

AGRICULTURAL CROP REPORT



COUNTY
OF
SAN JOAQUIN



1939



SAN JOAQUIN COUNTY
DEPARTMENT OF AGRICULTURE

ANNUAL REPORT
of the
SAN JOAQUIN COUNTY DEPARTMENT OF AGRICULTURE

YEAR 1939

COMPILED BY PERCY P. WRIGHT

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February 15, 1940

To the Honorable Board of Supervisors and
the Director of the California State
Department of Agriculture

Gentlemen:

Herewith I transmit the annual report of this Department for the year ending December 31, 1939.

As Agricultural Commissioner of this County it is my official duty to make an annual report of the Department activities as prescribed by the "Agricultural Code". Briefly, my duties are as follows:

1. Make or cause to be made such inspections as are required or that I may deem necessary in order to properly enforce the plant quarantines established and protect the county from the introduction of injurious insects, animal pests, plant and bee diseases, noxious weeds and other agricultural pests within my jurisdiction which are or may be detrimental or calamitous to the agricultural industry of this county.
2. Make or cause to be made such inspections as required or that I may deem necessary in order to properly enforce the plant quarantines established and protect farms in this county from the spread of injurious insects, animal pests, plant and bee diseases, noxious weeds and other agricultural pests already established in this county and within my jurisdiction which are or may be injurious or detrimental to the agricultural industry of this county.
3. Enforce the fruit, nut, vegetable, honey and egg standards of the Agricultural Code.
4. Compile reports as to the condition, acreage, production and valuation of agricultural products.
5. Collect, prepare and install exhibits for public information illustrating the work of this Department or depicting the resources of the county or displaying the products thereof.
6. Provide for the inspection at county wineries of grapes delivered for by-products when such are purchased on the basis of sugar content.
7. Enforce any board orders or ordinances as required by the Board of Supervisors relative to the work of this Department.
8. To otherwise administer and enforce the agricultural statutes within the County in harmony with the State Department of Agriculture and cooperate with the United States Department of Agriculture, the University of California and other agencies interested in agricultural work.

Respectfully submitted,

Austin E. Mahoney
AGRICULTURAL COMMISSIONER

AEM:EF

OFFICE DIRECTORY

OFFICE	ADDRESS	PHONE
Stockton	Hazeltan & B Streets, P.O. Box 1809	Stockton 6-6806
Lodi	Lodi City Hall	Lodi 261
Manteca	Manteca City Hall	Manteca 44
Tracy	48 W. 11th Street	Tracy 193
Escalon	3rd Street	Escalon 28
Linden	Waterloo Road	Stockton 2-3938

STAFF OF THE SAN JOAQUIN COUNTY DEPARTMENT OF AGRICULTURE

Austin E. Mahoney	Agricultural Commissioner
Percy F. Wright	Chief Deputy
Kenneth H. Durand	Deputy in charge of South San Joaquin Districts
Wallace H. Street	Deputy in charge of Lodi Office
A. R. Tugel	Deputy in charge of Tracy Office and Tracy, Bethany District

AGRICULTURAL INSPECTORS

Lester F. Ashley	Calaveras District
Val Braghetta	In charge of Nursery Stock Inspection and Fair Exhibits
Floyd Brooks	Roberts-Union Island District
James R. Brumbaugh	In Charge of Plant Quarantine and Fruit, Nut and Vegetable Standardization, City of Stockton
Lester R. Brumbaugh	In Charge of Bee, Honey, and Egg Inspection and Farmington District
Jack Conklin	French Camp District
Reese Eltringham	Vernalis, Banta-Carbona and Pescadero District
Theo Heurlin	Escalon District
H. A. Huberty	Stockton
William K. Michaud	Thornton District
Hubert E. Minahan	Linden-Bellota District
C. W. Thompson	Kettleman-Terminous District
H. I. Veregge	Manteca and River-Junction Farms District
Allen P. Wakefield	Victor-Lockeford-Clements District
N. J. Wolter	Ripon-Atlanta District

* * * *

Elna Frandy	Secretary
Louise Hansen	Seed Analyst and Office Clerk
D. V. Widney	Warehouse Clerk

APIARY

The purpose of bee inspection is to prevent the introduction and spread within the county of diseases injurious to bees. Colonies infected with American Foulbrood, a very infectious bee disease, are fumigated to kill the diseased bees and then burned to destroy the disease. Colonies which are infected with European Foulbrood and Sacbrood are requeened. The following chart shows the number inspected and infected, the movement of colonies, and other information pertinent to bee inspection.

	NUMBER OF APIARIES	NUMBER OF COLONIES
Registered	85	3,689
Entering County	28	2,467
Leaving County	29	3,313
Moving within County	45	2,750
Inspected	260	8,483
Infected with AFB in County	29	77
Infected with AFB moving into County	10	32
Total AFB	39	109
Infected with EFB in County	33	55
Infected with EFB moving into County	14	73
Total EFB	47	128
Infected with Sacbrood in County	44	128
Infected with Sacbrood moving into County	9	87
Total Sacbrood	53	215
Burned AFB	38	84
Swarms killed	23 calls	38 killed

The report shows an increase of diseases. This is accounted for by the fact that there were many more colonies inspected this year. Also there was a greater movement of bees.

Swarms killed were those which occupied buildings and were a source of annoyance.

BIRD DAMAGE AND CONTROL

The total amount of damage to crops in San Joaquin County during 1939 was the lowest in several seasons. While scattered attacks were sufficiently severe to require attention, growers in these areas have become familiar with the danger signals and by prompt action prevented possible serious damage.

In the Linden-Bellota District heavy concentrations of Linnets in four peach orchards were controlled by using prebait and poison treated rape and canary grass seed. By this method losses were held to less than 3% even in plantings where formerly as high as 50% damage has occurred.

The Tracy-Vernalis District with its large acreage of beans, peas and truck crops which, in the tender seedling stage, are relished by Horned Larks also escaped serious losses. Prebaiting and treatment

were justified in only two fields of approximately 300 acres of carrots and broccoli. Many smaller plantings were protected by "flagging" in the manner recommended. This Department works very closely with the California State Department of Agriculture and the U. S. Bureau of Biological Survey on all cases where bird control is deemed necessary.

EGGS

Egg production is a very important industry of San Joaquin County. An accurate account of egg production and its valuation is found in the statistical section of this report. Egg standards provide a protection to both the consumer and producer. Eggs unfit for human consumption are kept off of the market. Containers of eggs are properly labelled as to size and quality. Consumers use more eggs and producers profit thereby.

Continued vigilance is necessary to properly enforce these standards as handlers become careless if not frequently warned. The following report shows egg inspection by months.

EGG INSPECTION BY MONTHS

MONTH	NUMBER INSP- CTIONS	DOZENS INSPECTED	DOZENS REJECTED	UNFIT FOR FOOD	QUALITY MIS- MARKED	WEIGHT MIS- MARKED	REQUIRED MARKINGS LACKING
January	64	3,701	155		155		
February	73	4,024	19	16	3		
March	78	4,426	103	37	30		36
April	82	4,090	266	200	5	25	36
May	63	3,640	507	110	397		
June	66	3,087	45	15			30
July	6	585					
August	65	3,637	123	123			
September	124	5,838	211	15	190		6
October	67	3,561	34	11	23		
November	154	9,652	425	217	208		
December	144	8,560	352		212		140
	986	54,801	2,240	744	1,223	25	248

FAIRS AND EXHIBITS

San Joaquin County again made a very creditable showing at fairs, winning as many awards as in the past. At the California State Fair and Los Angeles County Fair there were several new counties entered into competition.

