

~~edition~~

modern citrus

by J.C. Johnston, Assistant Tulare County Farm Advisor

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One of the most important citrus growing areas in California extends across Tulare county from north to south along the warm foot hills at an elevation of 300 to 1500 feet above sea level. Since ranchers of the valley began 50 years ago to break up their wheat fields to make way for tree crops, citrus fruits have been a leading product of the county.

The cool winters and hot summers of the valley combine to produce early fruit which is noted for its high color, rich flavor and long-keeping qualities. This fruit is ideal for export and as a result Tulare county has a large ^{interest} ~~share~~ in the export market.

At the present time, approximately 40,000 acres are devoted to citrus fruits. In round numbers, the acreage in the principal varieties is as follows: Navels, 25,000 acres; ~~Valencias~~, Valencias, 12,000 acres; lemons, 1200 acres, and grapefruit, 800 acres. Miscellaneous varieties, such as limes, mandarine oranges and seedling oranges make up the remainder of the acreage.

^{acreage constant} The acreage of citrus fruit has remained almost constant for the past 10 years, but production has increased because of improved cultural practices. Most of the increase has occurred since 1934 when the use of zinc as a fertilizer ~~is~~ was introduced. For example, the average yield of Navel oranges for the period from 1923 to 1927 was 143.9 packed boxes per acre; for the period from 1933 to 1937, it was 173.8 packed boxes per acre, and the average yield for the three years since the use of zinc became general (1935, 1936 and 1937) is 194.7 packed boxes per acre.

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Total production for the county has ~~range~~ ranged between 5,000,000 and 9,000,000 boxes for oranges and 95,000 to 190,000 boxes for lemons.

Citrus fruits have returned more money to the county than any other crop in 19 out of the past 20 years, according to the Tulare County Board of Trade. The returns have ranged between \$6,000,000 and \$15,000,000 annually.

It is fortunate that citrus fruits are adapted to a variety of soils for this favored foothill area includes soils ranging from sand to heavy clay adobe. These wide differences in soils have made it necessary to adopt cultural practices to fit local conditions. This has been done so successfully, that the county is noted for the fine appearance of its orchards. *Growers progressive*

Citrus growers of Tulare county are among the most progressive in the state as shown by the fact that several of the important developments in the industry have had their beginnings in Tulare county. For example, the present program of reduced tillage, the use of nonleguminous cover crops and the use of zinc as a fertilizer were developed in this county.

The latter practice which came into common use in Tulare county in 1933, has spread to practically all other citrus producing countries of the world. Tulare county was the first to make ~~use~~ extensive use of maturity standards and controlled the movement of fruit to market by means of the Central California Citrus League more than 10 years before the California-Arizona marketing agreement was established.

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The citrus grower of Tulare county has many dissicult problems but he also has certain important advantages,

The Navel orange crop is early and reaches a desirable market; the industry is not as heavily capitalized as in the case in many districts. The pest and diseases which must be controlled are few and the methods used are relatively inexpensive.

Many citrus growers are also producers of grapes and deciduous fruits or are engaged in some general farm enterprise. This diversification of crops has ~~stabilized~~ stabilized income and has enabled many growers to realize fair returns ~~in~~ even in the face of present low prices.

The outlooke for the citrus industry in Tulare county is good. Prices are not likely to be high but the relatively low cost of production, the progressive type of grower engaged in the industry, the conservative methods of operation and the opportunity for diversification promise to keep the citrus industry in first place as a producer of revenue in the county.

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~~edition~~

grapes

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by W.E. Gilfillan, Tulare County Farm Advisor

Ranking second in California in production of grapes Tulare county has become known widely as a producer of high quality table grapes. This has been due primarily to three factors--first, soil and climate; second, choice of a few good varieties; third, progressive growers and shippers; fourth, 20 years of efficient enforcement of standardization or shipping inspection by the agricultural commissioner's office.

