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California Department of Food and Agriculture

Agricultural Commissioners' Crop Reports

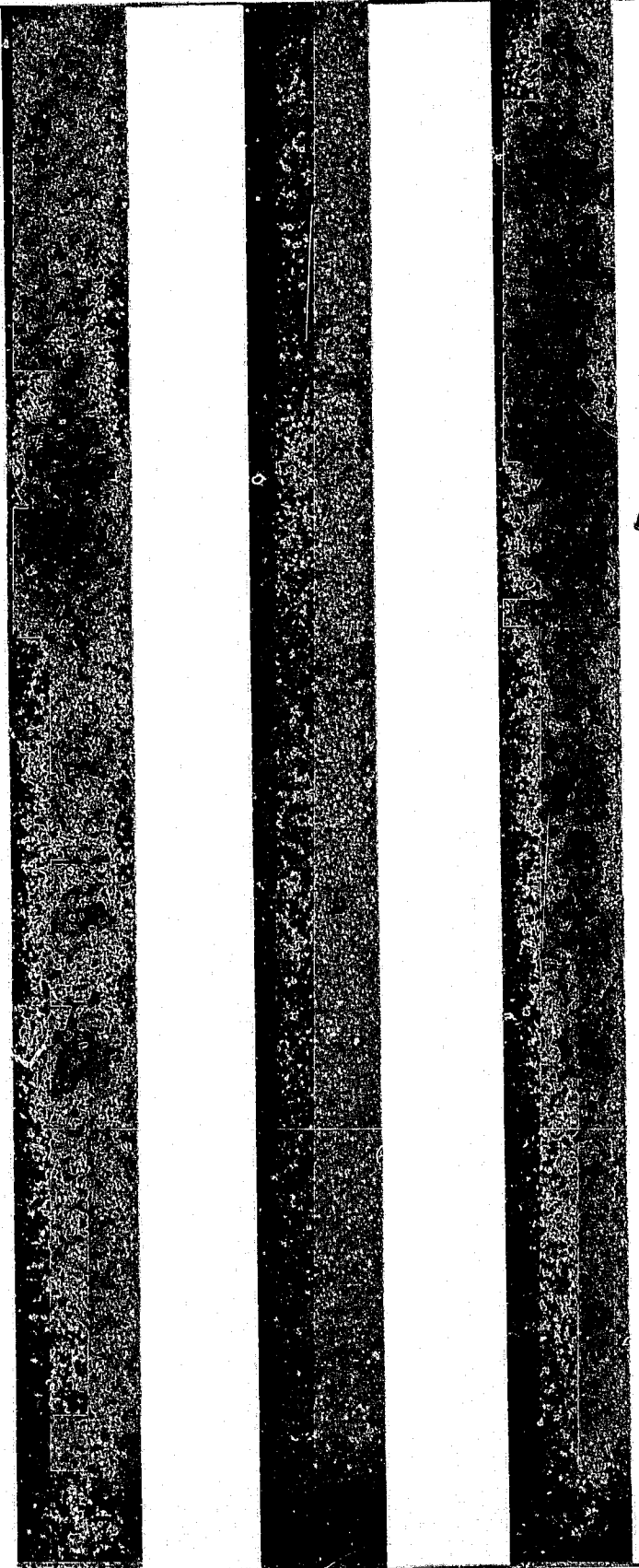
Ventura County

1959-1961

California County Agricultural Commissioners' Reports from the California Department of Food and Agriculture. This collection consists of annual crop and livestock data from each of the 58 California Counties. The collection covers 1915-1981; digitization of the rest of the collection is forthcoming.

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1959

1959

VENTURA COUNTY

ANNUAL REPORT

AND
CROP STATISTICS

1959

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AGRICULTURAL COMMISSIONER
COUNTY OF VENTURA
CALIFORNIA

ANNUAL REPORT
YEAR ENDING DECEMBER 31, 1959

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

1959

We submit the annual report of the activities of the Agricultural Commissioner's office for the calendar year 1959.

This office is charged with the enforcement of State laws and County regulations for the protection of the agricultural industry of the State and the County of Ventura. Public relations play a large part in the success of our work, and we have endeavored to the best of our ability, to maintain good relations with all, as well as enforcing the laws of the State of California.

Increased population has added to our work over the past years. New sub-divisions have made it necessary to change personnel to new areas to keep pace with the work. No new positions have been added for a number of years. Quarantine inspections have increased nine times that of a ten year period.

In order to create better public relations and inform the public, personnel of our office have been guest speakers before service clubs, garden clubs, and other civic organizations. We feel that an informed public makes for better cooperation and a more thorough job of protection to agriculture.

We have tried to benefit city dwellers as well as ranchers, and much of our time is spent in answering calls for those with problems of insects and diseases of plant life.

We have taken on several services relative to problems that are not closely related to our office. In all cases we have tried to give the tax payer something for his tax dollar.

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

QUARANTINE

Quarantine continues to be one of the most important phases of our duties. Destination inspection is required on all plants moving into the county. The presence of serious insect and disease pests prevalent in other areas and not known to be present in Ventura County causes us to take every precaution to protect the agricultural industry in our county.

Inspections are made daily at all receiving points such as post offices and express depots. All incoming nursery stock is inspected at destination before being offered for sale.

The following is a summary of quarantine work during the year 1959:

Interstate Quarantine

Plants:

No. of shipments inspected		2,693
No. of shipments passed	2,655	
No. of shipments rejected	31	
No. of shipments treated & released	7	
No. of plants inspected		3,016,326
No. of plants passed	3,014,268	
No. of plants rejected	892	
No. of plants treated & released	1,166	

Grain:

No. of shipments inspected		517
No. of shipments passed	516	
No. of shipments rejected	1	
No. of tons inspected		27,444.43
No. of tons passed	27,282.43	
No. of tons rejected	50	
No. of tons treated & released	112	

Intrastate Quarantine

Plants:

No. of shipments inspected		9,670
No. of shipments passed	9,521	
No. of shipments rejected	93	
No. of shipments treated & released	56	
No. of plants inspected		15,544,446
No. of plants passed	15,539,265	
No. of plants rejected	2,416	
No. of plants treated & released	2,765	

Grain:

No. of shipments inspected		273
No. of shipments passed	272	
No. of shipments rejected	1	
No. of tons inspected		6,199.53
No. of tons passed	6,178.78	
No. of tons rejected	20.75	

Export Certification (European & Asian)

No. of shipments passed	1,276
No. of packages passed	1,070,524

Number of hours spent on quarantine inspection 9,579

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. Vacuum fumigation of all citrus and walnut nursery stock is required as a condition of planting.

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

Eighteen insect specimens were submitted to the Bureau of Entomology for identification, and twenty five specimens of diseased nursery stock were submitted to the Bureau of Plant Pathology for diagnosis during the year 1959. Many plant specimens were identified for us by Dr. T.C. Fuller, Botanist with the Bureau of Weed and Rodent Control.

Surveys for three pests new to California were made at the request of the Bureau of Nursery Service. Twenty three (23) nurseries were inspected for the presence of Cuban Laurel Thrips, Gynaikothrips uzeli, a pest known to attack citrus. Six (6) nurseries were inspected for Maple Mite, Oligonychus aceris, a pest of maples and several other species of shade trees. Twenty (20) nurseries were inspected for the presence of Vesiculaphis carisis, a pest reported in azaleas, rhododendrons, tomatoes and sedge. Approximately nine man days were spent on these surveys. Findings were negative in all cases.

Solanum carolinianum, Carolina Horsenettle, continues to appear in one nursery. The areas previously treated remain free of infestation. This single small infestation was promptly treated by this office. Eradication is mandatory in the case of this and all other "A" pests.

Aonidiella aurantii, California Red Scale, a serious pest of citrus, was found in five nurseries during 1959. Eradivative treatments were applied to all hosts. Reinspections were made. Findings were negative.

Chrysomphalus ficus, Florida Red Scale, a pest of citrus, was found in one nursery during 1959, infesting potted plants. All hosts were vacuum fumigated at the County Fumatorium.

Sclerotium rolfsii, a serious fungus disease attacking a wide range of vegetables and ornamentals was found in one nursery. This is a recurrence of one of last year's infections. Soil fumigation with methyl bromide was recommended. All hosts in the area of infection were burned.

Origin certification of tomato plants free from nematode required 220 hours of field inspection in eleven nurseries, totalling 291 acres of seed bed. Thirty four acres were found infested with Meloidogyne spp. nematode, and these plantings were destroyed.

The following is a summary of nursery inspection for the year 1959:

Number of nursery inspections	399
Number of reinspections to determine results of specific pest treatment	55
Number of nurseries with "A" pests (eradication mandatory throughout the state)	1
Number of nurseries with "B" pests (serious pests of limited distribution; eradication mandatory in Ventura County)	7
Number of nurseries with "C" pests in excess of tolerance allowed ("C" pests are pests of common occurrence. The tolerance allowed is defined in the rules and regulations of the Bureau of Nursery Service.)	66
Number of nurseries required to clean-up	74
Number of notices of non-compliance issued	32
Hours spent on nursery inspection	1,440

PLANT DISEASE INSPECTION

Seven hundred seventy inspections, relating to plant disease problems other than those discussed under "Surveys", were made by this office during the year 1959. Inspections were made in fields, orchards, nurseries and residential properties covering a wide variety of problems including fungus, bacterial, virus and nematode infection, disorders 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 ten properties in the county, an increase of five over last year. The total land area affected is approximately 11.5 acres as compared with 8 acres last year. No treatment is known, at the present time, which will insure eradication of the disease in the field. Removal of infected hosts and replanting to immune crops is the control measure recommended. While there are many hosts of this disease, avocados are the principal agricultural crop affected. Avocado nurserymen have availed themselves of a service, offered by this office, which is designed to aid in combatting the disease. We are equipped to heat treat avocado seed in the manner prescribed by the Bureau of Nursery Service in their new avocado nursery stock certification program. 33 lots, comprising 31,950 seeds, were treated for nurserymen during 1959. The service is offered at cost to those interested.

Sclerotium rolfsii, a fungus disease, unknown in Ventura County prior to 1958, occurs on six known properties. No new infections were found in 1959. Because of the wide range of crop hosts, regular surveys for this serious soil borne disease will continue.

The incidence of disease in tomatoes, a major field crop in this county, was at the lowest level in many years.

We acknowledge again the cooperation of the Bureau of Plant Pathology, State Department of Agriculture, and of the office of the Farm Advisor of

this county. Their aid to Department personnel in disease determination is appreciated.

Following is a summary of plant disease inspections for 1959:

<u>Host</u>	<u>No. of Inspections</u>
Avocados	23
Citrus	58
Deciduous Fruits and Nuts	75
Grapes and Caneberries	4
Vegetable Crops	20
Field Crops	7
Flower Crops, and Bulbs	33
Ornamental Shrubs and Trees	366
Lawn	33
Dichondra	18
Tomatoes	116
Miscellaneous	<u>17</u>
Total Number of Inspections	770

Number of hours spent on plant disease inspection . . 1,023

SEED INSPECTION

Seed inspection includes various regulatory duties. The commissioner enforces the "California Seed Law" (Sec. 910-20 Agric. Code, Sec. 3850-3904 Calif. Adm. Code); regulates movement and disposal of seed screenings (Sec. 154.3 Agric. Code); and under the rules of the California Crop Improvement Association, supervises the cleaning of all seed production facilities including threshers, seed cleaning machinery and storage bins, samples eligible lots (purity and germination), controls sealing and labeling and movement of those lots which meet the standards of the organization, and requires and enforces maintenance of identity of certified lots. Commercial grade sampling is done for the Bureau of Field Crops.

Enforcement of the "Seed Law" and 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 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 five approved mills in Ventura County.

Following is a summary of this work performed during 1959:

Number of dealers' lots inspected	1,486
Lots in violation	38
Lots seized or destroyed	25
"Stop sale" orders issued	13

Official samples drawn	5
Service samples drawn	3
California Crop Improvement Assoc. certification samples drawn	3
Quarantine samples drawn (weed seed identification)	3
Grade samples drawn	49
Number of lots of seed screenings held (destruction by grinding approved)	24
Number of seed houses inspected	108

Number of hours spent on seed inspection in 1959 703

TOMATO SEED CERTIFICATION

The tomato seed certification program in Ventura County operates under the authority of the Director of Agriculture and in collaboration with the Bureau of Plant Pathology, State Department of Agriculture. The rules and regulation of the program cover all phases of tomato seed production. Three inspections during the growing season are required for the purpose of determining the presence or absence of Bacterial Canker (Corynebacterium michiganense), a seed-borne disease. Equipment used in the production of seed is cleaned and sterilized under the direct supervision of this department.

Five hundred fifty two and two thirds (552.65) acres were submitted for inclusion in the 1959 program. This acreage represents seed production plantings of three seed companies. Certification was approved for sixty-four varieties of tomatoes grown on three hundred forty five and two thirds (345.65) acres. Ten varieties, grown on two hundred seven (207) acres, were declared ineligible for certification for violation of the rules covering extraction and processing.

The supervision of this program is assigned to one member of the staff. Eight district men assisted in the field inspections.

No bacterial canker (Corynebacterium michiganense) was found in any of this tomato seed production acreage in Ventura County in 1959.

Number of hours spent on tomato seed certification work . . . 355

TREATMENTS

Ventura County requires the treating or fumigation of all citrus and walnut trees before being planted. The work is done at the County Fumatorium at cost. This is a protection against the spread of serious insect pests unknown, or not widely spread in the county, and for which eradication treatments are applied. This enables us to insure insect-free plant material without the necessity of rejecting and returning to point of origin.

The following is a summary of treatment work completed during the year 1959:

Vacuum Fumigation (HCN)

Citrus Trees	841 lots	155,483 trees
Ornamentals	7 "	2,737 plants
Walnut Trees	26 "	1,224 trees
Citrus Fruit	2 "	2 boxes
Seedlings	4 "	5,800 plants

Methyl Bromide Vacuum

Soil	4 lots	213 cu.ft.
Used Bags	13 "	18,448 bags
Seedlings	1 "	21,000 plants
Citrus Trees	5 "	5,081 trees
Grain	2 "	4,400 lbs.
Miscellaneous	4 "	16 pieces

Methyl Bromide Atmospheric

Citrus	45 lots	1,918 trees
Seedlings	3 "	1,200 plants
Number of hours spent on fumigation		2,320

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.

Garbage disposal is carefully enforced by the department to prevent the introduction of foot and mouth disease.

Number of ship inspections	23
Number of hours spent on ship inspection	84

STANDARDIZATION

In the process of enforcing the State Standardization Law as defined in Division V of the California Agricultural Code, the Commissioner's office has faced many complex and interesting situations. The matter of increased vegetable acreage, despite sub-divisions, and the problem of proper personnel are perhaps the most important aspects to confound the enforcement procedures. Should the Commissioner choose to disregard public relations, then personnel would be no problem, since we have responsible agencies to interpret the law. Unfortunately, the very nature of fruit and vegetable inspection, to certify or reject, requires a person of character, firmness, and fairness, so that even an otherwise conscientious workman could not qualify in this field. This situation has caused the Department head to shift personnel for a specific period to handle certain crops.

Multiple cropping in vegetables, increased acreage in strawberries, thirty citrus houses, five avocado packing operations, plus the walnut industry, is some indication of the diversity required by the personnel, which involves the matter of maturity, quality, packing and labeling requirements of the State Law.

The members of the lettuce industry continue to assess themselves, voluntarily, \$2.00 per acre for overtime inspection.

The decrease in the number of certificates of compliance is due to the termination, in the fall, of citrus fruit certification.

