APHIS

In May, 1957 a serious pest of Norway Spruce, the Dark Brown Spruce Aphis, was found in a nursery in Yucaipa, San Bernardino County. To date the insect has been found in only three locations in California. These are the above mentioned nursery, the University of California Campus in Berkeley, and the U. S. Forest Genetics Station in Placerville, El Dorado County.

Inasmuch as Norway Spruce is grown commonly in California as an ornamental,

surveys were made throughout the State to determine how widespread the insect is. In Ventura County inspections of nurseries handling conifers were made. Results of the inspections were negative.

Summary of 1957 survey:

Man Hours	Nurseries Inspected	Nurseries Infested
10	5	0

WESTERN SYCAMORE BORER

Another insect was added to the list of pests attacking live oaks in the county during 1957. The Western Sycamore Borer, a clear-winged moth, has long been known to attack sycamores. Oaks have been reported as a host, but until this year little damage has been noted in Ventura County.

Inspectors answering yard calls in Santa Paula this year, however, discovered that damage to oaks caused by a boring insect was the work of the Western Sycamore Borer. A survey of 15 properties in the area showed all to be infested. Damage was severe in two of the properties and medium infestations were found in three of them.

Summary of 1957 survey:

Man Hours	Properties Inspected	Total Infestations	Severe Infest.	Medium Infest.	Light Infest.
12	15	15	2	3	10

MULTIPLE LURE FRUIT FLY TRAPPING PROGRAM

During recent years a considerable amount of research has been done by the U.S.D.A. in the development of lures and traps for the various species of fruit flies. As a result there was introduced in 1957 a trap containing a wick that could be treated with several different lures each specific for a certain species of fruit fly. In former years, we have placed in the fields separate traps for the Mediterranean Fruit fly, the Melon Fly, and the Mexican Fruit Fly. The introduction of the new trap has resulted in simplifying the fruit fly trapping program. We are now able to use one trap for both the Mediterranean Fruit Fly and the Melon Fly. Unfortunately, a satisfactory specific lure has not yet been found for the Mexican Fruit Fly. It is therefore, necessary to continue using the Glass McPhail trap with a bait consisting of brown sugar and yeast for this particular pest.

Because of the extremely serious nature of the above mentioned pests a statewide trapping program is now in effect. During the season in which fruit flies are most active, the county has been assisted by the State Department of Agriculture in the trapping program. The county was divided into two districts with the County Department maintaining a string of 100 traps in one district and

the State Department duplicating the work in the other district. As the dormant season for fruit flies was reached, the number of traps was reduced to 40 for the entire county. The County Department was responsible for the maintenance of these traps.

Fortunately for the Agricultural Industry all findings in the State were negative with the exception of a few Mexican Fruit Flies taken in the San Ysidro area of San Diego County immediately adjacent to the Mexican Border.

Following is a summary of the 1957 trapping program:

Man Hours		Max. No.	Properties	Properties	Specimens
County	State	Traps	Trapped	Infested	Submitted
[illegible]	226	217	359	0	4

GENERAL PEST SURVEY

Annually a yard survey is made in the county to determine the possible presence of new pests or pests under eradication. As more and more subdivisions are developed with their landscaping programs the possibility of the introduction of new and serious pests is greatly increased. The Agricultural Department is hard pressed to keep these areas under surveillance.

Inspectors are trained to be alert for any insects or plant diseases new to the area. They are especially on the lookout for scale insects not of common occurrence.

Following is a summary of the 1957 survey:

District	Yards Insp.	Hosts Inspect.	Scale Insects Red	Purple	Yards Infested	Hosts Fumi.	Spray.
Ventura	3,500	21,000	14	5	19	48	114
Oxnard	3,100	13,600	23		23		168
Santa Paula	2,900	17,400	1		1	14	14
Moorpark	350	2,230	33		33		456
Camarillo	800	5,600	5		5	79	79
Fillmore	1,010	5,095	5		5	226	
Ojai	1,200	7,200	4		4	89	89

QUICK DECLINE OF ORANGE

The annual survey for Quick Decline indicates that the virus disease still occurs only in the Santa Clara Valley in Ventura County. Although one tree found in an isolated orange grove on Moorpark Road near Thousand Oaks several years ago showed positive symptoms of Quick Decline, no additional suspects have been found here.

Surveys since 1948, when the first Quick Decline trees were found in the county, have shown an interesting pattern of infection. In the originally infected areas in Saticoy and Sespe Canyon the disease has increased in intensity up to a point

where a large portion of the trees on sour-root stock has been eliminated. In the Fillmore area, which separates the two above mentioned areas, however, a different situation exists. Although the Fillmore area lies between and adjacent to the originally infected areas, the virus has not spread as rapidly as might be expected. Infected trees are found every year both east and west of Fillmore from the Ventura-Los Angeles County line on the east to Santa Paula on the west. In this area, however, the disease has not increased in intensity to any great extent. It would seem that in the nine year period in which the disease has been known to exist in and around Fillmore, it should have reached severe proportions. Such, however, has not been the case.

The annual Quick Decline survey is made in cooperation with the State Department of Agriculture. In order to properly evaluate the spread of the disease and be able to set quarantine lines so as to most effectively slow the spread throughout the citrus producing areas of the State, it is necessary to secure the information needed. This is best done through annual surveys of the various citrus producing counties.

Summary of 1957 survey:

Man Hours	Properties Surveyed	Acres Surveyed	Suspects Found	Samples Taken	Budwood Taken
1,[illegible]	726	17,405	90	30	29

FANLEAF OF GRAPE

Fanleaf of Grape was found in a yard planting of grapes in the Mira Monte area of the Ojai District. Upon verification of the disease a survey of the immediate area was made to determine whether the virus was established in the area or was just an isolated case. No further cases were found.

Although this is a serious disease of grapes, Ventura County has few commercial plantings. The existing vineyards are widely scattered so that natural spread is unlikely. Since this isolated case was not near any commerical acreage the danger of infection is not great.

A survey of vineyards a few years ago failed to establish the virus in commercial plantings.

Summary of 1957 survey:

Man Hours	Properties Inspected	Properties Infected	Vines Infected
10	9	1	1

CAMELLIA FLOWER BLIGHT

Periodical surveys are made of retail nurseries to determine the incidence of Camellia Flower Blight in the county. When this disease is found the nurseryman is contacted and required to clean up the infection. In 1957, Flower Blight was found in approximately one-third of the nurseries inspected.

Summary of 1957 survey:

Man Hours	Properties Inspected	Properties Infected
15	30	9

ALTERNARIA OF TOMATOES

Alternaria of Tomatoes has been known to exist in Ventura County for years. During 1957, however, the disease was more severe than in any previous year.

As calls began to come to the County Office from growers requesting aid in determining what was causing damage to their plants it soon became evident that Alternaria was responsible for an appreciable amount of damage. A survey was made to determine the seriousness of the disease.

Both seed beds and commercial plantings of tomatoes were inspected. It was found that all seed beds inspected and nearly all commercial plantings were infected. In three or four commercial plantings the damage was sufficiently severe to effect the crop. In the most severe case it was estimated that production was reduced approximately 30 percent.

Summary of 1957 survey:

Man Hours	Seed Beds Inspected	Ac. Insp. in Seed Beds	Com. Plant. Inspect.	Ac. Insp. in Com. Plt.	Infected Seed Beds	Infect. Com. Plant.
45	12	22	35	500	12	4

CINNAMON FUNGUS

In 1955 Cinnamon Fungus, a serious pest of avocados, was first found on avocados in Ventura County. Surveys during the year of discovery revealed only two properties infected. The total acreage actually infected was one and one-half acres.

Because of the seriousness of the disease to avocados a close watch has been kept throughout the county avocado plantings during 1957. These surveys have revealed one additional infected property. The actually infected acreage involved in the three properties is approximately five acres.

Summary of 1957 survey:

Man Hours	Properties Inspected	Prop. Found Infect. '57	Ac. Invol. in '57 Inf. Prop.	Prop. Known Infected	Total Infect. Acreage
17	15	1	3.5	3	5.0

WEED CONTROL

Staff members of the department made surveys throughout the county to determine the presence of new and regular infestations of primary and secondary noxious weeds. All infestations were treated. A contract was entered into with the California Division of State Highways to control primary and certain secondary noxious weeds

growing on their roadways. Most of the new infestations were found adjacent either to highways or railroad lines.

Medusa-head Grass was found upon a large acreage of the Federal forest land and on some private properties. In order to check the spread of the pest, control measures were applied to prevent further spread and to hold the infestations to their original area.

The following is a table of the amount of materials used in 1957:

Dalapon	1,570 gal.	Aceozol	1,245 gal.
Amate	100 gal.	Aceozol & Spreader	1,315 gal.
2,4-D A	1,190 gal.	Aeodone	325 gal.
Polybor Chlorate .	350 gal.	Weed Oil	1,170 gal.
Polybor Chlorate .	105 lbs.	Weed Oil & Contax	5,225 gal.
		Ureabor	675 gal.

An area of 2,413,143 sq. ft. was treated at a total cost of $3,944.52

Among the weeds receiving control measures in the county during 1957 were:

Spiny clotbur	Kikuyu grass	Yellow star thistle
Dunras	Johnson grass	Purple star thistle
Hoary cress	Bermuda grass	Milk thistle
Russian knapweed	Medusa-head grass	Russian thistle
Pignut	Texas blue weed	Dog bane
Puncture vine	White horse nettle	Poison oak
	Morning glory	

No. of man hours spent on weed control in 1957 1,743

FIELD AND ORCHARD INSPECTION

Inspections of orchards and field crops are a regular part of our duties. These inspections give us a current knowledge of pest conditions in the county and aid us in making recommendations for control. We are constantly on the alert for new pests, so that early and proper measures may be taken or suggested.

A summary of pest conditions for 1957 and some common pest control measures follow:

CITRUS

Black Scale: Generally distributed over most of the citrus acreage. With some exceptions where no treatment was applied during the previous year, infestations were lighter and considerably less acreage was treated. Materials used were oil, oil and rotenone, HCN fumigation, kerosene and DDT, and in combination for red scale, oil and parathion, and straight malathion or parathion.

Citrus Aphis: Combination treatments, and a late start for most infestations, resulted in a lower acreage being treated in most areas of the county. The use of Systox is increasing and considerable acreage was treated with Systox by air. Other materials were oil, rotenized oil, TEPP,

nicotine, malathion, and parathion.

Citrus Mite: Citrus red mite was heavy and general, about the same as in previous years, lighter in areas depending on oil treatment and biological control. More acreage now showing resistance to Ovotran, more Aramite, oil, being used for control. Some experimental use of new materials on non-bearing trees.

Lewis mite is found mainly around Santa Paula, but is generally increasing in other areas of the county. Treatments for other pests are usually effective in holding infestations at a low level.

Silver or rust mite may be found in isolated infestations in most areas of the county, but no appreciable spread compared to last year. Chlorobenzilate commonly used if special treatment needed.

Six-spotted mite is found mainly near the coast. Infestations generally lighter than usual, and treated in combination with other pests.

Two-spotted mites occasionally found on young trees, forced over from frost beans or cover crops. Aramite used if separate treatment necessary.

Bud mite is generally different [illegible], usually more serious on lemons. Oil or chlorobenzilate used for control, mite usually held down by treatments for other pests.

Mealybugs: Some increase in districts where more crop dusting is done by air. All areas have released more beneficial insects, and have done more treatment for ants, which is apparently helping to hold the populations as compared to last year. Parathion, oil and rotenone are used in treatments, with some malathion used in areas where parathion [illegible] hazardous.

Orange Tortrix: Losses were negligible, possibly due to more exact timing of treatments, or to a natural cycle. A late build-up was noticed in the Santa Paula area, but little treatment was necessary. Cryolite or parathion was used for control.

Greenhouse Thrips: No serious infestations noted and no special treatments applied.

Citrus Thrips: Much heavier than usual, especially at the end of the season. DDT, oil, TV-111, combined with regular spider treatments, and dieldrin applied by air gave adequate control.

Red Scale: Fewer infested trees found. Treatment usually consists of combined parathion or malathion-oil spray, and HCN fumigation, although some trees were treated with malathion or parathion, either alone or in combination with oil.

Yellow Scale: Generally lighter than in past years. More commonly found on oranges, possibly because lemons tend to receive more oil sprays. Oil in combination with malathion or parathion are the usual materials, often combined with treatment for other pests.

Parlatoria Scale: No infestations found during the past year.

Brown Rot of Citrus: About same acreage treated as a preventive measure as in previous years, no re-treatment necessary. Bordeaux and other forms of copper were used in control.

Botrytus Rot of Citrus: Not as severe as in previous years, no specific treatments were applied.

AVOCADO

Brown Mite: Heavier and more widespread than in any previous year. Materials applied when necessary were sulfur, Aramite, and Ovotran. Treatment is avoided wherever possible, to avoid build-up of other pests.

Two-spotted Mite: Barely forced over onto avocados from drying beans or cut cover crops.

WALNUTS

Husk Fly: Now found in most areas of the county, treatment usually required. Parathion usual treatment, some experimental use of malathion-bait spray.

Codling Moth: Most walnut plantings require one or more treatments to hold infestations to an acceptable level. DDT is most commonly used material for control.

Walnut Aphis: Required treatment in most areas of one or more times with Systox, parathion, malathion or nicotine.

European Red Mite: Infestations heavy in many cases. Systox, Aramite, Ovotran, used for control. Application of parathion for husk fly gave a late season control where used.

FIELD CROPS AND VEGETABLES

The wide variety of field and vegetable crops now grown in the county with some crops maturing throughout the year, and with double-cropping becoming a common practice, has complicated the necessary pest control practices. These complications may arise from carry-over of pests from one crop to another in some stage of development, or from the effects of constant pest control work and drifting insecticides on natural parasites and predators. The problem of excess resistance, which may result from repeated applications made necessary by increased difficulty in control, or even at times from drifting insecticides, has become increasingly important and difficult.

Spider Mites: The past season has been especially difficult because of two-spotted mites, possibly the worst season so far. Systox, Aramite, Ovotran, sulfur and parathion used for control.

Lygus spp.: Average year; DDT, toxaphene, Systox used in treatments.