These are factors generally accepted as normal by Tulare county residents but they are not found in all areas. Together, they have been responsible for the development of an industry of 62,436 acres of vineyard which, together with packing plants and wineries, have a capital value of more than \$17,000,000, with a gross annual return of from \$3,125,000 in 1934 to \$6,190,000 in 1938. Back in the day of real prices, in 1921, the raisin crop alone brought more than \$6,000,000 with about \$3,700,000 for the shipping grapes. *many in industry*

There are more than 3100 ranches in Tulare county that produce grapes on a commercial scale. If we include growers, ranch workers and the employes of shipping and wine industries and closely related commercial activities, there probably are 9000 persons dependent upon this industry for a living.

It is quite generally scattered over the county and its success or failure to show a profitable returns is felt in all lines of business.

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ad one grapes

(While grape growing was started on a commercial basis in Tulare county more than 50 years ago, the big development came in the period 1915-1925 when the acreage increased at the rate of 5000 acres a year. In the early plantings, wine and raisin varieties were most common, but in the plantings of 1915-1925 the Thompson variety constituted 60 per cent of the total.

(After 1928, there was a distinct let-down in Thompson plantings and 6000 or 7000 acres were pulled up. Plantings of table varieties, chiefly Emperors, were heavy in 1920 to 1925 with more than 2000 acres being started each year. Wine varieties, known in those days as juice grapes because prohibition was in force, were expanded about 500 acres a year between 1920 and 1926. After a quiet period of four or five years, plantings of grapes again were increased, starting in 1933 and continuing to the present time at the rate of about 2000 acres a year. These recent plantings, mostly Thompsons and Emperors, are primarily planned for fresh shipment as table grapes. *↓ Dinuba is center*

(The raisin industry has been the major phase of our grape deal, although it is now relatively not so great as in the early days. Before 1915, raisin varieties made up 75 per cent of the total acreage, whereas today the figure is only 60 per cent because of the extensive planting of table grapes these past five years.

(The center of the raisin industry is Dinuba which has half the acreage in the county. This district has been noted for its Thompson Seedless plantings because of the deep, sandy loam soils there. Production runs from one to three tons of raisins to the acre.

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ad two grapes

In addition to Thompsons, the Sultana variety was used extensively but it is not planted much any more. There are, however, still 2500 acres planted prior to 1920. Muscats rank second to Thompsons, there being 6500 acres. Hardly any muscats were planted, however, after 1922 until 1936 when 200 acres were put in.

currents planted
Muscats, now, of course, are one of our important wine grapes although it usually is classed as a raisin variety. In addition to Thompsons, Muscats and Sultanas, there are about 500 acres of Zante currants. These grapes, when dried, produce the small black currant. In 1935, more than 100 acres were planted but scarcely any since then. These used to bring about twice the price of Thompson Seedless.

In recent years, the production of raisins has been so large in relation to market demands that a pro rate has been in force to regulate marketing. Although prices are low, between \$50 and \$60 a ton, this industry had a gross income in Tulare county of \$2,615,000.

Wine grape varieties are produced in scattered plantings all through Tulare county on almost 4000 acres; however, a very large tonnage of Muscats and Thompson Seedless also are used by wineries in addition to the real wine grapes. The strictly wine grape acreage is made up of 1600 acres of Alicante, 800 acres of Carignana, 350 acres of Zinfandel and about 900 acres of other dark ~~varieties~~ varieties--Petite Sirah, Mission, Mataro and Grenache. White wine grapes are few in Tulare county--less than 300 acres all told.

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ad three grapes

profit in dry era (C)

Probably the novel feature of the wine grape development was the large profit for a few years from the Alicante variety which was shipped east in 1920 to 1925 for home wine making.

While not a superior ~~wine~~ wine variety, the Alicante has lots of color and was in great demand for coloring wines made in homes from Muscat and other white grapes. About 1500 acres were planted in this period.

Today, wine grapes are pressed in three wineries in Tulare county and in nearby wine counties. The crop in 1937 brought almost \$800,000 which is about the average return in recent years.