Following is a summary of the standardization work done during 1959:

Fruits, Nuts and Vegetables:

Containers inspected	5,368,623
Containers certified	4,197,253
Number of lots certified	10,909
Number of containers rejected	17,323
Number of violation notices issued	136

Eggs:

Lots inspected	491
Number of dozens inspected	51,266
Number of dozens rejected	2,976
Number of violation notices issued	60

Poultry and Rabbit Meat:

Number of inspections	65
Number of carcasses inspected	3,027
Number of carcasses rejected	80
Number of violation notices issued	5

Total man hours spent on standardization, 1959 11,878

We wish to acknowledge the fine cooperation of the growers and shippers.

SURVEYS

Surveys continued to be an important phase of the work carried on by the County Department of Agriculture during 1959. This type of work is a valuable aid to the agricultural industry in that infestations of many pests new to the county can be eradicated without great expense provided they are found before they become firmly established and start to spread. In surveys involving serious pests of statewide importance, Federal and State Departments cooperate with the County Department by furnishing personnel, equipment, and materials to assist in these inspections.

The following surveys were made in 1959:

Insect Surveys:

Khapra Beetle	Citrus White Fly
Mexican Bean Beetle	Multiple Fruit Fly Trapping
	European Corn Borer

Plant Disease Surveys:

Quick Decline of Orange	Lettuce Diseases
Bunch Virus of Walnuts	Celery Diseases
Broom Rape of Tomatoes	Club Root of Crucifers
	Dutch Elm Disease

Khapra Beetle

This, the most serious pest of stored grain, is under eradication in the United States. It is known to exist in Arizona, California, New Mexico, and Texas.

All grain storage houses, dealers and major feeders of grain, including poultry houses and cattle feed yards, were inspected in the county this year. Valuable assistance was furnished by the Federal Department of Agriculture and the State Department of Agriculture.

Summary of the 1959 Khapra Beetle Survey:

<u>County Man Hours</u>	<u>Properties Inspected</u>	<u>Properties Infested</u>	<u>No. of Specimens Identified</u>
199	186	0	46

Mexican Bean Beetle

A spot check was once again made in the county for Mexican bean beetle. With the help of the State Department of Agriculture, representative fields of beans were inspected. No Mexican bean beetles were found in any areas of the county.

Summary of the 1959 Mexican Bean Beetle Survey:

<u>County Man Hours</u>	<u>Acres Inspected</u>	<u>Acres Infested</u>
152	1,784	0

European Corn Borer

This year, for the first time, a survey was made for the European corn borer. This very serious pest is under State quarantine and is not known to exist in California.

We were assisted in this survey by the State Department of Agriculture. Corn plantings within the county were carefully checked. Results were negative.

Although a serious pest of corn, this insect readily attacks many other hosts, including beans, rhubarb, and cut flowers such as stocks.

Summary of the 1959 European Corn Borer Survey:

<u>County Man Hours</u>	<u>Acres Inspected</u>	<u>Acres Infested</u>	<u>Specimens Submitted For Identification</u>
24	305	0	2

Citrus White Fly

In cooperation with the State Department of Agriculture, a survey was made this year for citrus white fly, a serious pest of citrus. Although this pest has been found established in California on several occasions, it has never been taken in Ventura County. It has been successfully eradicated in California wherever it has been found. A strict quarantine is maintained against it.

Yard inspection throughout the county was made this year with particular emphasis being made on some of the older plantings containing host plants of the pest. No infestations were found.

Summary of the 1959 Citrus White Fly:

<u>County Man Hours</u>	<u>Properties Inspected</u>	<u>Properties Infested</u>	<u>Specimens Submitted For Identification</u>
42	48	0	6

Multiple Fruit Fly Trapping Program

Once again the County cooperated with the State in maintaining fruit fly traps in the county throughout the spring and summer months. Fruit flies are among the most serious insect pests of agriculture wherever they occur.

During the 1959 season, the County maintained 100 traps in the eastern half of Ventura County, while the State serviced 100 traps throughout the western half. Traps required servicing once a week.

Summary of the 1959 Multiple Fruit Fly Trapping Program:

<u>County Man Hours</u>	<u>No. of Traps</u>	<u>Specimens Submitted For Identification</u>
1,046	100	16

Quick Decline Of Oranges

With the cooperation of the State Department of Agriculture the annual Quick Decline of Oranges Survey was again made in 1959. With a strict State quarantine maintained against this pest it is necessary to determine whether the virus has spread to areas hitherto free of the disease.

This year the disease took a serious toll of oranges on sour rootstock in areas where it was already prevalent. The survey, however, indicated little or no spread outside the infected area.

Summary of the 1959 Quick Decline of Oranges Survey:

<u>County Man Hours</u>	<u>Properties Inspected</u>	<u>Acres Inspected</u>	<u>Specimens Submitted For Identification</u>
1,036	737	16,296	84

Bunch Virus Of Walnuts

A survey was made in cooperation with the State Department of Agriculture of a portion of the county walnut acreage to determine the possible presence of bunch virus. This serious disease of walnuts is not known to occur in California. None was found in Ventura County.

During this survey, however, one case of black-line of walnut was found. This is a physiological condition and is not contagious. Apparently, it is due to incompatibility of certain rootstocks to some varieties of grafts. The condition is fairly prevalent in Northern California, but this is the first time it has been discovered south of the Tehachapis.

Summary of the 1959 Bunch Virus of Walnuts Survey:

<u>County Man Hours</u>	<u>Properties Inspected</u>	<u>Acres Inspected</u>	<u>Acres Infected</u>	<u>Specimens Collected</u>
24	9	184	0	9

Broom Rape Of Tomatoes

Broom rape, a serious parasitic plant of tomatoes, is known to occur in some tomato growing areas of California. Inasmuch as Ventura County imports tomato plants from areas near the infected fields, a survey of this pest was made in 1959. This was carried out in cooperation with the Bureau of Plant Pathology of the State Department of Agriculture. No broom rape was found.

Summary of the 1959 Broom Rape of Tomatoes Survey:

<u>County Man Hours</u>	<u>Properties Inspected</u>	<u>Acres Inspected</u>	<u>Acres Infected</u>	<u>Specimens Collected</u>
24	3	32	0	3

Lettuce Diseases

In cooperation with the State, a survey was made of lettuce fields within the county to attempt to discover any serious disease of lettuce not known to be prevalent within the area. Although several of the common diseases of lettuce were found, no new diseases were taken in the survey.

Summary of the 1959 Lettuce Disease Survey:

<u>County Man Hours</u>	<u>Properties Inspected</u>	<u>Acres Inspected</u>	<u>New Diseases Found</u>	<u>Specimens Submitted</u>
8	3	13	0	3

Celery Diseases

A survey similar to the lettuce disease survey above was made on celery with the same results. There were no new diseases found, although most of the common ones were discovered.

Summary of the 1959 Celery Disease Survey:

<u>County Man Hours</u>	<u>Properties Inspected</u>	<u>Acres Inspected</u>	<u>New Diseases Found</u>	<u>Specimens Submitted</u>
40	5	180	0	5

Club Root Of Crucifers

Club root of crucifers is a fungus disease of cabbage and related species known to occur near the San Francisco Bay area. A survey for this pest was made by the County and the State Department this year. Although several common diseases of cabbage and cauliflower were seen in the field, no club root was found.

Summary of the 1959 Club Root of Crucifers Survey:

<u>County Man Hours</u>	<u>Properties Inspected</u>	<u>Acres Inspected</u>	<u>Acres Infected</u>	<u>Specimens Collected</u>
8	4	12	0	4

Dutch Elm Disease

Dutch elm disease is the most serious disease of elms known to occur in the United States. Since it does not occur in California, a strict State quarantine is maintained.

A survey of elm trees in Ventura County in 1959 showed no indication of the disease.

Summary of the 1959 Dutch Elm Disease Survey:

<u>County Man Hours</u>	<u>Properties Inspected</u>	<u>Properties Infected</u>
4	1	0

APIARY INSPECTION

One of the duties required of this office is the inspection of apiaries for bee diseases. One man is employed full time to work with the beekeepers. To assist in the protection of bees against insecticide damage, a large map of the county has been prepared to show the exact location of every apiary location recorded in the county.

Following is a summary of the inspections made in apiaries in 1959:

	<u>No. Apiaries</u>	<u>No. Colonies</u>
Registered	295	20,685
Entering County	110	10,404
Leaving County	147	15,087
Moving within County	87	6,485
Inspected	208	7,453
Infected with European Foulbrood	6	12
Infected with American Foulbrood	41	268
Burned for American Foulbrood	38	134
Man hours spent on apiary inspection		1,670

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.

Following is a summary of beneficial insects produced and released in the county during 1959:

<u>Parasite</u>	<u>Host</u>	<u>Number</u>
<u>Cryptolaemus</u>	Mealybug	51,985,910
<u>Diomus sp.</u>	Mealybug	700
<u>Leptomastix sp.</u>	Mealybug	56,722,400
<u>Metaphycus helvolus</u>	Black Scale	3,400,000
<u>Pauridea sp.</u>	Mealybug	40,000

Following is a summary of beneficial insects produced for release in areas outside the county:

<u>Trichogramma sp.</u>	Codling Moth	100,000,000
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FIELD AND ORCHARD INSPECTION

Inspections of orchards and field crops are a regular and continuous part of our duties, either on request from individual growers, or as a routine procedure in the various areas of the county. These inspections give us a current knowledge of insect and plant disease conditions in the commercial plantings, and aid in making recommendations for control. We are on the alert for new pests during these inspections, so that early control measures may be taken or suggested. Approximately 1,160 hours were spent on this activity during 1959.

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

Citrus

Black Scale: Generally distributed. Heavier than past years in most areas, with hatch more uneven than usual, about 30 days ahead of normal development. The exception was the Fillmore area, where the scale was heavily parasitized, and only about 50 acres were treated. Biological control is always a very important factor in the control of this insect in all areas of the county. Materials used were oil, rotenone, HCN, kerosene and DDT, parathion, and malathion.

- Citrus Aphis: Infestations a little lighter than usual, with some exceptions, where more treatment than usual was applied. Systox, oil, rotenized oil, TEPP, nicotine, malathion, parathion used, often combined with treatments for other pests.
- Citrus Mites: Citrus red mite, while general, was a little lighter than usual in most areas, especially in those areas depending on oil and biological control for black scale. Very little Ovotran now used, due to resistance to the material. Aramite was used early in the season before zero tolerance established. Later in season more Kelthane and Trithion used, as well as Tedion on young trees. Oil, DN-111 also used.
- Lewis mite is found mainly around Santa Paula, but is gradually increasing in other areas. Infestations usually held at low level by treatments for other pests.
- Silver or rust mite may be found in increasing isolated infestations in most areas of the county, most common in the Santa Rosa Valley. Chlorobenzilate used in most treatments.
- Six-spotted mite found mainly near coast. Usually in light infestations treated in combination for other pests.
- Bud mite was generally heavier than for past several years, and more noticeable in interior areas of the county. Oil, Chlorobenzilate used in treatments;
- Mealybugs: Average in most areas. Worse in new areas around Ojai and Piru. Biological control always the most important factor in control of this insect, which is often interfered with by drift of insecticides. The granular formulation of chlordane is increasing in use for control of ants. Parathion, malathion, oil, and rotenone used in control treatments.
- Orange Tortrix: Damage light. Cryolite or parathion used for control;
- Citrus Thrips: Lighter than during last year, with little treatment necessary. DDT, sabadilla, dieldrin, tartar emetic and sugar used.
- Red Scale: Due to comparatively mild weather during past two winters, larger numbers of scale developed in infestations. Large parts of county still free of this pest. Combined spray and fumigation, oil and parathion or malathion and HCN; malathion or parathion, either alone or in oil, used in treatment.
- Yellow Scale: Heavier in most infested areas. More commonly found on oranges. Oil, malathion, parathion used, often combined with treatment for other pests.
- Dictyospermum Scale: One infestation east of Santa Paula, another west of Camarillo, show some spread from last year. Intensive spray and fumigation program being followed, similar to that for red scale.

Brown Rot of Citrus: The usual precautionary treatments with Bordeaux or other forms of copper were applied, but due to low rainfall, little damage was noted.

Avocados

Brown Mite: Shows spread from previous years, and more treatment necessary. Materials used were sulfur, Kelthane, and Ovotran. Treatment is avoided wherever possible to prevent build-up of other pests.

Walnuts

Husk Fly: Now generally found in most walnut areas of county, and treatment usually required. Parathion and malathion used for control.

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

Walnut Aphis: A common pest, usually requiring treatment. Systox, parathion, malathion, nicotine, and Trithion used. Less malathion than in past years, as insect is apparently becoming resistant.

European Red Mite: Infestations unusually heavy in some groves, with heavy leaf-drop. Aramite, Kelthane, Trithion, and very little Ovotran 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 usually necessary, about same as previous year. Systox, Aramite, sulfur, parathion, Kelthane used.

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

Worms: Main difficulty usually in proper timing. If applied soon enough control usually obtained. Late instars difficult to control with most materials, complicated by danger of residues over tolerances if materials applied too close to harvest. Malathion and Perthane mixture gave good control of loopers. Few cut-worms noted. Beans and peppers most affected by

striped army-worm; difficulty in control with one application. DDT, phosdrin, malathion, toxaphene, parathion, endrin, malathion plus Perthane used in treatments.

Lygus spp: Caused more trouble than usual. Toxaphene, DDT at heavy damages, main materials used.

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 men, that all State and County regulations are complied with, and that all work is properly performed. During 1959, 32 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 1959, there were 96 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 operation, 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 1959, 233 seasonal and 22 individual permits were issued.

Number of hours spent on pest control enforcement 1,008

Pest control is a big business in Ventura County, and plays a complex, indispensable part in the production of agricultural crops. To give some idea of the extent of these treatments, the following figures, covering application by commercial pest control operators in 1959, are included.

	By Aircraft			By Ground Equipment			
	Sprays	Dusts	Total	Sprays	Dusts	Other	Total
Field Crops							
Grains	6,706		6,706	598			598
Alfalfa, Clovers	200		200				
Beans	17,912	1,323	19,235	1,647	3,888		5,535
Other Field Crops	<u>1,326</u>	<u>140</u>	<u>1,466</u>				
TOTAL FIELD CROPS	26,144	1,463	27,607	2,245	3,888		6,133

	By Aircraft			By Ground Equipment			
	Sprays	Dusts	Total	Sprays	Dusts	Other	Total
Vegetables							
Tomatoes	314	15,439	15,753	1,745	4,516		6,261
Lettuce	1,054	900	1,954	2,287	5,702		7,989
Other Vegetables	<u>4,516</u>	<u>3,548</u>	<u>8,064</u>	<u>10,671</u>	<u>14,322</u>	<u>12,932</u>	<u>37,925</u>
TOTAL VEGETABLES	5,884	19,887	25,771	14,703	24,540	12,932	52,175
Other Crops							
Deciduous Fruits				72	2		74
Nuts	79	86	165	16,157			16,157
Berries	95	336	431	1,106	1,784		2,890
Flowers, Ornamentals	95	1,417	1,512	281	436		717
Subtropical Fruits	4,956	663	5,619	82,833	280	1,895	85,008
Miscellaneous	<u>163</u>	<u>60</u>	<u>223</u>	<u>4,612</u>			<u>4,612</u>
TOTAL OTHER CROPS	5,388	2,562	7,950	105,061	2,502	1,895	109,458
TOTAL FIELD, VEGETABLE AND OTHER CROPS	<u>37,416</u>	<u>23,912</u>	<u>61,328</u>	<u>122,009</u>	<u>30,930</u>	<u>14,827</u>	<u>167,766</u>
TOTAL TREATED BY OPERATORS							<u>229,094</u>
ESTIMATED TOTAL ACREAGES TREATED BY OTHER THAN PEST CONTROL OPERATORS							<u>22,909</u>
							<u>ESTIMATED GRAND TOTAL 252,003</u>

Miscellaneous reported in other than acres:

Yards sprayed 124
R.R. Right of Ways 132 miles

WEED CONTROL

Surveys were conducted by Department personnel to discover new infestations of primary, secondary, and other weeds, that might become a pest to agriculture. Several new infestations of White Horse Nettle, Puncture Vine, Johnson Grass, and Yellow Star Thistle were found. Recommendations were promptly made, and followed up, that property owners take proper steps to eradicate these pests. In cases where weed nests were found on county or state highways all infestations were promptly treated.