AT THE CALIFORNIA STATE FAIR the story of Cinderella was typified by showing Cinderella entering a pumpkin coach which was drawn by six mice with various mice attendants and lizard coachmen personified. Grouped around this colorful display were the various commodities.

First sweepstakes were won on beans, field and garden seeds, plant vegetables, root vegetables, melons and squash, peaches, plums and prunes, grapes, walnuts and grain. Second sweepstakes were won on apricots and nectarines and almonds. First sweepstakes were also won on sweet wines.

AT THE LOS ANGELES COUNTY FAIR, a large open book of nursery rhymes told the story in cut out and prose of "Ferdinand the Bull" and "Hi Diddle Diddle". First award was again won by the booth in the face of stiff competition. First sweepstakes were won on peaches, grapes, plums, melons, root and plant crops and grain and seeds. Second sweepstakes were won on walnuts and beans. One first, four second, two third, three fourth awards were won on the wines.

THE COUNTY EXHIBIT AT THE GOLDEN GATE INTERNATIONAL EXPOSITION was constructed and installed by A. E. Mahoney, after the opening of the Fair. The original exhibit, installed by Alta California, Inc., did not show to advantage the resources of this county. The new exhibit, enclosed in glass with a background of the Sierra Nevada Mountains and a foreground of the Port of Stockton, had mechanical figures representing the "Men of Mars" at work in the various agricultural and industrial pursuits of this county. On each side of the exhibit was installed a screen on which was shown by a special type projector scenes throughout the county.

In connection with the exhibit, colored movies with sound were shown. One year was required to take this movie and showed all of the important agricultural and industrial occupations of the County. Around five thousand feet of film were taken out of which eighteen hundred feet of finished film were used.

THE SAN JOAQUIN COUNTY FAIR. The theme used this year was the "Calvalcade of California". The murals and cut outs on the walls depicted some historical event in the history of California. Each community exhibit carried out the same theme. The Agricultural Commissioner, Superintendent in charge of the agricultural exhibits, assisted each exhibitor in making this a very successful year.

Lodi District, winner in the community class, used a silhouette in black of the re-occurring events in the history of California. Escalon used a mission setting. Manteca-Ripon had a backwall of baled alfalfa hay framed around typical scenes of that area, faced by a replica of the South San Joaquin Irrigation District. Roberts-Union District had a wigwam in the center of their exhibit with an Indian girl in action grinding corn. Linden had a feature display of peaches which was centered by a revolving panorama of scenes in the past. French Camp, featured vegetables and had as their background paintings of historical development of California. Clements used as their exhibit a replica of Marshall's Mill on the American River. Tracy used a backwall scene of that area as it was in the early days and as it is today, faced by miniature scenes.

FRUIT, NUT AND VEGETABLE STANDARDIZATION

The San Joaquin County Department of Agriculture assists the farmers to build up a reputation for their farm products and protect their markets by instructing them as to the proper grading and packing of their fruit, nut and vegetables as prescribed by the "Agricultural Code".

Some indication of the amount of work required to carry on this important duty may be realized by glancing over the statistical information on crops contained in this report. With the exception of citrus and other sub-tropical fruits, every community for which standards are established in this State are produced on a commercial scale in this county. It includes twenty-five of the twenty-nine commodities.

To make a summary of every commodity covered under this work would require too much space in this report. However, a discussion covering the activities at the San Joaquin County Farmers' market at Stockton will give a good indication of the importance of this work, and the amount of produce which moves through this one terminal. At this market farmers have two periods each day when they bring their products for sale. One period is in the early morning between the hours of 3:00 and 5:00 a.m. when products for the local stores and stores located within a radius of fifty miles are purchased for sale that day. No record is kept of the amount of the produce inspected at this time as much of it is sold in bulk lots instead of packages. The other period is known as the afternoon market and is active during the summer months. Products sold on this market are shipped out of the county and go principally to the Bay Region and Los Angeles for distribution the next morning on these markets. However, many truck loads go to other states, Washington, Oregon, Arizona, Texas and East to Salt Lake City and Denver. Our records show that 12,347 tons of produce were inspected last summer on this afternoon market. Included in this total are 657,993 crates of peaches, 131,233 boxes of tomatoes, 35,549 boxes of plums, 56,000 boxes of nectarines, 106,663 boxes of cherries, 5001 boxes of peppers and thousands of packages of other fruits and vegetables.

Inspection means that every lot of produce brought into this market was examined to determine whether or not it conformed to the specifications and standards as outlined in the "Agricultural Code." Lots not conforming to these requirements were reconditioned, re-marked or such other disposition as required by the inspector.

The following report is an account of the number of rejections made in the county during the year 1939.

INSPECTION AT POINT OF ORIGIN AND AT TIME OF PACKING:

	PACKAGES	TONS
Number of rejections	75,643	29
Destroyed or dumped	1,441	2
Reconditioned or re-marked for sale or to by-products	74,203	27

One arrest was made and brought before a local Police Court. The case was lost as the court ruled that sufficient evidence was not presented to show that the defendant was responsible for the particular lot of produce in question.

POINT OF DESTINATION INSPECTION:

	PACKAGES	TONS
Number of rejections	14,520	28
Destroyed or dumped	658	6½
Reconditioned or re-marked for sale or to by-products	13,862	21½

CERTIFICATION: To facilitate the transportation of agricultural commodities, many certificates of inspection are issued each year by this office on truckloads of produce stating that the load conforms to the provisions of the Agricultural Code relative to the Fruit, Nut and Vegetable Standards. Previous to July of this year no charges were made for the issuance of such certificates, but the increased demand for them made it necessary to increase the personnel of this office. In order to offset this expense, the Board of Supervisors passed an order which provided for a scale of fees to be charged for such certificates. This certification is not mandatory, but is a service of considerable benefit to the party transporting the produce, therefore, those receiving the service were very well pleased and willing to pay the charges of 75¢ for a 4000 pound load or over.

HOUSEHOLD AND GARDEN PESTS

During the year over one thousand calls are made in the City of Stockton and other towns in the county. Various problems are discussed such as the control of pests in home and garden, fertilization and landscaping. Also, talks are given at various garden clubs. The Department purchased a soil testing unit this year which has proved very efficient in making soil analysis, particularly as to the presence of injurious salts and pH condition of the soil. It has been especially helpful in determining so-called physiological diseases of garden plants.

INSECTS AND MITES

Damage by insects to crops in San Joaquin County was exceedingly light this year. Of fifty or more crops grown it can be said that no serious damage occurred to any one of them which may be called somewhat of a record. Grasshoppers which were given a great deal of publicity because of their abundance in some areas of the State were successfully held in check here. The Pacific Mite which has been with us for a number of years caused a nominal amount of damage.

GRASSHOPPERS: Four tons of bran and twenty-nine gallons of sodium arsenite were used in making up poison bran mash which was scattered in various parts of the county. Materials were furnished through this Department by the Federal Government. Most of the poisoning was done in the Tracy District and smaller amounts in the Bellota and Linden Districts. Crops protected from damage were principally alfalfa and beans.

MEALY PLUM LOUSE: Several test plots were sprayed with new materials to check their effectiveness on the egg stage, but due to an extremely light hatch this year no conclusions could be made.

ELM LEAF BEETLE: The Elm Leaf Beetle is now a general pest throughout the County on elms, and necessitates spraying infested trees each year to prevent their defoliation. This year the Citrus Experiment Station at Riverside received a Tachinid parasite (*Erynnia* sp.) from Professor Harry Smith who was on a collecting trip in Europe and under the supervision of Dr. Stanley Flanders of the Station, some of these were propagated and liberated in Stockton and vicinity. Liberations made in June were recovered after the first generation and after the second generation adults could be observed on the foliage of the elm. It is hoped that this parasite will hold the elm leaf beetle in check.

