

STATISTICS - 1938
SAN JOAQUIN COUNTY ANNUAL
AGRICULTURAL REPORT

ANNUAL REPORT
of the
DEPARTMENT OF AGRICULTURE
SAN JOAQUIN COUNTY

YEAR 1938

COMPILED BY PERCY F. WRIGHT

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OFFICE DIRECTORY

OFFICE	ADDRESS	PHONE
Stockton	Hazelton & 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	Supervising Agricultural Inspector.
Kenneth H. Durand	Deputy in charge of Weed Control . <i>Manteca 27 100</i>
Wallace H. Street	Deputy in charge of Lodi Office and Thornton, Woodbridge District.
R. Tugel	Deputy in charge of Tracy Office and Tracy, Bothany 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
Jack Conklin	French Camp and Farmington District
Reese Eltringham	Vernalis, Banta-Carbena and Pescadero District
Theo Heurlin	Escalon District
M. A. Huberty	City of Lodi
William K. Michaud	Delta District
Hubert E. Minahan	Linden-Bellota District
C. W. Thompson	Kettleman-Terminus District
E. I. Verogge	Manteca and River-Junction Farms District
Allen P. Wakefield	Victor-Lockeford-Clements District
N. J. Wolter	Ripon-Atlanta District

Elna Frandy	Secretary
Louise Hanson	Seed Analyst and Office Clerk
B. V. Widney	Warehouse Clerk

APILRY

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 and then burned to destroy the disease. Colonies which are infected with European Foulbrood and Sacbrood are re-queened. The following chart shows the number inspected and infected and also the movement of colonies:

	APILRY	COLONIES
Inspected	174	4,787
Infected - American Foulbrood	20	44
Burned - American Foulbrood	20	44
Infected - European Foulbrood	28	198
Entered County	48	4,805
Left County	31	1,589
Moved Within County	22	1,300

There has been a notable reduction in the number of colonies infected with American Foulbrood. In 1935 there were 584 infected colonies; 1936, 208 infected colonies and 1937, 116 infected colonies as compared with 44 colonies in 1938.

BIRD CONTROL

The controlling of certain bird species such as Horned Larks, Linnets and Sparrows is now an established necessary practice in many farming districts. While the need for this type of pest control varies with the seasons there is no present indication that it can be discontinued without risking serious losses to beans, peas, lettuce and other crops in the tender seedling stage.

With the exception of the Linnet, English Sparrow and Blue Jay all birds involved in crop losses are protected by Federal and State Laws. Killing of these may be done only when justified as a protection to crops and methods used must be those recommended by the United States Bureau of Biological Survey.

Fortunately Horned Larks caused little concern during the 1938 season and only 120 acres of beans required protection. No further damage occurred after treatment and total loss was very slight.

An unusually heavy concentration of English and White Crowned Sparrows were satisfactorily controlled in wooded areas adjoining new plantings of alfalfa and Ladino clover. A few acres were, however, sufficiently damaged before treatment to require the planting of additional seed.

EGGS

After three years of enforcement work on egg standards dealers find that it has been a boom to the industry. Consumer purchases have increased, and along with this a better spirit of friendliness to the inspector. The number of rejections have dropped, but not enough to let up any on inspection work. Many local grocers, who handle eggs direct from the farmer, become careless if not repeatedly warned. Only one case was tried in court in this County. The offender was found guilty and given a five day suspended sentence.

EGG INSPECTION BY MONTHS

MONTH	NUMBER INSPECT- IONS	DOZENS INSPECTED	DOZENS REJECTED	UNFIT FOR FOOD	QUALITY MIS- MARKED	WEIGHT MIS- MARKED	REQUIRED MARKINGS LACKING
January							
February	10	1171	75		75		
March	2	30					
April	53	3284	190	49	41	25	75
May	73	3886	278		32		246
June	118	4714	415	125	103		187
July	6	335	30				30
August	9	969					
September	59	5970	93	93			
October	120	5320	132	30		12	90
November	101	7547	690	120	78		492
December	99	5852	252	213	39		
Totals	650	39,078	2,155	630	368	37	1,120

FAIRS AND EXHIBITS

In the past San Joaquin County has used the same setting at the California State Fair and Los Angeles County Fair. There are only four days of elapsed time between the two fairs which has always resulted in a last minute rush working night and day in order to be ready for the opening of the Los Angeles Fair. This year a different setting was used at each fair.

AT THE CALIFORNIA STATE FAIR a replica of a large ocean liner was used with the name Port Stockton. The ship, silver tinted, with golden divats and flaming red stack rode on the crests of waves. In the troughs of the sea, in small picturesque sailing boats, were placed the products, including walnuts, almonds, seeds, beans and grains.

Only non-perishable commodities were entered for competition at the California State Fair because of a ruling by the State Fair Board that no exhibitor could win more than three sweepstakes. First sweepstakes were won on grains and field and garden seeds, second sweepstakes on beans and walnuts and third sweepstakes on almonds. On the wine exhibit the County won six first awards, five second awards and one third award sweepstake. Special County Award was won on the exhibit.