Department personnel answered many calls pertaining to weed problems of farmers, small property owners, State Highway Division, County Road Department, and county parks.

A noxious weed file was inaugurated by the Department to pinpoint all infestations of weed pests, and to keep permanent records of all treatments.

A great many chemical test plots were applied on several types of weeds to

educate Department personnel as to the most effective methods of combating these pests.

Following is a summary of weed control work in 1959:

Weeds Controlled

Yellow Star Thistle	Clotbur	Johnson Grass
Russian Knapweed	Medusa-head	Puncture Vine
White Horse Nettle	Hoary Cress	Poverty Weed
Wild Artichoke Thistle	Gaura spp.	Milk Thistle
Texas Blue Weed	Poison Oak	Morning Glory
Purple Star Thistle	Dogbane	Wild Tobacco
Bladder Pod Weed	Pignut	Russian Thistle

Materials Used

Telvar	315 gal.	Amino Triazole . . .	1,798 gal.
Weedone 638.	400 gal.	2,4-D (amine). . .	532.5 gal.
Oil	7,101 gal.	Dalapon	210 gal.
Dinitro	6 gal.	Polybor Chlorate . .	75 gal.

Total area treated 2,529,245 sq. ft.
Total cost - material and labor \$ 5,532.86

Number of man hours spent on weed control in 1959 1,762

RODENT CONTROL

Squirrels:

Most of Ventura County is designated as Bubonic Plague area. For the protection of public health special attention was given to ground squirrel control. Due to weather conditions and the irregular breeding period, a problem arose as to the proper time for placing poisonous bait materials. Methyl bromide and carbon bisulphide were used extensively early in the season. For the protection of domestic animals, secondary poisons were used only on rangeland and in non-populated areas. Warfarin in bait pipes was used in all areas where there might be danger to domestic animals.

Gophers:

The pocket gopher again proved to be one of our most serious rodent pests. Severe damage was suffered by many citrus and avocado growers. Poison materials were sold at cost to growers. Staff members conducted many field demonstrations to instruct farmers as to proper methods of poisoning and trapping.

Red Fox Squirrels: Numerous calls were received relative to this rodent. Advice on methods of control was given in each case. Some damage occurred to walnuts and oranges. This rodent now infests most of the county area.

Rats:

As rats are known carriers of the fleas transmitting disease, and also cause wide spread damage to stored foods, avocado

and citrus trees, stringent campaigns were conducted to control this nuisance. Cooperative agreements were entered into with some of the cities to control rats in the sewer systems. Warfarin baits were furnished by the Department to all interested, and demonstrations given as to best methods of applying same.

Field Mice: A few incidents of field mice damage occurred during the past year, but only where dense native foliage afforded protection for these rodents. Poisoned baits of strychnine rolled barley were furnished at cost to growers.

Rabbits: Cottontails and jack rabbits again caused much damage to beans, vegetables, flowers, and in some cases, young citrus and avocado trees. Demonstrations were given by staff members as to proper methods of prebaiting and poisoning.

Birds: Severe damage to seed crops, vegetables, grain feed, deciduous fruits, and strawberries due to certain bird species. Linnets, white crowned sparrows, English sparrows, horned larks, and blackbirds were the predominant species causing trouble. When bird damage was anticipated, and proper pre-baiting was carried out before placing poisoned baits, good control was obtained.

Following is a summary of plague operations for 1959:

No. of acres treated in plague area	334,041
No. of pounds of strychnine treated grain	588
No. of pounds of thallium treated grain	376
No. of pounds of 1080 treated grain	10,401
No. of pounds of warfarin treated grain	3,353
No. of pounds of methyl bromide	1,611
No. of gallon of carbon bisulfide	552

Following is a summary of non-plague operations for 1959:

<u>Rodent</u>	<u>Acres Treated</u>	<u>Materials Used</u>
Ground Squirrel	520	Strychnine baits- 150 lbs.
Gophers	12,059	Strychnine baits-2,055 lbs.
Gophers	Strychnine - 91 oz.
Rabbits	8,039	Strychnine baits-1,503 lbs.
Birds	95 properties	Strychnine baits-1,858 lbs.

Total number of hours spent on plague control	5,206
Total number of hours spent on non-plague control	947

PREDATORY ANIMAL CONTROL

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 other predators. Members of this

Department have assisted in this program during certain times of the year, as well as answering many calls relative to small animal infestations.

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

<u>Animal</u>	<u>Number</u>
Skunks	827
Opossum	842
Fox	364
Bob cats	196
Coyotes	107
Badgers	75
Raccoons	56
Mountain lions	10

Total predatory animals killed during 1959 2,477

FINANCIAL STATEMENT
 FOR FISCAL YEAR ENDING JUNE 30, 1959
VENTURA COUNTY DEPARTMENT OF AGRICULTURE

Salaries and Wages:

Commissioner
 Deputy Commissioners (3)
 Inspectors and Office Help \$143,413.00

Extra Help 17,651.60
 Overtime (Lettuce Inspection) 3,896.73 \$164,961.33

Maintenance and Operation 35,463.90

Capital Outlay 884.05 \$201,309.28

Revenue:

Certification 28,816.00
 Lettuce Inspection 6,214.97
 Contract Service 2,829.46
 Vacuum Fumigation 6,157.81
 Miscellaneous Sales 1,028.89 \$ 45,047.13

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Classification of Estimated Expenditures by Functions:

Plant Quarantine (Interstate) 11,030.48
 Plant Quarantine (Intrastate) 22,060.97
 Standardization 28,365.45
 Field and Orchard Inspection 14,139.23
 Nursery Inspection 7,384.48
 Seed Inspection 2,503.47
 Rodent Control (County Expense) 6,319.27
 Plague Suppression (County Expense) 21,896.74
 Weed Control (County Expense) 9,268.43
 Apiary Inspection 4,829.61
 Crop Statistics 5,826.01
 Other Items* 66,801.09 \$200,425.23

Capital Outlay \$ 884.05

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* Functions Included in "Other Items":

Miscellaneous 17,338.82
 Vacuum Fumigation 11,667.54
 General Pest Survey 22,733.73
 Entomology 886.22
 Plant Pathology 1,284.75
 Pest Control 7,442.85
 Lettuce Inspection 4,447.18
 Fruit Frost Service 1,000.00

VENTURA COUNTY
DEPARTMENT OF AGRICULTURE

Agricultural Building
Santa Barbara and Eighth Streets
Santa Paula, California

ANNUAL CROP PRODUCTION AND ACREAGE REPORT

1959

Pursuant to Section 65.5 of the Agricultural Code, we submit the crop production, crop value and acreage report for the calendar year of 1959.

The values in this report are the F.O.B. values of the commodities. This value represents the price of the commodity when it is fully prepared and offered for sale, and in no way can it be construed as a net return to the grower. All necessary expenses of harvesting and packaging are included in this F.O.B. figure.

The total F.O.B. value returns for all commodities are the highest in the history of the county, yet the returns to the growers for certain of these commodities were barely enough to pay the expenses of production. For instance, lemons, because of the acreage, continued to show the highest F.O.B. value. Returns on a field box basis were among the lowest in the history of the county for years past. The total production of 316,330.206 tons was, in spite of the extreme weather conditions during the year, only 4.7% below the all time high of 1958. 43% of the total crop was diverted to products which returned little or no profit above the cost of picking and transportation. This left 57% of the fruit to be sold on the fresh fruit market. Based on an average production of 580 field boxes per acre, the average return showed a profit of only eleven (11) cents per field box above the cost of production, or an average net return of only \$63.80 per acre. The cost included taxes, depreciation, pest control, frost protection, cultural practices, etc., but did not include the cost of living.

Vegetables showed a marked increase in acreage and production. Poultry showed a decrease in value from the previous year. Walnut acreage continued its decline. Bean acreage was sharply decreased. Sub-divisions, military installations, highway and road construction, schools, and industry continued to take valuable farm land out of production.

We acknowledge the assistance of many individuals, firms, companies and corporations, and hereby express our appreciation for their fine co-operation.

C. J. Barrett

C.J. Barrett
Agricultural Commissioner

COMPARISON OF ACREAGES AND
F. O. B. VALUES FOR YEARS 1959-1949

The following are crops produced in Ventura County during the year 1959, with an F.O.B. value of \$1,000,000 or more. The comparison to 1949 is made to show the trend of agriculture in Ventura County.

<u>CROP</u>	<u>1959 VALUE</u>	<u>BEARING ACREAGE</u>	<u>1949 VALUE</u>	<u>BEARING ACREAGE</u>
Lemons	\$28,255,633.00	21,728	\$25,336,388.03	17,708
Oranges, Valencia	20,557,571.44	16,136	11,469,231.31	16,756
Tomatoes	8,319,524.30	7,634	432,100.59	740
Eggs	4,982,150.00	----	146,531.00	----
Celery	4,199,000.00	2,210	110,927.32	155
Beans, Dry	3,737,012.00	17,180	6,499,864.40	38,056
Milk	3,120,000.00	----	2,180,183.40	----
Beans, Green	3,048,975.87	9,314	1,227,684.23	4,666
Cattle	2,790,000.00	----	2,303,280.00	----
Lettuce, all	2,594,692.75	4,569	558,452.02	797
Oranges, Navel	2,097,462.18	2,020.4	1,577,267.14	1,554
Strawberries	1,889,000.00	334	16,369.50	4
Walnuts	1,654,160.00	10,675	5,945,349.94	19,748
Turkeys	1,595,000.00	----	1,783,600.00	----
Cabbage	1,467,323.44	1,908	57,528.38	238
Peppers	1,415,900.00	2,598	1,257,948.13	2,094
Avocados	1,364,413.00	1,828	201,618.55	470
Nursery Stock	1,080,968.95	----	734,306.05	----
Cut Flowers	1,001,960.00	810	153,880.50	----

ACREAGE OF AGRICULTURAL CROPS

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

<u>CROP</u>	<u>BEARING ACRES</u>	<u>NON-BEARING ACRES</u>	<u>TOTAL ACRES</u>
Almonds	67.7	1.0	68.7
Apples	68.3	1.7	70.0
Apricots	500.9	---	500.9
Avocados	1,828.6	1,122.2	2,950.8
Berries, Bush	2.0	---	2.0
Cherimoyas	0.3	---	0.3
Citron	2.1	---	2.1
Grapefruit	330.8	169.0	499.8
Grapes	80.4	---	80.4
Lemons	21,728.1	6,059.3	27,787.4
Orange, Navel	2,020.5	519.2	2,539.7
Orange, Valencia	16,136.4	1,411.5	17,547.9
Pears	11.2	---	11.2
Peaches	38.6	---	38.6
Strawberries	334.0	---	334.0
Tangerines	18.8	4.8	23.6
Walnuts	10,674.9	237.7	10,912.6
Hay & Grain	11,748.0	---	11,748.0
Beans, Dry	17,180.0	---	17,180.0
Vegetables	35,991.0	---	35,991.0
Sugar Beets	2,027.0	---	2,027.0
Seed	984.0	---	984.0
Cut Flowers	<u>810.0</u>	<u>---</u>	<u>810.0</u>
TOTALS	122,583.6	9,526.4	132,110.0

VENTURA COUNTY CROP REPORT

1959 Fruits and Nuts

<u>Product</u>	<u>Production</u>	<u>Unit</u>	<u>F.O.B. Price</u>	<u>Bearing Acreage</u>
Almond Meats	10,636	Pounds	\$ 6,380.00	67
Apricots				482
Fresh	633	Tons	37,980.00	
Dried	98.50	Tons	78,800.00	
			<u>116,780.00</u>	
Avocados	1,049,548	Flats-14#	1,364,413.00	1,828.6
Citrus:				
Lemons				21,728.1
Packed	9,123,535	Cart.-39#	24,194,022.00	
Juice	136,330.39	Tons	4,061,611.88	
			<u>28,255,633.88</u>	
Oranges, Valencia				16,136.4
Packed	6,639,441	Cart.-39#	16,263,580.49	
Juice	79,266.56	Tons	4,293,990.95	
			<u>20,557,571.44</u>	
Oranges, Navel				2,020.5
Packed	827,107	Cart.-39#	1,967,049.62	
Juice	4,456.81	Tons	130,412.54	
			<u>2,097,462.16</u>	
Grapefruit				330
Packed	247,444	Cart.-36#	516,043.97	
Juice	2,278.19	Tons	36,362.23	
			<u>552,406.20</u>	
Tangerines	5,012	Lugs -33#	24,057.60	18.8
Miscellaneous Fruits				
Apples	26,983	Boxes-40#	53,966.00	68
Grapes	205	Tons	8,200.00	80
Pears	960	Lugs -35#	2,160.00	11
Peaches	5,000	Lugs -30#	7,500.00	38
Bush Berries	1,071	Trays- 9#	2,142.00	3
Raspberries	1,500	Trays- 9#	4,500.00	3
			<u>78,468.00</u>	
Strawberries	530,000	Flats-14#	1,457,500.00	334
Strawberries	1,540	Tons	431,200.00	
			<u>1,888,700.00</u>	
Walnuts	3,596	Tons	1,654,160.00	10,675
FRUITS AND NUTS TOTAL			\$56,596,032.28	53,823.4

Vegetable Crops

<u>Product</u>	<u>Production</u>	<u>Units</u>	<u>F.O.B. Price</u>	<u>Bearing Acreage</u>
Beans, Green				
Processed	20,381.36	Tons	\$2,905,665.31	9,210
Market	3,553	Crts.-48#	11,540.75	10
Pole	911.88	Tons	131,769.81	94
Broccoli				
Processed	2,858.46	Tons	365,137.30	2,070
Market	33,800	Crts.-45#	117,902.00	290
Cabbage				
Red	4,180	Crts.-95#	16,720.00	10
Green	732,628	Crts.-95#	1,450,603.44	1,898
Carrots	20,509.23	Tons	867,253.78	1,422
Cauliflower	205,625	Cart.-24#	300,137.50	435
Celery	2,099,500	Crts.-62#	4,199,000.00	2,210
Chard	4,137	Crts.-32#	5,171.25	8
Corn, Sweet	31,992	Dozen	14,396.40	43
Cucumbers	611,436	Lugs-35#	819,324.24	753
Lettuce				
Head	1,031,550	Cart.-43#	1,804,212.50	3,174
Butter	125,606	Cart.-32#	188,409.00	314
Bronze	10,565	Crts.-32#	14,407.25	24
Romaine	356,160	Crts.-50#	587,664.00	1,060
Onions				
Green	306.4	Tons	21,168.70	16
Dry	11,080	Sacks-50#	17,880.00	39
Parsley, Processed	2,880	Tons	120,000.00	100
Peas, Processed	1,962	Tons	184,087.45	1,316
Peppers				
Bell, Market	62,939	Crts.-48#	188,817.00	191
Bell, Processed	4,200	Tons	220,000.00	350
Chili, Green	11,543.50	Tons	721,479.75	1,546
Pimiento	4,394	Tons	285,610.00	511
Spinach				
Processed	4,988.17	Tons	117,835.63	655
Market	61,584	Crts.-32#	126,054.04	180
Squash				
Winter	2,830	Tons	73,367.51	310
Summer	3,312	Lugs-23#	6,107.85	21
Tomatoes				
Canning	99,441	Tons	2,271,735.00	4,420
Market	1,876,127	Flats-24#	3,564,641.30	1,011
Market, Loose-Green	23,304.42	Tons	2,473,148.00	2,203
VEGETABLE CROPS TOTAL			\$24,191,246.76	35,894