PEACH TWIG BORER: Spraying with basic arsenate of lead incorporated with the Bordeaux spray used in the early spring during the pink bud stage successfully held this pest in check this year.

GRAPE LEAF HOPPER: Considerable spraying with pyrethrum fog spray was done in the area west of Lodi to control this pest. Windy weather prevented as much spraying as is normally done. Damage was not extensive.

WALNUT CODLING MOTH: Heavy flights of codling moth occurred much earlier than normal, in fact, the flights in April compared to the flights in July of the previous year. In orchards where this pest occurs the spraying with Basic Arsenate of Lead with a spreader at the rate of four pounds per hundred gallons of spray successfully held them in check.

WIREWORMS: Cool weather during the germination period increased the damage of this pest on beans this year. No practical control is yet known.

ONION THRIPS: Onion thrips are a common pest on onions, but damage was more apparent this year because of a greater acreage of late onions. Island farmers were more concerned with the damage which was occurring on their potatoes by migrating thrips from drying up onions. Several hundred acres were treated with a No. 10 Nicodust and gave good commercial control.

TOMATO INSECTS: Horn worms, army worms, corn ear worms and other insects which some years cause heavy losses in tomatoes caused little damage this year. Many fields were dusted with poisonous materials where there were indications of a buildup and other fields were dusted as a precautionary measure.

PACIFIC MITE: Many crops are attacked by this pest each year during the warm summer months. The Agricultural Department in this County has carried on observations over a period of ten years on all types of crops and find that Pacific mite builds up where there is a deficiency of moisture. This deficiency may be brought about either by an actual drought condition or by any condition which inhibits the

intake of moisture into the plant. Conditions which may bring this about are (1) a concentration of feeder roots in the top soil above the plow pan (2) deep cultivation during the growing period which cuts off a high percentage of feeder roots (3) nematode on the plant roots (4) crown gall (5) San Jose Scale (6) high water table which has rotted off many roots (7) concentration of salts in the soil moisture and (8) actual drought under normal conditions.

WILLAMETTE MITE: Growers of Tokay grapes have confused this mite with the Pacific Mite. It has been observed since 1928 on Tokay grapes and feeds on the opening buds and new growth in the spring. Damage is observed when cool weather prevents rapid growth. No recommendations are made for its control as vines always recover when the weather becomes warm.

SAN JOSE SCALE: An increasing amount of damage is occurring each year in this county to deciduous trees. Growers have consistently been using Bordeaux Mixture as a fungicide without alternating their spray program with lime sulfur or using a dormant oil spray. Cherry trees, especially, show severe injury even where the infestation is comparatively light. This scale because of its nature builds up on the bark of the tree without being observed.

COOPERATION WITH BUREAU OF MARKET ENFORCEMENT

The County Department of Agriculture cooperated with the Bureau of Market Enforcement in the collection of \$40,091.59 which represented money overdue on farmers' products sold in this County.

Complaints are received at the office of the County Department of Agriculture and all details concerning the complaint are transmitted to the Bureau. Also, remittances to the farmers are sometimes delivered through this office.

Buyers of farm commodities must be licensed. The one exception is when cash is paid at the time of purchase. The County Department assists the Bureau in seeing that all those who are not cash buyers are properly licensed.

The following amounts were recovered:

	NO. OF COMPLAINTS	AMOUNT RECEIVED
Produce Dealers	84	\$ 6,332.36
Processors	128	30,020.33
Milk Recoveries	<u>4</u>	<u>3,738.90</u>
	216	\$40,091.59

The County also maintains a special office for state officials for the purpose of holding hearings or any other activity which requires office space.

NURSERIES

During the fall and winter all the nurseries were inspected and found free of serious pests. Slight infestations of mealybugs, scale insects and aphids were found, which were properly sprayed.

ORCHARD AND FIELD INSPECTION

Many farm commodities, particularly root crops, require field inspections to determine their freedom from insect, disease and weed pests. Other states and districts within the State require certification of shipments stating that the commodity is apparently free from certain pests, as determined by field inspection.

Inspectors also make general inspections of orchards and fields and discuss various problems with the farmers. Their knowledge of conditions throughout the county make them well qualified in helping to solve these problems.

PEST CONTROL OPERATORS

Section 150 of the Agricultural Code provides for the examination and certification of pest control operators in the business for hire. Also, certain regulations are set up governing their operations.

Most of the certificates issued for ground machines are to farmers who do work for their neighbors. Aeroplane operators also are issued certificates. Particular stress is based upon their knowledge of working conditions and regulations governing their operation.

PLANT DISEASES

BACTERIAL RINGROT of potatoes was of increasing importance in 1939. Individual plantings suffered losses as high as 50%. This disease has been found in most of the potato growing districts of the United States within the past two years.

This disease is caused by a bacteria, a close relative of the bacteria agent in bacterial canker of tomatoes, which caused large losses in California prior to the adoption of effective control measures about 1938. Fortunately, bacterial ring rot does not live over in the soil, so that control will consist of obtaining disease free seed and observing sanitary precautions in the preparation and planting of the seed pieces. Methods of sanitation are the subject of research at the present time.

WESTERN CELERY MOSAIC: was partially controlled by the celery free period in February, 1939. The industry cooperated in the cleanup, but several problems presented difficulties. Several fields had been disced and planted to barley prior to the cleanup. These fields had to be hand hoed, or deep plowed. Two attempts were made to flood and drown out the celery, but difficulties in holding temporary levees were encountered.

One source of infection this year was due to planting the seed bed on land where the previous crop had just been turned under. The clean-up of plants was not complete, and an ideal opportunity for movement of root aphids from old diseased roots to the nursery plants was afforded.

It has been observed that there may be a correlation between the heavy field infestations and the presence of wild hemlock and sweet fennel in the vicinity. The build-up of rusty banded aphids and other aphids on these weeds provides an abundance of aphids which move into the celery fields when these weeds dry up, and spread any infection then existing.

Complete destruction of all celery plants during the celery free period, the planting of seed beds on land not in celery the previous season, and possibly the clean-up of wild hemlock and sweet anise are necessary in control of Western Celery Mosaic.

Other diseases of celery present, but not causing heavy losses, were calico, celery (aster) yellows, and fusarium yellows, the latter a soil borne disease.

ROOT KNOT NEMATODE: caused losses in beans, melons, and tomatoes. The planting of resistant strains of beans and of resistant rootstocks in new orchard plantings is increasing.

WILT OF WATERMELONS: caused by fusarium spp., reduced stands by about 20%. A few growers used wilt resistant varieties released by the University of California and obtained satisfactory yields without loss from wilt. White heart was cause for rejection of melons at harvest.

THE VIRUS DISEASE OF GRAPES: now present in many counties of the State, has not been found in San Joaquin County. Inspection of all vineyards of record planted since 1930 was made as a precaution.

LITTLE LEAF: a soil deficiency disease, is now controlled by the general practice of treating vines on sandy soils with zinc sulphate.

BROWN ROT: was a minor factor at blossom time due to the absence of rain. Showers during cherry harvest caused losses on the trees and on shipments made during the period. Peaches were unusually free of damage.

WALNUT BLIGHT: caused losses, particularly on the Payne variety. Orchards using Bordeaux spray matured a better crop than unsprayed orchards.