AT THE LOS ANGELES COUNTY 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 coachmen personified.

First award was won on the booth and first sweepstakes on grains, beans, vegetables, melons, peaches in crates, walnuts and peaches, plums, pears and grapes in crates, and second sweepstakes on grapes in crates. Other firsts were won on almonds and chestnuts, on which there was no sweepstake prize.

SAN JOAQUIN COUNTY FAIR Increased interest was shown by the various exhibitors at the San Joaquin County Fair. Communities started work many months in advance on both their settings and collection of agricultural commodities. Unquestionably, the communities of this county surpassed anything which has ever been shown at a county fair in the United States, both in the variety and quality of products shown and in the setting of their exhibits.

The Agricultural Commissioner, a San Joaquin County Fair Director, is superintendent in charge of the agricultural exhibits at the county fair. Under his supervision, the building was transformed into a veritable fairyland. This was typified by murals, cut-outs, cellophane butterflies and moths, toadstools, frogs and many other subjects and characters of a fairyland nature. The community exhibits used some fairyland rhyme as a basis for their exhibits. Lodi represented Aladin and His Lamp; Escalon, Little Red Riding Hood; Manteca, Cinderella; Tracy, the Gnomes and The Grist Mill; Clements, Humpty Dumpty and the Cat and Fiddle; French Camp, Snow White and the Seven Dwarfs; Ripon, Little Boy Blue; Roberts Union, The Old Woman Who Lived in a Shoe and Linden, Jack and the Bean Stalk.

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 protects their markets by instructing them as to the proper grading and packing of their fruit, nut and vegetables as prescribed by the Agricultural Code. It is not the policy of their office to arrest and bring undue pressure on those who have violated the provisions of this code, but sometimes this becomes necessary on frequent offenders and others who are unwilling to abide by these provisions.

INSPECTION AT POINT OF ORIGIN AND AT TIME OF PACKING:

	Packages	Tons
Number of rejections	12,098	112
Destroyed or dumped	68	
Reconditioned or remarked for sale or by-products	12,030	112

Four arrests and convictions were made, two receiving a \$50.00 fine with \$25.00 suspended, one a \$50.00 fine and a 60 day suspended sentence and one a \$25.00 fine and a 30 day sentence.

HIGHWAY STATION INSPECTION: In cooperation with the State Department of Agriculture, a station for the stopping and inspection of trucks hauling fruits, nuts and vegetables was again maintained near Tracy on the State Highway. An accurate account of the amount of produce inspected, rejections and arrests is kept by the State Department.

POINT OF DESTINATION INSPECTION:

	Packages	Tons
Number of rejections	3,087	2
Destroyed or dumped	406	
Reconditioned or remarked for sale or by-product	2,681	2

Three arrests were made all paying a \$100.00 fine.

INSECTS AND MITES

GRASSHOPPERS: Farmers in this county used 13,560 pounds of bran in making up poison mash for grasshopper control. Of this amount 9,980 pounds were furnished by the Federal Government and 3,600 pounds by the farmers. The crops protected by this control program were 1,320 acres of alfalfa, 350 acres of beans, 40 acres of sunflowers, 40 acres of vineyard, 100 acres of asparagus, 10 acres of grain and 20 acres of walnuts. In addition to poison mash, 180 acres were burned and 80 acres treated by a hopper-dozer. The results from the use of poison were excellent in nearly every case, the few exceptions being those growers who disregarded recommended methods. Infestations of grasshoppers occurred mostly in the Tracy area on the West Side of the San Joaquin Valley, and to a lesser extent on the East Side where grasshoppers were numerous on the pasture lands but not to such a great extent as to migrate into the crop lands.

FALL CANKER WORMS ON CHERRIES: The adult female moth of this pest is wingless. In the fall of the year they crawl up the tree and deposit eggs on fruiting spurs and other rough places on the bark. They hatch in the spring as soon as the fruit starts to size and do serious damage where control measures are not carried out. Excellent results have been obtained by spraying with pyrethrum insecticides. Infestations are sporadic through the county. This past spring cherry orchards in various parts of the county were attacked, but little damage occurred as growers were very alert in applying control measures.

CASE BEARER ON CHERRIES: It is interesting to note that this pest had not been noticed since 1926 at which time it did considerable damage to maturing cherries. This season it was observed in a number of orchards, but did little damage.

FLEA BEETLES: This pest was unusually abundant on early planted tomatoes. Damage was limited as growers generally applied control measures before serious damage occurred.

APHIS: Due to a long damp spring aphids were unusually abundant on crops during the months of April and May. Sugar beets and potatoes in the delta were severely attacked, but soon recovered as the weather became warmer and natural enemies became active.

