

WHERE
CALIFORNIA FRUITS

RESOURCES
OF
SACRAMENTO COUNTY

GROW

A Souvenir
OF
THE BEE

SACRAMENTO COUNTY

AND
ITS RESOURCES



A
SOUVENIR
OF

THE BEE

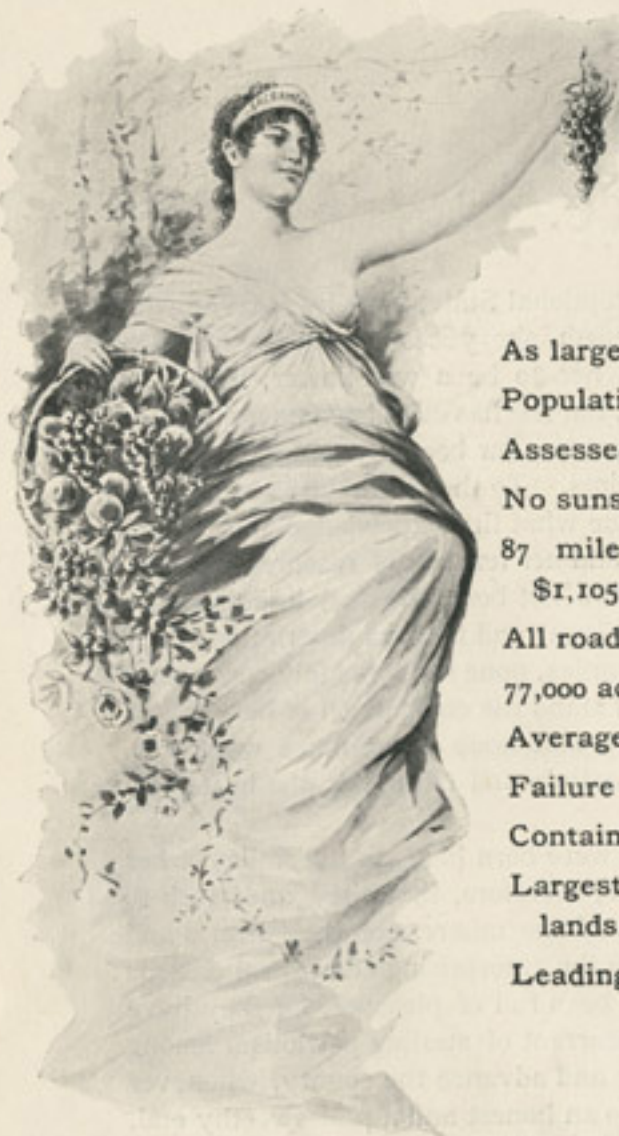
1894

OUR CAPITAL CITY

PAST AND PRESENT

"THESE BE FACTS."

Sacramento County.



As large as Rhode Island.
Population 1894, 45,000.
Assessed valuation 1894, \$34,000,000.
No sunstroke, snow nor blizzard.
87 miles of railroad, assessed at \$1,105,033.
All roads and bridges free.
77,000 acres in vegetables 1894.
Average annual rainfall, 20 inches.
Failure of crops never recorded.
Contains noted Flame Tokay district.
Largest proportionate acreage of rich lands.
Leading hop district of United States.

Soil and conditions adapted to most profitable products.
Greatest irrigation facilities in the State.
Flourishing orchards with and without irrigation.
The heart of California's early fruit belt,

Which grows 75% of the State's deciduous fruits.
Fruit and vegetables marketed every month.
The home of all citrus and deciduous fruits.
Has the world's largest thoroughbred breeding farm.
100,000,000 pounds of fruit grown in 1893.
Contains the world's second largest vineyard.
10-acre orchards supporting large families.
The only district shipping berries in full carloads.
Cool summer nights—never above 70° F.

Sacramento City.

"The ideal winter resort."—*Lieut. A. W. Greeley, Chief Signal Service Officer, U. S.*

Population 1894, 30,000; assessed valuation, \$15,000,000.
13 miles double-track electric railway.
The world's record for clear days.
Avenues of orange, palm, magnolia, mulberry.
Gardens in bloom all the year.
Second healthiest city in United States.
Second commercial city in California.
Center for seven railways.