CHESTNUT BLIGHT: eradication work was carried on through two inspections, in May and October, of the infected orchards. Ten trees were found infected and burned. This is the smallest number found in any one year since the discovery of the disease in 1934.

PLANT QUARANTINE

The enforcement of plant quarantine requires the inspection of all nursery stock, seeds and other commodities specifically mentioned in the plant quarantine regulations shipped either interstate or intrastate which may serve as a means of introducing some pest detrimental to the agricultural industry of this county or state.

The law requires the carrier to hold such shipments upon arrival until inspected and released or such disposition as is required. This inspection work requires considerable time and constitutes one of the most important functions of this office. Shipments are held at post offices, express offices, railroad depots, truck depots, nurseries on the farm and other places which may be considered as the destination. The following report covers the inspection work for the year for both interstate and intrastate shipments.

INSPECTION OF INTERSTATE SHIPMENTS:

Number of shipments inspected	4,064
Number of parcels inspected	984,534
Number of parcels rejected	1,225
Number of shipments rejected	51

REASON FOR REJECTION: Two shipments were rejected for violation of the Oriental Fruit Moth Quarantine, one for violation of the Ozonium Root Rot Quarantine and one for violation of the Filbert Blight Quarantine. Other shipments were rejected under Section 115 of the Agricultural Code.

INSPECTION OF INTRASTATE SHIPMENTS OF NURSERY STOCK:

KIND OF STOCK	SHIPMENTS		PLANTS	
	Inspected	Rejected	Inspected	Rejected
Fruit Trees	321	62	75,841	330
Deciduous Nut Trees	262	57	56,593	201
Citrus and Subtropical	35		1,096	
Grapevines	57	2	22,940	6
Strawberry	62		40,178	
Berry Plants Other	68		5,527	
Vegetable Plants	49	1	209,522	1
Citrus	1		3	
Seedlings Deciduous	8	1	3,545	2
Ornamentals	770	28	36,314	556
Bulbs	978	4	122,245	147
Bedding Plants (Flats)	220	3	3,622	201
Seed (Number sacks)	437	71	15,482	2,166
Totals	3,268	228	592,908	3,610

Shipments were rejected principally for the presence of nematode, crown gall, mealybug and scale insects. A few shipments were rejected where there was reasonable cause to presume they were infested or infected with a pest. The inspection of seeds is discussed separately under Seed Inspection.

CERTIFICATION: Another function of plant quarantine is that of certification as to pest condition or pest treatment when such is officially required on outgoing shipments.

The following certificates were issued:

Sanitary Inspection Reports (Shipments to foreign countries)	32
Potato Fumigation Certificates	760
Tomato Pinworm Certificates	73
Other Certificates	9

In addition to certification of shipments, shipping permits were issued on many intrastate shipments and certificates of inspection of nursery stock were placed on interstate shipments after thorough inspection.

In addition to the Plant Quarantine work as provided by law, agricultural inspectors are continually alert to discover any new pest which may have gained entrance into our rich agricultural county. It is very important that discovery be made early in the introduction of a pest so that eradication methods may prove practical and effective.

RODENT CONTROL

The control of ground squirrels in San Joaquin County has been progressing very satisfactorily. Large areas of the county which until recently were infested with large populations of squirrels are now entirely free or have been reduced to such an extent that they present little menace to agriculture. Examples of such work are found in the Tracy Area, where a few years ago squirrels abounded to such an extent that the ground literally was alive with them. Very occasionally is a squirrel seen in this area now, and some sections are completely free from infestations. Also, in the Tracy foothills which serve as a reservoir for migratory squirrels to the valley below, there are very few squirrels left. Thousands of acres are treated each year in this area, a great deal of which is done by horseback. Another area, that along the East side of the San Joaquin River and South of Stockton, presented a serious problem each year because of the number of non-resident property owners, abundance of feed and peculiar soil formation. It was only through an enforcement program, whereby every property was treated the same regardless of the amount of work done in the past or the degree of infestation on the property, that real headway was made in successful control work.

Regardless of how few squirrels remain throughout the county continued vigilance and work must be done to maintain such a condition as squirrels breed up very quickly. It has been observed that where the population is reduced there are larger litters the following year and a lower mortality of young.

The past season, in addition to the normal work done by the property owner, 12,514 man hours of work were done by men from the State Relief Administration Camp under the supervision of this Department. The foreman's time amounted to 1234 man hours, the cost of which was paid indirectly by the property owner through the Agricultural Commissioner. A total of 77 properties were worked in such a manner, many of which were large sized ranches comprising several hundred acres. In addition to the work done under the supervision of this office on private property, 657 man hours of work were done on the county roads.

The following materials were sold and distributed under the supervision of this office:

Strychnine grain	2,201 pounds
Thallium grain	17,448 pounds
Carbon Bisulphide	4,342 gallons

SEED INSPECTION AND ANALYSIS

The inspection of seeds is mentioned in this report under plant quarantine and weed control, but will also be considered separately.

The primary purpose of seed inspection as carried on by the County Department of Agriculture is to prevent the dissemination of weeds in crop seed, although it does assist the State Seed Laboratory in carrying out the provisions of the California Seed Law. During the year 467 lots of seed were examined consisting of 15,482 bags. Also as a service to farmers 66 germination tests were made.

There were 72 lots of seed rejected consisting of 2,166 sacks. Of the 72 lots rejected, 37 were returned to the consignor; 17 were shipped out of this county; 12 were recleaned by the consignee; 6 were held until properly labeled. The following is a report on each kind of seed rejected:

KIND OF SEED REJECTED	NO. OF LOTS	NO. OF SACKS
Alfalfa	45	749
Chewing Fescue	4	4
Bur Clover	2	2
Flax	1	271
Korean Lespedeza	1	3
Ladino Clover	4	12
Melilotus	6	33
Millet	1	500
Mustard	1	2
Sudan Grass	4	536
Vetch	2	30

The following weed seeds were present in lots rejected:

KIND OF SEED	NO. OF LOTS
Bermuda	14
Creeping Mallow	16
Coast Dandelion	2
Dodder	16
Johnson grass	2
Morning glory	6
Russian knapweed	1
Russian thistle	9
Sandbur	6
Watergrass	28
Yellow star thistle	8

WINERIES - SUGAR TESTS

The testing of grapes at the wineries to determine the average percentage of soluble solids in the juice was voluntarily performed under the supervision of the San Joaquin County Department of Agriculture by a cooperative plan with several of the county wineries for four years previously to the enactment of Section 771 of the "Agricultural Code" relative to "Grapes for By-Products" which made it mandatory for wineries buying grapes on sugar content to have an official test made.

Before the start of this last crushing season it was expected that many of the wineries in the county would require inspectors as it has been the custom of the vintners to purchase grapes on the basis of the sugar content. However, this year some vintners paid for grapes on a flat tonnage price. Consequently, only nine wineries required inspectors, a few more than were furnished under the voluntary plan.

Whether or not the purchase of grapes on a flat tonnage basis was done in some cases to avoid the cost of inspection is problematical. If that is the case, it is surprising that as many as six of the wineries have in the past considered the testing of grapes for sugar content by a government agency worthwhile under a voluntary plan. In fact, one of the wineries in the county which has taken advantage of this service for the past four years and again this season until mid-season, when they started buying grapes on a flat tonnage basis as other independent wineries were doing, laid off the two inspectors for four days and then recalled them. Even though they were not required to have an official test made of the sugar content of the grapes they felt that it was important enough as a matter of record to have this information.