(Abbreviations used above: Crts. = Crates
Carts. = Cartons)

<u>Field Crops</u>				
<u>Product</u>	<u>Production</u>	<u>Units</u>	<u>F.O.B. Price</u>	<u>Bearing Acreage</u>
Beans				
Dry Limas	260,800	Bags-100#	\$3,126,400.00	15,200
Seed Beans	46,604	Bags-100#	605,852.00	1,912
Blackeyes	680	Bags-100#	4,760.00	68
			<u>3,737,012.00</u>	<u>17,180</u>
Grain				
Barley	93,000	Bags-100#	209,250.00	6,220
Hay				
Alfalfa, Green	27,360	Tons	164,160.00	912
Barley	2,412.8	Tons	56,700.00	3,016
Oats	1,600	Tons	48,000.00	1,600
			<u>268,860.00</u>	<u>5,528</u>
Permanent Pasture				289
Safflower	43	Tons	3,010.00	99
Sugar Beet	38,908.13	Tons	468,337.77	2,027
Government Payment			86,765.13	
			<u>555,102.90</u>	
Seed				
Flower	17,291	Pounds	38,564.75	146
Vegetable	203,205	Pounds	754,952.00	837
			<u>793,516.75</u>	<u>983</u>
FIELD CROP TOTALS			\$ 5,566,751.65	32,326

<u>Nursery Stock</u>			
Avocados	8,000	Trees	16,000.00
Citrus	202,482	Trees	435,336.00
Walnuts	15,000	Trees	18,750.00
Ornamentals	93,725	Plants	77,700.00
Vegetable Plants	264,000	Flats	158,400.00
Tomato Plants	61,643,000	Plants	359,782.95
Cuttings	300,000	Plants	<u>15,000.00</u>
NURSERY STOCK TOTAL			\$ 1,080,968.95

CUT FLOWERS \$ 1,001,960.00 810

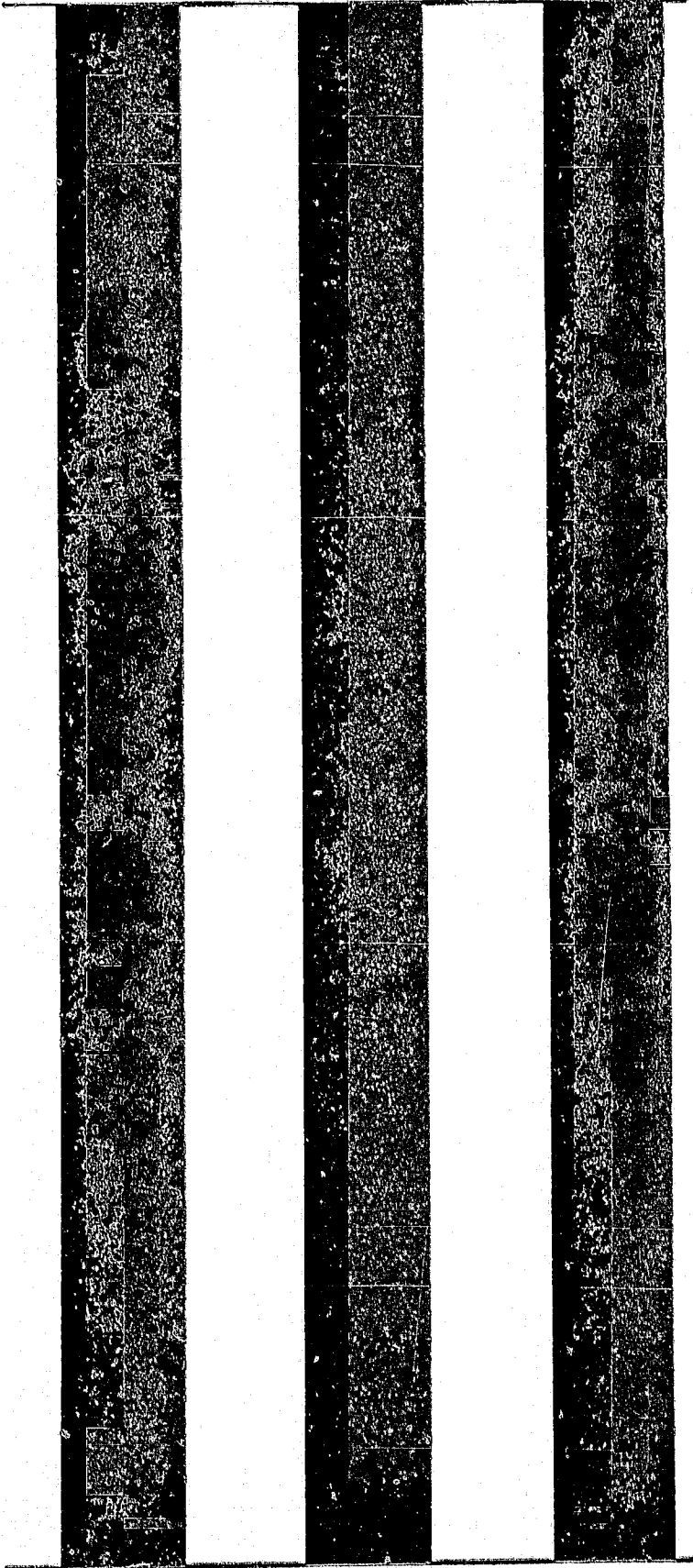
<u>Product</u>	<u>Apiary Products</u>			<u>Bearing Acreage</u>
	<u>Production</u>	<u>Units</u>	<u>F.O.B. Price</u>	
Honey	300	Tons	\$ 73,500.00	
Wax	35	Tons	32,200.00	
APIARY PRODUCTS TOTAL			\$ 105,700.00	

Number of Apiaries . . . 295
Number of Colonies . . 20,685

<u>Livestock and Poultry</u>			
Hogs	16,670	Head	\$ 500,100.00
Cattle, Range	7,560	Head	2,790,000.00
Cattle, Gain-lbs.	3,600,000	Pounds	900,000.00
			<u>4,190,100.00</u>
Rabbits	40,000	Pounds	10,000.00
Squabs	42,000	Birds	42,400.00
Chicken Meat	1,365,000	Pounds	116,025.00
Turkeys	319,000	Birds	1,595,000.00
Eggs	12,455,625	Dozens	4,982,150.00
			<u>6,735,575.00</u>
LIVESTOCK AND POULTRY TOTAL			\$10,935,675.00

<u>Dairy Products</u>		
Number of Dairies	11	
Number of Dairy Cows	5,290	
Estimated Revenue		\$ 3,358,014.65
Goat Milk		
Estimated Revenue		<u>3,870.00</u>
DAIRY PRODUCTS TOTAL		\$ 3,361,884.65

GRAND TOTAL VENTURA COUNTY CROP REPORT. \$ 102,840,219.29

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1960

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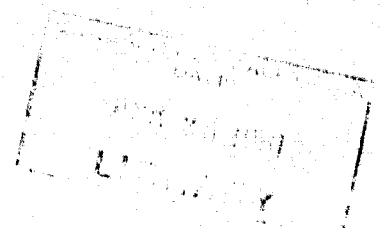
**VENTURA
COUNTY**

**ANNUAL
REPORT**

AND
CROP STATISTICS

1960

AGRICULTURAL
COMMISSIONER



AGRICULTURAL COMMISSIONER
COUNTY OF VENTURA
CALIFORNIA

ANNUAL REPORT
YEAR ENDING DECEMBER 31, 1960

BOARD OF SUPERVISORS

Edwin L. Garty - Chairman

A.C. Ax

Robert Haley

Robert LeFever

Fred Ireland

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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 Murl Boren

Sr. Inspector, Ventura Donald Anderson

Sr. Inspector, Oxnard - Quarantine W. M. Dunning
 Sr. Inspector, Oxnard - Standardization & Pest Control Clyde W. May
 Sr. Inspector, Oxnard - Egg & Poultry Standardization Kenneth Weiss
 Inspector, Oxnard - Standardization Gene Fidel
 Inspector, Oxnard - Standardization (Part of year) Donald Hare

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 Richard Chase

Inspector, Santa Paula - Weed & Rodent Floyd Ward
 Inspector, Santa Paula E. R. Urban
 Inspector, Santa Paula - Nursery & Surveys J. E. Garrity

Sr. Inspector - Apiary & Surveys Glenn M. Smith

Agricultural Field Assistant Floyd Atmore
 Agricultural Field Assistant Carroll Hannah
 Agricultural Field Assistant (Part of Year) Glenn Hackworth
 Agricultural Field Assistant (Part of Year) Carl Whittaker, Jr.

Account Clerk Shirley Carter

Record Clerk II Margaret Wallace

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

1960

We submit the annual report of the activities of the Agricultural Commissioner's office for the calendar year 1960.

This office is charged with the enforcement of State laws and County regulations for the promotion and protection of the agricultural industry, both locally and state-wide. Good public relations, so necessary for cooperation, play a very large part in the success of our work. We have endeavored, to the best of our ability, to maintain good relations with all, while carrying out this enforcement work.

An informed person is usually a cooperative person, and to better inform the public of our duties and responsibilities, personnel of our office have been guest speakers before service clubs, garden clubs and other civic organizations.

The expanding population of the county has led to increased duties. For instance, quarantine inspections have increased almost ten-fold in the last ten years. Some of the new demands are related to services for residents of cities and sub-divided areas. Many calls are received from those who have problems concerning insect and disease pests of plants.

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

QUARANTINE

Plant quarantine continues to be one of the most important duties of our department. All plants moved into the county are inspected at destination. Serious insects and plant disease pests known to be present in other areas, and not present in Ventura County, lead us to take every precaution to prevent their introduction and establishment here.

Inspections are made daily at all receiving points such as post offices and express depots. All incoming nursery stock is inspected before being offered for sale.

The following is a summary of plant quarantine work for the year 1960:

Interstate Quarantine

Plants:

No. of shipments inspected 2,516
No. of shipments passed 2,514
No. of shipments rejected 32
Shipments treated & released. . . 5

No. of plants inspected 1,538,251
No. of plants passed 1,534,054
No. of plants rejected 4,197
Plants treated & released . . 3,500

Seed:

No. of shipments inspected. 172
No. of packages inspected 31,823

Grain:

No. of shipments inspected 950
No. of shipments passed 938
No. of shipments rejected 12
Shipments released. 12

No. of tons inspected 55,615
No. of tons passed 54,900
No. of tons rejected 715
Tons released 715

Intrastate Quarantine

Plants:

No. of shipments inspected. 10,008
No. of shipments passed 9,898
No. of shipments rejected 110
Shipments treated & released. . . 54

No. of plants inspected 9,305,468
No. of plants passed. 9,302,357
No. of plants rejected 3,111
Plants treated & released . . 2,518

Seed:

No. of shipments inspected. 1,026
No. of packages inspected 597,662

Grain:

No. of shipments inspected. 124
No. of tons inspected 4,969

Export Certification (European & Asian)

No. of shipments passed 1,328
No. of packages passed. 1,218,258

Number of hours spent on quarantine inspection 10,484

NURSERY INSPECTION

The increase in number and size of nurseries continues, requiring more and more of our time. The inspection program includes quarterly inspections of nurseries and at least one inspection during the year of adjoining properties. In addition, all nursery stock moving into this county must be held for inspection at time of entry. Vacuum fumigation of all citrus and walnut nursery stock is required as a condition of release for planting.

If serious pests are found in a nursery, immediate eradicated measures are required and are applied under supervision of this office. Other pests, when appearing in excess of "trace" to "light" infestations or infections, must be controlled to the satisfaction of the Commissioner.

Fifteen insect specimens were submitted to the Bureau of Entomology for identification, and seventeen specimens of diseased nursery stock were submitted to the Bureau of Plant Pathology for diagnosis during the year 1960. Many plant specimens were identified for us by Dr. T.C. Fuller, botanist with the Bureau of Weed and Rodent Control.

Surveys for two pests were made at the request of the Nursery Service. Eleven nurseries were inspected for the presence of Cuban Laurel Thrips, Gynaikothrips ficorum, a pest known to attack citrus. Thirteen nurseries were inspected for False Garlic, Nothoscordum fragrans. Findings were negative in all cases.

Solanum carolinianum, Carolina horsenettle, is proving a difficult pest to eradicate in the single nursery in which it continues to appear. Previously treated areas remain free from infestation. After two quarterly inspections in which findings were negative, the weed again made its appearance. Eradicated measures were promptly applied by this office. Eradication is mandatory in the case of this and all other "A" pests.

Aonidiella aurantii, California red scale, a serious pest of citrus, was found in one nursery during 1960. Eradicated measures were applied to all hosts.

Agrobacterium tumefaciens, crown gall, a bacterial disease which attacks a great variety of plants in more than forty families was found on stone fruits in one nursery. All infected plants were burned.

Cyperus esculentus, yellow nutgrass, a serious noxious weed pest of agricultural lands was found in seven citrus nurseries. In all cases, the infestations were light and were confined to the borders. Nursery stock growing in these infested sections of the various nurseries may not move to other properties.

Origin certification of "tomato plants free from nematodes" required 231 hours of field inspection in eleven nurseries totalling one hundred ninety one and one half ($191\frac{1}{2}$) acres of seed bed. Digging started in March and extended into the middle of July. No nematodes were found in any of the plantings.

The following is a summary of nursery inspection for the year 1960:

Number of nursery inspections	334
Number of reinspections to determine results of specific pest treatments	96
Number of nurseries with "A" pests (eradication mandatory throughout the state)	3
Number of nurseries with "B" pest infestations (serious pests of limited distribution; eradication mandatory in Ventura County)	12
Number of nurseries with "C" pests in excess of tolerance allowed. ("C" pests are pests of common occurrence. The tolerance allowed is defined in the rules and regulations of the Bureau of Nursery Service.)	61
Number of nurseries required to clean-up.	76
Number of notices of non-compliance issued.	53
Hours spent on nursery inspection	1,840

PLANT DISEASE INSPECTION

Five hundred seventy four inspections relating to plant disease problems other than those discussed under "Surveys", were made by this office during the year 1960. Inspections were made in fields, orchards, nurseries and residential properties covering a wide variety of problems including fungus, bacterial, virus, and nematode infections, disorders 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. No increase in the number of infected properties or spread of infection on these properties has occurred this year although surveys continue. The total remains at 10 properties involving 14.5 acres. No eradication field treatment is known at this time. Removal of infected hosts and replanting to immune crops is the control measure recommended. While there are many hosts of this disease, avocados are the principal agricultural crop affected. Avocado nurserymen continue to avail themselves of a service, offered by this office, which is designed to aid in combating the disease. We are equipped to heat treat avocado seed in the manner prescribed by Nursery Service in their "Avocado Nursery Stock Certification Program". Twenty three (23) lots, comprising 36,500 seeds, were treated for nurserymen during 1960. The service is offered at cost to those interested.

Sclerotium rolfsii, a fungus disease, unknown in Ventura County prior to 1958 occurs on seven known properties. One new infestation was found in 1960. Because of the wide range of crop hosts, regular surveys for this serious soil-borne disease will continue.

We acknowledge again the cooperation of the Bureau of Plant Pathology, State Department of Agriculture, and of the office of the Farm Advisor of this county. Their aid to department personnel in disease determination is appreciated.