WALNUT CODLING MOTH: Spraying for control of this pest is now a common practice throughout the Linden walnut orchards. The standard formula is four pounds of basic arsenate of lead and four ounces of casein spreader. The flight was heavier this past year than it had ever been in previous years. Proper timing of spray applications held it in check effectively except in some orchards where no spraying was done in which case walnuts at the packing house showed infestations as high as 16 and 17 percent.

PACIFIC MITE: Less damage occurred this season than has occurred in many seasons, primarily due to an abundance of rainfall throughout the winter and spring and below normal summer temperatures.

SAY'S PLANT BUG ON ASPARAGUS: Due to the damp spring, asparagus growers were unable to cultivate their fields as early and thoroughly as usual. Consequently, pests were able to build up on the weeds. Particularly noticeable was Say's Plant Bug which worked on the tender ferns after harvest. Some fields appeared as though they were scorched by fire.

LEAF CATERPILLAR: As yet, no practical method has been found for controlling this pest other than early mowing. Derris dust was used on one field with no results. Production was reduced as much as one half on the fourth and fifth cuttings in some fields.

TOMATO INSECTS: Tomato fields were exceptionally free of damage caused by corn ear worm and army worms.

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 help 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 are also issued certificates. Particular stress is based upon their knowledge of working conditions and regulations governing their operation.

This past season a much smaller acreage was treated by aeroplane due principally to a lighter infestation of insects generally treated by plane.

PLANT DISEASES

The year 1938 has been marked by the addition of western celery mosaic and sugar beet nematode to the list of plant diseases attacking important crops in San Joaquin County.

SUGAR BEET NEMATODE was found on one or more clumps on three delta islands. This nematode spreads rapidly through infested soil adhering to tools, tare dirt, or similar means unless stringent sanitary practices are observed. Growing of sugar beets is restricted to a rotation of one year in six on infested soil. It is expected that the industry will work out a program of sanitary handling of equipment and removal of infested areas from production so that the spread will be arrested.

EASTERN CELERY MOSAIC, a virus disease, was found to be well established in certain fields of celery, and present in small amounts in most fields. The crop loss was nominal this year. Mosaic was a major cause of loss in the Venice area of Southern California until control measures were taken. This disease is carried from plant to plant by aphid. Control steps will consist of a celery free period, between end of harvest and the planting of seed for the next crop, during which time all plants of celery are destroyed. Such a celery free period may be established for Central California by the State Director of Agriculture. This department recommends that all celery fields be plowed immediately after harvest.

CHESTNUT BLIGHT: A complete survey of chestnut trees in the County, involving an inspection of each tree on 307 properties, was made following the addition of another orchard to the list of two known to be infected with chestnut blight. This new infection was probably established through infected grafting tools prior to 1934, when the disease was first found in the county. On the two original properties, 11 infected trees have been found and destroyed this year, as compared with 35 trees in 1937. All of this work has to be carried on under aseptic conditions with disinfection of hands and tools between each tree.

SOUTHERN ROOT ROT occurred in only one field during the year. Planting to resistant crops or summer fallowing has checked this disease in five other fields where it has occurred during previous years.

BROWN ROT: Successful control of this plant disease is generally obtained by following the recommended control practices. This past season almonds and apricots were severely attacked, due to a prolonged period of damp, rainy weather. In one case an apricot grower sprayed his orchards five times with only partial results. Other orchards suffered to the same extent. In the Tracy apricot orchards brown rot had not been a factor in production until this year when it caused a marked reduction in yields.

SOUR S.A.P did not cause as much damage in this county as occurred in some other parts of the State. Most of our orchards are planted on upland soils with good drainage.

BACTERIAL CANKER OF TOMATOES was the lightest infection of several years estimated at less than one percent.

PLANT QUARANTINE

The purpose of plant quarantine is to prevent the introduction and spread within the state of pests injurious to the agricultural industry of the state.

INSPECTION OF INTERSTATE SHIPMENTS:

Number of shipments inspected	3,266
Number of parcels inspected	874,582
Number of shipments rejected	18
Number of parcels rejected	2,588

REASON FOR REJECTION: Five shipments were rejected for violation of the Oriental Fruit Moth quarantine, one for violation of the Peach Disease quarantine, one for violation of the Nut Tree Insects quarantine and one for violation of Section 118 of the "Agricultural Code" pertaining to fruit flies.

INSPECTION OF INTRASTATE SHIPMENTS OF NURSERY STOCK:

Kind of Stock	Shipments		Plants	
	Inspected	Rejected	Inspected	Rejected
Fruit Trees	439	133	97,685	858
Deciduous Nut Trees	375	97	57,169	604
Citrus & Subtropical Trees	52		1,330	
Grapevines	91	1	338,107	1
Berry Plants				
Strawberry	46		22,478	
Others	111	4	8,716	59
Vegetable Plants	38		23,519	
Seedlings				
Citrus	1		1	
Deciduous	14		4,629	
Ornamentals	757	10	46,965	65
Bulbs	928		125,784	
Bedding Plants	263		5,760	
Totals	3,115	245	810,443	1,587

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.