River communication with tide water.
Cheap power for manufacturing.
Supply depot for Northern California and Nevada.
Its railroad shops employ 2,000 men.
Has a \$1,000,000 art gallery.
Rail and water exports 1893, 362,231 tons.
Imports 1893, 434,676 tons (largely iron, rock, gravel).
East-bound fresh-fruit shipments 1893, 4,349 carloads.
East-bound wine shipments 1893, 987 carloads.
East-bound hop shipments 1893, 285 carloads.

Sacramento's Natural Resources.

A COUNTY DEVOTED TO THE HIGHER, MORE PROFITABLE AND COMMUNITY-CREATING
BRANCHES OF SOIL CULTURE.

[SEE MAP.]

SACRAMENTO COUNTY embraces 640,000 acres, being only fifty-four square miles smaller than the State of Rhode Island. It is situated in the center of the State of California, and practically in the center of the great Sacramento Valley, which, under various names, extends from Redding on the north to the Tehachapi Mountains on the south, a distance of 400 miles. The acreage in the county assessed is 596,396, which does not include city and town sites. Total assessed value of all property, \$34,000,000. Population of county (1894) 45,000. There are eighty-seven miles of railroad in the county, assessed at \$1,105,033. The county rate of taxation, exclusive of road tax, is \$1 on the \$100.

Topography and Soil.—The western boundary of the county for over fifty miles is the Sacramento River, the great navigable waterway of the State, and the southern boundary is formed by Dry Creek, the Mokelumne River and the San Joaquin River. The American River traverses the county from east to west near the northern line, and the Cosumnes River crosses it

from northeast to southwest. There is no mountain land in the county, most of it being almost flat or gently rolling valley land, with an altitude of from thirty to three hundred feet above the sea-level. With the latter elevation in the extreme eastern portion of the county the rolling foothills of the Sierra Nevada commence.

In this large territory there is practically no waste land. There may be said to be three different varieties of soil. First, the river bottom, a rich alluvial deposit, and of this soil there is a very large acreage along the various rivers of the county. Second, a higher bottom, left by ancient waterways, the soil being a deep, sandy loam. Third, the red soil of the plains and lower foothills. All of these soils are particularly adapted to the best paying crops in fruit and produce. The lands close to transportation are all under cultivation, but several thousand acres can be found which are practically unoccupied. As yet a comparatively small proportion of the county's acreage is devoted to the profitable uses for which it is best adapted.



PEARS, PRUNES AND PEACHES, 5 YEARS OLD.—ORANGE VALE.

Photographed April 30, 1894.

Uses of the Soil.—A consideration of the products of Sacramento County and the relative acreage devoted to each offers striking evidence of her wealth of natural resources. An excellent idea of the uses to which the soil in the various portions of the county was put in 1894 can be obtained from the map inserted in this book, on which the products are indicated in each district by conventional characters. The following estimate of the actual acreage in cereals, orchards, vegetables, etc., in 1894, is made from information furnished by County Assessor R. C. Irvine, from careful examination of returns made under the law to him, and from the data gathered by the State Board of Horticulture, the State Board of Agriculture, and private firms interested in the shipping and forwarding business :

USES OF THE SOIL.—SACRAMENTO COUNTY, 1894.

	ACRES.
Orchards (deciduous and orange).....	20,000
Vineyards (wine, grape and raisin).....	10,000
Berries	1,000
Vegetables	50,000
Potatoes	20,000
Beans	7,000
Hops	2,000
Alfalfa	10,000
Wheat	80,000
Barley	60,000
Hay	70,000
Corn	7,500
Oats	1,000
Grazing land	140,000
Unreclaimed swamp land.....	80,000

Evolution of Soil Culture.—In considering the above table the following points should be borne in mind :

First—Much of the acreage now in wheat, barley and hay, and marked on the map as "grain and hay," is really first-class orchard and vineyard land. Every year the acreage which can be sown to grain in Sacramento County decreases because of the planting of new orchards and vineyards. For instance, in the center of the large wheat acreage immediately north of Sacramento City, are, perhaps, 10,000 acres of splendid berry land, fully equal to that in the Florin district, and 25,000 acres of deep orchard land similar to that at Orange Vale. Some of the acreage now devoted to grazing is good vine and orchard land.