Aphis: Serious on vegetables, not as bad as in previous years on beans. More treatment needed on vegetables using lindane, Systox, Perthane, TEPP, malathion, parathion, and Diazinon.

Corn: Worst season so far for loopers, and most difficult to control. Striped armyworm, also, more serious than in previous years. Beet armyworm on broccoli, peppers, lighter than usual, perhaps due to natural control. Corn earworm noted in small infestations only. DDT, endrin, parathion, Perthane, malathion, toxaphene, Metacide, used for treatment.

PEST CONTROL SUPERVISION

The Agricultural Code requires that every person engaged in the business of pest control shall first qualify for and obtain a pest control operators license from the State Department of Agriculture. In addition, he is required to register with the Commissioner of any county in which he operates. The Commissioner, in turn, makes certain that each registrant has suitable equipment, properly maintained, that it is operated by competent and qualified men, that all State and county regulations are complied with, and that all work is properly performed. During 1957, 37 pest control operators were registered to engage in pest control operations in Ventura County.

Section 1080 of the Agricultural Code requires that all persons using injurious pest control materials, defined by law, first obtain from the Commissioner a permit for such use. The permit to use must be obtained before the materials may be purchased from a dealer. During 1957, there were 184 such permits issued on a seasonal basis.

A similar permit from the Commissioner is required for the use of injurious herbicides, such as 2,4-D, and must be obtained before the material may be purchased. Permits for small scale operations, such as weed control in orchards, etc., are issued on an annual basis. Permits for large scale operations, such as weed control in grain, other large fields and brush control are issued on a seasonal basis from November 1st to February 15th. For the rest of the year, they are only issued for each separate job. This is done in order to reduce the chances of possible damage from drift. During 1957, 296 seasonal permits and 51 individual permits were issued.

Number of hours spent on pest control enforcement 1,302

MATERIALS USED IN PEST CONTROL

Pest control is a big business in Ventura County and is essential to the production of agricultural crops. To give some idea as to the types of materials used, and the amount, we offer the following summary of the materials reported by commercial pest control operators only. These figures do not include those materials used by persons on their own property and applied with their own equipment.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Aramite 3%	[illegible],933	Avoc., Berries, Beans, Veg., Walnuts	Mites	[illegible] lbs.	[illegible] lbs.	137,130 lbs.
Aramite 15% W.	14,205	Avoc., Apples, Citrus, Walnuts	Mites	193,[illegible] lbs.		193,658 lbs.
Aldrin 2#/gal. E.	11	Bareland	Wireworms		29 gal.	29 gal.
Aldrin 25% W.	Unknown	Yards	Lawn Moths	6 lbs.		6 lbs.
Bait (for sprays)	45	Walnuts	Husk Flys	40 gal.		40 gal.
B.H.C. 2%	95	Flower, Seed Crops	Aphis	1,700 lbs.	1,850 lbs.	3,550 lbs.
Captan 5%	[illegible]	Berries, Flowers, Vegetables	Mildew	2,150 lbs.	11,350 lbs.	13,500 lbs.
Chlordane 40% W.	1,190	Bareland, Yards, Citrus	Wireworms, Ants, Seed Corn Maggots	9,173 lbs.		9,173 lbs.
Chlorobenzilate 25% W.	1,279	Citrus	Bud Mites	6,975 lbs.		6,975 lbs.
Chloreа	[illegible]	R.R. Right-of-way	Weeds	1,700 lbs.		1,700 lbs.
C.M.U. 80%	135 mi.	R.R. Right-of-way	Annual Weeds	1,153 lbs.		1,153 lbs.
Copper 5,6,7%	165	Veg., Flowers	Mildew	1,[illegible]50 lbs.	5,130 lbs.	6,980 lbs.
Copper 10%	1,0[illegible]	Vegetables	Mildew	150 lbs.	54,100 lbs.	54,250 lbs.
Copper 20 & 22%	1,497	Citrus, Decid., Vegetables	Brown Rot, Fungus	41,309 lbs.	2,200 lbs.	43,509 lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Copper Sulfate 24%	4,373	Citrus	Brown Rot	34,066 lbs.		34,[illegible] lbs.
Copper 50 & 53%	3,388	Citrus, Decid., Veg., Walnuts	Brown Rot, Mildew, Blight	[illegible]3,332 lbs.	700 lbs.	[illegible] lbs.
Copper Phosphate	233	Citrus	Brown Rot	2,888 lbs.		2,888 lbs.
Copper 90%	466	Citrus	Brown Rot	1,126 lbs.		1,126 lbs.
Cryolite	305	Citrus, Walnuts	Thrips, Tortrix, Husk Fly	12,021 lbs.	600 lbs.	12,621 lbs.
Dalapon	Unknown	Various	Weeds	755 lbs.		755 lbs.
DBCP (Nemagon)	4	Bareland	Nematode	21 gal.		21 gal.
DD	1,382	Bareland	Nematode	38,117 gal.		38,117 gal.
DDD 5%	1,139	Citrus, Veg.	Worms	400 lbs.	55,850 lbs.	56,250 lbs.
DDT 4 & 5%	7,346	Veg., Berries, Flowers, Seed Crops	Worms	123,445 lbs.	156,350 lbs.	279,795 lbs.
DDT 10%	15,792	Veg., Walnuts, Flowers, Seed Crops	Worms, Wireworms	290,261 lbs.	265,520 lbs.	555,781 lbs.
DDT 25% E. (2#/gal.)	25,693	Veg., Flowers	Lygus, Worms	3,386 gal.	20,775 gal.	24,161 gal.
DDT 50% W.	10,050	Bareland, Citrus, Veg., Walnuts, Flowers, Wheat	Scale, Wireworms, Worms, Leaf-rollers, Wheat Sawfly	129,076 lbs.	578 lbs.	129,654 lbs.
DDT 3#/gal. E.	168	Vegetables	Worms	53 gal.	119 gal.	172 gal.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AIR	TOTAL AMOUNT
Dieldrin 1.5#/gal. E.	103	Bareland, Citrus	ed Corn Maggots, Carrots, Ants	9 gal.	38 gal.	47 gal.
Dieldrin 50% W.	93	Citrus, Yards	Thrips	18 lbs.	83 lbs.	101 lbs.
Diazinon 25% W.	27	Vegetables	Aphis	31 lbs.	22 lbs.	53 lbs.
DN-111 20% W.	950	Citrus	Mites	9,590 lbs.		9,590 lbs.
Duraset 20% W.	40	Vegetables	Fruit Set	120 lbs.		120 lbs.
EDB. 83	6,780	Bareland	Nematode, Wire-worms	20,104 gal.		20,104 gal.
Endrin 1 & 1.25%	965	Vegetables	Worms	31,050 lbs.		31,050 lbs.
Endrin 19.5% E. (1,6#/gal.)	2,302	Vegetables	Worms	556 gal.	66 gal.	622 gal.
Genite 923	21	Almonds	Mites	21 gal.		21 gal.
HCN	115,471	Citrus	Scale Insects	40,179 lbs.		40,179 lbs.
Iron Chelate	44	Citrus	Deficiency	199 lbs.		199 lbs.
Karathane 1%	428	Veg., Flowers	Mildew	4,775 lbs.	11,600 lbs.	16,375 lbs.
Karathane 5%	14	Veg., Flowers	Mildew		700 lbs.	700 lbs.
Karathane 25% W.	Unknown	Yards (Roses)	Mildew	8 lbs.		8 lbs.
Kelthane 18.5% W.	1,722	Citrus (Non-bearing)	Mites	1,581 lbs.		1,581 lbs.
Kerosene	252	Citrus	Black Scale	7,120 gal.		7,120 gal.

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Lime	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	111,079 lbs.
Malathion [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	27,750 lbs.
Malathion [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6,350 lbs.
Malathion 25%	[illegible]	[illegible]	Honeylocust, Scale	[illegible]	[illegible]	[illegible]
Malathion 25% E.	12	[illegible]	[illegible]	[illegible]	3 gal.	3 gal.
Malathion 4#/gal. E.	[illegible]	[illegible]	[illegible]	[illegible]	3 gal.	3 gal.
Malathion 5#/gal. E.	[illegible]	[illegible]	[illegible]	[illegible] gal.	19 gal.	21 gal.
Malathion 9#/gal. E.	1,991	Citrus, Ins.	Aphids, mites	927 gal.	83 gal.	1,010 gal.
Manganese	[illegible]	[illegible]	Deficiency	27,[illegible] lbs.	[illegible] lbs.	[illegible] lbs.
Manganese Chelate	[illegible]	[illegible]	[illegible]	[illegible] gal.		8½ gal.
Manzate [illegible]	[illegible]	[illegible]	[illegible]	[illegible] lbs.		250 lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Manzate 70 W.	15	Vegetables	Mildew		26 lbs.	26 lbs.
Methoxone-Chlorax	135 mi.	R.R. Right-of-Way	Weeds	7,204 gal.		7,204 gal.
Metacide 50% E.	1,709	Vegetables	Aphis, Worms	270 gal.	106 gal.	376 gal.
Monuron	Unknown	Rangeland	Weeds	12 lbs.		12 lbs.
Nabam 19%	331	Vegetables	Blight	129 gal.	30 gal.	159 gal.
Naphthalene Acetic Acid	1	Olives	Drop Fruit	1 gal.		1 gal.
Nicotine 1.8% (45)	244	Citrus, Walnuts	Aphis	9,690 lbs.		~~9,690~~ lbs.
Nicotine 3.6 (710)	67	Veg., Citrus, Walnuts	Aphis	800 lbs.	1,980 lbs.	2,780 lbs.
Nicotine 40% (BL-40)	199	Citrus, Walnuts	Aphis	38 gal.		38 gal.
Nitrate 44%	4,556	Citrus (leaf spray)	Deficiency	193,756 lbs.		193,756 lbs.
Oil	38,804	Citrus	Mites, Scale	667,933 gal.		667,933 gal.
Oil - Diesel	2,272	Grain	Wheat Sawfly		2,272 gal.	2,272 gal.
Oil - Dormant	60	Apples	General	595 gal.		595 gal.
Oil - Rotenized	1,475	Citrus	Aphis, Scale	15,764 gal.		15,764 gal.
Oil - Weed	Unknown	Misc.	Weeds	2,535 gal.		2,535 gal.
Ovotran 50%	6,570	Avoc., Citrus, Walnuts	Mites	40,535 lbs.		40,535 lbs.

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] AIR	TOTAL AMOUNT
[illegible]	[illegible]	[illegible], [illegible], See [illegible]	[illegible]	[illegible]	[illegible]	[illegible] lbs.
[illegible]thion 2[illegible] E. ([illegible]/gal.)	1,[illegible]	[illegible]rus, Veg.	[illegible], [illegible], Worms	[illegible]37 gal.	1[illegible]1 gal.	[illegible]7[illegible] gal.
[illegible]thion 2[illegible]	1[illegible],[illegible]	Veg., [illegible]rus, Walnuts	[illegible], Scale, Husk Flys, Worms	[illegible],3[illegible]9 lbs.		90,359 lbs.
[illegible]thion [illegible]#/gal. E.	1,[illegible]	Veg., Flowers	[illegible], Lygus, Worms	2[illegible] gal.	120 gal.	370 gal.
[illegible] 75 W.	[illegible]	Veg.([illegible])	[illegible], [illegible]	[illegible] lbs.		1,320 lbs.
Perthane [illegible]	1[illegible]	[illegible]	[illegible], Worms	[illegible] lbs.		1,000 lbs.
Perthane [illegible]	[illegible]	[illegible]	[illegible], Worms	[illegible] lbs.	[illegible]00 lbs.	1,4[illegible]0 lbs.
Perthane 10[illegible]	[illegible]	[illegible]	[illegible], Worms	[illegible] lbs.	13,300 lbs.	21,700 lbs.
Perthane 2#/gal. E.	[illegible]	[illegible]	[illegible], Worms	[illegible] gal.	119 gal.	358 gal.
Phosdrin 2#/gal. E.	2[illegible]3	[illegible]	[illegible], Worms	[illegible] gal.	[illegible]3 gal.	58 gal.
Pyrethrum E.	31	Vegetables	[illegible]	15 gal.		15 gal.
Rotenone 2.[illegible] E.	[illegible]	[illegible]rus, Veg.	[illegible]	33[illegible] gal.	30 gal.	360 gal.
Rotenone 3-4-[illegible]	[illegible],0[illegible]0	Citrus	Scale	[illegible],[illegible] lbs.		58,850 lbs.
Simazin 50 W.	[illegible]1	Oil [illegible]	[illegible]	21,9[illegible] lbs.		21,900 lbs.
Sodium Chlorate	[illegible]	[illegible]	Defoliant		375 lbs.	375 lbs.
[illegible] 4.	27[illegible]	Peas	[illegible]	1[illegible] gal.	3[illegible] gal.	192 gal.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Sulfur 10 & 15%	319	Berries, Veg.	Mildew	17,120 lbs.	14,050 lbs.	31,170 lbs.
Sulfur 25 & 30%	2,023	Veg., Flowers	Mildew	19,790 lbs.	57,240 lbs.	77,030 lbs.
Sulfur 30+(Zinc 6.3, Copper 6.3)	710	Vegetables	Mildew		22,840 lbs.	22,840 lbs.
Sulfur 40 & 50%	12,251	Veg., Flowers, Seed Crop	Mildew, Mites	110,267 lbs.	359,315 lbs.	469,582 lbs.
Sulfur 50 W.	466	Vegetables	Mildew	1,317 lbs.	600 lbs.	1,917 lbs.
Sulfur 75 to 95%	1,364	Veg., Citrus	Mites	6,215 lbs.	23,260 lbs.	29,475 lbs.
Sulfur 90 to 100%	937	Vegetables	Mildew	1,172 lbs.	20,400 lbs.	21,572 lbs.
Systox (Demeton)	26,598	Beans, Citrus, Veg., Flowers, Seed Crops, Walnuts	Aphis, Mites	4,231 gal.	2,536 gal.	6,767 gal.
TEPP 1 & 2%	4,147	Veg., Citrus, Walnuts	Aphis	52,120 lbs.	129,840 lbs.	181,960 lbs.
TEPP 20% E.	1,096	Alfalfa, Veg., Citrus, Flowers, Seed Crops	Aphis, Mites	82 gal.	137 gal.	219 gal.
Toxaphene 10%	6,640	Veg., Flowers, Seed Crops	Lygus, Worms	72,025 lbs.	175,600 lbs.	247,625 lbs.
Toxaphene 15%	8,587	Vegetables	Lygus	196,800 lbs.	101,800 lbs.	298,600 lbs.
Toxaphene 20%	1,675	Vegetables	Worms	13,600 lbs.	53,400 lbs.	67,000 lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Toxaphene 40% E. (4#/gal.)	2h,79[illegible]	Vegetables	Worms	3,[illegible]02 gal.	20,389 gal.	23,391 gal.
Toxaphene 60% E. (6#/gal.)	952	Alfalfa, Beans, Veg.	Worms	h9 gal.	650 gal.	699 gal.
Toxaphene 8#/gal. E.	h72	Vegetables	Worms		237 gal.	237 gal.
Trithion 2 & 3%	26h	Beans, Flowers, Veg.	Mites, Worms	350 lbs.	9,730 lbs.	10,080 lbs.
Trithion h#/gal. E.	166	Citrus (non-bear.)	Mites	51 gal.		51 gal.
Urea	7,h58	Citrus	Nitrogen Foliage Spray	2h2,327 lbs.		2h2,327 lbs.
Zinc	25,h28	Avoc., Citrus	Deficiency	160,57h lbs.	70h lbs.	161,278 lbs.
Zinc Chelate	70	Walnuts	Deficiency	250 lbs.		250 lbs.
Zinc Manganese Comb.	29,932	Avoc., Citrus	Deficiency	193,15h lbs.		193,15h lbs.
Zinc-Manganese-Phosphoric Acid	h,235	Citrus	Deficiency	h2,252 lbs.		h2,252 lbs.
Zineb 3.25 & h%	1,186	Veg., Flowers	Mildew	16,620 lbs.	33,090 lbs.	h9,710 lbs.
Zineb [illegible] & 6%	h,659	Veg., Flowers	Mildew	[illegible]3,670 lbs.	152,600 lbs.	206,270 lbs.
Zineb 65% W.	1,96h	Vegetables	Mildew	[illegible],01h lbs.	78 lbs.	5,092 lbs.
2,h-D; 2,h,5-T	2,083	Grain, Brush, Bareland	Weeds	2h7 gal.	203 gal.	h50 gal.
2,h-D W.V.	2,223	Citrus	Tree Conditioner	6h gal.		6h gal.