The board of supervisors of each county establishes the scale of fees and method of collection for carrying out the inspection work. In San Joaquin County the vintners pay 85¢ an hour when one inspector is required and 50¢ an hour for each additional inspector when inspection is by the day. Otherwise, the cost is 85¢ per certificate.

All certificates issued this season were paid for on an hourly basis and on each certificate so issued a notation was made to indicate that payment for such certificate was by the hour. Inspectors were paid 75¢ per hour and 50¢ per hour for each helper. Ten cents an hour was charged to cover the cost of material and supplies.

Collection of fees is provided for in advance and in order to provide sufficient money in the "Grape Inspection Fund" to cover the current expenses, each winery paid \$50 in advance at the start of the season which was refunded at the close of the grape inspection season.

The following is a list of wineries in San Joaquin County with the cooperage capacity each and the average cost of each certificate issued when inspection was provided for.

NAME OF WINERY	COOPERAGE CAPACITY IN GALLONS	AVERAGE COST PER CERTIFICATE
Acampo	2,100,000	\$.169
Alex	40,000	-
Bear Creek	2,380,000	.140
Bella Napoli	20,000	-
Bianchi, A.	25,000	-
Bonelli, B.	53,000	-
Cherokee	1,485,000	.160
Colombo-Lusardi	15,000	-
Community	2,300,000	.140
Da Roza	750,000	-
Del Rio	1,750,000	.180
Dosio, Giovanoni	100,000	-
East Side	2,750,000	-
*Emerzian	110,000	-
*Escalon No. 1	950,000	-
*Escalon No. 2	300,000	-
Franzia	1,250,000	.226
Indelicate & Suppino	35,000	-
Lafayette	12,000	-
Lodi	600,000	-
Mendoza, J.	20,000	-
Mokelumne	400,000	-
Petri	5,250,000	-
Rancho Del Oso	250,000	-
Richetta, A.	30,000	-
Roma	5,900,000	-
Sam Jasper	35,000	-
Schenley	1,186,000	.177
Sebastiani	1,700,000	.159
Shewan-Jones	1,740,000	.175
Victor	480,000	-
West Side (Lodi)	13,500	-
West Side (Tracy)	5,000	-
Woodbridge Vineyard Ass'n.	3,000,000	-

*Did not operate in 1939

The following is a summary of information pertinent to the cost of inspection:

Number of wineries in county	34
Number of wineries having inspection	9
Cooperage capacity in gallons of all wineries in County	37,004,686
Cooperage capacity in gallons of wineries having inspection	15,891,000
Approximate tonnage crushed in county	170,000
Approximate tonnage crushed by wineries having inspection	79,000
Number of certificates issued	19,767
Cost of labor	\$3,056.51
Cost of material and supplies	117.00
Total cost of inspection	3,173.51
Average cost per certificate	.17
Approximate cost per ton for inspection	.04
Approximate cost per gallon of sweet wine for inspection	.0005 (1/20¢)

It is evident that the cost of inspection represents a very small amount in the total cost of wine making and estimated on a gallonage basis would be a fraction of a cent. Therefore, any effort of vintners to purchase grapes on a flat tonnage basis to save the cost of inspection is false economy and does not return to the grower of grapes having a higher than average sugar content an honest value for his product. It is stated that for every degree over 22 percent sugar which grapes test in sugar content increases the gallonage for sweet wines from three to four gallons.

Even though it appears there were a small number of wineries which had inspection compared to the total number, there were three classes of wineries which did not have inspection. As already stated there were those wineries which purchased grapes on a flat basis. Also there were wineries which only crushed grapes from their own properties and cooperative wineries on which the final returns to the grower were based on tonnage without any consideration of the sugar content of the grapes.

WEED CONTROL

The program of noxious weed control in San Joaquin County is many fold and is adapted to prevent the spread, and bring under control by every possible means, of weeds which are detrimental to the farming interests of this county.

The types of work which are performed under the program to prevent the spread of noxious weeds are first, the examination of agricultural seeds to determine the presence of noxious weed seeds and reject such seed for planting purposes if so infested; second, the inspection of growing crops to be used for seed purposes to determine their freedom from noxious weed seeds and certification of such; third, preventing the movement of crops infested with the seed of noxious weeds to areas not infested; and fourth, the proper disposal of seed crops and screenings infested with noxious weed seeds.

Under the program of control of noxious weeds the following classification is based upon the agency performing the operation. First and most important is the work performed by the farmer; second, the work performed by the Agricultural Department on County roads; third, work done by the irrigation and reclamation districts; fourth, the work done by the State Highway Department on State roads; fifth, the work done on private property under the supervision of the Agricultural Department by State Relief Administration crews; and sixth, enforced work done by the Agricultural Department on private property.

The examination of agricultural seeds is done by an expert seed analyst of the Agricultural Department. Samples for examination are drawn by agricultural inspectors. This year 467 lots were examined and 2,166 bags rejected for the presence of noxious weed seeds. The inspection of growing crops for certification is not of great importance as the seed dealers have not learned to avail themselves of this service. However, requests are often made for inspection of premises before planting to determine their freedom from noxious weeds.

Alfalfa hay, straw, bean straw, grain hay and other similar crops often are a means of scattering noxious weed seeds. Such crops are properly disposed of, wherever possible, to prevent spreading noxious weed seeds. Also, closely related to this spread is that of scattering seeds on tires of vehicles, picking boxes, harvesters or other machinery. Precautions are taken that crops are harvested to prevent scattering noxious weed seeds by such means.

Seed crops which cannot be properly cleaned of noxious weed seeds are ground in a hammer mill or disposed of in such a manner as to prevent any danger of causing a new infestation. Screenings from harvesters and seed cleaners are handled in a similar manner.

The control of noxious weeds on farming land is a program which has been gaining a great deal of momentum in recent years. The gradual encroachment of many serious noxious weeds, the knowledge of the effect on land heavily infested with noxious weeds and the advance in chemical weed control, along with an educational program has brought about this effort to control noxious weeds. The Agricultural Department through its staff of agricultural inspectors has kept in constant touch with farmers on weed problems, advising them as to the proper procedure to control and bring about eradication of various kinds of weeds.

Noxious weed control on County roads has been progressing steadily for many years. This year 19,595 man hours of work including relief labor has been done on county roads and includes roadside discing on 585 miles of road, puncture vine control on all of the county roads, yellow star thistle, Johnson grass and other noxious weed work. The State Highway Department cooperates very satisfactorily with the Agricultural Department in carrying out a weed control program.

Irrigation and reclamation districts have been carrying out a very extensive program on weed control. Many miles of irrigation

ditches have been treated with chemicals. Hoeing and disking on ditches has also been used. In the Delta region levees are now worked each season to hold down weeds and also prevent insect outbreak.

The past several years men have been available from the State Relief Administration for work on private property under the supervision of the Agricultural Department. This year 42,853 man hours of work has been done on 80 different properties. The work has been largely hand labor such as digging out Johnson grass, hoeing yellow star, milk and bull thistle, and hoary cress.

Under the authority of the "Agricultural Code" the Agricultural Commissioner has the power to abate a nuisance and occasionally cases have arisen where it has been necessary to resort to this procedure, particularly where the nature of the weed pest is such that there is immediate danger of it spreading to adjoining lands, and the property owner is not doing the necessary work to hold such pest in check.

JOHNSON GRASS: The hand digging of Johnson grass roots has proved to be a very effective way to eliminate this pest, particularly in orchards and vineyards. Reoccurrences the second season have been slight, and requires only a small amount of followup work.

YELLOW STAR THISTLE: Definite progress has been made this past year towards reducing the spread of yellow star thistle. Many properties were hand hoed with crews from the State Relief Administration in addition to the work done by farmers such as summer fallowing, burning, etc.