RODENT CONTROL

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

Strychnined grain	1,602 pounds
Thallium grain	8,449 pounds
Carbon Bisulphide	5,696 gallons

Approximately 50,000 acres were treated for ground squirrels using S.R.A. crews from the Single Men's Camp. Work was limited to large acreages and irrigation district canals. Many fields were worked a second time in order to secure as near as possible 100% results. A total of 11,878 man hours of labor were furnished by camp men. Foremen's time amounted to 1,448 man hours paid for by the property owner at the rate of \$5.00 a day.

All of the county roads were treated for squirrels. The foremen's time totalled 455 hours and S.R.A. men 711 hours.

SEED INSPECTION AND ANALYSIS

The California Seed Law is strictly a labeling provision and gives authority for rejecting seed only when mislabeled. In addition to this, the Agricultural Commissioner rejects seed under authority of the Agricultural Code, which provides for the prevention of the spread of pests throughout the State. Any seed offered for planting purposes may be rejected by the Agricultural Commissioner if it is infested with any weed seeds which would be a menace to agriculture in this County.

Authorities on weed control make the statement that there are more weeds planted each year than there are eradicated. This statement would be true in any locality where there is no regulation on the purity of seed sold for planting purposes. In San Joaquin County seed used for planting purposes must be free of any noxious weed seeds.

The following seeds were examined for noxious weed seeds during the year 1938:

Kind of Seed	Number of Lots
Alfalfa	123
Sudan Grass	50
Ladino Clover	35
Barley	31
Molilotus indica	21
Kontucky Blue Grass	17
Flax	15
White Dutch Clover	14
Ryoggrass	13
Oats	13
Clover sp.	10
Lawn Grass mixture	9
Vetch	9
Purple Vetch	7
Fenugreek	7
Wheat	5
Screenings	5
Bur Clover	4
Orchard Grass	4
Bermuda Grass	2
Colory	2
Spinach	2
Sorghum	2
Honey Dew	2
Millet	2
Rice	1
Dallis Grass	1
Canary Grass	1
Carrot	1
Bird Seed	1
Soy Beans	1
Milo	1
Beet	1
Beans	1
Total	414

The following weed seeds were present in lots rejected:

Seeds Returned to Shipper

Seed	Number of Lot
Water Grass	8
Creeping Mallow	6
Morning Glory	5
Bermuda Grass	5
Yellow Star Thistle	4
Sand Bur	3
Dodder	2
Russian Thistle	2
Puncture Vine	1
Hoary Gress	1

Seeds Hold For Proper Labeling

Sudan Grass	2
Alfalfa	1
Kentucky Blue Grass	1

Twenty-eight lots of seed were rejected comprising 462 bags.
Twenty-one germination tests were made.

WEED CONTROL

MAN HOURS OF WORK done by crew foreman, tractor drivers, and labor from the State Relief Administration under the supervision of the County Department of Agriculture:

<u>Operation</u>	<u>County Roads</u>		<u>Private Property</u>	
	Foreman and Drivers	S.R.A.	Foreman and Drivers	S.R.A.
Roadside Discing	7,371			
Puncture Vine	1,850	1,134	82	188
Yellow Star Thistle	232	696	471	4,866
Milk Thistle			220	3,534
Johnson Grass	42	576	989	21,638
General Roadside Weeds	<u>2,762</u>	<u>17,250</u>		
Total	12,257	19,656	1,762	30,226

ROADSIDE DISCING: Eight hundred miles of roadsides were disced for weed control and fire prevention this year at a total cost of \$11.30 per mile for the season. Five hundred and forty miles of roadside were disced a second time and forty miles disced a third time. The cost of one time over cost \$6.55 a mile.

PUNCTURE VINE: A great deal of expense is incurred each year by the county patrolling the roadsides for puncture vine control which has been held within bounds since its first introduction. Infestations on private property in most cases have been very satisfactorily taken care of. Exceptions occur on unfarmed crop lands where the growers have not used concerted enough efforts when the pest was first noticed and have allowed it to get widely scattered over their property. This season several notices were served and abatement proceedings carried out on such properties.

YELLOW STAR THISTLE: This pest is not widely scattered over the county and efforts are being made to confine or eliminate infestations. County roadsides are cultivated and hoed to prevent any plants from going to seed. On private property fields are cultivated or summer-fallowed to eliminate growing plants. In some cases where it is impossible to cultivate the ground, such as ditchbanks, S.R.A. crews are used and the woods hoed out. The State Highway Department gave excellent cooperation carrying on a program for yellow star thistle and other noxious weeds.

WALK THISTLE: The elimination of this pest on county roadsides has been very successful and efforts are now being directed to eradication on private properties. Many of the infestations are found along ditchbanks and other places where it is necessary to resort to hoeing.