RODENT CONTROL

SQUIRRELS:

Ventura County is designated as a Bubonic Plague area and most of the populated area is included. Plague has long been a serious disease of field rodents. In some cases, transmission of the disease has occurred to humans. Because of this fact special attention is given to the control of the ground squirrel.

A vigorous campaign was instigated early in the spring in gassing and poisoning as the weather permitted. All areas in the county were covered in this campaign to reduce the number of squirrels and to prevent their build up in given areas. Bait pipes containing Warfarin were used around heavily populated areas and near residences.

GOPHERS:

Gophers still remain the most serious pest to citrus crops. Citrus trees are subject to serious damage from the pocket gopher and surveys show that one tree per acre is lost each year in this county.

Demonstrations were given on methods adaptable to pocket gopher control. Poisoned baits and poisonous gases were used extensively for their control. These materials were sold at cost to interested parties who were having trouble with this rodent.

RED FOX SQUIRRELS:

This rodent has spread over most of the county area and has increased in numbers. The Red Fox Squirrel not only does damage to walnuts and orange crops, but has shown a tendency to do severe damage to telephone lines and in some cases, were responsible for destroying rubber belts on wind machines.

Poisoning is not effective as a general control for this rodent so traps and guns were used to decrease their numbers and give control in most cases.

RATS:

This rodent capable of carrying diseases transmissable to humans is not only a household pest, but is capable of destroying large quantities of stored foods. Severe damage to avocado trees has been reported as a result of this rodent. Demonstrations were given as to the best methods of controlling this pest. Bait materials were furnished by this department. Warfarin was used extensively in rat control.

FIELD MICE:

Several cases of serious damage to young citrus trees were reported during the year as a result of the feeding of field mice. The most serious damage resulted in groves adjacent to hill land where native grasses and foliage afforded cover for the existence of this rodent. Poisoned baits of strychnine treated rolled barley was used effectively for control.

RABBITS:

Damage to beans resulted from the feeding of jack rabbits in many areas of the county. Where damage was occurring strychnine treated rolled barley was used in a poisoning campaign to give control.

BIRDS:

Some damage to growing crops and to seed crops was reported during the year. The most troublesome species were linnets, English sparrows, crown sparrows, horned larks, black birds and crows.

Many calls were received from poultrymen who were experiencing losses of feed and felt that danger existed from disease problems resulting from the large number of birds. This control program was handled under our direct supervision.

Following is a summary of the rodent control program for 1957:

Squirrels (Plague Area):

No. of acres treated in plague area	384,745
No. of pounds of strychnine-treated grain	1,659
No. of pounds of thallium-treated grain	60
No. of pounds of warfarin-treated grain	1,341
No. of pounds of 1080-treated grain	5,146
No. of cases of methyl bromide	133
No. of gallons of carbon bisulfide	941
No. of waste balls (used with carbon bisulfide) . .	48,000
No. of hours spent on rodent control, plague area .	5,669

PREDATORY ANIMAL CONTROL

Ventura County is one of the many counties of the State that has been designated as a rabies quarantine area. Rabies have been known to infect small wild animals, especially skunks. To assist in the rabies control, an agreement was entered into with the Fish and Wildlife Service, United States Department of the Interior, to take these small animals as well as predators.

Members of the Commissioner's staff have assisted in this program during certain times of the year, as well as answering many calls relative to skunk infestations.

Following is a tabulation of the results of this joint program:

ANIMAL	FISH AND WILDLIFE	COMMISSIONER'S OFFICE	TOTAL
Skunks	681	136	817
Opossum	585	64	649
Fox	147	15	162
Bob cats	187	1	188
Coyotes	135	0	135
Raccoons	17	3	20
Badgers	50	0	50

FINANCIAL STATEMENT
FOR FISCAL YEAR ENDING JUNE 30, 1957
VENTURA COUNTY DEPARTMENT OF AGRICULTURE

Salaries & Wages			
Commissioner Deputy Commissioners Inspectors and Office Help	$112,479.50		
Extra Help	19,234.27	$131,713.77	
Maintenance and Operation		30,257.97	
Capital Outlay		2,166.53	$164,138.17
Revenue			
Certification	$19,552.50		
Vacuum Fumigation	8,477.04		
Miscellaneous Sales	1,034.36		
Contract Service	792.39		29,856.29

Classification of Estimated Expenditures by Functions:

Plant Quarantine (Interstate)	$ 8,454.37	
Plant Quarantine (Intrastate)	16,908.76	
Standardization	18,042.45	
Field and Orchard Inspection	11,419.85	
Nursery Inspection	3,734.55	
Seed Inspection	2,422.89	
Rodent Control (County expense)	9,832.67	
Plague Suppression (County expense)	19,534.78	
Weed Control (County expense)	7,491.78	
Apiary Inspection	1,275.70	
Crop Statistics	3,574.88	
Other Items*	59,278.96	$161,971.64
Capital Outlay		2,166.53

*Functions Included in "Other Items" are:

General Pest Surveys	$15,364.55
Vacuum Fumigation	10,041.59
Entomology	1,513.46
Pest Control	5,792.62
Fair	12,647.03
Miscellaneous	13,919.71

[illegible]

[illegible] Streets

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

COMPARISON -- 1956 and 1957

PRODUCT	1956	1957
Apricots	$ 292,861.83	$ 99,920.00
Almonds		8,470.55
Avocados	948,410.10	630,127.08
Beans, Dry	5,251,595.00	3,345,199.00
Lemons	26,494,174.29	24,772,778.66
Oranges, Valencia	16,923,552.08	15,855,355.64
Oranges, Navel	1,549,720.16	1,647,274.73
Grapefruit	472,866.00	322,558.37
Grain	545,371.50	439,926.60
Hay	372,092.50	368,950.00
Misc. Fruits	1,273,417.18	579,624.60
Sugar Beets	625,952.00	728,975.35
Walnuts	3,124,577.31	2,332,000.00
Vegetables	15,719,257.56	17,176,933.55
Seed Crops	468,344.25	404,299.90
Nursery Stock	1,294,503.60	1,236,299.00
Cut Flowers	589,600.00	723,250.00
Livestock	2,634,372.00	2,542,286.00
Poultry	4,[illegible]030.10	5,561,260.35
Milk	3,240,940.98	3,368,697.89
TOTALS:	$ 88,460,151.96	$ 92,473,[illegible]96.27

ACREAGE OF AGRICULTURAL CROPS

The following are the acres devoted to major agricultural crops. The non-bearing acres are those on which the trees or vines are 5 years of age or under.

CROP	BEARING ACRES	NON-BEARING ACRES	TOTAL ACRES
[illegible]	[illegible]1.5		[illegible]
[illegible]	[illegible]		[illegible]
[illegible]	[illegible]		[illegible]
[illegible]	[illegible]	[illegible]	[illegible]1.3
[illegible]	[illegible]		[illegible].9
[illegible]	[illegible]		[illegible]
[illegible]	[illegible]		[illegible]
Grapefruit	[illegible]1.5	[illegible].5	[illegible]
[illegible]	[illegible]		115.[illegible]
Lemons	[illegible].9	[illegible]	2[illegible],5[illegible].3
Olives	23.7		[illegible].7
Oranges, Navels	1,[illegible].3	2[illegible]	1,[illegible].7
Oranges, Valencias	1[illegible].0	333.[illegible]	15,[illegible]19.[illegible]
Pears	[illegible]		[illegible]
[illegible]	[illegible]		[illegible]
Tangerines	1[illegible]	[illegible]	[illegible]
Walnuts	1[illegible],[illegible].2	19[illegible].7	1[illegible],[illegible].3
Hay & Grain			23,3[illegible]
Beans, Dry			[illegible]
Vegetables			[illegible] ~~30,12[illegible]~~
Sugar Beets			[illegible]
Seeds			9[illegible]
Cut Flowers			[illegible].6
		TOTAL:	[illegible],1[illegible]

ORIGINAL DEFECTIVE

1957

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				
Dried	148.00	Tons	$ 65,120.00	741.5
Fresh	485.00	Tons	32,050.00	
Pits	55.00	Tons	2,750.00	
			99,920.00	
Avocados	220,324.00	Flats	530,127.08	1,976.8
Almonds, Meats	[illegible]	Lbs.	[illegible]	88.0
Beans				
Dry Limas	250, 00.00	Bags	[illegible]	19,390.0
Blackeyes	1,326.00	Bags	[illegible]	150.0
Seed Fordhook	[illegible]	Bags	[illegible]	[illegible]
	[illegible]		[illegible]	
Citrus:				
Lemons				
Packed	[illegible]	Cart.	[illegible]	[illegible]
Juice	[illegible]	Tons	[illegible]	
			[illegible]	
Oranges, Valencia				
Packed	[illegible]	Cart.	[illegible]	[illegible]
Juice	[illegible]	Tons	[illegible]	
			[illegible]	
Oranges, Navel				
Packed	[illegible]	Cart.	[illegible]	[illegible]
Juice	[illegible]	Tons	[illegible]	
			[illegible]	
Grapefruit				
Packed	[illegible]	Cart.	303,129.84	321.9
Juice	[illegible]	Tons	[illegible]	
			[illegible]	
Grain				
Wheat	[illegible]	Bags	[illegible]	[illegible]
Barley	[illegible]	Bags	399,750.00	[illegible]
Oats	[illegible]	Bags	23,736.00	[illegible]
	[illegible]		[illegible]	[illegible]
Hay				
Alfalfa, Green	[illegible]	Tons	[illegible]	[illegible]
Barley	2,750.00	Tons	68,750.00	[illegible]
Oats	4,000.00	Tons	120,000.00	[illegible]
Sudan	1,300.00	Tons	32,500.00	[illegible]
	32,550.00		368,850.00	[illegible]

[illegible]	PRODUCTION	UNIT	F.O.B. VALUE	[illegible]
Misc Fruits				
Apples	23,770.00	[illegible]	$ 59,500.00	[illegible]
Grapes	208.00	Tons	8,312.00	116.0
Peaches	5,030.00	Lugs 30#	20,650.00	[illegible]
Raspberries	1,000.00	Trays	3[illegible]0.00	[illegible]
Strawberries	[illegible],772.00	Trays 13#	[illegible]	
[illegible]berries	561.[illegible]	Tons	112,375.[illegible]	[illegible]
Berries, Misc	[illegible]	Trays	5,200.00	
			779,524.50	
Sugar Beets	[illegible]	Tons	[illegible]	[illegible]
Government			119,310.75	
			[illegible]	
[illegible]	[illegible]	Tons	[illegible]	[illegible]
Vegetables				
Spinach, Processing	[illegible]	Tons	[illegible]	[illegible]
[illegible], Fresh	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Onions:				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

PRODUCT	PRODUCTION	UNIT	F.O.B. VALUE	BEARING ACREAGE
Squash, Winter	2,952.00	Tons	41,338.00	355.0
Squash, Summer	5,204.00	Lugs 35#	8,326.40	12.0
Tomatoes, Canning	78,272.70	Tons	1,832,856.50	3,642.0
Tomatoes, Market	951,350.00	Lugs 35#	1,265,295.50	1,987.0
Tomatoes, Market	361,970.00	Flats 24#	597,277.10	262.0
Turnip Greens	232.12	Tons	5,803.00	25.0
Turnips	1,182.00	Crts. 48#	1,182.00	12.0
Yams	2,640.00	Lugs	4,224.00	11.0
Bunch Vegetables	28,000.00	Crts.	37,600.00	72.0
			17,176,933.55	30,125.0
Seed				
Vegetable	161,312	Lbs.	285,670.22	743.0
Flower	46,674	Lbs.	118,628.68	237.0
			404,298.90	980.0
Cut Flowers	2,586,000	Dzns.	723,250.00	598.0
Nursery Stock				
Avocados	26,075	Trees	71,706.25	
Citrus	260,339	Trees	585,762.75	
Walnuts	27,000	Trees	54,000.00	
Tomato Plants	53,000,000	Plants	292,050.00	177.0
Vegetable Plants	170,384	Flats	102,230.00	
Ornamentals	219,000	Cans	130,550.00	
			1,236,299.00	
Livestock				
Hogs	11,002	Head	420,078.00	
Cattle	17,583	Head	2,115,458.00	
Rabbits	27,000	Lbs.	6,750.00	
			2,542,286.00	
Poultry				
Squabs	34,000	Birds	34,000.00	
Turkeys	360,000	Birds	1,610,000.00	
Chicken, Meat	298,657	Lbs.	206,080.23	
Eggs, Chicken	10,307,167	Dzns.	3,711,180.12	
			5,561,260.35	
Milk Production				
Number of Dairies	11			
Number of Cows	5,134			
Gallons of Milk	6,781,700			
Estimated Revenue			3,364,059.20	
Goat Milk, Gals.	3,658			
Estimated Revenue			4,638.69	
			3,368,697.89	
GRAND TOTAL			$ 82,473,986.27	