MUSTARD, RADISH AND OTHER WEEDS IN GRAIN FIELDS: Sinox and Sulfuric acid, selective weed killers, were used on approximately 5000 acres of grain crops in San Joaquin County this past year. Sinox is a new selective weed killer used for the first time on a commercial basis in the State this last year. It is a yellow dye, and since it is not corrosive, may replace sulfuric acid. Its use was also proved practical in application by aeroplane, and the first time in history that weed control has been done from the air.

AMSINCKIA IN FLAX: Sinox was used in flax fields to kill amsinckia (fireweed, fiddleneck). The flax is tolerant of this material and amsinckia intolerant.

PUNCTURE VINE: The same concerted action as used in the past was used this year. Roads were frequently patrolled and plants oiled and burned before seeding. Work on private property was also satisfactorily done in most cases. The following survey was made in the South San Joaquin where puncture vine is most abundant. A review of reports on 583 properties on which puncture vine infestations have occurred, shows that during the year no vines were found on 19.3% of the places. Although this does not mean that eradication has been accomplished on these properties as ungerminated seed may still be preserved in the soil, it is encouraging. On 17 places a 2.9% control

was definitely unsatisfactory, although some work was done either by the property owner or under notice. Where notices were served, all mature vines were thoroughly sprayed with diesel oil. Cultivation before seed matures has given the most economical control.

The following report shows the man hours of work done by men hired by the County and State Relief Administration men on weeds under the direct supervision of the County Department of Agriculture. Crew foremen working on private property were paid indirectly by the property owner.

COUNTY ROADS			PRIVATE PROPERTY		
TYPE OF WORK	FOREMAN MAN HOURS	CREW MAN HOURS	TYPE OF WORK	FOREMAN MAN HOURS	CREW MAN HOURS
Puncture Vine	2,671	none	Puncture Vine	60	
Johnson Grass	159	456	Johnson Grass	1,306	20,530
Yellow Star Thistle	224	870	Yellow Star Thistle	829	11,928
Bermuda Grass	62	204	Bull Thistle	334	3,442
Miscellaneous Weeds	1,589	7,606	Milk Thistle	212	2,684
Roadside Discing	5,754	none	Hoary Cress	64	852
			Silky Lupine	16	224
			Bermuda Grass	40	360
Totals	10,459	9,136	Totals	2,861	40,020

STATISTICS

The following report is made as accurately as possible. The acreage of the various crops is obtained by a farm to farm survey by the agricultural inspectors of the various districts. Records of removal and new plantings are made by keeping an accurate account of inspections of nursery stock which are made by this office, and following up each to determine whether it is used for replacement or new plantings.

Yields and prices are obtained in a number of different ways. In the case of cherries, grapes, plums, celery, and tomatoes the total production is obtained by keeping an accurate record of shipments by carloads and deliveries to packing houses, local canneries, or processing plants. Other production records are estimates based upon records obtained from various farmers. Prices are obtained in much the same manner. In a few cases the figures of the California Cooperation Crop Reporting Service are used where it is felt they apply to this county.

The price per unit is one which has caused a great deal of discussion. It represents the gross return to the farmer and does not indicate the net profit. Gross income is calculated on the basis of a farm commodity ready for sale, F.O.B. ranch, local packing house, cannery or drier, depending largely on the common method of handling the specific product. Freight, handling and commission charges are not included, except local hauling costs. To estimate net profit, cost of container, picking, packing, cleaning, pruning, plowing, taxes and other farm costs should be deducted from gross income.

CROP SUMMARY

San Joaquin County farmers have fared somewhat better this year than last year. Although this season was a comparatively dry one, the majority of crops suffered less than the previous season when many acres were inundated by flood waters. Some crops dependent upon spring showers produced a light crop and in some cases grain and hay crops were pastured or grain crops were cut for hay.

During midseason, growth and harvesting of crops progressed normally. In September, crops suffered from exceedingly high temperatures. Tomatoes were sunburnt and vines not having sufficient moisture wilted. Late beans were severely hit and the crop reduced as high as 50 percent in a few fields. Many other crops were injured by these exceedingly high temperatures which will be discussed separately.

No severe outbreaks of insects or diseases occurred this year. Grasshoppers, which caused considerably damage in other counties of the State, were quite numerous but were satisfactorily controlled with poison bran mash. Bacterial ring rot, a new disease on potatoes, caused considerable loss in potatoes. Western celery mosaic, which caused a material loss in the 1938 season was satisfactorily brought under control by a crop free period, although some exceptions were evident in individual fields where destruction of celery was not thorough enough.

FRUIT AND NUT CROPS

ALMONDS: A favorable season for pollination and freedom from disease resulted in heavy yields, but small sized nuts.

APRICOTS: The crop was very large and due to the small sizes and lack of demand most of the crop in San Joaquin County was dried.

CHERRIES: The largest crop in the history of San Joaquin County was harvested this year. The production of Royal Ann cherries for manufacture was slightly less than normal, but the production of shipping cherries was considerably above normal. Early varieties were small in size due to a large crop and dry weather. Later varieties were aided by rainfall in helping the fruit to size although it reduced the quality due to brown rot and cracked cherries.

CHESTNUTS: Normal crop and prices.

FIGS: Normal crop and prices.

GRAPES, TABLE: Shipments of Tokay grapes exceeded four million packages this year, the heaviest shipping season of record. This was in face of reports of normal crop and only fair market conditions. Low prices being paid for wine and low prices offered for grapes for wine purposes accounted for this.

GRAPES, WINE: The season was unusually early this year. Crushing at the wineries was completed soon after the first of November. Production was about normal. Prices were below normal.

OLIVES: The crop was very short this year, being about 40 percent of normal resulting in high prices.

PEACHES, CLING: Growers had a fair season principally due to a marketing agreement between growers and canners which called for delivery of only No. 1 fruit.

PEACHES, FREE: The crop was above normal and prices for fresh fruit were very low. Dried peaches advanced in price after September 1st.

PLUMS: Prices for plums showed a large improvement over the previous year due to a marketing agreement limiting the shipments for interstate trade to only large sized fruit.

PRUNES: Normal crop and some increase in prices.

WALNUTS: There was a normal crop this season and early prospects were for a crop of high quality. High temperatures in September, however, reduced the quality particularly of the Payne and Eureka varieties by accounting for a high percentage of dark amber meats. The hot spell was too late to materially effect the soundness of the meats. Prices were considerably lower this year.

FIELD CROPS

ALFALFA HAY: Acreage is holding near a constant level in most of the county with the Roberts Island District and Carbona District showing increases. The movement has been slow from the ranches although dry ranges toward the end of the year increased the movement with a resultant increase in prices.

BEANS: Late beans mostly of the colored varieties suffered from high temperatures in September. Yields were low due to a reduction of the number of beans in the pod and small sizes. Prices showed an upturn after September 1st.

CORN, FIELD: Normal crop.

FLAX SEED: Yields were below normal. Increased irrigation costs due to the dry spring also reduced the net incomes.

GRAIN SORGHUM: The crop was below normal. There was an increased seeding of Pythium Root Rot resistant Milo.

GRAIN: Early season prospects were for low yields due to spring drought conditions. Some fields were cut for hay or pastured. Yields on many fields exceeded expectations particularly grain planted on land summer fallowed the previous season. Areas which had suffered from too much moisture the previous season showed increased yields.

HAY: Yields on both wild and tame hay were considerably below normal.

LADINO CLOVER: Acreage of this important forage crop of relatively recent introduction continues to increase.