JOHNSON GRASS: The above chart shows that many hours of work have been done on Johnson grass control. Most of the roots are found in the top soil above the plow pan and can be dug out. This has proved very successful especially in vineyards and orchards where spotted infestations occur.

GENERAL WEED CLEANUP ON ROADSIDES: Roadsides, on which it is not possible to do discing, are cleaned of weeds and bush. Russian Thistle and many other summer annuals are hoed and burned before the seed scatters.

MUSTARD: The wet season interfered with the application of sulfuric acid. A much larger acreage would have been treated under normal weather conditions. Approximately 2000 acres of grain were sprayed.

BROAD LEAF ANNUALS: In cooperation with the University of California and Crop Protection Institute many different annual plants were plotted out and treated with a selective weed killer. It is a yellow dye organic substance and shows very promising results. Of special interest, it was found that Amsinckia, a common pest in flax fields, is intolerant while the flax is tolerant. It is also non-caustic so that it will not be necessary to use especially designed machinery for its application. Other weeds intolerant of the material are mustard, wild radish and yellow star thistle. Grains are tolerant.

MORNING GLORY: Tracy bean farmers are planting alfalfa on some of their fields heavily infested with morning glory where it is not practical to treat with carbon bisulphide. Chocks are very carefully made with low borders and as high as fifty pounds of seed per acre are sowed. From the appearance of the fine stands of alfalfa there is not much doubt but what the morning glory will be crowded out. Carbon bisulphide was used on spot infestations.

LABEL THORN: Treatment of the one infestation in the county was continued during the year, using sodium arsenite in jars. The infestation has been reduced 90 percent since the first treatment in 1936.

KLAMATH WEED: Two small spots of Klamath Weed were found during the year. These and the two previously of record were treated with sodium chlorate.

RUSSIAN KNAPWEED AND HOARY CRESS: Cultivation to prevent seed formation and use of sodium chlorate to eradicate small spots were practices followed during the year.

MATERIALS USED: The following is the amount of materials handled by the Agricultural Commissioner for chemical weed control throughout the county for the year 1938.

Diesel Oil	5,448 gallons
Sodium Chlorate	11,700 pounds
Carbon Bisulphide	825 gallons

WINERIES - SUGAR TESTS

This office has been supervising the sugar testing of grapes at some of the wineries for the fourth season. This added service was given to the wineries at their request. The uniform testing of grapes has provided for a much better understanding between the growers and the wineries.

The men appointed to make these sugar tests are in no way connected with the wineries. They are under our direct supervision. A report is made on each load of grapes taken to the crusher; one copy of the report is given to the winery, one to the grower and one to the Agricultural Commissioner.

STATISTICS

The following report is made as accurately as possible. The acreage of the various crops is obtained by a farm to farm survey made 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 Cooperative 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.

Requests have been made that the price per unit be based on the net return to the farmer or on the price of the naked fruit or product excluding costs of packing and package. Since these costs are so variable from farm to farm, it would entail a great deal of detail bookkeeping to arrive at such a figure. Moreover, farmers, dealers, brokers and others deal in terms of the commodity prepared and packed for sale. Preparing and packing is an operation performed by the farmer and should be included in calculating gross income.

CROP SUMMARY FOR SAN JOAQUIN COUNTY

Farmers of this County suffered unusually heavy losses to their crops this past winter and spring. Heavy rains throughout the San Joaquin Valley in February and March created an excessive runoff. The San Joaquin River was above flood stage for a long period and levees gave away in seven different tracts of land, flooding 18,564 acres of agricultural land of which 7,215 acres were planted to crops having an estimated value of \$264,000.00 at harvest time. These crops were a total loss. Most of this land was not drained in time to plant any crops this season which represents a huge loss to the agricultural industry of this county.

Other agricultural areas of the county were temporarily flooded by streams overflowing their banks, particularly along Little John, Duck, Lone Tree and Bear Creeks and the Stanislaus and Mokelumne Rivers and the Diverting Canal. Most of the overflowed areas were planted to grain crops which ordinarily produce a good crop when flooded for a short period. This year repeated flooding of the land severely injured the crops.

Grain on the adobe soils and not subjected to overflow water was also seriously injured by the recurrence of heavy rains which kept the soil in a saturated condition and prevented the root system from functioning properly.

A freak windstorm in early February caused considerable damage to orchards especially olives and almonds blowing down many trees.

CROPS

ALMONDS: The crop was fifty percent of normal due to poor pollination, a light set, brown rot and shot hole fungus.

APRICOTS: This crop also was fifty percent of normal due to a poor set and brown rot.

CHESTNUTS: The crop was good and growers had no difficulty in disposing of it.

CHERRIES: The cherry crop was above normal. An accurate record over the past six years indicates that the total income from this crop is constant each year regardless of the size of crop. Short crop years growers receive higher prices and large crop years growers receive low prices.

FIGS: Production and prices were normal.

OLIVES: Production was normal. Prices lower than last year.