VJB:ng

1958

VENTURA COUNTY

ANNUAL REPORT

AND

CROP STATISTICS

1958

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, 1958

BOARD OF SUPERVISORS

Lester A. Price - - Chairman

A. C. Ax — C. H. Andrews

E. L. Carty — J. N. Appleton

R. G. Haley

C O N T E N T S

DEPARTMENT PERSONNEL

COMMISSIONER	C. J. BARRETT
Deputy Commissioner	John L. Schall
Deputy Commissioner	John C. Allee
Deputy Commissioner	Harry E. Bronson
Supervising Inspector - Standardization	Paul B. Travis
Supervising Inspector - Nursery, Seed & Plant Disease	Verner E. Holmer
Vacuum Fumigation	Hurl Boren
Sr. Inspector, Ventura	Albert Bicker
Inspector, Ventura	Donald Anderson
Sr. Inspector, Oxnard - Quarantine	W. M. Dunning
Sr. Inspector, Oxnard - Standardization & Pest Control	Clyde W. May
Inspector, Oxnard - Standardization	Gene Fidel
Sr. Inspector, Moorpark-Simi	I. L. Clements
Inspector, Moorpark-Simi - Weed & Rodent	Bruce Burns
Sr. Inspector, Ojai	Marvin Paregien
Sr. Inspector, Fillmore-Bardsdale	Harold Hawkins
Sr. Inspector, Camarillo	W. M. Jones
Inspector, Camarillo (Part of Year)	A. E. Spradling
Inspector, Santa Paula (Part of Year)	E. R. Urban
Inspector, Santa Paula (Part of Year)	J. E. Garrity
Inspector, Santa Paula	Kenneth Weiss
Inspector, Santa Paula - Weed & Rodent	Floyd Ward
Sr. Inspector - Apiary & Survey	Glenn M. Saith
Agricultural Aide (Part of Year)	Robert Burleson
Agricultural Aide	Floyd Atmore
Agricultural Aide	John Ax
Agricultural Aide	Carroll Hannah
Account Clerk	Shirley Carter
Record Clerk II	Necia Gaffey

ANNUAL REPORT TO THE BOARD OF SUPERVISORS
COUNTY OF VENTURA
AND
THE DIRECTOR
STATE DEPARTMENT OF AGRICULTURE

1958

We submit the annual report of the activities of the Agricultural Commissioner's office for the year of 1958.

We are charged with the enforcement of State laws and county regulations relative to agriculture and agricultural products. Although the major portion of our work falls under law enforcement, we have endeavored to be of service not only to agriculture, but to to the city residents. Movement of plant materials and diseased or insect infested materials are of concern to everyone. Inspections of agricultural food products by our staff give protection to all consumers.

The duties performed by our office are especially important from the standpoint of public relations. It has been our aim to strictly enforce the law, yet foster good public relations. Our success is due to the full cooperation of producers and marketing agencies. Meetings were held with interested parties to explain the laws and our methods of enforcement. Also, much of our time was devoted to the city resident and his yard and garden problems.

Among the duties and activities mentioned in this report are plant quarantine; nursery inspection; plant disease inspection; pest surveys; field and orchard inspection; ship inspection; seed inspection; standardization inspection of fruits, nuts, vegetables, eggs, honey and poultry meat; rodent control; weed control; apiary inspection; pest control supervision; and compilation of agricultural statistics.

Our work load has increased greatly, due to the increase in certain crops, changes in marketing procedures and a growing population

QUARANTINE

Plant Quarantine remains one of our most active phases of work, for it offers us the chance to determine the presence of serious insect pests and diseases. Thus, giving us the opportunity to take proper action against these threats to our county and State, as most pests and diseases are moved from place to place by the activities of mankind. We believe that money spent on quarantine is far better spent than if we attempted to control or eradicate the pest after it is allowed to become an established infestation.

The basis of Plant Quarantine is to protect the health and safety of the public. Therefore, all plant material entering the county is required by law to pass quarantine inspection, both from within the State and from outside the State. Inspections are made daily at all receiving points, including postoffices, express depots and the like.

The following is a summary of quarantine work during the year 1958:

INTERSTATE QUARANTINE

No. of shipments inspected	2,952
No. of plants inspected	1,593,963
No. of shipments rejected	30
No. of plants rejected	1,065
No. of shipments passed	2,922
No. of plants passed	1,592,913
No. of shipments of grain	269
No. of tons of grain	8,035

Plant material was rejected for the following reasons:
Red Scale - 4; Plum Curculio & Apple Maggot - 5; Japanese Beetle - 2; Burrowing Nematode - 1; Noxious Weeds - 2; Chestnut Bark Disease - 1; Citrus White Fly - 4; Colorado Potato Beetle - 1; No Permit - 2.

Grain infested with primary noxious weed seed was required to be cleaned or milled before being released.

INTRASTATE QUARANTINE

No. of shipments inspected	8,642
No. of plants inspected	28,856,706
No. of shipments rejected	277
No. of plants rejected	10,604
No. of shipments passed	8,365
No. of plants passed	28,846,102
No. of shipments of grain	385
No. of tons of grain	7,961
No. of shipments of grain rejected	4
No. of tons of grain rejected	[illegible]

Plant material was rejected for the following reasons:
Parlatoria Scale - 1; No Certificate - 1; Noxious Weeds - 3; White Fly - 1; Red Scale - 85; Hedera Scale - 2; Root Knot Nematode - 3; Long-tailed Mealybug - 17; Crown Gall - 2; Quick Decline - 8; Miscellaneous - 40.

EXPORT CERTIFICATION (European & Asian)

No. of shipments passed	2,832
No. of cartons passed	2,532,977

Number of hours spent on quarantine inspection 9,946

TREATMENTS

Ventura County policy requires the treating of all citrus and walnut trees by vacuum fumigation before being planted. All plants infested with serious insect pests are treated and released. This treatment enables us to insure insect free plants. Therefore, it is not necessary to return the

plants to point of origin. This is an added service to the residents of our county.

The following is a summary of treatment work completed during 1958:

VACUUM FUMIGATION (HCN)

Citrus Fruit (boxes)	2 lots	16
Citrus Trees	740 "	165,717
Walnut Trees	36 "	5,934
Ornamental Plants	7 "	749
Budwood (bundles)	24 "	113
Seedlings	5 "	15,500

METHYL BROMIDE VACUUM

Used Bags	29 lots	85,464
Budwood (bundles)	1 "	2,500
Seedlings	1 "	3,000
Miscellaneous	2 "	98

METHYL BROMIDE - ATMOSPHERIC

Citrus	4 lots	60

Number of hours spent on fumigation 4,645

NURSERY INSPECTION

The nursery inspection program in Ventura County includes quarterly inspections of nurseries and at least one inspection during the year of adjoining properties. In addition all nursery stock moving into the county must be held for inspection at time of entry. All citrus and walnut stock is required to be vacuum fumigated as a condition of planting.

If serious pests are found in a nursery, immediate eradicative measures are required and are applied under the supervision of this office.

Seventeen specimens of diseased nursery stock were submitted to the Bureau of Plant Pathology for diagnosis. Appropriate action was taken in each case.

A survey for Physokermes picea, a scale insect attacking certain conifers was made at the request of the Bureau of Nursery Inspection. Ten nurseries were inspected. No Physokermes picea were found. Sixteen (16) man hours were required to complete this survey.

Aonidiella aurantii, a serious pest of citrus, was found in one nursery during 1958. Eradicative treatment was applied to all hosts. Re-inspections were made. Findings were negative.

Two serious weed pests, Solanum carolinense (Carolina Horsenettle) and Solanum elaeagnifolium (White Horsenettle), were discovered in Ventura County

nurseries in 1958. Eradication, which is mandatory in the case of these and all other "A" pests, appears to have been accomplished.

Sclerotium rolfsii, a serious fungus disease attacking a wide range of vegetables and ornamentals was found in one nursery. Soil fumigation with Methyl Bromide was recommended by the Bureau of Plant Pathology and has been applied to a portion of the nursery growing grounds. Further inspections will be made following the rainy season and additional areas will be fumigated if found infected.

Four minor pests new to Ventura County nurseries were discovered during 1958; Cenchrus pauciflorus (Sandbur Grass) in one nursery, Tribulus terrestris (Puncture Vine) in two nurseries, Aceria aloensis (Aloe Mite) in one nursery, and a virus disease of Papaya in one nursery. In each case control measures were outlined for the nurserymen.

Origin certification of tomato plants free from nematodes required 302½ hours of field inspection in tomato seedling nurseries. This total includes 31 State man hours. Sales totalled sixty-four million eight-hundred (64,800,000) tomato plants.

The following is summary of nursery inspection for the year of 1958:

Number of nursery inspections	303
Number of reinspections	30
Number of nurseries with "A" pests *	2
Number of nurseries with "B" pests **	2
Number of nurseries with "C" pests ***	106
Number of nurseries required to cleanup	110

* Eradication mandatory.
** Serious pest of limited distribution, eradication mandatory in Ventura County.
*** Pests of common occurrence.

Hours spent by county personnel	1,604
Hours spent by State personnel	130

PLANT DISEASE INSPECTION

Six-hundred fifty-three (653) inspections relating to plant disease problems were made by this office during the year 1958. This represented an increase of 35% over the year 1957. Inspections were made in fields, orchards, nurseries and residential properties covering a wide variety of problems including fungus, bacterial, virus, and nematode infection, troubles resulting from minor element deficiencies or excesses, salt and alkali injury, fertilizer burn, chemical injury due to pest control materials and physiological conditions.

Phytophthora cinnamomi (cinnamon fungus) now occurs on five properties in the county, an increase of two over last year. The total land area affected is approximately eight acres. No treatment is known that will insure eradication in the field at the present time. While there are many hosts of this

disease, avocados are the principal agricultural crop affected. Avocado nurserymen are being offered a new service by this office in an effort to combat the disease. Hot water treatment of seed, a proven control measure, has been approved by the Bureau of Nursery Inspection under their new avocado nursery stock certification program. Careful timing and heat control are necessary in order to preserve viability. An effective technique has been worked out and proper equipment has been assembled. The service is offered at cost to those interested.

Sclerotium rolfsii, a fungus disease, unknown in Ventura County prior to 1958 now occurs on six known properties. Control, while difficult, is possible. Infections wherever found, will be subjected to treatment in cooperation with the property owner. Eradication in nurseries is mandatory.

We acknowledge again the fine cooperation of the Bureau of Plant Pathology, State Department of Agriculture, and especially of Dr. Alex French, who aided county personnel in disease determination and inspections.

Following is a summary of the work done on plant disease:

Host	No. of Inspections
Avocados	20
Citrus	52
Deciduous Fruits & Nuts	68
Grapes & Caneberries	2
Vegetable Crops	19
Field Crops	13
Flower Crops & Bulbs	33
Ornamental Shrubs & Trees	234
Lawns	28
Dichondra	6
Orchids	5
Small Grains	3
Tomatoes	147
Strawberries	6
Subtrorical Fruits	4
Alfalfa	2
Ground Covers	1
Miscellaneous	1
Total Inspections	653

Number of hours spent on plant disease inspection 937

SEED INSPECTION

Seed Inspection includes various regulatory duties. The Agricultural Code requires that the Commissioner:

1. Enforce the "California Seed Law" (Sec. 910-20 Agric. Code, Sec. 3850-3904 Calif. Adm. Code);
2. Regulate movement and disposal of seed screenings (Sec. 154.3 Agric. Code) and, under the rules of the California Crop Improvement Association, a cooperative agreement between the University of California and the Department of Agriculture (Sec. 916.1 Agric. Code);

3. Supervise the cleaning of all seed production facilities including threshers, seed cleaning machinery and storage bins, sample eligible lots (purity and germination), and control sealing and labeling of those lots which meet the standards of the organization;
4. Commercial grade samples are drawn for the Bureau of Field Crops.

Following is a summary of this work performed during the year of 1958:

Number of dealers' lots inspected	1,801
Number of consumers' lots inspected	6
Number of interstate lots inspected	127
Number of intrastate lots inspected	1,183
Total number of lots inspected	3,117
Number of lots in violation	105
Number of official samples drawn	5
Number of service samples	2
Number of stop-sale orders issued	12
Number of lots released for destruction	68
Number of grade samples drawn	63
Number of Crop Improvement Assoc. samples drawn	3
Number of seed houses inspected	157

Enforcement of these regulations affords protection to the buyer of seed by insuring that the seed is properly labeled to show germination, purity, kind and variety, and weed seed content.

Legal disposal of lots in violation of seed law or quarantine is provided for through maintenance of a list of approved mills. These mills are periodically inspected. They are required to maintain certain standards which guarantee that the viability of weed seed will be destroyed. Grinding for feed is permitted for most lots in violation. There are three approved mills in Ventura County.

Number of hours spent on seed inspection 436

TOMATO SEED CERTIFICATION

The Ventura County Tomato Seed Certification program operates under the authority of the Director of Agriculture and in collaboration with the Bureau of Plant Pathology, State Department of Agriculture.

Three inspections during the growing season are made for the purpose of determining the presence or absence of Bacterial Canker (Corynebacterium michiganense), a seed-borne disease. All equipment used in the production of seed is cleaned and sterilized under the direct supervision of this department.