Following is a summary of plant disease inspections for 1960:

<u>Host</u>	<u>No. of Inspections</u>
Avocados	31
Citrus	51
Deciduous Fruits and Nuts.	43
Grapes and Caneberries	6
Vegetable Crops.	25
Field Crops.	16
Flower Crops and Bulbs	26
Ornamental Shrubs and Trees.	277
Lawns.	41
Dichondra.	17
Ground Covers.	11
Tomatoes	22
Miscellaneous.	8
Total Number of Inspections	574

Number of hours spent on plant disease inspection. . . . 509

SEED INSPECTION

Seed inspection includes various regulatory duties. The Commissioner enforces the "California Seed Law" (Sec. 910-20 Agric. Code, Sec. 3850-3894 Calif. Administrative Code); and under the rules of the California Crop Improvement Association, supervises the cleaning of all seed production facilities including threshers, seed cleaning machinery and storage bins, samples eligible lots (purity and germination), controls sealing and labeling and movement of those lots which meet the standards of the organization, and requires and enforces maintenance of identity of certified lots. Commercial grade sampling is done for the Bureau of Field Crops.

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

Legal disposal of lots in violation of seed law or quarantine is provided 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. Two types of mills, "hammer" and "steam-roller", are included in the list of five approved mills in this county.

Following is a summary of seed work performed during the year 1960:

Number of dealers' lots inspected.	1,313
Lots in violation	101
Lots seized or destroyed	23
"Stop-sale" orders issued.	21

Official samples drawn.	16
California Crop Improvement Assoc.	
certification samples drawn.	3
Quarantine samples drawn	
(weed seed identification)	9
Grade samples drawn	67
* Number of lots of seed screenings held	
(destruction by grinding approved) . . .	17
Number of seed houses inspected	88

* These lots are in addition to an estimated 165 tons of screenings which were destroyed and an estimated 977 tons which were processed in an approved manner.

Number of hours spent on seed inspection in 1960. . . 469

SEED CERTIFICATION PROGRAMS

Sec. 9113.31 - 9113.32 of the Ventura County Ordinance Code establishes a schedule of fees to be charged for work of this kind, the purpose being to make it a self-supporting function of the Agricultural Commissioner's office.

The tomato seed certification program in Ventura County operates under the authority of the Director of Agriculture and in collaboration with the Bureau of Plant Pathology, State Department of Agriculture. The rules and regulations of the program cover all phases of tomato seed production. Three field inspections during the growing season are required for the purpose of determining the presence or absence of Bacterial Canker (*Corynebacterium michiganense*), a seed-borne disease. Equipment used in the production of seed is cleaned and sterilized under the direct supervision of this department.

Five hundred seventy-three and one half (573.5) acres were submitted for inclusion in the 1960 program. This acreage represents seed production plantings of three seed companies. Inspection was refused on a 26 acre block because "land previously infected with Bacterial Canker cannot be used for tomato seed production during the five year period following the year of infection". Eighteen varieties, grown on one hundred seventy two (172) acres, were declared ineligible for certification for violation of the rules covering "extraction and processing". Sixty varieties, grown on three hundred seventy five and one-half (375.5) acres were approved for certification. No Bacterial Canker (*Corynebacterium michiganense*) was found in any of the inspected acreage in Ventura County during 1960.

Pepper acreage is also accepted for inspection. A single field inspection is required after fruit has reached maturity. Eleven varieties grown on seventy two (72) acres were inspected this year and found free from seed borne disease.

Supervision of all seed certification work is assigned to one member of the staff. Nine district men assisted in the field inspections.

Number of hours spent on seed certification work. . . . 453

TREATMENTS

Ventura County requires the treating or fumigation of all citrus and walnut trees before being planted. The work is done at the County Fumatorium at cost. This is a protection against the spread of serious insect pests unknown, or not widely spread in the county, and for which eradication treatments are applied. This enables us to insure insect-free plant material without the necessity of rejecting and returning to point of origin.

The following is a summary of treatment work completed during the year 1960:

Vacuum Fumigation (HCN)

Citrus Trees	470 Lots	98,507 trees
Ornamentals	3 "	3,600 plants
Seedlings	3 "	11,900 plants
Walnut Trees	25 "	1,216 trees

Methyl Bromide Vacuum

Used Bags	8 Lots	12,745 bags
Miscellaneous	4 "	56 pieces
Soil	6 "	109 boxes
Fruit	1 "	1 box
Grain	4 "	122 sacks

Methyl Bromide Atmospheric

Citrus	106 Lots	9,085 trees
Tomato Seed	2 "	45 sacks
Used Bags	1 "	425 bags
Ornamentals	4 "	1,500 plants
Seedlings	4 "	8,960 plants
Buds	1 "	200 bud-sticks

Number of hours spent on fumigation. 3,986

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.

Garbage disposal is carefully enforced by the department to prevent the introduction of foot and mouth disease.

Number of ship inspections 32
Number of hours spent on ship inspection 123

STANDARDIZATION

The enforcement of the law regarding the minimum State standards for fruits, nuts, vegetables, eggs, honey and poultry meat, and specifically to the matters of labeling, quality, packing and maturity, is a function of all qualified personnel of the Department.

Citrus, tomato, lettuce, celery and strawberry acreage represented the bulk of crops that were subject to these enforcement measures.

Five avocado operations, thirty citrus houses and the increasing egg and poultry industry, accounted for many hours of inspection by the district inspectors. Citrus packing inspections have not been suspended, but citrus fruits need not be certified for shipment. This has reduced the number of reported certified packages.

Radio cars installed during the vegetable harvest greatly expedited this phase by reducing the number of personnel and saving nearly 1,500 man hours, despite an increase in lettuce acreage. Members of the lettuce shipping industry voluntarily assess themselves \$2.00 per acre for field inspection. These funds are turned over to the county treasury.

The inspection of eggs, poultry and rabbit meat at wholesale and retail levels is designed to enforce the State grade and quality standards. One member of the staff is assigned to this duty and is assisted by all district inspectors.

Following is a summary of the standardization work done during 1960:

Fruits, Nuts and Vegetables:

Containers inspected	4,042,779
Containers certified	2,748,669
Number of lots certified	6,724
Number of containers rejected.	11,309
Number of violation notices issued	77

Eggs:

Lots inspected	887
Number of dozens inspected	100,859
Number of dozens rejected.	1,454
Number of violation notices issued	28

Poultry and Rabbit Meat:

Number of inspections.	199
Number of carcasses inspected	9,615
Number of carcasses rejected	434
Number of violation notices issued	14

Total man hours spent on standardization in 1960 . . . 7,219

SURVEYS

The importance of surveys was emphasized this year when three Oriental Fruit Flies were taken in traps in Southern California. The third one, found in Carpinteria, was only 2½ miles from the Ventura County line. In cooperation with the State and Federal Departments of Agriculture, an intensive trapping program was carried out in the county. Although interest was centered on the Oriental Fruit Fly, the other important flies of this family, the Mediterranean, the Melon, and the Mexican, were not forgotten. Bait lures specific for these species were also employed.

Increase in the number of jet plane flights into California during 1960, with the consequent reduction in travel time, has resulted in increasing the threat of introduction of serious pests from foreign countries as well as from other areas of the United States. An example is the large number of live Japanese Beetles intercepted this season from flights originating in Eastern United States.

This Department has been active during the 1960 season in survey work. Because of the above mentioned conditions, we have been required to greatly expand the program. Fortunately, this has been accomplished without requesting additional funds to date.

The following is a report on Survey and Detection for 1960:

Multiple Fruit Fly

Man Hours	No. Traps Installed	Total Trap Inspections
County...588	Methyl Eugenol...1,088	Methyl Eugenol...7,411
State...693	Multi-Purpose....185	Multi-Purpose....555
Federal...32	McPhail.....211	McPhail.....709

Khapra Beetle

Man Hours	Properties Inspected	Specimens Collected	Infestations Found
County...177	70	28	0
Federal...177			

Mexican Bean Beetle

Man Hours	Properties Inspected	Acres Inspected	Infestations Found
County...72	36	2,130	0
State...80			

Walnut Bark Beetle

Man Hours	Properties Inspected	Hosts Inspected	Infestations Found
County... 56	20	172	0
State... 56			

Japanese Beetle

County Man Hours	No. Traps In Operation	Infestations
40	7	0

Quick Decline of Orange

Man Hours (County Only Available)	Properties	Acres	No. Suspects	Phloem Samples Taken	Budwood Samples Taken
766	739	14,432	264	30	24

Corn

Man Hours	Disease	Properties	Acres	Specimens Collected
County... 8 State... 8	Witchweed & Nematodes	6	*16.5/46.5	8

Curcubits

Man Hours	Diseases	No. Properties	Acres	Specimens Collected
County..8 State...8	Significant diseases, including nematodes	8	*40/84	11

Tomatoes

Man Hours	Diseases	Properties	Acres	Specimens Collected
County..36 State...36	Broom Rape & Nematodes	17	*93/253	19

Oak

Man Hours	Disease	Properties	Acres	Trees	Infections Found
County..9.5 State...9.5	Oak Wilt	11	*358/1,777	3,560	0

* Numerator refers to acres inspected; denominator refers to total acres in plantings inspected.

FIELD AND ORCHARD INSPECTION

Inspections of orchards and field crops are a regular and continuous part of our duties, either at the request of individual growers, or as a routine procedure in the various areas of the county. These inspections give us a current knowledge of insect and plant disease conditions, and aid in making recommendations for control. We are on the alert for new pests during these inspections, so that early control measures may be taken or suggested. Approximately 2,000 hours were spent on this activity during 1960.

The wide variety of field and vegetable crops now grown in the county, with some crops maturing throughout the year, and with double-cropping now becoming a common practice, has complicated the necessary control programs. These complications may arise from the 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. Many buyers will not buy produce unless it can be proven that all pesticides applied were in accordance with official recommendations.

Following is a brief summary of common pests, and the materials used in their control:

Citrus

- | | |
|-----------------|--|
| Black Scale: | Oil, rotenone, kerosene and DDT, parathion, malathion. |
| Citrus Aphis: | Systox, oil, rotenized oil, rotenone, nicotine, malathion, parathion, TEPP, often in combined treatment. |
| Citrus Mites: | Kelthane, Trithion, Tedion, oil, DN-111, Delnav, Chlorobenzelate. |
| Mealybugs: | Biological control, parathion, malathion, oil and rotenone. |
| Orange Tortrix: | Cryolite, parathion, TDE. |
| Citrus Thrips: | DDT, sabadilla, dieldrin, tartar emetic and sugar. |
| Red Scale: | Combined spray and HCN fumigation, oil and parathion or malathion. |
| Yellow Scale: | Oil, malathion, parathion. |
| Brown Rot: | Bordeaux or other forms of copper. |

Avocados

Brown Mite: (Avoid treatment if possible) Sulfur, Kelthane, Ovotran.

Walnuts

Husk Fly: Parathion, malathion, malathion bait spray.

Codling Moth: DDT.

Walnut Aphis: Parathion, nicotine, Trithion, OMPA

European Red Mite: Aramite, Kelthane, Tedion.

Field Crops and Vegetables

Spider Mites: Systox, Aramite, sulfur, parathion, Kelthane.

Aphis: Systox, malathion, TEPP, parathion, Diazinon, Dibrom, nicotine sulfate, Phosdrin, Trithion.

Loopers: Malathion and Perthane, DDT, toxaphene, Phosdrin, parathion, endrin, Dibrom.

Lygus spp: Toxaphene, DDT.

PEST CONTROL SUPERVISION

The Agricultural Code requires that every person engaged in the business of agricultural pest control shall first qualify for and obtain a pest control operators license from the California Department of Agriculture. This office assists in the examination which is a part of this process. In addition, the operator 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, legally marked, in proper condition, that it is operated by competent men, that all State and County regulations are complied with, and that all work is properly performed. During 1960, 35 pest control operators were registered to engage in agricultural pest control work 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 1960, there were 73 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 is purchased. Permits for small scale applications, 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 to reduce the chances of possible damage from drift. During 1960, 204 seasonal and 9 individual permits were issued.

Number of hours spent on pest control enforcement 842.

Pest control is a big business in Ventura County, and plays a complex, indispensable part in the production of agricultural crops. To give some idea of the extent of these treatments, the following figures, covering applications by commercial pest control operators in 1960 are included.

	By Aircraft			By Ground Equipment			
	Sprays	Dusts	Total	Sprays	Dusts	Other	Total
Field Crops							
Alfalfa, Clovers	38		38				
Beans	16,886	1,767	18,653	1,056	3,408	468	4,932
Corn				9	2		11
Other Field Crops					253	298	551
TOTAL FIELD CROPS	16,924	1,767	18,691	1,065	3,663	766	5,494
Vegetables							
Tomatoes	484	12,139	12,623	1,778	5,265	583	7,626
Lettuce	1,307	1,830	3,137	1,467	7,346	20	8,833
Other Vegetables	2,732	6,521	9,253	6,372	11,509	277	18,158
TOTAL VEGETABLES	4,523	20,490	25,013	9,617	24,120	880	34,617
Other Crops							
Deciduous Fruits				39			39
Nuts	1,579	73	1,652	15,303	120	2	15,425
Berries	98	473	571	555	1,529		2,084
Flowers, Ornamentals	245	1,244	1,489	65	437	16	518
Subtropical Fruits	1,976	545	2,521	80,723	629	1,405	82,757
Miscellaneous	18		18	3,551	40	6,480	10,071
TOTAL OTHER CROPS	3,916	2,335	6,251	100,236	2,755	7,903	110,894
TOTAL FIELD, VEGETABLE AND OTHER CROPS	25,363	24,592	49,955	110,918	30,538	9,549	151,005
TOTAL TREATED BY OPERATORS							200,960
ESTIMATED TOTAL ACREAGES TREATED BY OTHER THAN PEST CONTROL OPERATORS							20,096
							ESTIMATED GRAND TOTAL
							221,056
Miscellaneous reported in other than acres:							
Yards	Spray-143;	Dust-3					
R.R. Right of Ways . . .	386 miles						

APIARY INSPECTION

One of the duties required of this office is the inspection of apiaries for bee diseases. One man is employed full time to work with the beekeepers. To assist in the protection of bees against insecticide damage, a large map of the county has been prepared to show the exact location of every apiary recorded in the county.

Following is a summary of the inspections made in apiaries in 1960:

	<u>No. Apiaries</u>	<u>No. Colonies</u>
Registered	215	13,293
Inspected	232	9,217
Infected with European Foulbrood	11	22
Infected with American Foulbrood	80	437
Burned for American Foulbrood,	76	361
American Foulbrood to wax salvage.	4	76
Man hours spent on apiary inspection		1,694

BIOLOGICAL CONTROL OF INSECTS

The citrus growers of Ventura County have for a long period of time fully recognized and taken advantage of the value of biological control of citrus pests. This type of control is assuming increasing importance, as new beneficial insects are introduced into California, and more information is becoming available regarding the coordination of chemical and biological control.

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

Following is a summary of beneficial insects produced and released in the county during 1960:

<u>Parasite</u>	<u>Host</u>	<u>Number</u>
<u>Aphytis melinus</u>	Red Scale	201,000
<u>Aphyeus helvolus</u> (<u>Metaplycus</u>)	Black Scale	4,500,000
<u>Cryptolaemus</u>	Mealybug	50,893,000
<u>Leptomastix sp.</u>	Mealybug	47,509,000
<u>Pauridea sp.</u>	Mealybug	6,000,000
<u>Scutellista cyanea</u>	Black Scale	23,000

WEED CONTROL

Surveys were conducted by Department personnel to discover new infestations of primary, secondary, and other weeds that might become a pest to agriculture. Several new small infestations of yellow star thistle, puncture vine, and Johnson grass were found and promptly treated. One rather large infestation of Italian thistle was found, the first of this pest to be found in Ventura County. Immediate eradication measures were taken.

Department personnel answered many calls pertaining to weed problems of farmers, small property owners, State Division of Highways, County Road Department, and county parks.