PLUMS: There was no control on plum shipments this year, and growers shipped twice as much fruit as last year for which they received less money.

PEACHES: Cling peach growers had a disastrous season due to a large carryover of canned goods. Some peaches sold as low as \$5.00 a ton. However, there were very few not harvested. Many were shipped fresh to local markets. Freestone peach growers fared better. Elberta peaches for canning brought \$22.50 a ton, peaches for fresh shipment consistently sold for fair prices, and the demand for dried peaches is good.

PRUNES: Heavy production and low prices.

WALNUTS: Growers had a good year. The crop was above normal and of good quality.

GRAPES, TABLE: The 1938 season was about the reverse of the 1937 season. A great deal of skepticism was prevalent concerning the outlook for Tokay grapes in the early season. Prices opened low but consistently held throughout the season. The quality was the finest in years.

GRAPES, WINE: Wine grapes for fresh shipment were below normal and prices were low. Production for the state was above normal and deliveries to wineries were subject to the provisions of the California Prorate Law. Farmers received lower prices than they have received for several seasons.

ALFALFA: Due to the high prices in the last two years there is an increase in alfalfa acreage. Prices have dropped due principally to a high production of wild and tame hay, and excellent feed conditions on the ranges.

BEANS: The acreage dropped as a result of low prices. Production per acre was above normal. In the Tracy baby lima bean district the average production per acre was 19-3/4 sacks per acre, an exceptionally high yield.

CORN AND GRAIN SORGHUM: The acreage of these two crops showed a high reduction for the county due principally to a replacement by other crops.

FLAX: This is relatively a new crop for San Joaquin County, grown on the West Side near Tracy. Yields have been normal.

POTATOES: The acreage planted to potatoes is lower than it has been for many years. Low prices, competition from other potato growing districts and replacement by more profitable crops account for this reduction.

SUGAR BEETS: The acreage shows a large increase over past years. The crop was better than earlier expectations. Planting was delayed by wet soil conditions.

SUNFLOWERS: Low prices caused a marked reduction in the acreage planted to sunflowers.

SWEET POTATOES: Acreage about doubled this past season. Sales have consistently held at fair prices.

GRAIN: Even though grain crops planted on adobe soils and on land subject to overflow were reduced in yields, other fields planted on land having good drainage had exceptionally high yields. This brought the average production per acre for the county above normal on barley and a normal production of oats. Wheat production was below normal as a large acreage is planted on the heavier soils subject to overflow and poor drainage.

ASPARAGUS: Harvesting of asparagus for fresh shipment was delayed by wet soil conditions. Many thousands of acres are of comparatively recent production. Production will continue to increase for the next few years.

CELERY: Yields per acre were below normal due to a number of factors. Unfavorable climatic conditions during the month of November was the principal cause for low yields. As stated before Western celery mosaic was a contributing factor in low yields.

ONIONS: Production per acre was normal. Prices on early onions showed considerable improvement over last year's prices.

PEAS: Pea production and prices were below normal.

TOMATOES: Growers had a good year. Fields were exceptionally free of insects and diseases. Yields were above normal.

MELONS: The melon market was sporadic. Some early melons brought fair prices and as the season advanced dropped to below the cost of harvesting. Water-melons were of poor quality with a great deal of white heart present.

THE TREND OF PERMANENT CROPS IN SAN JOAQUIN COUNTY
YEAR - 1938

Outstanding in the trend of permanent crops in San Joaquin County during the past year is the increased plantings of almonds, apricots, tokay grapes, cling peaches and freestone peaches. New plantings of almonds, largely of the Nonpareil and Texas varieties, are being made along the Stanislaus River between Ripon and Escalon. Almond orchards in the Lodi area are being replaced by vineyards. Apricot orchards are on the increase in the Tracy district. Yields on producing orchards in this area have been exceptionally high. Tokay grape vineyards have shown a gradual increase the past several years. New plantings are being made on land where orchards are removed. Increased plantings of cling peaches are mostly of the Palora, Gaume and Halford varieties. Plantings of freestone peaches are of assorted varieties. There is a large removal of Muir peaches.

Other crops have remained at about a stationary level; that is new plantings have about offset the removals with the exceptions of pears, plums and prunos. There has been a large removal of pears up until this past year. No new plantings have been made to offset the removals. There has been a gradual decrease in the plum and pruno acreage the past five years. The following chart shows the trend:

CROP	REMOVALS	NEW PLANTINGS	NON-BEARING	BEARING
	1938	1938	ACREAGE	ACREAGE
Almonds	58	320	1,262	3,957
Apples	None	None	5	32
Apricots	47	139	247	1,746
Chestnuts	None	None	49	251
Cherries (Shipping)	27	2	117	3,348
Cherries (Royal Ann)	8	None	30	1,163
Family Orchard	-	-	-	415
Figs	None	None	1	524
Grapes, Juice	310	330	1,201	34,063
Grapes, Tokay	11	114	555	17,565
Grapes, Other Table	5	4	6	1,622
Grapes, Raisin	14	None	52	921
Noctarines	None	1	52	122
Olives	None	None	None	365
Peaches, Cling	55	450	1,185	3,508
Peaches, Freestone	191	107	925	2,740
Persimmons	None	None	None	5
Plums & Prunos	56	16	80	3,017
Pears	4	None	10	396
Frickley Pear	None	None	None	5
Quince	None	None	None	4
Walnuts	40	26	635	9,300