Three seed companies submitted a total of 303 acres for inclusion in this season's program. Three acres (3 varieties) were refused inspection because "land previously infected with Bacterial Canker shall not be used for tomato seed production during the four year period following the year of infection." Certification was refused on fifteen acres (1 variety) for "excess and obscuring weeds" at the time the second inspection was due.

Two-hundred eighty-five (285) acres, sixty-nine varieties in seventy fields, were found by inspection to be free from seed-borne disease. Seed produced from this acreage is eligible for certification

The supervision of this program is assigned to one member of the staff He, in turn, is assisted by various district men in the field inspection

Number of hours spent on tomato seed certification during 1958 . 299

SHIP INSPECTION

The inspection of ships is made by the members of the Agricultural Commissioner's office State and Federal quarantines restrict the movement of certain materials likely to introduce serious insect and disease pests. Ship's stores, cargo and passenger baggage, as well as the crew s quarters, are inspected for restricted items. Whenever found in violation they are properly disposed of to safeguard the agricultural industry.

Disposal of garbage also comes under the control of the Department in order to prevent the introduction of foot and mouth disease

Number of ship inspections .	14
Number of hours spent on ship inspection	56

APIARY INSPECTION

One of the duties of the Agricultural Department is the inspection of apiaries within the county to determine the presence of bee diseases This year, due to the fact that we now have a full-time bee inspector, this work was well done. Colonies were inspected for disease. beekeepers contacted to make sure that colonies were registered according to law, and assistance was given to all beekeepers with a legitimate request.

A result of the good work by the inspector is a decrease in the percentage of American Foulbrood and an increase in the number of registered colonies within the county

Following is a summary of the work performed during 1958:

	No. Apiaries	No. Colonies
Registered . .	327	24,422
Entering California	1	800
Leaving California	0	0
Entering county	198	21,570
Leaving county	92	8,197
Moving within the county . .	62	4,185
Inspected	248	[illegible]
Infected with American Foulbrood .	36	133
Infected with European Foulbrood .	7	10
Burned - American Foulbrood . .	35	97

Number of hours spent on apiary inspection . . . 1,259

STANDARDIZATION

The State Standardization Law deals specifically with fruits, vegetables, nuts, eggs, honey, poultry and rabbit meat; and as defined in Division 7 of the California Agricultural Code the enforcement of these provisions is one of the duties of the County Agricultural Commissioner's office. The purpose of this law is to protect the consumer as well as the producers from fraud and deception in the preparation of agricultural commodities for marketing.

More than 30,000 acres of vegetables produced during 1958, including tomatoes, created a situation whereby the inspectors attended the packing operations before and after the regular hours which necessitated the shifting of personnel from other duties during the peak periods of harvest for lettuce and strawberries. To expedite the inspection of lettuce in the field, the shippers of this crop continued their voluntary $2.00 per acre assessment. Aside from the vegetable operation, Ventura County farmers produced about 21,000 acres of dry lima beans and 7,000 tons of walnuts. Thirty citrus operations shipped 16,000 cars and five avocado packing operations harvested approximately 211,556 field boxes.

Citrus maturity caused no problems, with all tests proving compliance with State law; however, of 59 lots of avocados tested for maturity, 22 of these failed to pass the legal minimum requirements.

Standardization is only one of the many functions of the Commissioner's staff, and the work is supervised by one departmental employee.

We wish to acknowledge the fine cooperation of the industry.

Following is a summary of Standardization work done in 1958:

Fruits, Nuts and Vegetables:	
Containers inspected	5,144,158
Containers certified	4,546,994
Number of lots certified	11,719
Number of containers rejected	10,294
Number of rejections issued	75
Eggs:	
Premises visited	85
Number of lots inspected	247
Number of dozens inspected	36,290
Number of dozens rejected	4,277
Number of rejection notices issued	21
Poultry and Rabbit Meat:	
Number of inspections	78
Number of carcasses inspected	1,437
Number of carcasses rejected	92
Total man hours spent on standardization for 1958	9,034

Total revenue to County Treasury from standardization $31,055.60

SURVEYS

Surveys during 1958 continued to be an important function of the County Department of Agriculture. Several of the projects were carried out in cooperation with State or Federal agencies. These surveys concerned agricultural pests which are of statewide importance. Included in these were programs for Khapra Beetle, Wheat Sawfly, Multiple Fruit Fly Trapping, Quick Decline of Orange and Disease Detection of Tomatoes. In addition there were other surveys which were made for pests that, although of fairly common occurrence within California, either are not known to occur in Ventura County or are so uncommon here as to warrant a survey to determine the extent of infestation. In some of these projects assistance was also given by State inspectors.

Two new pests were found in Ventura County during 1958. One, the Aloe mite (Aurea aloensis) found in a nursery on aloe, is of minor importance. The other, however, could be a cause for some concern. This, a fungus disease, is Sclerotium rolfsii. The disease has a wide host range and if established in commercial plantings of certain truck or field crops could be of economic significance.

Surveys are of great value in locating incipient infestations or infections of economically important pests within the county. If these are found before they become firmly established or start to spread to adjoining areas they can usually be eradicated at a small fraction of the cost required to clean up a pest which is widespread.

The following surveys were made in 1958:

Insect Surveys:

Khapra Beetle	General Pest
Wheat Sawfly	Red Scale
Mexican Bean Beetle	Oak Moth
Multiple Fruit Fly Trapping	Spruce Bud Scale

Plant Disease Surveys:

Quick Decline of Orange	Celery Mosaic
Sclerotium rolfsii	Camellia Flower Blight
Cinnamon Fungus	Disease Detection of Tomatoes

KHAPRA BEETLE

Surveys for Khapra Beetle were continued in the county again this year. Although the survey was not as intensive as in 1957, all dealers, storers and major feeders of grain received inspection. The county was assisted by Federal inspectors in this survey.

Eradication is being attempted in the State and it is very important to find any small infestations which might be a source of spread. Although many specimens of Dermestid Beetles were sent to Sacramento for identification, no Khapra Beetles were found in the county.

Summary of the 1958 survey:

County Man Hours	Properties Inspected	Properties Infested	No of Specimens Identified
189	89	0	44

WHEAT SAWFLY

With the eradication program continuing in the State, Ventura County again participated in the Wheat Sawfly survey. This program is underway in the Cuyama Valley in San Luis Obispo, Santa Barbara and Ventura Counties. For the first season since eradication was attempted no Wheat Sawflies were found.

Very little wheat was planted in Ventura County this year. Only 160 acres were grown in the Cuyama Valley on two separate properties. This was inspected with negative findings.

The eradication work calls for aerial treatments of all grain fields with DDT and oil. Since most fields in Cuyama Valley contain volunteer wheat plants it was necessary to spray a greater area than was actually planted to wheat

Summary of 1958 survey:

County Man Hours	Properties Inspected	Properties Infested	Acres Inspected	Acres Treated
12	2	0	160	885

MEXICAN BEAN BEETLE

This year for the first time since 1955, a survey was made for Mexican Bean Beetle. In August two three-man crews started a survey of a representative part of the old Mexican Bean Beetle Quarantine area. This area contains an estimated 15% of the bean plantings of Ventura County. About one-third of this acreage was covered, with particular attention being paid to those fields bordered with windbreaks and tree-filled barrancas. In addition to the above survey, a spot check of about 5% of the plantings outside the quarantine area was made.

All findings were negative. Thus, the assumption made in 1955 that the Mexican Bean Beetle was eradicated is apparently well-founded

Summary of 1958 survey:

County Man Hours	Properties Inspected	Properties Infested	Acres Inspected
128	69	0	5,558

MULTIPLE FRUIT FLY TRAPPING PROGRAM

Within the past few years three species of Fruit Flies have been found in California. These are the Mexican Fruit Fly, which is established in Baja

California adjacent to the International Border and has been found in the San Isidro area of San Diego County the Melon Fly, a single specimen of which was taken in a trap on the U C.L A. Campus; and the Cherry Fruit Fly found in Siskiyou and Humboldt Counties in the north. In addition the Walnut Husk Fly, known for many years in Southern California, has recently spread to most of the walnut producing areas of California.

Because of the extremely serious nature of Fruit Flies, the State has for several years maintained a detection program for these pests This program consists of using insect traps baited with lures developed specifically for the attraction of these insects

Ventura County has cooperated with the State by carrying half of the expense for the program in this area. The county was divided, with the State trapping in the Ojai Ventura and Oxnard districts; while the county operated in the Santa Paula Fillmore Moorpark and Camarillo districts Each organization ran a line of 100 traps during the season that Fruit Flies are active No new species of Fruit Flies were taken in Ventura County this year

Summary of 1958 survey:

County Man Hours	Properties Trapped	Max. No. Traps	Properties Infested
400	50	100	0

GENERAL PEST SURVEY

Once again the annual yard survey was made in the county to determine the possible presence of pests under eradication or pests new to the county This program is becoming more important each year as new subdivisions are developed and more plant material brought into the area for landscaping

Inspectors are trained to be alert for new pests or plant diseases which might be present in yard plantings. Particular attention is given to the possible presence of new scale insects.

RED SCALE

The Red Scale survey an annual project of the Agricultural Department, was made again this year Since the pest is under eradication in Ventura County, it is necessary to determine which citrus groves are infested with this scale. The work is done in cooperation with the citrus protective leagues established in the county

The Department inspects properties which are not affiliated with any of the above mentioned leagues whenever there is reason to believe that the groves are infested with Red Scale Eradication measures must be taken wherever this pest is found

Number of County Man Hours spent on survey 4.217

OAK MOTH

The annual survey for Oak Moth, which periodically causes severe damage to live oaks in the county, was again made this year. The last severe outbreak was in 1955 and the population in 1958 appears to be at a relatively low point

Inspection of the various county parks showed little or no damage by this pest although the insect was found to be present in all areas.

Summary of 1958 survey:

County Man Hours	Parks Inspected	Parks Infested	Parks Requiring Treatment
20	7	7	0

SPRUCE BUD SCALE

A survey of nurseries retailing spruce nursery stock was made this year at the request of and in cooperation with the State Department of Agriculture A serious scale insect of spruce was found in a nursery in Alameda County Subsequently two other infestations were found in Alameda County

Nurseries were checked in Ventura County and those having spruce for sale were inspected All findings were negative.

Summary of 1958 survey:

County Man Hours	Nurseries Inspected	Nurseries Infested	No. of Specimens Submitted
16	10	0	1

QUICK DECLINE OF ORANGE

The annual Quick Decline survey was again made this year in cooperation with the State. Quick Decline has been known to be present in Ventura County for ten years and the survey is now purely informative. It is made to determine the spread of the disease to new areas as well as to determine the intensity of the virus in areas known to be infected. Since a State quarantine is maintained against Quick Decline, it is necessary to find any new areas of infection

This year for the first time an infected tree was found in the Camarillo area. One suspect in the Camarillo Heights was found to transmit the virus.

At the time of the survey (July through August), the disease seemed to be at a relatively low intensity in all infected areas of the county Subsequent checks by County Inspectors, however, indicate that an increase in the number of visibly infected trees occurred later in the year. This is very noticeable in the Fillmore area which lies between the two originally infected areas of Bardsdale and Sespe Canyon. Until this year the Fillmore area, although showing a few infected trees each year, has not suffered to any great extent. During late summer of 1958, however, a marked increase in the number of infected trees in this area was noted.

Summary of 1958 survey:

Man Hours	Properties Surveyed	Acres Surveyed	Suspects Found	Samples Taken	Budwood Taken
1,136	790	17,046	61	17	17

SCLEROTIUM ROLFSII

Sclerotium rolfsii is a fungus disease which has been known to occur in California for many years. It had never been found in Ventura County, however, until this year. A survey revealed its presence in six properties. One of these is a commercial iris nursery; a second infection, also on iris, was in a nursery on the Camarillo State Hospital property; a third infection was found in Vinca major (periwinkle) on a private estate; the other three cases were all in dichondra lawns.

This is a serious disease with many host plants. Among the crops attacked are sugar beets, lima beans, lettuce and carrots. Thus, it can be seen that this could be a serious problem if established in commercial plantings.

Summary of 1958 survey:

County Man Hours	Properties Inspected	Properties Infected
48	18	6

CINNAMON FUNGUS

A survey for Cinnamon Fungus, a serious disease of avocados, was once again made in 1958. This fungus, first found in Ventura County in 1956, has gradually spread. Starting with two properties totalling 1½ acres, the area in two years has increased to five properties involving eight acres.

Because this is a serious disease of avocados a close watch has been kept on avocado properties. This disease is seed-borne and the County Department this year inaugurated a service to growers whereby avocado seeds are treated by immersion in a hot water bath.

Man Hours	Prop. Insp.	Total Prop. Infected	Total Infect. Acres	Increase of Infect. Prop.	Increase of Infect. Ac.
28	15	5	8	2	3

CELERY MOSAIC

Celery Mosaic is a disease of celery which is known to be present in Ventura County, although to date no serious loss has occurred here. The history of the disease, however, shows that it can, when present in an area and conditions are favorable, cause very serious crop loss. The most effective control of the virus, which is transmitted by aphis, is to remove

all celery plants in the control area for a short period each season.

At the request of some of the growers, a meeting of all celery growers was held to determine the possibility of establishing a host-free period in Ventura County. One of the problems in a program of this type is the elimination of volunteer or escape celery plants, which have become established along irrigation drainage ditches, river beds, etc. A survey was made by Agricultural Inspectors to determine the extent of these "wild celery" areas in the county.

Summary of 1958 survey:

County Man Hours	Findings of Survey
46	Wild celery infestations were generally established in all areas.

CAMELLIA FLOWER BLIGHT

The Department annually makes periodical surveys to determine the status of Camellia Flower Blight in retail nurseries within the county. This is a serious disease of camellias and when found in a nursery, the owner is required to clean up the infection. The disease is of relatively common occurrence, but is serious enough to warrant treatment when found in nurseries.

Summary of 1958 survey:

County Man Hours	Nurseries Inspected	Nurseries Infected
10	20	7

DISEASE DETECTION OF TOMATOES

A survey of tomato fields was made this year in cooperation with the Bureau of Plant Pathology, State Department of Agriculture. Particular emphasis was given to the discovery of the possible presence of Cooper's Broomrape, a parasitic plant which has been found infecting tomatoes in portions of Riverside and Imperial Counties. In addition to this pest the inspectors were on the alert for any disease of tomatoes new to this area. Soil samples were taken from all inspected fields to test for nematodes.