Second—Of the 80,000 acres of swamp and overflow land, practically useless for cultivation in 1894, nearly every acre is of the richest kind of alfalfa, orchard and vegetable land, and all of it will be, within a few years, reclaimed and planted, as has been much similar land in the few years prior to 1894.

Third—The relative acreage devoted to wheat, barley and hay, respectively, changes from year to year, according to the nature of the season, prices, etc.

This aptly illustrates the gradual evolution in the uses of the soil in this county, through grazing, hay and grain growing, to the culture of fruit, vines, hops, etc. There is perhaps no other county in the State in which such a large proportion of the acreage offers soil and facilities adapted to the higher and more profitable branches of soil culture, supporting the most intelligent and most numerous population ; and it is only a question of a few years when the greater portion of the county will be cultivated for such purposes. At Orange Vale, for instance, a tenantless grain-field of 3,000 acres has been replaced in six years by numerous small orchards and vineyards, each supporting its own home and family,



PEACHES, 6 YEARS OLD.—ORANGE VALE.

Photographed April 30, 1894.

Orchards and Vineyards.

THE VARIETY OF FRUITS GROWN IN SACRAMENTO COUNTY, AND THEIR MARKETS.—

A HARVEST EVERY MONTH.

WITH all the advantages indicated, of soil, climate, location and irrigation, and particularly early ripening of fruits, and the facilities for transportation offered by the Sacramento River and the various railroads centering at Sacramento City, this county is interested most in early fruits and vegetables, and the acreage in these products is constantly increasing, while that in cereals diminishes. All deciduous fruits (except the apple), and all the citrus and semi-tropical fruits, are grown to perfection. In



FLAME TOKAY VINEYARD.—NATOMA.

various portions of the county will be found peach, pear, apricot, prune, plum, cherry, almond, olive, fig, orange and all kinds of wine and table grapes, not grown for ornament, but in large orchards and vineyards of from ten to several thousand acres, and returning large profits, because of the exceptional advantages offered for the culture of such fruits. The Bartlett pear and peach orchards of the Sacramento River are famous. The early peaches and cherries, the small fruits, and the berries and apricots of the plains lands, are equally celebrated.

A Harvest Every Month.—Here and there throughout the State of California are "thermal belts" and "fruit sections" laying claim to certain qualifications, such as "apricot section," "the

home of the prune," or a "citrus belt," etc. Of Sacramento County it may be said it combines all of these, and there is neither fruit nor flower, vegetable nor grain, produced elsewhere that cannot be produced (or, it might more properly be said, *is* not being produced) to perfection in this section. Nor is there a month within the calendar failing to produce, and in which are not gathered, fruits, vegetables and products for market. Thus, during January, February and March are gathered oranges, lemons and persimmons, the latter attaining the size of ordinary apples. April and May bring strawberries, raspberries, blackberries and cherries. June and July produce apricots, plums and nectarines, with a profusion of peaches reached nowhere else in the State, and which continue marketable until the month of October. August, September and October are prodigal in their recurring crops of apples, figs, pears, prunes, raisin and table grapes, the latter of which are here grown to absolute perfection and in quantity excelling any other county of the State. November and December bring the earliest varieties of citrus fruits, olive, quince and pomegranate. Almonds, walnuts and peanuts, in their respective seasons, are produced in luxurious abundance.

Sacramento County's Future.—A glance at the county map inserted in this work will give a fair indication of the manner in which the orchards and vineyards of Sacramento County were distributed in 1894. It must be remembered, however, that much of the land devoted in 1894 to hay and grain, and even some of that used for grazing, is first-class orchard, vineyard and berry land, and within ten years undoubtedly most of it will be devoted to such uses. In fact, there is not perhaps in the State of California a county that has so large a proportion of its acreage adapted to the higher and more remunerative branches of agriculture—the growth of hops, garden truck, fruit, grape and berry culture, etc.—as Sacramento. The county is therefore capable of supporting in ease and comfort, by the culture of the soil, a dense population.