FRUIT AND NUT CROPS
SAN JOAQUIN COUNTY - 1938

CROP	BEARING ACREAGE	PRODUCTION			*VALUE	
		PER ACRE	TOTAL	UNIT	PER UNIT	TOTAL
Almonds <i>Wick</i>	3,957	.30	1,187	Ton	\$ 275.00	\$ 326,425.00
Apples	32	150.00	4,800	Box	1.00	4,800.00
Apricots (Dried) <i>Wick</i>	1,142	.55	628	Ton	220.00	138,160.00
(Canning) <i>Wick</i>	570	2.27	1,294	Ton	20.00	25,880.00
Cherries (Royal Ann)	1,163	3.46	4,024	Ton	57.00	229,368.00
(Fresh)		1.60	5,356	Ton	90.00	482,040.00
Other (Processed)	3,348		110	Ton	57.00	6,270.00
Chestnuts	251	1.00	⁴⁰⁸⁰ 251	Ton	⁵⁷ 100.00	25,100.00
Figs (Dried) <i>Bromberg</i>		.25	131	Ton	65.00	8,515.00
(Fresh)	524	.55	28,820	Crate	.60	17,292.00
(Cannery)		.50		Ton	63.00	16,506.00
Juice (Shipping)	34,063	1.30	44,282	Ton	12.50	553,525.00
Grapes (Wine)		2.90	98,783	Ton	10.50	1,037,221.00
Thompson Seedless	734	6.20	4,550	Ton	10.50	47,775.00
Tokay (Fresh)	17,565	220.00	3,864,300	Pkgs.	.625	2,415,187.00
Grapes (Wine)		4.94	86,771	Ton	10.50	911,095.00
Other Table (Fresh)	1,809	64.00	115,776	Pkgs.	.625	72,360.00
Grapes (Wine)		4.00	7,236	Ton	10.50	75,978.00
Orives <i>Wick</i>	365	2.00	730	Ton	37.00	27,010.00
Peaches (Free) <i>Wick</i>	2,740	6.00	16,440 16,440	Ton	19.00	312,360.00
(Cling)	3,508	6.50	22,802	Ton	9.75	222,319.00
Pears	396	5.00	1,980	Ton	14.50	28,710.00
Plums	1,699	185.00	314,315	Pkgs.	.60	188,589.00
Prunes (Fresh)	1,320	66.00	87,120	Pkgs.	.60	52,272.00
(Dried)		2.00	2,640	Ton	45.00	118,800.00
Walnuts (English)	8,580	.58	4,976	Ton	200.00	995,200.00
(Black)	387		3,000	Cwt.	.75	2,250.00
Misc'l. Orchards	540			Acre	80.00	43,200.00
Total						\$8,384,207.00

* Gross income for basis of valuation see page 12.

FIELD CROPS
SAN JOAQUIN COUNTY - 1938

CROP	ACREAGE	PRODUCTION			*VALUE	
		PER ACRE	TOTAL	UNIT	PER UNIT	TOTAL
Alfalfa Hay	41,031	6.00	246,186	Ton	9.00	\$ 2,215,674.00
Barley	104,734	15.00	1,571,010	Cwt.	1.00	1,571,010.00
Beans	28,244	17.00	480,148	Cwt.	3.05	1,464,451.00
Bean Straw	5,000	1.00	5,000	Ton	5.50	27,500.00
Corn	11,834	.90	10,650	Ton	24.00	255,600.00
Corn Husks			200	Ton	320.00	64,000.00
Canary Grass Seed	318	30.00	9,540	Cwt.	2.00	19,080.00
Flax Seed	3,893	19.00	73,967	Bu.	1.81	133,880.00
Grain Sorghum	9,363	1.00	9,363	Ton	21.00	196,623.00
Hay (Grain)	20,935	1.60	33,496	Ton	8.00	267,968.00
Hay (Wild)	11,369	1.30	14,780	Ton	6.10	90,158.00
Ladino Clover	11,443			Acre	35.00	400,505.00
Oats	11,050	10.00	110,500	Cwt.	1.20	132,600.00
Pasture	236,721			Acre	1.00	236,721.00
Peanuts	172	.40	69	Ton	65.00	4,485.00
Potatoes	8,930	180.00	1,607,400	Cwt.	.60	964,440.00
Pumpkins	587	13.00	7,631	Ton	3.00	22,893.00
Rice	2,659	30.00	79,770	Cwt.	1.20	95,724.00
Rye	147			Acre	15.00	2,205.00
Silage	2,501	12.00	30,012	Ton	5.00	150,060.00
Spearment and Peppermint	600	8.00	4,800	Gal.	12.00	57,600.00
Stubble	236,000			Acre	1.00	236,000.00
Sudan Grass	4,916			Acre	25.00	122,900.00
Sugar Beets	14,835	16.00	237,360	Ton	6.75	1,602,180.00
Sunflower	1,606	14.00	22,484	Cwt.	2.00	44,968.00
Sweet Potatoes	2,121	4.50	9,544	Ton	25.00	238,600.00
Wheat	60,787	10.00	607,870	Cwt.	1.10	668,657.00
					Total	\$11,376,482.00