Although most diseases of tomato common to the county were found, none were heavy enough to cause serious losses. No Broomrape nor new disease was found.

Summary of the 1958 survey:

County Man Hours	Properties Surveyed	Acres Surveyed
64	13	549

BIOLOGICAL CONTROL OF INSECTS

The citrus growers of Ventura County have for a long period of time recognized the value of biological control of citrus pests. This type of control is assuming increasing importance. As more information becomes available regarding coordination of chemical and biological control, and as new parasites and predators are introduced, full advantage is taken of this information.

There are five insectaries located in this county. The production cost of beneficial insects has been kept low by improved techniques in rearing, and all growers are benefited by the properly timed release of them.

Following is a summary of beneficial insects produced and released in the county during 1958:

Parasite	Host	Number
Aphytus fischeri	Red & Yellow Scale	27,800
Aphytus melinus	Red Scale	25,000
Crytolaemus	Mealybug	40,727,000
Leptomastix sp.	Mealybug	40,462,000
Metaphycus helvolus	Black Scale	5,416,000
Microterys flavis	Black Scale	1,000
Nephus sp.	Black Scale	6,771
Pauridea perigrina	Mealybug	184,000

FIELD AND ORCHARD INSPECTION

Inspections of orchards and field crops are a regular and continuing part of our duties. These inspections give us a current knowledge of insect and plant disease conditions in the commercial plantings in the county, and aid us in making recommendations for control. We are constantly on the alert for new pests during these inspections, so that early and proper control measures may be taken or suggested.

A summary of pest conditions and the more common pest control measures follows:

CITRUS

Black Scale: Generally distributed over most of the citrus acreage. The summer and fall infestations were heavier than expected, and development about a month advanced over normal conditions. However, as a whole, less acreage was treated than in previous years. Biological control is a very important factor in the control of this insect. Materials used were oil, rotenone, HCN, kerosene and DDT, parathion, and malathion.

Citrus Aphis: Infestations were generally lighter than average. Systox, oil, rotenized oil, TEPP, nicotine, malathion, and parathion used in treatments; often combined for other pests.

Citrus Mites: Citrus red mite was heavy and general, lighter in areas depending on oil and beneficial insects for control of black scale. Less Ovotran now being used for control, due to resistance to this material; Kelthane increasing in use; oil, DN-111, used; Tedion used experimentally.

Lewis mite is found mainly around Santa Paula, but is gradually increasing in other areas. Infestations generally held at a low level by treatments for other pests.

Silver or rust mite may be found in isolated infestations in most areas of county. The Santa Rosa Valley showed a general infestation, and much acreage was treated in this area. Chlorobenzilate used in most cases.

Six-spotted mite is found mainly near the coast. Infestation generally light, and treated in combination with other pests.

Bud mite is generally distributed, usually more serious on lemons. Oil or chlorobenzilate used in control.

Mealybug: Drift of insecticides is still causing build-up in some areas, due to adverse effect on beneficial insects. The granular formulation of chlordane has been widely used in control of ants during the past year, also chlordane as a skirt-spray. Parathion, malathion, oil, and rotenone used for treatment.

Orange Tortrix: Damage very light, cryolite or parathion used for control.

Citrus Thrips: Heavier than usual in some areas, and specific treatment was necessary. DDT, oil, dieldrin, sabadilla, tartar emetic and sugar were treatment materials.

Red Scale: Due to mild weather, development was unusually rapid, and infestations generally heavier where found. Most of the county is free of this pest. Treatment usually consists of the combined spray-fumigation treatment, oil and parathion or malathion, and HCN; some trees treated with malathion or parathion, either alone or in oil.

Yellow Scale: About same as in past years. More commonly found on oranges, possibly because lemons usually receive more oil sprays. Oil and malathion or parathion used, often combined with treatment for other pests.

Dictyospermum Scale: Two small infestations east of Santa Paula were found, and intensive eradication measures were applied by the cooperative pest control league involved.

Brown Rot of Citrus: Slightly larger acreage treated as a preventive measure. Bordeaux and other forms of copper used in control.

AVOCADO

Brown Mite: Larger acreage and heavier infestations than in previous years. Materials applied when necessary were sulfur, Aramite, and

Ovotran. Treatment is avoided whenever possible to avoid build-up of other pests.

WALNUTS

Husk Fly: Now found in most walnut areas of the county, and treatment usually required. Parathion and malathion usual materials used.

Codling Moth: Most walnut plantings require one or more treatments to hold infestations to an acceptable level. DDT commonly used treatment.

Walnut Aphis: A common pest, treatment usually required. Systox, parathion, malathion, nicotine, and Trithion used.

European Red Mite: Infestations usually heavy unless treatment applied. Systox, Aramite, Ovotran, Trithion used.

FIELD CROPS AND VEGETABLES

The wide variety of field and vegetable crops now grown in the county with some crops maturing throughout the year, and with double-cropping becoming the common practice, has complicated the necessary pest control practices. These complications may arise from carry-over of pests from one crop to another in some stage of development, or from the effects of constant pest control work and drifting insecticides on natural parasites and predators. The problem of excess residues, which may result from repeated applications made necessary by increased difficulty in control, or even at times from drifting insecticides, has become increasingly important and difficult.

Spider Mites: Extensive control necessary for two-spotted mites, using Systox, Aramite, Ovotran, sulfur, parathion, Kelthane.

Aphis: Serious problem on many vegetables, unless early treatment applied. Systox, Perthane, TEPP, malathion, parathion, Diazinon, Dibrom, endrin, nicotine sulfate, Phosdrin, Trithion were used.

Worms: A continuing problem, both because of difficulty to control and excess residues if treatment is applied too close to harvest. Loopers, striped armyworm, beet armyworm, corn earworm main insects involved.

Lygus spp. Widespread, but most infestations were lighter than usual. DDT, toxaphene used in treatments.