It will be noticed that most of the orchards and vineyards in 1894 are along the Sacramento River, and—in the American River district—upon the lines of the Sacramento & Placerville Railroad; and through the center of the county, along the lines of the Western Pacific and the Amador Branch railroads. This is simply because the intelligent horticulturist does not plant orchards on lands remote from transportation, no matter how rich in character. It is but a question of a few years when electric railways and irrigation will

open up most of the land in the county, now devoted to grain, to the higher uses of the horticulturist.

Sacramento's Fruits and Their Disposition.—In 1894 there were, it is estimated, 20,000 acres in Sacramento County planted to fruits in orchard form, some of the trees being not yet in bearing. The following list comprises the leading fruits, and indicates the relative acreage of each, commencing with peaches, which had the largest (about 4,000 acres), and ending with lemons, the acreage of which is only nominal, and with apples, of which there were only about fifty acres, the altitude of the county being too low and its climate too mild to produce a first-class apple. The Early Alexander and Red Astrachan apples grown in the vicinity of Sacramento City command, it is true, a good price in Denver and other Eastern markets to which they are shipped; but it is because these apples



RESIDENCE OF W. E. GERBER, SACRAMENTO CITY.

mature so much earlier here than elsewhere and have no competition in the markets referred to:

1, peach; 2, pear; 3, prune; 4, small fruits and berries; 5, plum; 6, apricot; 7, almond; 8, orange; 9, cherry; 10, fig; 11, olive; 12, walnut; 13, apple; 14, lemon.

In addition, there were, of course, a number of trees planted about farm houses for kitchen orchards or ornamental purposes, and comprising not only the varieties named above, but also such others as the pomegranate, quince, Japanese persimmon, nectarine, filbert, chestnut, shaddock, banana, etc., etc., the list and the fact that they are grown in the open air sufficiently indicating the climate.

The greater proportion of the deciduous fruit crop of the county is shipped green to the Eastern markets, and for this purpose the choicest selected fruit and the earliest varieties bring the best

returns. The local canneries pack heavily every year, buying when the early fancy prices no longer rule, and the balance of the crop, as well as much of the "culls," is dried. This last method of handling the fruit crop receives every year more attention, because of the advantages it offers in allowing the product to be held for satisfactory prices, in permitting the use of fruit that otherwise would go to waste, and in requiring no expensive plant for preparing and



ALMOND ORCHARD IN BLOSSOM.—ERSKIN GREER, NEAR SACRAMENTO.

Photographed March 7th.

no risk in marketing. The improved methods of sun-drying are superseding the plan of evaporation by artificial heat.

The Vineyards.—In the same year (1894) it is estimated that there were somewhat in excess of 10,000 acres in the county in vineyard. Of this acreage not to exceed 500 acres were in raisin grapes, and the balance was divided between wine grapes and table grapes, about two-thirds being in the former and one-third in the latter.



A GLIMPSE OF ORANGE VALE.—3,000 ACRES IN 10-ACRE ORCHARDS AND HOMES.

Table grapes, however, are by far the most profitable, and many of the wine vineyards will ultimately be grafted to table varieties. Sacramento's Flame Tokays from the American River district are celebrated, and bring the very highest prices in the Eastern market, and the other varieties of shipping grapes—Emperor, Cornichon, etc.—prove also very profitable when grown in this county. The

vineyards of the county will be found on the plains land and among the low rolls close to the foothills of the Sierra that touch the eastern boundary. Grapes do not do well on the moist river bottoms.

It is estimated that in 1893 the total product of fruits in Sacramento County amounted to 100,000,000 pounds.

Profits in Fruit Culture.

WHY SOME GROWERS MAKE MUCH MONEY AND OTHERS DO NOT.—THE PREMIUM OFFERED
BRAINS AND ENERGY IN SACRAMENTO COUNTY.