Several test plots, with new chemicals and mixtures of chemicals, were applied to several types of weeds to educate Department personnel as to the most effective methods of combating these pests.

RODENT CONTROL

Ground Squirrels: As most of Ventura County is designated as bubonic plague area, special attention was given to ground squirrel control. The problem of an irregular breeding season causing a hardship in timing of placing bait materials continues. Methyl bromide and carbon bisulfide were used extensively early in the season and close to populated areas. Anti-coagulants, in bait pipes and boxes, were used as poison materials close to inhabited areas where there might be danger to domestic animals.

Gophers: Severe damage was suffered by citrus and avocado acreage due to this pest. Poison materials were sold at cost to growers. Staff members conducted many field demonstrations to instruct farmers as to proper trapping and poisoning methods. During the past year, a contract was entered into with the State Division of Highways to control gophers along state highways for the protection of adjoining ranches.

Red Fox Squirrels: Again, a great many calls were received relative to this rodent. Advice was given as to control methods. This rodent is found in all parts of the county, and causes considerable damage to walnuts and oranges.

Rats: As rats are known carriers of fleas transmitting disease, and cause much damage to stored foods, avocado and citrus trees, stringent campaigns were conducted to control this nuisance. Cooperative agreements were entered into with some of the cities to control rats in the sewer systems. Warfarin baits were furnished by the department to all persons having rat problems, and demonstrations given as to best methods of applying.

Field Mice: Very few incidents of field mice damage occurred during the past year, and then only where dense native foliage afforded protection for these rodents. Poisoned baits of strychnine rolled barley were furnished at cost to growers.

Rabbits: Cottontails and jack rabbits again caused damage to vegetables, flowers, beans, young citrus and avocados. Several new repellents were tried with varying degrees of success. Poison grains were sold to farmers at cost and demonstrations given to show the best means of applying poison baits.

Birds: Many calls were answered by staff members pertaining to bird depredations. Severe damage was encountered to seed crops, vegetables, grain feed, deciduous fruits, and strawberries due to birds. Linnets, white crowned sparrows, English sparrows, horned larks, wild canaries, and blackbirds were the predominant species causing trouble. Proper methods of pre-baiting and applying poison baits were demonstrated by Department personnel.

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:

<u>ANIMAL</u>	<u>NUMBER</u>
Badger	45
Bobcat	129
Bear	2
Coyote	58
Fox	323
Lion	4
Opposum.	524
Raccoon	88
Skunk.	<u>708</u>

Total predatory animals killed during 1960. . . 1,881

FINANCIAL STATEMENT
 FISCAL YEAR 1959-1960
VENTURA COUNTY DEPARTMENT OF AGRICULTURE

SALARIES AND WAGES			
Commissioner	\$ 8,970.00		
Deputy Commissioners (3)	20,664.00		
Inspectors	108,668.00		
Office Help	9,435.68		
Extra Help	19,523.84		
Overtime (Lettuce Inspection)	4,415.53	\$171,677.05	
		33,897.43	
MAINTENANCE AND OPERATION			
CAPITAL OUTLAY		1,719.51	\$207,293.99
REVENUE			
Certification	15,407.00		
Lettuce Inspection	5,787.23		
Contract Service	2,165.89		
Vacuum Fumigation	4,806.46		
Miscellaneous Sales	1,224.75		
			29,391.33
			<u>\$177,902.66</u>

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CLASSIFICATION OF ESTIMATED EXPENDITURES BY FUNCTIONS:

Plant Quarantine (Interstate)	14,474.22		
Plant Quarantine (Intrastate)	21,948.01		
Standardization	25,127.81		
Field and Orchard Inspection	14,122.03		
Nursery Inspection	7,307.78		
Seed Inspection	3,289.34		
Rodent Control (County Expense)	6,522.68		
Plague Suppression (County Expense)	20,592.76		
Weed Control (County Expense)	9,973.55		
Apiary Inspection	6,460.90		
Crop Statistics	5,459.78		
Other Items *	70,295.62		\$205,574.48
CAPITAL OUTLAY			\$ 1,719.51

.....

* Functions Included In "Other Items":

Miscellaneous	22,026.23
Vacuum Fumigation	10,939.05
General Pest Surver	22,954.12
Plant Pathology	1,062.20
Pest Control	8,420.34
Lettuce Inspection	4,893.68

Included in the expenditures by functions are the following, under contract:

Fruit Frost Service	1,125.00
Trapper	6,525.00

VENTURA COUNTY
DEPARTMENT OF AGRICULTURE

Agricultural Building
Santa Barbara and Eighth Streets
Santa Paula, California

To The Director of the State Department of Agriculture:

Pursuant to Section 65.5 of the Agricultural Code, we submit the crop production, crop value and acreage report for the calendar year 1960.

The value figures in this report are the F.O.B. value of the commodity when it is fully prepared and offered for sale, and in no way can they be construed as net returns to the grower. All costs of growing, harvesting, packing and preparation are included in this value.

1960 was not a good year for the Agricultural producers in Ventura County. Even though the total figures are relatively high, one must consider that production of certain commodities showed a large increase in acreage, yet the total value was about the same as in 1959.

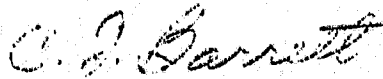
Costs of production rose during the year, sale prices dropped substantially from preceeding years, which resulted in many crops showing a loss for the season. This is true of lemons, which showed the poorest returns on an acreage average in years. The average production in the county for 1960 was 617 field boxes per acre. The average return per field box was \$0.85, while the cost of producing a 50 pound field box, including interest on the money invested, cultural costs, frost protection, pest control, taxes and general maintenance was \$0.94. This, on the average, made a loss of \$55.53 per acre. The amount of fruit diverted to juice, which paid no profit, was the highest in the history of the county.

The increase in vegetable acreage is due to the double use of land.

Tomatoes showed an increase in acreage over 1959, but the price received was far below the expected amount. The average price for all tomatoes was \$0.02355 per pound. When the cost of production and harvesting is considered one can readily see there was little left for the grower when all the costs were deducted.

We have changed the type of this report in some respects to allow more uniform reporting throughout the state, and we have been able to gather more and better figures in comparison to past years.

We wish to acknowledge the assistance of many firms, individuals, companies and corporations, and hereby express our appreciation for their fine cooperation in supplying us with the following data.


C. J. Barrett
Agricultural Commissioner

ACREAGE OF AGRICULTURAL CROPS FOR 1960

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

CROP	BEARING ACRES	NON-BEARING ACRES	TOTAL ACRES
Almonds	56	1	57
Apples	69	2	71
Apricots	470	0	470
Avocados	2,084	843	2,927
Cherimoyas	0.6	0	0.6
Grapefruit	349	188	537
Grapes	66	0	66
Lemons	22,009	4,884	26,893
Macadamia Nuts	0	4.2	4.2
Olives	20	0	20
Orange, Navel	1,841	405	2,246
Orange, Valencia	16,480	1,643	18,123
Peaches	37	4	41
Pears	5	0	5
Strawberries	530	0	530
Tangerines	19	5	24
Walnuts	9,446	295	9,741
Hay & Grain	12,590	0	12,590
Beans, Dry	16,866	0	16,866
Cut Flowers	1,030	0	1,030
Nursery Stock	191	0	191
Seed	1,479	0	1,479
Sugar Beets	1,499	0	1,499
Vegetables	<u>42,140</u>	<u>0</u>	<u>42,140</u>
	129,276.6	8,274.2	137,550.8

FRUIT AND NUT CROPS
ACREAGE, PRODUCTION AND VALUE 1959 - 1960

CROP	YEAR	BEARING ACREAGE	PER ACRE	PRODUCTION		VALUE	
				TOTAL	UNIT	PER UNIT	TOTAL
<u>ALMOND MEATS</u>	1960	56	0	0	Ton	\$ 0	\$ 0
	1959	67	.62	6	"	1,201.50	6,380.00
<u>APPLES</u>	1960	69	3.25	225	"	133.57	30,000.00
	1959	68	7.93	540	"	100.00	53,966.00
<u>APRICOTS</u>	1960	491	3.55				
	1959	482	2.33				
Fresh	1960			462	"	60.43	27,920.00
	1959			633	"	60.00	37,980.00
Dried	1960			217	"	640.00	138,880.00
	1959			99	"	800.00	78,800.00
<u>AVOCADOS</u>	1960	2,084	2.65	5,520	"	220.56	1,217,628.41
	1959	1,828	4.02	7,347	"	185.71	1,364,413.00
Bushberries:							
<u>BOYSENBERRIES</u>	1960	0	0	0		0	0
	1959	3	1.60	5	"	444.39	2,142.00
<u>RASPBERRIES</u>	1960	0	0	0		0	0
	1959	3	2.25	7	"	666.66	4,500.00
<u>GRAPEFRUIT</u>	1960	349	19.10				
	1959	330	20.40				
Packed	1960			5,406	"	112.26	606,882.16
	1959			4,454	"	115.86	516,043.97
Juice	1960			1,260	"	13.50	17,017.98
	1959			2,278	"	15.96	36,362.23
<u>GRAPES</u>	1960	66	2.50	165	"	40.00	6,600.00
	1959	80	2.56	205	"	40.00	8,200.00
<u>LEMONS</u>	1960	22,009	15.42				
	1959	21,728	14.46				
Packed	1960			182,182	"	137.82	25,109,813.27
	1959			177,909	"	135.99	24,194,022.00
Juice	1960			157,212	"	15.98	2,513,630.00
	1959			136,330	"	29.79	4,061,611.88

FRUIT AND NUT CROPS
ACREAGE, PRODUCTION AND VALUE 1959 - 1960

CROP	YEAR	BEARING ACREAGE	PER ACRE	PRODUCTION		VALUE	
				TOTAL	UNIT	PER UNIT	TOTAL
<u>ORANGE, NAVEL</u>	1960	1,841	6.48				
	1959	2,020	10.19				
Packed	1960			9,620	Ton	158.98	1,529,453.34
	1959			16,129	"	121.95	1,967,049.62
Juice	1960			2,321	"	21.86	50,728.53
	1959			4,457	"	29.26	130,412.54
<u>ORANGE, VALENCIA</u>	1960	16,480	8.37				
	1959	16,136	12.94				
Packed	1960			101,742	"	173.02	17,603,976.58
	1959			129,474	"	125.61	16,263,580.49
Juice	1960			36,185	"	42.95	1,554,155.94
	1959			79,267	"	54.17	4,293,990.95
<u>PEARS</u>	1960	5	1.52	8	"	100.00	760.00
	1959	11	1.52	17	"	128.57	2,160.00
<u>PEACHES</u>	1960	37	1.70	63	"	88.18	5,534.00
	1959	38	2.00	75	"	100.00	7,500.00
<u>STRAWBERRIES</u>	1960	530	8.63				
	1959	334	15.71				
Market	1960			2,577	"	475.00	1,224,075.00
	1959			3,710	"	392.80	1,457,500.00
Processed	1960			2,002	"	280.00	560,560.00
	1959			1,540	"	280.00	431,200.00
<u>TANGERINES</u>	1960	19	3.75	71	"	280.00	19,950.00
	1959	18	4.59	83	"	290.90	24,057.60
<u>WALNUTS</u>	1960	9,446	.56	5,353	"	501.00	2,682,500.00
	1959	10,675	.33	3,596	"	460.00	1,654,160.00
<u>TOTAL</u>	1960	53,482					\$ 54,900,065.86
	1959	53,821					56,596,032.28

VEGETABLE CROPS
ACREAGE, PRODUCTION AND VALUE 1959 - 1960

CROP	YEAR	HARVESTED		PRODUCTION		VALUE	
		ACREAGE	PER ACRE	TOTAL	UNIT	PER UNIT	TOTAL
<u>BEANS, GREEN</u>							
Processed	1960	11,100	2.05	22,800	Ton	\$ 160.08	\$ 3,650,000.00
	1959	9,210	2.21	20,381	"	142.56	2,905,665.31
Market	1960	9	5.88	53	"	149.57	7,926.00
	1959	10	8.52	85	"	135.34	11,540.75
Pole	1960	65	7.69	500	"	171.22	85,643.07
	1959	94	9.70	912	"	144.50	131,769.81
<u>BROCCOLI</u>							
Processed	1960	3,014	2.05	6,165	"	139.41	859,553.97
	1959	2,360	1.53	3,619	"	133.47	483,039.30
<u>CABBAGE</u>							
Red	1960	58	10.40	603	"	40.00	24,128.00
	1959	10	19.85	199	"	84.21	16,720.00
Green	1960	1,896	17.47	33,131	"	32.50	1,076,766.93
	1959	1,898	18.36	34,850	"	41.68	1,450,603.44
<u>CARROTS</u>							
	1960	1,044	11.53	12,042	"	56.73	683,171.64
	1959	1,422	14.42	20,507	"	42.29	867,253.78
<u>CAULIFLOWER</u>							
	1960	421	6.12	2,575	"	43.36	111,680.00
	1959	435	5.67	2,468	"	121.63	300,137.50
<u>CELERY</u>							
	1960	2,017	30.41	61,339	"	56.45	3,462,684.75
	1959	2,210	29.45	65,085	"	64.50	4,199,000.00
<u>CHARD</u>							
	1960	5	7.87	39	"	78.11	3,073.00
	1959	8	8.27	66	"	78.12	5,171.25
<u>CORN, SWEET</u>							
	1960	84	3.25	273	"	119.04	32,500.00
	1959	43	3.90	168	"	85.71	14,396.40
<u>CUCUMBERS</u>							
Market	1960	637	12.42	7,909	"	65.00	514,146.83
	1959	753	14.22	10,706	"	76.52	819,324.24
Pickling	1960	175	13.48	2,360	"	52.60	124,000.00
	1959	0	0	0	"	0	0

VEGETABLE CROPS
ACREAGE, PRODUCTION AND VALUE 1959 - 1960

CROP	YEAR	HARVEST- ED ACREAGE	PER ACRE	PRODUCTION		VALUE	
				TOTAL	UNIT	PER UNIT	TOTAL
<u>LETTUCE</u>							
Head	1960	3,328	7.11	23,649	Ton	\$ 76.07	\$ 1,798,876.00
	1959	3,174	7.00	22,178	"	81.35	1,804,212.50
Leaf	1960	670	7.20	4,824	"	60.00	289,440.00
	1959	338	6.45	2,179	"	93.08	202,816.25
Romaine	1960	1,487	12.05	17,929	"	39.53	708,814.00
	1959	1,060	8.40	8,904	"	66.00	587,664.00
<u>ONIONS, DRY</u>							
	1960	17	9.55	163	"	53.23	8,650.00
	1959	39	7.10	277	"	64.54	17,880.00
<u>PARSLEY</u>							
	1960	175	22.00	3,850	"	40.00	154,000.00
	1959	100	28.00	2,800	"	42.85	120,000.00
<u>PEAS</u>							
Processed	1960	1,411	1.75	2,464	"	86.50	213,214.46
	1959	1,316	1.49	1,962	"	93.82	184,087.45
<u>PEPPERS</u>							
Bell, Market	1960	222	5.95	1,321	"	106.61	140,833.98
	1959	191	7.91	1,511	"	125.00	188,817.00
Bell, Processed	1960	350	10.57	3,700	"	47.30	175,000.00
	1959	350	12.00	4,200	"	52.38	220,000.00
Chili, Green	1960	1,639	7.89	12,933	"	62.61	809,718.15
	1959	1,546	7.46	11,544	"	62.50	721,479.75
Pimiento	1960	924	8.11	7,496	"	65.00	487,255.61
	1959	511	8.60	4,394	"	65.00	285,610.00
<u>SPINACH</u>							
Processed	1960	770	6.58	5,070	"	25.83	131,000.00
	1959	655	7.61	4,988	"	23.62	117,835.63
Market	1960	358	3.14	1,125	"	131.79	148,271.68
	1959	180	5.50	990	"	127.32	126,054.04
<u>SQUASH, WINTER</u>							
	1960	205	8.34	1,710	"	23.00	39,330.00
	1959	310	9.12	2,830	"	25.92	73,367.51

VEGETABLE CROPS
ACREAGE, PRODUCTION AND VALUE 1959 - 1960

CROP	YEAR	HARVEST- ED ACREAGE	PER ACRE	PRODUCTION		VALUE	
				TOTAL	UNIT	PER UNIT	TOTAL
<u>TOMATOES</u>							
Processed	1960	5,862	19.57	114,777	Ton	\$ 23.82	\$ 2,734,191.25
	1959	4,420	22.50	99,441	"	22.85	2,271,735.00
Market	1960	3,721	13.09	48,743	"	102.16	4,979,639.72
	1959	3,214	14.25	45,818	"	131.80	6,037,789.30
<u>MISC. VEGETABLES*</u>							
	1960	476	6.75	3,213	"	88.00	282,744.00
	1959	37	9.31	344	"	62.36	27,276.55
<u>TOTAL</u>							
	1960	<u>42,140</u>					\$ 23,736,253.04
	1959	<u>35,824</u>					24,191,246.76

* Includes radishes, green onions, cherry tomatoes, Chinese vegetables, egg plant, parsnips, summer squash, turnip greens, etc.