PASTURE: There was a distinct dry period in February and first part of March and pasture made little growth. Following this ranges showed some improvement, particularly on the East Side. On the West Side pastures dried prematurely and sheep men were forced to sell most of their lambs for feeders.

POTATOES: The potato crop exceeded earlier expectations. It was expected that Bacterial Ring Rot, a new disease, would materially reduce yields, but excellent growing conditions helped to offset losses caused by this disease. Prices held up fairly well during the first part of harvest season, but dropped as the season progressed. This drop was caused principally by the railroads granting a reduction in rates to Idaho potato growers on Texas shipments and not giving local growers the same advantage until near the end of the season. This forced the bulk of potatoes grown in this area on intra-state markets.

RICE: Growers had an excellent season for harvest operations and yields were exceptionally good.

SUGAR BEETS: Due to heavy yields throughout the beet growing areas of this state it was necessary to prorate the delivery of beets to refineries. Sugar content was also good.

SUNFLOWERS: Due to high production the past two seasons, the acreage was reduced this year. The demand for sunflower seed has been good. Yields were normal.

SWEET POTATOES: Winds at planting time reduced the stands and delayed the development of strong stands.

VEGETABLE CROPS

ASPARAGUS: Harvest of asparagus for fresh shipment was slow in getting under way, but shipments continued for a later period than normal. Total production of asparagus in the county is increasing due to the large plantings which are coming into bearing.

CELERY: Growers have had another season where prices have ranged within narrow limits. Quality has not been exceptional, because of the dry weather. Growers have found it necessary to surface irrigate after banking to aid blanching. Mosaic has not caused any excessive losses.

MELONS: Growers had a bad start at the first of the season. Fusarium wilt, wind and sand storms and poor growing weather had their effect on the crop.

ONIONS: There was a large onion crop. Prices at first showed strength but soon dropped with no market in sight. The Federal Surplus Commodities Corporation purchased many carloads of both early and late onions.

PEAS: The crop was about 35 percent of normal due to poor growing conditions. Peas did not respond very well to irrigation and also the price did not justify this extra expense.

SPINACH: Yields were very poor.

TOMATOES: The acreage and total production was about double last years. With the exception of the hot spell in September, growing and harvest conditions were excellent. Had it not been for the high temperatures in September, yields in the County would have far surpassed anything we have had in the past.

THE TREND OF PERMANENT CROPS IN SAN JOAQUIN COUNTY

There is occurring a definite downward trend in both the planting and bearing acres of most permanent crops in San Joaquin County with two exceptions. Those exceptions are Tokay table grapes and almonds. In the Lodi area there has been an increased planting of Tokay grapes for the past several years. Removals of this variety are mostly in other parts of the county. Almonds have been showing increased plantings throughout the Southern part of the County and are mostly of the Nonpareil and Texas varieties.

Decreases are shown on most of the other crops of the County. Outstanding in this respect are pears, plums and prunes. Decreases in wine grapes and other grapes are of no importance as far as production in the County is concerned as most of these are vineyards on marginal land or land not properly suited for grape production. On peaches, both free and cling, there are slight decreases noted. No large orchards have been removed as the removals have been limited to small places scattered throughout the county, but the aggregate of these does indicate that many of our peach orchards have reached their prime and if our present acreage is to be maintained there must be no slackening in new plantings. The following chart shows the trend.

CROP	REMOVALS 1939	NEW PLANTINGS 1939	NON-BEARING 1939	BEARING 1939
Almonds	26.7	303.2	1,325.6	4,167.2
Apricots	56.5	76.9	312.5	1,701.7
Cherries	114.0	21.2	129.1	4,436.2
Chestnuts	35.5		13.8	251.0
Figs	8.0		1.3	515.8
Filberts			0.5	2.3
Grapes, Raisin	47.0	5.3	22.3	911.6
Grapes, Tokay	61.0	158.3	569.8	17,648.3
Grapes, Other				
Table	27.4	2.0	3.5	1,594.8
Grapes, Wine	536.5	142.0	1,083.3	33,848.1
Nectarines	2.0	10.3	61.6	124.4
Olives			0.1	364.1
Peaches, Cling	319.5	209.8	1,082.2	3,294.5
Peaches, Free	150.2	165.7	943.7	2,737.3
Pears	22.0		10.7	374.0
Persimmons				5.0
Pomegranates				1.0
Plums	101.5	13.6	42.9	1,597.4
Prunes	71.0	2.8	50.7	1,253.2
Quinces				4.5
Walnuts	33.2	48.3	536.8	8,960.2
Walnuts, Black		80.1	185.8	397.1

FRUIT AND NUT CROPS
SAN JOAQUIN COUNTY - 1939

CROP	BEARING PRODUCTION				*VALUE	
	ACREAGE	PER ACRE	TOTAL	UNIT	PER UNIT	TOTAL
Almonds	4,166	.50	2,083	Ton	\$ 210.00	\$437,430.
Apples	32	150.00	4,800	Box	.75	3,600.
Apricots (Dried)	1,702	1.38	2,352	Ton	170.00	399,840.
(Canning)		.79	1,340	Ton	25.00	33,500.
Cherries (Royal Ann)	1,131	3.35	3,789	Ton	73.80	279,628.
Other (Fresh)	3,305	1.94	6,404	Ton	107.60	689,070.
Cherries (Processed)		.06	198	Ton	73.80	14,612.
Chestnuts	251	1.00	251	Ton	100.00	25,100.
Figs (Dried)	516	.25	104	Ton	78.00	8,112.
(Fresh)		60.00	30,960	Crate	.50	15,480.
(Cannery)		.50	258	Ton	50.83	13,114.
Juice (Shipping)	33,848	1.72	58,332	Ton	12.00	699,984.
Grapes (Wine)		2.32	79,577	Ton	11.35	903,199.
Thompson Seedless	741	6.00	4,446	Ton	12.00	53,352.
Tokay (Fresh)	17,648	236.00	4,163,647	Pkg.	.58	2,414,915.
Grapes (Wine)		4.64	81,883	Ton	9.75	798,359.
Other Table (Fresh)	1,759	62.62	110,141	Pkg.	.58	63,882.
Grapes (Wine)		4.00	7,036	Ton	9.75	68,601.
Misc'l. Orchards	416			Acre	80.00	33,280.
Nectarines	124	524.00	65,000	30 lb. Pkg.	.525	34,125.
Olives	364	.25	91	Ton	75.00	6,825.
Peaches (Fresh)	2,737	291.55	797,993	Crate	.29	231,419.
(Free) (Cannery)		1.08	2,947	Ton	20.00	58,940.
(Dried)		.66	1,811	Ton	120.00	217,320.
Peaches (Cannery)	3,294	7.60	24,253	Ton	20.00	485,060.
(Cling) (Dry Yards)			800	Ton	5.00	4,000.
Pears	374	5.00	1,870	Ton	28.00	52,360.
Plums	1,597	211.00	337,281	Crate	.84	283,316.
Prunes (Fresh)	1,253	57.65	72,242	Crate	.84	60,683.
(Dried)		1.50	1,880	Ton	100.00	188,000.
Walnuts (English)	8,960	.50	4,477	Ton	175.00	783,475.
(Black)	185	30.27	5,600	Cwt.	.75	4,200.
TOTAL						\$9,364,781.