Gross income - for basis of valuation see page 12

VEGETABLE CROPS
SAN JOAQUIN COUNTY - 1938

CROP	BEARING ACRES	PRODUCTION			*VALUE	
		PER ACRE	TOTAL	UNIT	PER UNIT	TOTAL
Asparagus (Fresh)	27,646	552.00	15,260,592	lb.	.0475	\$ 724,878.00
(Cannery) /		1,848.00	51,089,808	lb.	.035	1,788,143.00
Cantaloupes	211	200.00	42,200	Crate	.70	29,540.00
Carrots	322	300.00	96,600	Crate	1.10	106,260.00
Casabas	643	10.00	6,430	Ton	7.00	45,010.00
Celery ('38 - '39) (Season)	6,583	174.00	1,145,442	½ Crate	1.05	1,202,714.00
Honeydews	436	8.00	3,488	Ton	6.50	22,672.00
Onions (Early)	337	250.00	84,250	Cwt.	1.50	126,375.00
(Late)	522	175.00	91,350	Cwt.	1.20	109,620.00
Peas	2,017	88.00	177,496	30 lb. Hamper	.83	147,322.00
Persians	116	6.00	696	Ton	9.00	6,264.00
Spinach	534	3.00	1,602	Ton	11.00	17,622.00
Squash	326	8.00	2,608	Ton	8.00	20,864.00
Strawberries	92	400.00	36,800	20 Basket Crate	.50	18,400.00
Tomatoes (Pear)	4,238	9.00	38,142	Ton	14.50	553,059.00
(Round)	1,446	9.00	13,014	Ton	11.00	143,154.00
Truck Garden	3,012			Acre	80.00	240,960.00
Watermelons	1,648	14.00	23,072	Ton	5.00	115,360.00
					Total	\$5,407,217.00

* Gross income - for basis of valuation see page 12.

/ For total acreage add 4053 non-bearing.

SEED CROPS^o
S/N JOAQUIN COUNTY - 1938^o

CROP	ACREAGE	PRODUCTION			* VALUE	
		PER ACRE	TOTAL	UNIT	PER UNIT	TOTAL
Alfalfa Seed	170	355.00	60,350	lb.	.16	\$ 9,656.00
Asparagus Roots	118			Acre	200.00	23,600.00
Beet Seed	38	342.00	12,996	lb.	.145	1,884.00
Canary Grass Seed	318	10.00	3,180	Cwt.	2.00	6,360.00
Carrot Seed	53	368.00	19,504	lb.	.19	3,706.00
Celery Beds	80			Acre	200.00	16,000.00
Celery Seed	5	380.00	1,900	lb.	.75	1,425.00
Willet	561	8.00	4,488	Cwt.	1.50	6,732.00
Lettuce Seed	38	400.00	15,200	lb.	.25	3,800.00
Onion Seed	15	413.00	6,195	lb.	.375	2,323.00
Parsley Seed	2	300.00	600	lb.	.15	90.00
Parsnip Seed	2	850.00	1,700	lb.	.14	238.00
Salsify Seed	10	510.00	5,100	lb.	.35	1,785.00
Deciduous and Ornamental	80			Acre	1000.00	80,000.00
Misc'l. Seed Crops	85			Acre	100.00	8,500.00
					Total	\$166,099.00

* Gross income - for basis of valuation see page 12.

Value of Fruit and Nut Crops	\$ 8,384,207.00
" " Field Crops	11,376,482.00
" " Vegetable Crops	5,407,217.00
" " Seed Crops and Nursery	<u>166,099.00</u>
Grand Total	\$25,334,005.00

FINANCIAL STATEMENT

YEAR 1938

Supervision	\$ 7,022.66
Plant Quarantine and Nursery Stock Inspection	8,045.35
Standardization	8,429.53
Orchard and Field Inspection	7,223.78
Rodent Control	7,557.65
Weed Control	6,158.57
Apiary	1,161.52
Egg Inspection	602.09
Statistics	3,170.27
Seed Inspection	1,642.66
Fairs and Exhibits	1,959.43
Office Help	2,740.00
Equipment, Supplies and Miscellaneous Expense	<u>5,002.65</u>
Total	\$60,716.16