The most interesting phase of the Tulare county grape industry probably is the rapid and continuous growth of the table grape type. While the production and shipping of fancy table grapes has been important for the past 40 years, the real development came after 1920 and by 1928 the acreage had doubled. After a decline in planting from 1929 to 1934, there was a decided increase and almost 1000 acres have been planted in recent years.

Most important of table varieties is the Emperor for which Tulare county is famous. This variety is produced to perfection on the red soils of Exeter, Ivanhoe and Woodlake.

About 85 per cent of all Emperors are produced in Tulare county.

new Varieties (C)
The Emperor is a large red to dark red grape that looks well, keeps and ships well and has a good eating quality. Today there are 12,000 acres, ~~and~~ about ~~2000~~ 2000 acres not yet in bearing, in Tulare county. Here is an instance where good soil and climate are combined with superior farming, and topped off with expert harvesting, packing and marketing to make an outstanding industry. It represents an investment of \$4,000,000 and an average gross income of \$2,000,000 with about 800 growers involved.

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ad four grapes

(While ~~Emperors~~ ^{other} make up two-thirds of the table grape variety, there are ^{other} important varieties. There are 3500 acres of White Malagas, once the leading table grape, but no longer very profitable. Hardly any planting has been carried on since 1925 and several thousand acres of Malagas have been pulled or top worked.

(Two new varieties, the Ribier, a large firm black grape, and the Red Malaga, or Molinera, a brilliant red grape, have taken the place of the old White Malaga. There are today about 1000 acres each of these varieties. They are grown and handled in much the same manner as the ~~Emperors~~ and in the same districts.

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edition grain production

by W.E. Gilfillan,

Tulare county Farm Agent

adviser

Grain production in Tulare county is still one of the major lines of farming despite the vast acreage planted to more specialized fruit crops in recent years. Back in 1900, the agriculture of the county was predominately grain production and old timers still tell of the long lines of wagons drawn by four and six horse teams carrying wheat to warehouses and railroad sidings.

In those days, all farming and most town hauling was done with horses and mules. Much of the grain and grain hay was used locally to feed such work stock. Wheat was the chief cash crop of the county farmers. Most of the grain land was dry farmed then as it is today.

The development of irrigation usually brought a change from wheat or barley to some fruit crop. However, after 40 years of fruit, alfalfa and cotton development there still remains some 100,000 acres planted each year to wheat, barley, oats and milo. This compares quite favorably to ~~120,000~~ 120,000 acres of fruit, 85,000 acres of cotton and 60,000 acres of alfalfa and ladino clover.

The fruit and cotton crops with their marketing and production problems have tended in the past 20 years to cause most of us to feel that grain production always was and still is one of our major agricultural enterprises.

Today, Tulare county is producing 65,000 of wheat and 6000 of barley for grain plus 15,000 acres of oats, barley and wheat for hay and 7000 acres of grain sorghum. The 1938 crops had a total value of \$1,093,000 even with the low prices. In 1919, when war time prices still prevailed, the income from the grain crop amounted to \$2,500,000 the highest income in the history of grain production in Tulare county.

ad one grain production

Wheat always has been the chief grain crop of Tulare county. Forty years ago much of the land now in fruit and vines was used for wheat. In those days, there was three times the present acreage. In fact, half of our crop land was used for wheat.

Today, most of the wheat is produced on non-irrigated land adjacent to Ducor and Terra Bella with a smaller planting near Orange Cove. About the only change in wheat production has been the use of tractors in place of mules and horses and in the varieties of wheat seeded.

Both these changes have done much to improve production. Although rainfall is a deciding factor in wheat yields, the acreage yield has been increased so that the last three years show an average of 18 bushels an acre.

Wheat ranches are large, running from 160 to three or four thousand acres. Much of the land is rented by local ranchers from absentee land lords some of whom live in eastern states and some in Europe. Rent usually is one-fourth of the crop. While profits have not been spectacular since the war era, wheat farming is a reasonably stable industry. At present, wheat is limited by the AAA program because of the surplus in the United States and the world markets. However, payments of 27 cents a bushel are made to ranchers who do not overplant. These payments offset, to a considerable degree, the loss from reduced acreage.