MATERIALS USED IN PEST CONTROL

Pest control is a big business in Ventura County and is essential to the production of agricultural crops. To give some idea as to the types of materials and amounts used, we offer the following summary of the materials reported by commercial pest control operators only. These figures do not include those materials used by people on their own property and applied with their own equipment.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Aramite 3#	1,319	Avoc., Berries, Beans, Veg., Walnuts	Mites	12,100 lbs.	38,900 lbs.	51,000 lbs.
Aramite 15#	16,948	Avoc., Apples, Citrus, Walnuts	Mites	220,264 lbs.		220,264 lbs.
Aramite 2#/gal. E	12	Citrus	Mites	12 gal.		12 gal.
Aldrin 2#/gal. E	83	Bareland	Wireworms	30 gal.	5 gal.	35 gal.
Amino Triazole	287	Various	Weeds	3,312 lbs.	72 lbs.	3,384 lbs.
B.H.C. 2%	253	Flower, Seed Crops	Aphis	6,825 lbs.	1,350 lbs.	8,175 lbs.
Calcium Cyanimid	46	Vegetables	Pink Rot	599 lbs.		599 lbs.
Captan 5%	564	Berries, Flowers, Vegetables	Mildew	11,350 lbs.	12,550 lbs.	23,900 lbs.
Captan 50 W	56	Berries, Flowers, Vegetables	Mildew	32 lbs.	15 lbs.	47 lbs.
CDEC	13	Vegetables	Weeds	1½ gal.		1½ gal.
Chlordane 40% W	1,214	Bareland, Yards, Citrus	Wireworms, Ants, Seed Corn Maggots	6,486 lbs.		6,486 lbs.
Chlordane 45 E	234	Bareland, Yards, Citrus	Wireworms, Ants, Seed Corn Maggots	5 gal.	87 gal.	92 gal.
Chlordane 5% Granular	1,273	Citrus	Ants	4,900 lbs.	72,850 lbs.	77,750 lbs.
Chlorobenzilate 25%	1,995	Citrus	Bud Mites	10,792 lbs.		10,792 lbs.
Chlorobenzilate 25 E	61	Citrus	Bud Mites		61 gal.	61 gal.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Copper 5, 6, 7%	398	Veg., Flowers	Mildew		16,700 lbs.	16,700 lbs.
Copper 10%	1,353	Vegetables	Mildew	970 lbs.	66,580 lbs.	67,550 lbs.
Copper 20 & 22%	1,283	Citrus, Decid., Vegetables	Brown Rot, Fungus	32,702 lbs.	16,150 lbs.	48,852 lbs.
Copper Sulfate 24%	5,222	Citrus	Brown Rot	31,258 lbs.		31,258 lbs.
Copper 50 & 53%	10,111	Citrus, Decid., Veg., Walnuts	Brown Rot, Mildew, Blight	75,115 lbs.		75,115 lbs.
Cryolite	698	Citrus, Walnuts	Thrips, Tortrix, Husk Fly	19,583 lbs.		19,583 lbs.
Dalapon	Unknown	Various	Weeds	660 lbs.		660 lbs.
DD	1,507	Bareland	Nematode	50,522 gal.		50,522 gal.
DDD 5%	176	Citrus, Veg.	Worms	1,070 lbs.	5,600 lbs.	6,670 lbs.
DDT 4 & 5%	7,827	Veg., Berries, Flowers, Seed Crops	Worms	176,215 lbs.	127,700 lbs.	303,915 lbs.
DDT 10%	31,517	Veg., Walnuts, Flowers, Seed Crops	Worms, Wireworms	544,645 lbs.	575,751 lbs.	1,120,396 lbs.
DDT 25% E (2#/gal.)	24,673	Veg., Flowers	Lygus, Worms	4,697 gal.	15,937 gal.	20,634 gal.
DDT 50% W	12,542	Bareland, Citrus, Veg., Walnuts, Flowers, Wheat	Scale, Worms, Wireworms, Wheat Sawfly, Leaf-rollers	143,864 lbs.	600 lbs.	144,464 lbs.
DDT 3#/gal. E	126	Vegetables	Worms	35 gal.	198 gal.	233 gal.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Diazinon 25% E	75	Vegetables	Aphis	2 gal.	16 gal.	18 gal.
Diazinon 25% W	78	Vegetables	Aphis	121 lbs.	52 lbs.	173 lbs.
Diazinon 2%	94	Vegetables	Aphis	2,500 lbs.	1,500 lbs.	4,000 lbs.
Dibrom 8#/gal. E	14	Vegetables	Aphis, Mites, Worms		5 gal.	5 gal.
Dieldrin 1.5#/gal. E	1,194	Bareland, Citrus	Seed Corn Maggots Thrips, Ants	163 gal.	378 gal.	541 gal.
Dieldrin 1.5%	17	Vegetables	Thrips, Ants	400 lbs.	200 lbs.	600 lbs.
Dieldrin 50% W	91	Citrus, Yards	Thrips	36 lbs.		36 lbs.
Diuron 80%	Unknown	Bareland	Weeds	2,063 lbs.		2,063 lbs.
DN-111 20% W	388	Citrus	Mites	4,176 lbs.		4,176 lbs.
Duraset 20% W	25	Vegetables	Fruit Set	25 lbs.		25 lbs.
Dyrene 1.5%	40	Veg. (Exper.)	Blight	900 lbs.		900 lbs.
EDB 83%	6,103	Bareland	Nematode, Wire-worms	23,528 gal.		23,528 gal.
Endrin 1 & 1.25%	1,749	Vegetables	Worms	53,000 lbs.	2,250 lbs.	55,250 lbs.
Endrin 19.5% E (1.6#/gal.)	2,089	Vegetables	Worms	349 gal.	397 gal.	746 gal.
Gibberellic Acid	4	Vegetables	Growth Regulator	2½ gal.		2½ gal.
HCN	87,265 (trees)	Citrus	Scale Insects	35,266 lbs.		35,266 lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Heptachlor 2#/gal. E	140	Alfalfa	Weevils		20 gal.	20 gal.
Karathane 1%	1,088	Veg., Flowers	Mildew	14,950 lbs.	27,800 lbs.	42,750 lbs.
Karathane 25% W	53	Vegetables	Mildew	86 lbs.	15 lbs.	101 lbs.
Kelthane 1.5%	75	Vegetables	Mites	1,400 lbs.	1,750 lbs.	3,150 lbs.
Kelthane 3.7%	734	Vegetables	Mites	27,150 lbs.	1,550 lbs.	28,700 lbs.
Kelthane 18.5% W	1,553	Citrus	Mites	4,296 lbs.		4,296 lbs.
Kelthane 18.5 E	1,015	Citrus	Mites	1,568 gal.		1,568 gal.
Kerosene	615	Citrus	Black Scale	19,481 gal.		19,481 gal.
Lead Arsenate (Basic)	28	Walnuts	Codling Moth	420 lbs.		420 lbs.
Lime	10,618	Citrus, Decid., Walnuts	Safener	116,347 lbs.		116,347 lbs.
Lindane 1%	45	Veg., Flowers	Aphis	1,150 lbs.	550 lbs.	1,700 lbs.
Lindane 20% E (1.6#/gal.)	216	Bareland	Aphis, Seed Corn Maggot	18 gal.	29 gal.	47 gal.
Malathion 4% & 5%	1,785	Beans, Veg.	Aphis	43,960 lbs.	27,500 lbs.	71,460 lbs.
Malathion 25% W	8,051	Citrus	Mealybug, Scale	99,937 lbs.		99,937 lbs.
Malathion 4#/gal. E	97	Citrus, Veg.	Aphis, Worms		24 gal.	24 gal.
Malathion 5#/gal. E	196	Citrus, Walnuts Veg., Flowers	Aphis, Worms	66 gal.	4 gal.	70 gal.
Malathion 8#/gal. E	1,719	Citrus, Veg.	Aphis, Worms	703 gal.	63 gal.	766 gal.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Maneb 8%	276	Vegetables	Mildew	4,150 lbs.	5,300 lbs.	9,450 lbs.
Maneb 70%	215	Vegetables	Mildew	361 lbs.		361 lbs.
Manganese	12,462	Avoc., Citrus	Deficiency	33,722 lbs.	147 lbs.	33,869 lbs.
Manganese Chelate	100	Walnuts	Deficiency	75 lbs.		75 lbs.
Manzate 5%	40	Vegetables	Mildew	1,600 lbs.		1,600 lbs.
Methoxone-Chlorax	Unknown	R.R. Right-of-Way	Weeds	20,545 gal.		20,545 gal.
Methoxychlor	Unknown	Buildings	Flies	8 lbs.		8 lbs.
Metacide 50% E	2,585	Vegetables	Aphis, Worms	238 gal.	364 gal.	602 gal.
Monuron 80%	Unknown	Bareland	Weeds	928 lbs.		928 lbs.
Nabam 19%	2,249	Vegetables	Blight	1,312 gal.	1,150 gal.	2,462 gal.
Nicotine 1.8% (#5)	573	Citrus, Walnuts	Aphis	11,835 lbs.	9,350 lbs.	21,185 lbs.
Nicotine 3.6 (#10)	35	Veg., Citrus, Walnuts	Aphis		1,550 lbs.	1,550 lbs.
Nicotine 40% (BL-40)	87	Citrus, Walnuts	Aphis	26 gal.		26 gal.
Nitrate 44%	9,534	Citrus (leaf spray)	Deficiency	277,581 lbs.	13,520 lbs.	291,101 lbs.
Oil - Spray	43,095	Citrus	Mites, Scale	862,989 gal.		862,989 gal.
Oil - Diesel	Unknown	Various	Weeds	776 gal.	12,722 gal.	13,498 gal.
Oil - Rotenized	961	Citrus	Aphis, Scale	7,599 gal.		7,599 gal.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Oil - Weed	Unknown	Misc.	Weeds	1,625 gal.		1,625 gal.
Ovotran 50%	1,374	Avoc., Citrus, Walnuts	Mites	10,014 lbs.		10,014 lbs.
Parathion 1%	7,979	Flowers, Walnuts, Veg., Seed Crops	Aphis, Mites, Worms	66,250 lbs.	57,950 lbs.	124,200 lbs.
Parathion 2%	20,155	Flowers, Walnuts, Veg., Seed Crops	Aphis, Mites, Worms	513,435 lbs.	167,210 lbs.	680,645 lbs.
Parathion 25% E (2#/gal.)	3,983	Citrus, Veg.	Aphis, Mites Worms	878 gal.	598 gal.	1,476 gal.
Parathion 25% W	10,344	Veg., Citrus, Walnuts	Aphis, Scale, Husk Flies, Worms	84,119 lbs.		84,119 lbs.
Parathion 4#/gal. E	2,967	Veg., Flowers	Aphis, Lyrus, Worms	320 gal.	231 gal.	551 gal.
Perthane 2%	5	Vegetables	Aphis, Worms		200 lbs.	200 lbs.
Perthane 10%	1,016	Vegetables	Aphis, Worms	18,860 lbs.	21,050 lbs.	39,910 lbs.
Perthane 2#/gal. E	825	Vegetables	Aphis, Worms	406 gal.	324 gal.	730 gal.
Perthane 4#/gal. E	235	Vegetables	Aphis, Worms	124 gal.		124 gal.
Phosdrin 2#/gal. E	2,465	Vegetables	Aphis, Worms	281 gal.	428 gal.	709 gal.
Phosdrin 1.5%	1,371	Vegetables	Aphis, Worms	30,869 lbs.	25,050 lbs.	55,919 lbs.
Polybor-Chlorate	Unknown	Various	Weeds	2,000 lbs.		2,000 lbs.
Rotenone 1%	22	Vegetables	Aphis		1,600 lbs.	1,600 lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Oil - Weed	Unknown	Misc.	Weeds	1,625 gal.		1,625 gal.
Ovotran 50%	1,374	Avoc., Citrus, Walnuts	Mites	10,014 lbs.		10,014 lbs.
Parathion 1%	2,979	Flowers, Walnuts, Veg., Seed Crops	Aphis, Mites, Worms	66,250 lbs.	57,950 lbs.	124,200 lbs.
Parathion 2%	20,155	Flowers, Walnuts, Veg., Seed Crops	Aphis, Mites, Worms	513,435 lbs.	167,210 lbs.	680,645 lbs.
Parathion 25% E (2#/gal.)	3,983	Citrus, Veg.	Aphis, Mites Worms	878 gal.	598 gal.	1,476 gal.
Parathion 25% W	10,344	Veg., Citrus, Walnuts	Aphis, Scale, Husk Flies, Worms	84,119 lbs.		84,119 lbs.
Parathion 4#/gal. E	2,867	Veg., Flowers	Aphis, Lygus, Worms	320 gal.	231 gal.	551 gal.
Perthane 2%	5	Vegetables	Aphis, Worms		200 lbs.	200 lbs.
Perthane 10%	1,016	Vegetables	Aphis, Worms	18,860 lbs.	21,050 lbs.	39,910 lbs.
Perthane 2#/gal. E	825	Vegetables	Aphis, Worms	406 gal.	324 gal.	730 gal.
Perthane 4#/gal. E	235	Vegetables	Aphis, Worms	124 gal.		124 gal.
Phosdrin 2#/gal. E	2,465	Vegetables	Aphis, Worms	281 gal.	428 gal.	709 gal.
Phosdrin 1.5%	1,371	Vegetables	Aphis, Worms	30,869 lbs.	25,050 lbs.	55,919 lbs.
Polybor-Chlorate	Unknown	Various	Weeds	2,000 lbs.		2,000 lbs.
Rotenone 1%	22	Vegetables	Aphis		1,600 lbs.	1,600 lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Rotenone 2.5% E	668	Citrus, Veg.	Aphis	397 gal.	113 gal.	510 gal.
Rotenone 3, 4, 5%	6,464	Citrus	Scale	44,228 lbs.		44,228 lbs.
Sabadilla 5%	60	Citrus	Thrips	35 gal.	20 gal.	55 gal.
Sesone	40	Berries	Weeds	100 lbs.		100 lbs.
Sinox W	253	Peas	Weeds	2 gal.	198 gal.	200 gal.
Sugar	600	Citrus	Thrips	1,257 lbs.	680 lbs.	1,937 lbs.
Sulfur 10 & 15%	1,200	Berries, Veg.	Mildew	11,640 lbs.	40,000 lbs.	51,640 lbs.
Sulfur 25 & 30%	882	Veg., Flowers	Mildew	10,600 lbs.	27,400 lbs.	38,000 lbs.
Sulfur 30+(Zinc 6.3, Copper 6.3)	3,844	Vegetables	Mildew	5,750 lbs.	185,350 lbs.	191,100 lbs.
Sulfur 40 & 50%	12,202	Veg., Flowers, Seed Crops	Mildew, Mites	86,340 lbs.	369,850 lbs.	456,190 lbs.
Sulfur 50 W	31	Vegetables	Mildew	140 lbs.	1,050 lbs.	1,190 lbs.
Sulfur 75 to 85%	796	Veg., Citrus	Mites	7,250 lbs.	27,150 lbs.	34,400 lbs.
Sulfur 90 to 100%	132	Vegetables	Mildew		5,080 lbs.	5,080 lbs.
Systox (Demeton)	18,068	Beans, Citrus Veg., Flowers, Seed Crops, Walnuts	Aphis, Mites	3,072 gal.	1,790 gal.	4,862 gal.
Tartar Emetic	510	Citrus	Thrips	601 lbs.	435 lbs.	1,036 lbs.
Tedion 25 W	1,243	Citrus (non-bearing)	Mites	5,353 lbs.		5,353 lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
TEPP 1 & 2%	2,141	Veg., Citrus, Walnuts	Aphis	26,650 lbs.	64,050 lbs.	90,700 lbs.
TEPP 20% E	237	Alfalfa, Veg., Citrus, Flowers, Seed Crops	Aphis, Mites	29 gal.	39 gal.	68 gal.
Terrachlor 75 W	39	Lettuce	Butt Rot	270 lbs.		270 lbs.
Toxaphene 10%	3,140	Veg., Flowers, Seed Crops	Lygus, Worms	41,450 lbs.	75,920 lbs.	117,370 lbs.
Toxaphene 15%	20,600	Vegetables	Lygus	454,290 lbs.	241,870 lbs.	696,160 lbs.
Toxaphene 20%	734	Vegetables	Worms	14,300 lbs.	12,650 lbs.	26,950 lbs.
Toxaphene 40% E (4#/gal.)	18,839	Vegetables	Worms	3,906 gal.	14,678 gal.	18,584 gal.
Toxaphene 60% E (6#/gal.)	160	Alfalfa, Beans, Vegetables	Worms	12 gal.	106 gal.	118 gal.
Toxaphene 8#/gal. E	1,017	Vegetables	Worms	11 gal.	495 gal.	506 gal.
Trithion 2 & 3%	179	Beans, Flowers, Vegetables	Mites, Worms	1,800 lbs.	4,750 lbs.	6,550 lbs.
Trithion 4#/gal. E	10,001	Citrus, Walnuts	Mites	2,713 gal.	95 gal.	2,808 gal.
Trithion 25 W	2,816	Walnuts	Mites	555 lbs.		555 lbs.
Urea	7,754	Citrus	Nitrogen Foliage Spray	272,469 lbs.	8,048 lbs.	280,517 lbs.

PESTICIDE	ACREAGE	CROP	PEST	AMOUNT BY GROUND	AMOUNT BY AIR	TOTAL AMOUNT
Zinc	30,601	Avoc., Citrus	Deficiency	194,510 lbs.	3,151 lbs.	197,661 lbs.
Zinc Chelate	495	Walnuts	Deficiency	4,232 lbs.		4,232 lbs.
Zinc Manganese Combination	21,299	Avoc., Citrus	Deficiency	283,261 lbs.		283,261 lbs.
Zinc-Manganese-Phosphoric Acid	3,607	Citrus	Deficiency	38,892 lbs.	100 lbs.	38,992 lbs.
Zineb 3.25 & 4%	1,196	Veg., Flowers	Mildew	15,550 lbs.	27,440 lbs.	42,990 lbs.
Zineb 5 & 6%	6,549	Veg., Flowers	Mildew	66,170 lbs.	193,940 lbs.	260,110 lbs.
Zineb 65% W	358	Vegetables	Mildew	618 lbs.	288 lbs.	906 lbs.
2,4-D; 2,4,5-T	7,770	Grain, Brush, Bareland	Weeds	536 gal.	788 gal.	1,324 gal.
2,4-D H.V.	3,330	Citrus	Tree Conditioner	82 gal.		82 gal.

PEST CONTROL SUPERVISION

The Agricultural Code requires that every person engaged in the business of pest control shall first qualify for and obtain a pest control operators license from the State Department of Agriculture. In addition, he is required to register with the Commissioner of any county in which he operates. The Commissioner, in turn, makes certain that each registrant has suitable equipment, properly maintained, that it is operated by competent and qualified men, that all State and county regulations are complied with, and that all work is properly performed. During 1958, 33 pest control operators were registered to engage in pest control operations in Ventura County.

Section 1080 of the Agricultural Code requires that all persons using injurious pest control materials, defined by law, first obtain from the Commissioner a permit for such use. The permit to use must be obtained before the materials may be purchased from a dealer. During 1958, there were 194 such permits issued on a seasonal basis.

A similar permit from the Comissioner is required for the use of injurious herbicides, such as 2,4-D, and must be obtained before the material may be purchased. Permits for small scale operations, such as weed control in orchards, etc., are issued on an annual basis. Permits for large scale operations, such as weed control in grain, other large fields and brush control are issued on a seasonal basis from November 1st to February 15th. For the rest of the year, they are only issued for each separate job. This is done in order to reduce the chances of possible damage from drift. During 1958, 286 seasonal and 43 individual permits were issued.

Number of hours spent on pest control enforcement 1,948

WEED CONTROL

Late warm spring rains were conducive to a rather heavy weed growth in all parts of the county. Consequently several new infestations of secondary noxious weeds were found on State and county highways. Primarily these pests were Yellow Star Thistle, Johnson Grass and Puncture Vine. Surveys were conducted in all parts of the county to determine the presence of new infestations and all infestations were treated when found.

A concentrated effort was made to contain Medusa-head Grass growing along Highway #399 and immediately adjacent to it. As this range pest has been found only in the northern part of the county, all personnel have been instructed to be constantly on the lookout for it.

Following is a table of the amount of materials used in 1958:

Amate	70 gal.	Polybor-Chlorate	250 lbs.
Amino Triazole . . .	1,103 gal.	2,4-D A	2,580 gal.
Dalapon	670 gal.	2,4-5 T	50 gal.
Televar	2,475 gal.	Weed Oil	195 gal.
Weed Oil & Contax	4,820 gal.		

Number of man hours spent on weed control in 1958 1,631

RODENT CONTROL

SQUIRRELS: As all the populated area of Ventura County is designated as Bubonic Plague area, ground squirrels were given special attention. For reasons unknown, a very irregular breeding season occurred that found young squirrels appearing from February through to May. Consequently, a great number of "call backs" had to be made to control this pest.

Methyl Bromide fumigation was used early in the spring, and when dry weather arrived vigorous poisoning campaigns were instigated. Secondary poisons were used in the rangelands and other outlying areas. Warfarin in bait pipes and strychnine baits were used in populated areas and near residences.

GOPHERS: Citrus and avocado growers were again menaced by the Pocket Gopher and in many instances suffered severe losses.

Educational measures as to control methods, to those interested, were conducted by staff members, and poison materials were sold at cost to growers.

RED FOX SQUIRRELS: A number of calls were answered pertaining to this pest and ranchers were advised as to shooting or trapping methods. This rodent is now widespread throughout the county and some research was done on methods of applying poison. However, much is to be learned yet.

RATS: This rodent is not only important due to its nuisance, it also is capable of carrying diseases transmissible to man. Damage has also occurred to stored foods, avocado and citrus trees. Demonstrations were given as to the best methods for controlling this pest. Warfarin baits were furnished by the department with good results.

FIELD MICE: Several cases of damage to young citrus trees were reported as the result of this rodents' activities. Most serious damage occurred where native foliage afforded cover for mice. Poisoned baits were furnished at cost to interested growers.

RABBITS: Many calls were answered by staff members pertaining to rabbit damage to beans, flowers, cucurbits and other vegetables. If proper pre-baiting was carried out prior to placing poison baits, a good degree of control was obtained. In some cases ranchers built rabbit-proof fences to exclude these pests.