*Gross income - for basis of valuation
see page 20

FIELD CROPS
SAN JOAQUIN COUNTY - 1939

CROP	PRODUCTION			*VALUE	
	ACREAGE	PER ACRE	TOTAL UNIT	PER UNIT	TOTAL
Alfalfa Hay	44,829	6.00	268,974 Ton	\$ 9.50	\$2,555,253.
Barley	126,680	16.00	2,026,880 Cwt.	.85	1,722,848.
Beans	26,554	14.50	385,033 Cwt.	3.39	1,305,262.
Bean Straw	5,000	1.00	5,000 Ton	5.50	27,500.
Corn	11,384	1.25	14,230 Ton	26.50	377,095.
Corn Husks			200 Ton	320.00	64,000.
Cotton	28	6.58	184 Cwt.	9.10	1,674.
Flax Seed	4,338	12.00	52,056 Bu.	1.60	83,290.
Grain Sorghum	11,390	16.00	182,240 Cwt.	1.25	227,800.
Hay (Grain)	21,343	1.25	26,679 Ton	8.70	232,107.
Hay (Wild)	8,358	1.00	8,358 Ton	6.80	56,834.
Ladino Clover	14,686		Acre.	30.00	440,580.
Oats	9,463	12.00	113,556 Cwt.	1.20	136,267.
Pasture	248,106		Acre.	1.00	248,106.
Peanuts	42	15.00	630 Cwt.	6.25	3,937.
Potatoes	11,241	262.00	2,945,142 Cwt.	.80	2,356,114.
Pumpkins	452	8.50	3,842 Ton	3.00	11,526.
Rice	2,362	35.00	82,670 Cwt.	1.50	124,005.
Rye	48		Acre.	15.00	720.
Silage	1,841	12.00	22,092 Ton	5.00	110,460.
Spearmint and Peppermint	772	6.00	4,632 Gal.	12.50	57,900.
Stubble	239,000		Acre.	1.00	239,000.
Sudan Grass	4,771		Acre.	20.00	95,420.
Sugar Beets	14,191	18.50	262,533 Ton	6.50	1,706,465.
Sunflower	1,567	14.00	21,938 Cwt.	3.00	65,814.
Sweet Potatoes	1,650	2.75	4,538 Ton	37.00	167,906.
Wheat	33,863	12.00	406,356 Cwt.	1.35	548,581.
Misc. Field Crops					71,280.
					Total \$13,037,744.

*Gross Income - for basis of valuation
see page 20

VEGETABLE CROPS
SAN JOAQUIN COUNTY - 1939

CROP	BEARING ACRES	PRODUCTION			*VALUE	
		PER ACRE	TOTAL	UNIT	PER UNIT	TOTAL
Asparagus (Fresh)	30,053	28.53	857,412	30 lb Crate	\$ 1.67	\$1,431,878.
(Cannery)		.545	16,379	Ton	72.50	1,187,477.
Cantaloupes	332	152.00	50,464	Crate	.68	34,316.
Carrots	944	200.00	188,800	Crate	.90	169,920.
Casabas	360	7.00	2,520	Tons	6.00	15,120.
Celery (39 - 40) (Season)	6,451	198.00	1,274,760	1/2 Crate	1.05	1,338,498.
Honeydews	329	10.00	3,290	Ton	5.00	16,450.
Onions (Early)	905	250.00	226,250	Cwt.	.70	158,375.
(Late)	974	300.00	292,200	Cwt.	.70	204,540.
Peas	2,936	50.00	146,800	30 lb. Hamper	.70	102,760.
Persians	157	10.00	1,570	Ton	5.50	8,635.
Spinach	987	1.00	987	Ton	12.00	11,844.
Squash	316	8.00	2,528	Ton	11.00	27,808.
Strawberries	90	500.00	45,000	Crate	.55	24,750.
Tomatoes (Pear)	9,508	8.50	80,891	Ton	14.00	1,132,474.
(Round) Cannery	1,675	5.90	9,882	Ton	11.50	113,643.
Fresh		170.00	284,750	33 lb. Box	.60	170,850.
Truck Garden	2,819			Acre	80.00	225,520.
Watermelons	1,697	11.00	18,667	Ton	8.25	154,003.
Total						\$6,528,861.

*Gross Income - for basis of valuation
see page 20

SEED CROPS
SAN JOAQUIN COUNTY - 1939

CROP	PRODUCTION				*VALUE	
	ACREAGE	PER ACRE	TOTAL	UNIT	PER UNIT	TOTAL
Alfalfa Seed	434	504.00	218,736	lbs	\$.17	\$37,185.
Asparagus Roots	121			Acre	200.00	24,200.
Beet Seed	11	613.00	6,743	lbs	.145	978.
Canadian Field Peas	144	.50	72	Ton	50.00	3,600.
Canary Grass Seed	300	15.00	4,500	Cwt.	2.19	9,855.
Carrot Seed	52	670.00	34,840	lbs	.19	6,620.
Celery Beds	80			Acre	200.00	16,000.
Endive	3	800.00	2,400	lbs	.17	408.
Fenugreek	80	7.50	600	Cwt	3.00	1,800.
Millet	161	10.00	1,610	Cwt	1.50	2,415.
Lettuce Seed	41	512.00	20,992	lbs	.25	5,248.
Onion Seed	54	207.00	11,178	lbs	.35	3,912.
Parsnip Seed	11	770.00	8,470	lbs	.12	1,016.
Peas, Garden	100	10.00	1,000	Cwt	3.50	3,500.
Salsify Seed	7	640.00	4,480	lbs	.30	1,344.
Deciduous and Ornamental	80			Acre	1000.00	80,000.
Total						\$198,081.

BEES

Honey	344,000	lbs.	@	\$.045	15,480.
Bees Wax	3,150	lbs.	@	. 22	693.
Package Bees	2,693	lbs.	@	. 66	1,777.
Queen Bees	5,791	Bees	@	. 55	3,185.
Pollenization	2,000	Colonies	@	. 50	1,000
Total					\$ 22,135.

*Gross Income - for basis of valuation
see page 20

SAN JOAQUIN COUNTY - 1939

LIVESTOCK

Beef Cattle and Calves	\$ 3,200,000.00
Hogs	335,000.00
Sheep and Wool	<u>1,050,000.00</u>
	\$ 4,585,000.00

DAIRY PRODUCTS

Milk and Milk Products	\$ 3,750,000.00
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POULTRY

Chickens	760,465	lbs.	@	.136	\$ 103,423.00
Eggs	2,892,750	doz.	@	.186	537,151.00
Turkeys	2,330,300	lbs.	@	.160	<u>372,848.00</u>
					\$ 1,013,422.00

SUMMARY

Fruit and Nut Crops	\$ 9,364,781.00
Field Crops	13,037,744.00
Vegetable Crops	6,528,861.00
Seed Crops	198,081.00
Apiary Products	22,135.00
Livestock	4,585,000.00
Dairy Products	3,750,000.00
Poultry Products	<u>1,013,422.00</u>
GRAND TOTAL	\$38,500,024.00

FINANCIAL STATEMENT

FISCAL YEAR ENDING JUNE 30, 1939

Supervision	\$ 7,069.50
Plant Quarantine, Nursery and Seed Inspection	6,635.95
Fruit, Nut, Vegetable and Egg Inspection	11,050.62
Field and Residence Inspection	7,429.61
Rodent Control	9,738.64
Weed Control	2,461.49
Apiary	545.30
Statistics	4,880.79
Fairs and Exhibits	2,895.11
Office Help	2,760.00
Road Work	6,000.00
Forced Work (Forced Work Accruals \$500)	500.00
Revolving Fund Expense (Revolving Fund Accruals \$2000)	2,000.00
Office Operation Expense	1,821.54
Equipment, Supplies and Miscellaneous Expense	<u>2,628.21</u>
	\$74,416.76