Barley for grain always has been a less important crop than wheat in Tulare county. The ^{acreage} ~~average~~ has fluctuated greatly. From about 9000 acres in 1899, it increased to 31,000 acres in 1919 and has since declined until in recent years ~~less than~~ less than 8000 acres has been harvested for grain.

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ad two grain production

Barley as contrasted to dry farmed wheat frequently is grown on irrigated land. Much of the barley is in small planting scattered through the dairy and hog producing areas near Porterville, Tulare and Visalia. However, large dry farmed plantings are also noted. Much of the barley harvested for grain is fed to live stock on hog and dairy farms here. Large amounts are also shipped into the county for this purpose.

It is the basic live stock feed here, taking the place that corn holds in the middle west. Although not a major crop, barley as grain last year had a total value of \$67,000.

Oats which normally is a feed for work stock is no longer of importance as a grain crop although about 2000 acres are harvested each year. The use of tractors in place of mules and horses has made the use of oats as a grain of minor importance.

Grain sorghum, chiefly milo, is a crop that is growing in importance in Tulare county. From about 2000 acres back in 1899, acreage has expanded to about 8000 acres with a value of \$150,000. Most of the milo is fed locally to live stock. It ranks next to barley as a source of live stock feed.

Milo is primarily an irrigated crop, rarely being tried on non-irrigated lands. It is produced in small tracts of 10 to 50 acres and in all parts of the county, often as a second crop on land from which barley or oat hay crops have been harvested.

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Improvement in quality of the seed both for heavy production and uniform height has been a big factor in the increase in acreage. Double dwarf milo is the standard strain used here and much of it is harvested by the combine when formerly it was cut by hand. Planted on good land in May and given three irrigations, this crop can be expected to produce between 3000 and 4000 pounds of grain per acre.

Grain hay from wheat, barley or oats has for many years been a most important part of the grain farming system in Tulare county. At one time, back in 1919, over 40,000 acres of small grains was cut for hay. Since grain hay was an important work stock feed its production has dropped off with the replacement of work stock by tractors.

Last year about 15,000 acres were cut for hay. While much of this is used locally, a considerable tonnage is shipped out as baled hay. While barley and oat hay are preferred, some wheat is cut for this purpose each year and large acreages of wheat are so harvested when lack of spring rains makes it grain production ~~unprofitable~~ unprofitable. Today most grain hay is baled at harvest time. Yields run from one to three tons an acre.

In addition to use of small grains for grain or hay crops, recent years have seen increased use of barley and oats for winter and spring pasture. The use of green pastures in profitable meat and dairy production is now generally recognized. Barley planted in September or October makes excellent pasture from the middle of winter until late spring.

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Oats and wheat also are satisfactory for winter and spring feeds. Under the present AAA program, such pasturing is not restricted. Consequently, farmers have expanded materially the acreage of grains used for pasture.

These three uses--grain, hay and pasture, make small grain production a very basic part of the agriculture of Tulare county. The fact that this county is known widely as a fruit and cotton section is likely to cause many persons to overlook the importance of our small grain farming.

Such farming always has been fundamental to Tulare county's agriculture. This condition is likely to continue.

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After 1928, there was a distinct let-down in Thompson plantings and 6000 or 7000 acres were pulled up. Plantings of table varieties, chiefly Emperors, were heavy in 1920 to 1925 with more than 2000 acres being started each year. Wine varieties, known in those days as juice grapes because prohibition was in force, were expanded about 500 acres a year between 1920 and 1926. After a quiet period of four or five years, plantings of grapes again were increased, starting in 1933 and continuing to the present time at the rate of about 2000 acres a year. These recent plantings, mostly Thompsons and Emperors, are primarily planned for fresh shipment as table grapes.

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