BIRDS: Damage to seed crops, growing vegetables and loss of grain feed was again experienced by ranchers due to birds. Linnets, crowned sparrows, English sparrows, horned larks and blackbirds were the predominant species causing damage.

Again where bird damage was anticipated and proper pre-baiting was carried out before placing poisoned baits good control was obtained.

Following is a summary of the plague control program for 1958:

No. of acres treated in plague area	430,922
No. of pounds of strychnine-treated grain	1,179
No. of pounds of thallium-treated grain	5,804
No. of pounds of warfarin-treated grain	3,994
No. of pounds of 1080-treated grain	4,094
No. of cases of methyl bromide	96
No. of hours spent on plague control	5,485

PREDATORY ANIMAL CONTROL

Ventura County is one of the many counties of the State that has been designated as a rabies quarantine area. Rabies have been known to infect small wild animals, especially skunks. To assist in the rabies control, an agreement was entered into with the Bureau of Fish and Wildlife, United States Department of the Interior, to trap these small animals, as well as predators.

Members of the Commissioner's staff have assisted in this program during certain times of the year, as well as answering many calls relative to skunk infestations.

Following is a tabulation of the results of this joint program:

ANIMAL	NUMBER
Skunks	575
Opossum	569
Fox	294
Bob cats	195
Coyotes	129
Raccoons	91
Badgers	41
Mountain lion	1
Ring-tail cat	1

Total predatory animals killed during 1958: 1,896

FINANCIAL STATEMENT
FOR FISCAL YEAR ENDING JUNE 30, 1958
VENTURA COUNTY DEPARTMENT OF AGRICULTURE

Salaries & Wages			
Commissioner Deputy Commissioners Inspectors and Office Help	$133,803.44		
Extra Help	17,108.51	$150,911.95	
Maintenance and Operation		32,373.38	
Capital Outlay		1,087.69	$184,373.02
Revenue			
Certification	$ 25,299.31		
Vacuum Fumigation	7,574.18		
Miscellaneous Sales	956.10		
Contract Service	1,108.31		$ 34,937.90

Classification of Estimated Expenditures by Functions:

Plant Quarantine (Interstate)	$ 10,483.59	
Plant Quarantine (Intrastate)	20,833.15	
Standardization	26,249.70	
Field and Orchard Inspection	14,723.78	
Nursery Inspection	5,534.92	
Seed Inspection	3,316.43	
Rodent Control (County expense)	6,891.77	
Plague Suppression (County expense)	17,482.42	
Weed Control (County expense)	8,885.83	
Apiary Inspection	6,074.80	
Crop Statistics	5,006.91	
Other Items*	57,802.03	$183,285.33
Capital Outlay		1,087.69

*Functions Included in "Other Items" are:

General Pest Surveys	$ 17,014.83
Vacuum Fumigation	11,067.13
Entomology	1,353.94
Pest Control	6,521.50
Fair	5,568.55
Miscellaneous	16,276.08

FINANCIAL STATEMENT
FOR FISCAL YEAR ENDING JUNE 30, 1958
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

1958

Pursuant to Section 65.5 of the Agricultural Code, we submit the crop production, crop value and acreage report for the calendar year of 1958.

This report is based only on the F.O.B. values of our agricultural production and in no way does it indicate the net returns of growers. All costs of soil preparation, seeding or planting, cultural costs, pest control costs, harvesting and packaging are included in the F.O.B. values.

With the exception of celery and Valencia oranges, returns on the package basis was lower than in some previous years. Increased production resulted in a higher overall total. The increase was spread over more acreage and more growers. Higher operating costs ate into the profits. Bearing lemon acreage was increased by some 1,000 acres, which accounted for a greater production in this crop. Valencia oranges, while they returned a slightly higher price than in 1957, showed a decrease in production. Celery, due to the freeze in the east, showed normal production with higher prices. Vegetable acreage was increased in the county by some 3,000 acres. This was due to double-cropping and the planting of vegetables in young citrus groves.

We continue to lose valuable ground formerly devoted to agriculture to subdivisions, schools, highways and industry.

We are indebted to many individuals, firms, companies and corporations for their assistance in compiling this report. We hereby acknowledge their assistance and express our thanks for their fine cooperation.

C. J. Barrett

C. J. BARRETT
AGRICULTURAL COMMISSIONER

CJB:ng

TRENDS IN AGRICULTURE IN VENTURA COUNTY

In following the trend in agricultural crops over a ten year period, it is interesting to note the specific changes involved. Some of the increased and decreased crops are due to the fluctuating costs of production as compared with the returns and higher taxes on an acreage basis.

We submit a comparison of the change in crop importance in the year of 1948 and the year of 1958. The table lists the order of the crops for the ten year average on a monetary basis of $1,000,000 or more as of 1958.

CROP	1958 VALUE	BEARING ACREAGE	1948 VALUE	BEARING ACREAGE
Lemons	$29,446,851.52	21,670.0	$18,408,680.20	17,620.0
Valencia (Oranges)	20,422,765.25	15,986.2	14,106,521.89	16,294.6
Celery	6,244,818.56	1,739.0	138,868.25	69.0
Eggs	5,981,201.52		151,369.10	
Tomatoes	5,351,240.70	8,003.0	390,303.65	1,450.0
Beans, Dry	3,739,255.30	19,741.0	12,164,360.80	37,886.0
Milk	3,170,804.10		2,827,540.32	
Cattle	3,039,606.00		3,117,780.00	
Beans, Green	3,257,115.21	10,685.0	1,689,400.00	5,153.0
Lettuce	1,650,850.00	3,049.0	477,113.70	659.5
Navel (Oranges)	1,333,992.41	1,701.9	1,413,049.54	1,611.1
Peppers	1,230,460.17	2,254.0	580,034.98	1,091.0
Avocados	1,228,986.00	1,765.6	166,348.23	422.4
Nursery Stock	1,192,415.00		581,920.38	
Turkeys	1,170,400.00		1,309,406.00	
Cabbage	1,163,717.29	1,757.0	66,250.90	69.0
Cut Flowers	1,090,984.51	828.0	134,851.00	135.0

ACREAGE OF AGRICULTURAL CROPS

The following are the acres devoted to major agricultural crops. The non-bearing acres are those on which the trees or vines are 5 years of age or under.

CROP	BEARING ACRES	NON-BEARING ACRES	TOTAL ACRES
Apricots	574.0	42.5	616.5
Almonds	88.7		88.7
Apples	58.1		58.1
Avocados	1,765.6	716.3	2,481.9
Berries, Bush	5.9		5.9
Cherimoyas	.3		.3
Citron	2.2		2.2
Grapefruit	348.7	44.2	392.9
Grapes	109.4		109.4
Lemons	21,670.0	5,311.2	26,981.2
Olives	13.7		13.7
Oranges, Navel	1,701.9	176.7	1,878.6
Oranges, Valencia	15,986.2	333.7	16,319.9
Pears	11.2		11.2
Peaches	54.9		54.9
Tangerines	12.9		12.9
Walnuts	12,386.5	180.3	12,566.8
Hay & Grain	14,590.0		14,590.0
Beans, Dry	19,741.0		19,741.0
Vegetables	34,886.0		34,886.0
Sugar Beets	2,343.0		2,343.0
Seed	830.0		830.0
Cut Flowers	828.0		828.0
TOTALS	128,008.2	6,804.9	134,813.1

VENTURA COUNTY CROP REPORT
1958
Compiled by
VENTURA COUNTY DEPARTMENT OF AGRICULTURE
C. J. BARRETT, AGRICULTURAL COMMISSIONER

FRUITS AND NUTS

Product	Production	Unit	F.O.B. Price	Bearing Acreage
				574.0
Apricots				
Dried	34.00	Tons	$ 25,840.00	
Fresh	206.00	Tons	24,720.00	
			50,560.00	
Avocados	666,986	Flats, 13#	1,228,986.00	1,765.6
Citrus:				21,670.0
Lemons				
Packed	10,172,459	Cart.	24,593,291.63	
Juice	131,903.78	Tons	4,853,559.89	
			29,446,851.52	
				15,986.2
Oranges, Valencia				
Packed	4,859,366	Cart.	16,673,036.77	
Juice	52,891.34	Tons	3,749,728.48	
			20,422,765.25	
				1,701.9
Oranges, Navel				
Packed	393,651	Cart.	1,323,984.86	
Juice	953.57	Tons	10,007.55	
			1,333,992.41	
				348.2
Grapefruit				
Packed	211,252	Cart.	487,001.72	
Juice	1,087.34	Tons	30,016.50	
			517,018.22	
Tangerines	2,654	Lugs, 35#	15,127.80	12.9
Misc. Fruits				
Apples	18,000	Boxes, 40#	36,000.00	58.1
Grapes	87	Tons	5,220.00	109.4
Pears	1,500	Lugs, 32#	1,875.00	11.2
Peaches	3,900	Lugs, 32#	4,627.85	54.9
Bush Berries	8.50	Tons	3,567.94	5.9
			51,290.79	
Strawberries	394,271	Flats, 12#	689,974.25	
Strawberries	1,188.27	Tons	269,379.92	310.0
			959,354.17	
Walnuts	7,867.00	Tons	2,821,520.00	12,386.5
FRUITS AND NUTS TOTAL			$56,847,466.16	

VEGETABLE CROPS

Product	Production	Unit	F.O.B. Price	Bearing Acreage
Beans, Green				
Processed	22,448.78	Tons	$3,257,115.21	10,685
String	1,345.79	Tons	188,602.66	125
Broccoli				
Processed	2,489.78	Tons	450,920.77	1,266
Fresh	20,236	Crts. 32#	80,412.17	169
Cabbage				
Red	39,770	Crts. 82#	65,228.80	97
Green	617,227	Crts. 82#	1,096,192.96	1,649
Other	99.31	Tons	2,295.53	11
Carrots	20,739.92	Tons	941,142.67	1,466
Cauliflower	86,022	Crts. 42#	107,527.50	354
Celery	1,725,088	Crts.	6,244,818.56	1,739
Chard	158.4	Tons	18,216.00	14
Corn, Sweet	21,600	Dzns.	9,720.00	29
Cucumbers	300,800	Lugs 35#	270,720.00	376
Lettuce				
Head	1,205,000	Cart.	1,650,850.00	3,049
Butter	35,590	Cart.	39,049.00	106
Bronze	3,751	Crts.	5,626.50	12
Romaine	189,720	Crts.	208,692.00	1,054
Onions, Green	108	Tons	6,480.00	8
Leek	359	Tons	17,957.00	18
Parsley	1,803	Tons	80,135.00	90
Peas, Processed	1,316.54	Tons	110,286.67	1,059
Peppers				
Bell	59,630	Crts. 40#	146,098.73	
Bell, Processed	3,627	Tons	168,392.00	397
Chili, Green	2,693.03	Tons	167,375.00	361
Chili, Dry	1,415.17	Tons	425,000.00	902
Pimiento	4,978.37	Tons	323,594.44	594
Spinach				
Processed	4,662.54	Tons	121,361.53	903
Fresh	43,527.00	Crts.	55,537.80	140
Squash				
Winter	1,800.00	Tons	46,500.00	180
Summer	2,346	Lugs, 25#	3,527.00	7
				8,003
Tomatoes				
Canning	107,819.79	Tons	2,588,768.20	
Market	451,285	Flats	676,927.50	
Market	361,030	Lugs, 35#	541,545.00	
Loose	38,600.00	Tons	1,544,000.00	
Turnip Greens	246.64	Tons	6,740.59	23

VEGETABLE CROPS TOTAL $21,667,356.79

FIELD CROPS

Product	Production	Unit	F.O.B. Value	Bearing Acreage
Beans				
Dry Limas	317,000	Bags 100#	$3,328,500.00	18,110
Blackeyes	750	Bags 100#	5,880.00	65
Seed Beans	35,999	Bags 100#	404,875.30	1,566
			3,739,255.30	
Grain				
Wheat	1,083	Bags 100#	3,465.60	90
Barley	126,000	Bags 100#	264,600.00	9,000
			268,065.60	
Hay				
Alfalfa, Green	22,800.00	Tons	114,000.00	860
Barley	2,040.00	Tons	51,000.00	2,040
Oats	2,600.00	Tons	72,800.00	2,600
			237,800.00	
Permanent Pasture				512
Sugar Beets	48,880.40	Tons	476,583.90	
Government Payment			104,604.06	2,343
			581,187.96	
Seed				
Vegetables	153,813	Lbs.	704,781.00	708
Flowers	15,937.37	Lbs.	54,556.93	122
			759,337.93	
FIELD CROPS TOTAL			$5,585,646.79	

NURSERY STOCK

Avocados	22,000	Trees	$ 45,000.00	
Citrus	221,945	Trees	443,890.00	
Walnut	32,000	Trees	36,800.00	
Ornamentals	77,200	Plants	85,125.00	
Vegetable Plants	206,000	Flats	123,600.00	
Tomato Plants	64,800,000	Plants	448,000.00	179
Avocado Seed	100,000	Seeds	10,000.00	
NURSERY STOCK TOTAL			$1,192,415.00	
Cut Flowers	2,430,225	Dzns.	$1,090,984.51	828

APIARY PRODUCTS

Honey	976.88	Tons	214,813.60
Wax	61.30	Tons	5,772.20
APIARY PRODUCTS TOTAL			$ 220,585.80

LIVESTOCK

Product	Production	Unit	F.O.B. Value
Hogs	9,270	Head	$ 333,600.00
Cattle	18,763	Head	3,039,606.00
Rabbits	75,000	Lbs.	19,500.00
LIVESTOCK TOTAL			$ 3,392,706.00

POULTRY

Squabs	32,000	Birds	$ 32,000.00
Turkeys	266,000	Birds	1,170,400.00
Chicken, Meat	1,368,243	Lbs.	314,695.89
Eggs, Chicken	15,740,004	Dzns.	5,981,201.52
POULTRY TOTAL			$ 7,498,297.41

DAIRY PRODUCTS

Number of Dairies	11	
Number of Cows	5,223	
Gallons of Milk	6,802,870	
Estimated Revenue		$ 3,165,404.10
Goat Milk, Estimated Revenue		5,400.00
DAIRY PRODUCTS TOTAL		$ 3,170,804.10

GRAND TOTAL . . . . . $ 100,666,262.56

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