FIELD CROPS
ACREAGE, PRODUCTION AND VALUE 1959 - 1960

CROP	YEAR	HARVEST- ED ACREAGE	PER ACRE	PRODUCTION		VALUE	
				TOTAL	UNIT	PER UNIT	TOTAL
<u>BEANS</u>							
Limas, Dry	1960	15,120	.81	12,290	Ton	\$ 319.42	\$ 3,925,537.00
	1959	15,268	.86	13,074	"	239.49	3,131,160.00
Fordhooks	1960	1,746	1.09	1,916	"	260.00	498,056.00
	1959	1,912	1.22	2,330	"	260.00	605,852.00
<u>GRAIN</u>							
Barley	1960	5,762	.55	3,169	"	40.00	126,764.00
	1959	6,220	.75	4,650	"	45.00	209,250.00

FIELD CROPS
ACREAGE, PRODUCTION AND VALUE 1959 - 1960

CROP	YEAR	HARVEST- ED ACREAGE	PER ACRE	PRODUCTION		VALUE	
				TOTAL	UNIT	PER UNIT	TOTAL
<u>HAY</u>							
Alfalfa, Green	1960	896	27.00	24,192	Tons	\$ 5.50	\$ 133,056.00
	1959	912	30.00	27,360	"	6.00	164,160.00
Barley	1960	1,349	.79	1,079	"	26.00	28,054.00
	1959	3,016	.80	2,413	"	23.50	56,700.00
Oat	1960	4,583	1.0	4,583	"	35.00	160,405.00
	1959	1,600	1.0	1,600	"	30.00	48,000.00
<u>PERMANENT PASTURE</u>							
	1960	600					
	1959	289					
<u>SAFFLOWER</u>							
	1960	32	.19	6	"	70.00	420.00
	1959	99	.43	43	"	70.00	3,010.00
<u>SUGAR BEETS</u>							
	1960	1,499	24.91	37,341	"	13.32	497,423.09
	1959	2,027	19.19	38,908	"	14.27	555,102.90
<u>SEED</u>							
Flower	1960	250	241.87	60,469	Lbs.	2.04	123,542.25
	1959	146	118.43	17,291	"	2.23	38,564.75
Vegetable	1960	1,229	247.84	304,605	Lbs.	3.01	919,331.95
	1959	837	242.77	203,205	"	3.71	754,952.00
<u>TOTAL</u>							
	1960	<u>33,066</u>					\$ 6,412,589.29
	1959	<u>32,326</u>					<u>5,566,751.65</u>

APIARY PRODUCTS

HONEY	1960		450	Ton	280.00	\$ 126,000.00
	1959		300	"	245.00	73,500.00
WAX	1960		42	"	900.00	37,800.00
	1959		35	"	920.00	32,200.00
<u>TOTAL</u>						
	1960					\$ 163,800.00
	1959					<u>105,700.00</u>

Number of apiaries . . . 215
Number of colonies . . 13,293

NURSERY STOCK PRODUCTION

<u>NURSERY STOCK</u>	<u>YEAR</u>	<u>PRODUCTION</u>	<u>TOTAL VALUE</u>
<u>AVOCADOS</u>			
Trees	1960	7,450	\$ 18,625.00
	1959	8,000	16,000.00
<u>CITRUS</u>			
Trees	1960	152,870	382,175.00
	1959	202,482	435,336.00
<u>WALNUTS</u>			
Trees	1960	13,850	20,775.00
	1959	15,000	18,750.00
<u>ORNAMENTALS</u>			
Plants	1960	32,265	72,596.25
	1959	93,725	77,700.00
<u>VEGETABLE PLANTS</u>			
Flats	1960	562,100	365,365.00
	1959	264,000	158,400.00
<u>TOMATOES</u>			
Plants	1960	77,557,000	415,368.00
	1959	61,643,000	359,782.00
<u>TOTAL</u>	1960		\$ 1,274,904.25
	1959		1,065,968.00

CUT FLOWER PRODUCTION

<u>CROP</u>	<u>YEAR</u>	<u>ACREAGE</u>	<u>TOTAL VALUE</u>
<u>CUT FLOWERS</u>	1960	1,030	\$ 1,161,750.00
	1959	810	1,001,960.00
<u>TOTAL</u>	1960		\$ 1,161,750.00
	1959		1,001,960.00

LIVESTOCK AND POULTRY
PRODUCTION AND VALUE 1959 - 1960

ITEM	YEAR	PRODUCTION			VALUE
		TOTAL	UNIT	PER UNIT	TOTAL
<u>HOGS</u>	1960	9,000	Head	\$ 35.00	\$ 315,000.00
	1959	16,670	"	30.00	500,100.00
<u>CATTLE</u>					
	Range				
	1960	6,875	"	187.00	1,285,625.00
	1959	7,560	"	369.04	2,790,000.00
	Feed Yard, Gain in lbs.				
	1960	17,802,000	Lbs.	.22	3,916,440.00
	1959	3,600,000	"	.25	900,000.00
<u>RABBITS</u>	1960	126,000	Lbs.	.25	31,500.00
	1959	40,000	"	.25	10,000.00
<u>SQUABS</u>	1960	44,400	Birds	1.00	44,400.00
	1959	42,000	"	1.00	42,000.00
<u>CHICKEN MEAT</u>	1960	1,970,062	Lbs.	.07	137,904.34
	1959	1,365,000	"	.085	116,025.00
<u>CHICKEN EGGS</u>	1960	14,933,416	Doz.	.31	4,629,358.96
	1959	12,455,625	"	.40	4,982,150.00
<u>TURKEYS</u>	1960	243,000	Birds	4.80	1,166,400.00
	1959	319,000	"	5.00	1,595,000.00
<u>TURKEY EGGS</u>	1960	376,780	Each	.25	94,195.00
	1959	0			0
<u>TOTAL</u>	1960				\$11,620,823.30
	1959				10,935,675.00

DAIRY PRODUCTS

Number of Dairies 11
Number of Dairy Cows 5,157

Estimated Revenue

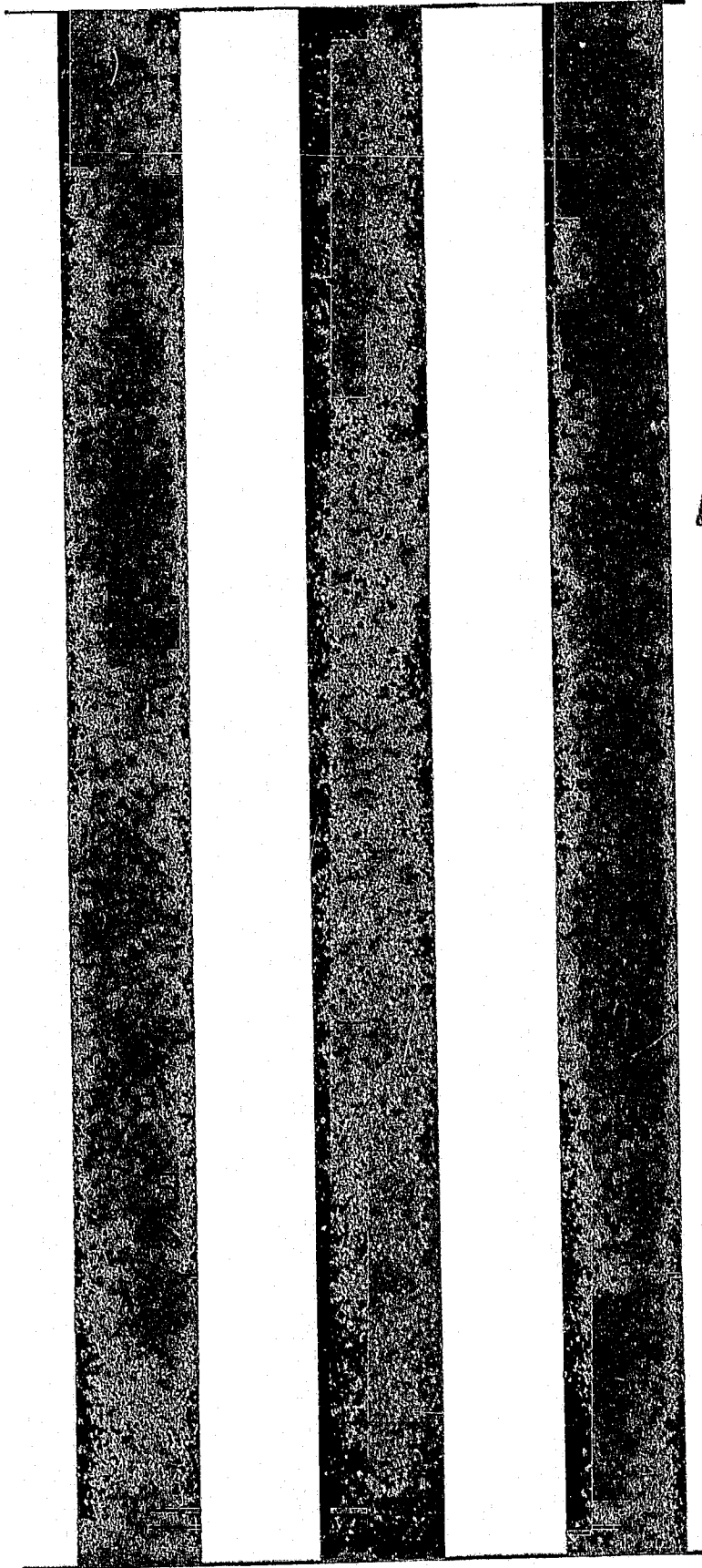
1960
1959

\$ 3,660,043.92
3,358,014.65

AGRICULTURAL CROP REPORT RECAPITULATION

	YEAR	ACREAGE	VALUE
FRUIT & NUT CROPS	1960	53,426	\$ 54,900,065.86
	1959	53,821	56,596,032.28
VEGETABLE CROPS	1960	42,140	23,736,253.04
	1959	35,894	24,191,246.76
FIELD CROPS	1960	33,066	6,412,589.29
	1959	32,326	5,566,751.65
APIARY PRODUCTS	1960		163,800.00
	1959		105,700.00
NURSERY STOCK	1960		1,274,904.25
	1959		1,065,968.00
CUT FLOWERS	1960	1,030	1,161,750.00
	1959	810	1,001,960.00
LIVESTOCK & POULTRY	1960		11,620,823.30
	1959		10,935,675.00
DAIRY PRODUCTS	1960		3,660,043.92
	1959		3,358,014.65
<u>GRAND TOTAL CROP REPORT</u>	1960	<u>129,662</u>	<u>\$ 102,930,229.66</u>
	1959	<u>122,851</u>	<u>102,821,348.34</u>

1955 Crop Valuation.	\$ 82,453,214.39
1956 Crop Valuation.	88,460,154.12
1957 Crop Valuation.	82,473,986.27
1958 Crop Valuation.	100,666,262.56
1959 Crop Valuation.	102,821,348.34
1960 Crop Valuation.	102,930,229.66



1961

7 15

VENTURA COUNTY

ANNUAL REPORT AND CROP STATISTICS

1961

AGRICULTURAL
COMMISSIONER

California Counties

UNIVERSITY OF CALIFORNIA
DAVIS

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Santa Paula, California

To The Director of the State Department of Agriculture:

Pursuant to Section 65.5 of the Agricultural Code, we submit the crop production, crop value and acreage report for the calendar year 1961.

The total values and acreages shown in this report are the highest on record for the County of Ventura. Part of the increase can be attributed to a better method of gathering information, giving a more complete acreage and production figure than in the past.


The values reported do not indicate net returns to the growers, as they show the F.O.B. value of the product prepared for sale. All costs of growing, harvesting, cultural practices, pest control, etc., are included in this F.O.B. value.

A decrease in walnut acreage was noted during the year. The acreage of bearing citrus trees was decreased over 1,000 acres. As a result of increased subdivision, commercial use, new schools and roadways, approximately 2,000 acres per year have been removed from agricultural uses over the past five year period.

With the diversion of fine agricultural land to other uses, growers are forced to the practice of double and triple cropping, and other means of more intensive land use to keep the total annual production in line with past figures.

1961 was not an extremely good year for agriculture in general, and the increase in values is due to increased production rather than more favorable prices. Extremely warm temperatures during the winter caused almost a complete loss of deciduous fruit crops. Walnut production also suffered as a result of this rather unusual warm season.

We are greatly indebted to many individuals, companies, corporations, firms, and others who have supplied the figures that make up this report. To them we extend our thanks for this fine cooperation.


C.J. Barrett
Agricultural Commissioner

ACREAGE OF AGRICULTURAL CROPS FOR 1961

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

CROP	BEARING ACRES	NON-BEARING ACRES	TOTAL ACRES
Almonds	47.6	0	47.6
Apples	52.6	0	52.6
Apricots	354.5	0	354.5
Avocados	2,382.5	554.3	2,936.8
Cherimoyas	0.6	0	0.6
Grapefruit	363.8	189.9	553.7
Grapes	68.8	0	68.8
Lemons	22,656.5	3,178.4	25,834.9
Macadamia Nuts	.6	3.6	4.2
Olives	19.6	0	19.6
Orange, Navel	1,991.3	239.2	2,230.5
Orange, Valencia	16,320.1	1,845.7	18,165.8
Peaches	24.3	5.8	30.1
Pears	4.8	0	4.8
Strawberries	520.0	0	520.0
Tangerines	24.6	16.7	41.3
Walnuts	7,955.1	157.8	8,112.9
Hay - Grain	5,316.0	0	5,316.0
Beans, Dry	17,360.0	0	17,360.0
Cut Flowers	1,054.0	0	1,054.0
Nursery Stock	264.0	0	264.0
Seed	1,577.0	0	1,577.0
Sugar Beets	760.0	0	760.0
Vegetables	43,630.0	0	43,630.0
	<u>122,748.3</u>	<u>6,191.4</u>	<u>128,939.7</u>

FRUIT AND NUT CROPS
ACREAGE, PRODUCTION AND VALUES 1960 - 1961

CROP	YEAR	BEARING ACREAGE	PER ACRE	PRODUCTION		VALUE	
				TOTAL	UNIT	PER UNIT	TOTAL
<u>APPLES</u>	1961	52	7.69	400	Ton	\$ 80.00	\$ 32,000
	1960	69	3.25	224	"	134.00	30,000
<u>AVOCADOS</u>	1961	2,375	1.80	4,275	"	395.00	1,683,000
	1960	2,084	2.65	5,520	"	221.00	1,220,000
<u>GRAPES</u>	1961	67	2.00	134	"	60.00	8,000
	1960	66	2.50	165	"	40.00	6,600
<u>GRAPEFRUIT</u>							
Total	1961	364	17.70	6,444	"	89.30	575,000
	1960	349	19.11	6,670	"	93.40	623,000
Fresh Market	1961			5,147	"	107.00	551,000
	1960			5,410	"	112.00	606,000
Processed	1961			1,297	"	19.00	24,000
	1960			1,260	"	13.50	17,000
<u>LEMONS</u>							
Total	1961	22,656	13.60	308,000	"	97.66	30,079,000
	1960	22,009	15.40	339,000	"	81.50	27,628,000
Fresh Market	1961			204,000	"	128.00	26,112,000
	1960			182,000	"	138.00	25,116,000
Processed	1961			104,000	"	38.15	3,967,000
	1960			157,000	"	16.00	2,512,000
<u>ORANGES, NAVEL</u>							
Total	1961	1,991	8.00	15,940	"	174.00	2,774,700
	1960	1,841	6.50	11,940	"	132.00	1,580,800
Fresh Market	1961			14,220	"	190.80	2,713,000
	1960			9,620	"	159.00	1,530,000
Processed	1961			1,719	"	35.90	61,700
	1960			2,320	"	21.90	50,800
<u>ORANGES, VALENCIA</u>							
Total	1961	16,320	9.52	155,200	"	119.10	18,490,800
	1960	16,480	8.37	138,200	"	139.00	19,203,000
Fresh Market	1961			106,800	"	145.60	15,549,000
	1960			102,000	"	173.00	17,646,000
Processed	1961			48,470	"	60.00	2,909,000
	1960			36,200	"	43.00	1,557,000

FRUIT AND NUT CROPS
ACREAGE, PRODUCTION AND VALUE 1960 - 1961

CROP	YEAR	BEARING ACREAGE	PER ACRE	PRODUCTION		VALUE	
				TOTAL	UNIT	PER UNIT	TOTAL
<u>STRAWBERRIES</u>							
Total	1961	520	10.00	5,330	Ton	\$ 330.80	\$ 1,763,000
	1960	530	8.64	4,580	"	390.00	1,786,000
Fresh Market	1961			2,430	"	475.00	1,154,000
	1960			2,580	"	475.00	1,226,000
Processed	1961			2,900	"	210.00	609,000
	1960			2,000	"	280.00	560,000
<u>TANGERINES</u>							
	1961	24	4.50	110	"	220.00	24,200
	1960	19	3.75	71	"	280.00	19,900
<u>WALNUTS</u>							
	1961	7,954	.27	2,115	"	523.00	1,106,000
	1960	9,446	.57	5,380	"	501.00	2,695,000
<hr/>							
<u>TOTAL</u>							
	1961	52,323					\$ 56,540,700
	1960	52,893					54,792,300

VEGETABLE CROPS
ACREAGE, PRODUCTION AND VALUE 1960 - 1961

CROP	YEAR	HARVEST- ED ACREAGE	PER ACRE	PRODUCTION		VALUE	
				TOTAL	UNIT	PER UNIT	TOTAL
<u>BEANS, GREEN</u>							
Processed	1961	13,200	1.96	25,900	Ton	\$ 166.00	\$ 4,299,000
	1960	11,100	2.05	22,800	"	160.00	3,648,000
<u>BEANS, POLE</u>							
	1961	42	8.00	334	"	157.00	52,440
	1960	65	7.70	500	"	171.00	85,500
<u>BEETS, RED *</u>							
	1961	60	9.35	561	"	41.40	23,200
	1960	--					--

* 1960 production was included in "Miscellaneous Vegetables"

VEGETABLE CROPS
ACREAGE, PRODUCTION AND VALUE 1960 - 1961

CROP	YEAR	HARVEST- ED ACREAGE	PER ACRE	PRODUCTION		VALUE	
				TOTAL	UNIT	PER UNIT	TOTAL
<u>BROCCOLI</u>							
Processed	1961	2,106	3.00	6,318	Ton	155.90	985,000
	1960	3,010	2.05	6,170	"	139.00	858,000
<u>CABBAGE, RED</u>							
	1961	67	14.00	938	"	59.30	55,600
	1960	58	10.40	603	"	40.00	24,100
<u>CABBAGE, GREEN</u>							
	1961	1,292	15.00	19,380	"	50.00	969,000
	1960	1,900	17.50	33,200	"	32.50	1,079,000
<u>CARROTS</u>							
	1961	538	13.20	7,114	"	60.30	429,000
	1960	1,040	11.50	12,000	"	56.70	680,000
<u>CAULIFLOWER</u>							
	1961	376	6.00	2,244	"	63.00	141,000
	1960	421	6.12	2,580	"	43.40	112,000
<u>CELERY</u>							
	1961	2,424	27.00	65,448	"	53.30	3,490,000
	1960	2,020	30.40	61,400	"	56.40	3,463,000
<u>CHARD</u>							
	1961	70	10.76	753	"	61.60	46,400
	1960	5	7.30	39	"	78.20	3,050
<u>CORN, SWEET</u>							
	1961	92	2.50	230	"	81.30	18,700
	1960	84	3.25	273	"	119.00	32,500
<u>CUCUMBERS</u>							
Total	1961	517	11.25	5,820	"	99.30	578,000
	1960	812	12.63	10,260	"	62.20	638,000
Fresh Market	1961	337	11.70	3,950	"	118.00	468,000
	1960	637	12.40	7,900	"	65.00	514,000
Pickling	1961	180	10.40	1,870	"	58.80	110,000
	1960	175	13.50	2,360	"	52.60	124,000
<u>LETTUCE</u>							
Total	1961	5,542	10.55	58,492	"	60.70	3,548,000
	1960	5,490	8.45	46,420	"	60.32	2,800,000
Head	1961	3,740	10.70	40,200	"	60.50	2,431,000
	1960	3,350	7.11	23,700	"	76.10	1,804,000
Leaf	1961	510	8.00	4,080	"	65.00	265,000
	1960	670	7.20	4,820	"	60.00	289,000
Romaine	1961	1,292	11.00	14,212	"	60.00	852,000
	1960	1,490	12.00	17,900	"	39.50	707,000

VEGETABLE CROPS
ACREAGE, PRODUCTION AND VALUE 1960 - 1961

CROP	YEAR	HARVEST- ED ACREAGE	PER ACRE	PRODUCTION		VALUE	
				TOTAL	UNIT	PER UNIT	TOTAL
<u>ONIONS, GREEN</u>							
Processed *	1961	35	20.00	700	Ton	\$ 88.00	\$ 61,500
	1960	--					---
<u>PARSLEY</u>	1961	153	30.50	4,670	"	51.00	238,000
	1960	175	22.00	3,850	"	40.00	154,000
<u>PEAS</u>							
Processed	1961	3,050	1.10	3,350	"	81.20	272,000
	1960	1,410	1.75	2,470	"	86.60	214,000
<u>PEPPERS, BELL</u>							
Total	1961	610	9.00	5,500	"	82.50	454,000
	1960	572	8.80	5,030	"	62.80	316,000
Fresh Market	1961	290		2,300	"	120.80	278,000
	1960	220		1,320	"	107.00	141,000
Processed	1961	320		3,200	"	55.00	176,000
	1960	350		3,710	"	47.20	175,000
<u>PEPPERS, GREEN CHILI</u>	1961	1,236	7.00	8,650	"	65.00	562,000
	1960	1,640	7.90	12,900	"	62.60	808,000
<u>PEPPERS, PIMIENTOS</u>	1961	805	7.80	6,280	"	65.60	412,000
	1960	924	8.10	7,490	"	65.00	487,000
<u>SPINACH</u>							
Total	1961	1,020	8.06	8,230	"	40.00	329,000
	1960	1,128	5.48	6,190	"	45.10	279,000
Fresh Market	1961			2,350	"	73.20	172,000
	1960			1,120	"	132.00	148,000
Processed	1961			5,880	"	26.70	157,000
	1960			5,070	"	25.80	131,000
<u>SQUASH, WINTER</u>	1961	186	7.50	1,395	"	20.00	27,900
	1960	205	8.34	1,710	"	23.00	39,300

* 1960 production was included in "Miscellaneous Vegetables"

VEGETABLE CROPS
ACREAGE, PRODUCTION AND VALUE 1960 - 1961

CROP	YEAR	HARVEST- ED ACREAGE	PER ACRE	PRODUCTION		VALUE	
				TOTAL	UNIT	PER UNIT	TOTAL
<u>TOMATOES</u>							
Total	1961	9,758	15.30	149,300	Ton	\$ 61.40	\$ 9,166,000
	1960	9,580	17.10	163,700	"	47.10	7,704,000
Fresh Market	1961			48,500	"	126.00	6,111,000
	1960			48,700	"	102.00	4,967,000
Processed	1961			100,800	"	30.30	3,055,000
	1960			115,000	"	23.80	2,737,000
<u>TOMATOES, CHERRY *</u>	1961	42	14.00	588	"	200.70	118,000
	1960	---					---
<u>MISC. VEGETABLES</u>	1961	405	8.00	3,240	"	60.00	194,000
	1960	476	6.75	3,210	"	88.00	282,000
<u>MUSHROOMS</u>	1961			10,770	CWT	50.00	538,500
	1960			0	0	0	0
<u>TOTAL</u>	1961	43,626					\$ 27,008,240
	1960	42,115					23,706,450

* 1960 production was included in "Miscellaneous Vegetables"

CUT FLOWER PRODUCTION

CROP	YEAR	ACREAGE	TOTAL VALUE
<u>CUT FLOWERS</u>	1961	1,054	\$ 1,526,000
	1960	1,030	1,162,000
<u>TOTAL</u>	1961		\$ 1,526,000
	1960		1,162,000

FIELD CROPS
ACREAGE, PRODUCTION AND VALUE 1960 - 1961

CROP	YEAR	HARVEST- ED ACREAGE	PER ACRE	PRODUCTION		VALUE	
				TOTAL	UNIT	PER UNIT	TOTAL
<u>BEANS</u>							
Limas, Dry	1961	13,600	1.03	13,990	Ton	\$ 310.00	\$ 4,337,000
	1960	15,100	.81	12,200	"	319.00	3,892,000
Seed Beans	1961	3,760	1.15	4,324	"	310.00	1,340,000
	1960	1,750	1.09	1,910	"	260.00	497,000
<u>HAY</u>							
Alfalfa, Green	1961	760	30.00	22,800	"	5.50	125,000
	1960	896	27.00	24,200	"	5.50	133,000
Oats, Barley	1961	3,156	.80	2,525	"	30.00	75,700
	1960	5,930	.95	5,650	"	33.24	187,800
<u>GRAIN</u>							
Barley	1961	1,400	.70	980	"	47.50	46,500
	1960	5,760	.55	3,170	"	40.00	127,000
<u>PERMANENT PASTURE</u>							
	1961	685					
	1960	600					
<u>SEED</u>							
Flower	1961	265	103.39	27,400	Lbs	2.30	63,000
	1960	250	242.00	60,500	"	2.04	123,000
Vegetable	1961	1,312	256.00	336,228	"	2.88	970,000
	1960	1,230	248.00	305,000	"	3.02	921,000
<u>SUGAR BEETS</u>							
	1961	760	28.55	21,700	Ton	13.00	282,000
	1960	1,500	24.93	37,400	"	13.30	497,000
<u>TOTAL</u>							
	1961	25,698					\$ 7,239,200
	1960	33,016					6,377,800

NURSERY STOCK PRODUCTION

NURSERY STOCK	YEAR	PRODUCTION		VALUE	
<u>AVOCADOS, TREES</u>	1961	6,000		\$	15,000
	1960	7,450			18,600
<u>CITRUS, TREES</u>	1961	114,000			285,000
	1960	153,000			382,000
<u>WALNUT, TREES</u>	1961	12,000			15,000
	1960	13,800			20,800
<u>ORNAMENTALS, PLANTS</u>	1961	65,158			69,000
	1960	32,300			72,600
<u>VEGETABLES, PLANTS</u>					
	Flats				
	1961	550,500			376,000
	1960	562,000			365,000
<u>TOMATO PLANTS</u>					
	Field Grown				
	1961	127,985,000			742,000
	1960	77,557,000			415,000
<u>TOTAL</u>					
	1961			\$	1,502,000
	1960				1,274,000

APIARY PRODUCTS

CROP	YEAR	PRODUCTION			VALUE	
		TOTAL	UNIT	PER UNIT	TOTAL	
<u>HONEY</u>	1961	150	Tons	\$ 260.00	\$	39,000
	1960	450	"	280.00		126,000
<u>WAX</u>	1961	20	"	860.00		17,200
	1960	42	"	900.00		37,800
<u>TOTAL</u>						
	1961				\$	56,200
	1960					163,800

Number of apiaries. 186
 Number of colonies. 9,849
 Number of beekeepers. 150

LIVESTOCK AND POULTRY
PRODUCTION AND VALUE 1960 - 1961

CROP	YEAR	PRODUCTION		VALUE	
		TOTAL	UNIT	PER UNIT	TOTAL
<u>HOGS</u>	1961	8,200	Head	\$ 34.00	\$ 279,000
	1960	9,000	"	35.00	315,000
<u>CATTLE</u>					
Range	1961	7,020	Lbs	180.00	1,263,600
	1960	6,880	"	187.00	1,287,000
Feed Yard, Gain in lbs	1961	23,423,000	"	.23	5,387,000
	1960	17,802,000	"	.22	3,916,000
<u>CHICKEN EGGS</u>					
	1961	14,018,000	Doz.	.37	5,187,000
	1960	14,933,000	"	.31	4,629,000
<u>CHICKEN MEAT</u>					
	1961	1,318,000	Lbs.	.07	92,200
	1960	1,970,000	"	.07	138,000
<u>SQUABS</u>					
	1961	32,000	Bird	1.00	32,000
	1960	44,400	"	1.00	44,400
<u>TURKEYS</u>					
	1961	211,000	"	4.30	907,000
	1960	243,000	"	4.80	1,166,000
<u>TOTAL</u>					
	1961				\$ 13,147,800
	1960				11,495,400

DAIRY PRODUCTS

Number of Dairies 13
 Number of Dairy Cows 5,480
 Average Daily Production of Milk 22,247 Gallons

ESTIMATED REVENUE

	1961	\$ 3,623,000
	1960	3,660,000

AGRICULTURAL CROP REPORT RECAPITULATION

	YEAR	ACREAGE	VALUE
FRUIT & NUT CROPS	1961	52,323	\$ 56,540,700
	1960	52,893	54,792,300
VEGETABLE CROPS	1961	43,626	27,008,240
	1960	42,115	23,706,450
CUT FLOWERS	1961	1,054	1,526,000
	1960	1,030	1,162,000
FIELD CROPS	1961	25,698	7,239,200
	1960	33,016	6,377,800
NURSERY STOCK	1961		1,502,000
	1960		1,274,000
APIARY PRODUCTS	1961		56,200
	1960		163,800
LIVESTOCK & POULTRY	1961		13,147,800
	1960		11,495,400
DAIRY PRODUCTS	1961		3,623,000
	1960		3,660,000
<u>GRAND TOTAL CROP REPORT</u>	1961	122,701	110,643,140
	1960	129,054	102,631,750

1956 Crop Valuation.	\$ 88,460,154
1957 Crop Valuation.	82,473,986
1958 Crop Valuation.	100,666,263
1959 Crop Valuation.	102,821,348
1960 Crop Valuation.	102,631,750
1961 Crop Valuation.	110,643,140