THE gross returns which are to be obtained from fruit culture in Sacramento County will vary from \$100 to \$1,000, and even more, per acre. The average *net* return for the *intelligent* horticulturist is from \$125 to \$150 per acre. There are horticulturists who get apparently phenomenal returns every season, and there are others who never get more than ordinary, and even small, profits. The reasons for this disparity are not sufficiently understood outside of the ranks of experienced horticulturists, and, in consequence, the facts are sometimes called into question. The difference is due even more to price per pound obtained than to yield

per acre. In the first place, the early shipping fruits are, as a rule, the most profitable. A heavy crop maturing when all the markets are supplied will yield only ordinary profit. Again, the many varieties of trees and vines must be planted with careful reference to the conditions of soil and climate. While every variety of fruit (except the apple) is grown to perfection in Sacramento County, all will not do equally well on the same ten-acre piece, nor with the same treatment. Then cultivation, irrigation, pruning and general care enter largely into results; picking and packing for market must be well and neatly done; and, after all, the proper market must be

selected and sales well made. In fact, horticulture, as prosecuted in California, is an art that demands a rare combination of qualities for perfect success—more, perhaps, than any other profession or calling. When you see a man obtaining, every year, phenomenal returns, you may feel assured that, in addition to being favored by natural conditions, he has intelligence, judgment, practical experience, energy, executive ability and business sagacity. Any man of these qualities can be assured of phenomenal returns from fruit culture in this county; the statement at the same time furnishes the reason why every one is not equally successful. Ordinary intelligence and attention can, however, always command profits from fair to large, because of the county's exceptional advantages.

The crop of early Bartlett pears along the Sacramento River, for instance, has repeatedly, in years past, been purchased at $2\frac{1}{2}$ and 3 cents per pound in the orchard, the purchaser packing, furnishing boxes and transporting to market (and sometimes even picking), at his own risk and expense. As this book goes to press (May, 1894), the crop of many of these orchards has been purchased at 2 cents per pound, the orchardist doing nothing but picking the fruit. Under such conditions a gross return of \$500 to \$1,500 per acre has been obtained from some of these river orchards. These figures would mean a *net* profit of \$200, \$300 and upward per acre, according to conditions. It must not be supposed, however, that all pear orchards are as profitable, or that even these river orchards are so every year. A pear orchard does not come into full bearing until from eight to twelve years old, and pear orchards on the plain lands of the county, except with special irrigation, do not bear as heavily as the river orchards. Then, the fruit being shipped largely to the East, the price realized is dependent, in a measure, on the Eastern crop and the condition of the Eastern local market at the place where the fruit may be offered for sale. The very early cherries yield even greater profits per acre than pears, because of the price they command in the Eastern market. O. R. Runyon for several years has secured, and is now securing, an annual gross return from less than one-third of an acre of cherries, near Courtland on the Sacramento River, of from \$1,000 to \$1,400, being at the approximate rate of about \$4,000 per acre. The returns per acre from late cherries, on the other hand, would be comparatively small.

There is a small vineyard of nineteen acres at Mayhew's, in this county, owned by Hon. R. D. Stephens, that yielded, in one year, the phenomenal gross return of \$20,000. There have been years, however, when he has made only ordinary profits. Some of the reasons for his success will be found in a description of his place in this book. Any one else, under similar conditions, could do the same thing, but, as a matter of fact, no one else has done it, and Mr. Stephens himself has never duplicated the record named.

The men who make failures of fruit culture in California are men who believe that ordinary farming methods are sufficient for fruit-growing, and who are deficient in intelligence, energy and

judgment. Prior experience is not so necessary, because it can be acquired at the expense of time and experiments. None of our great fruit-growers were educated to the business as boys, those who have made the greatest success in it being men who knew absolutely nothing of farming, and were not in consequence bound by inherited prejudices or habituated to fixed methods, but who experimented and intelligently gathered wisdom from results. Find a man who says fruit-growing in California has not paid him, and you will find a man lacking in some one or all of the qualities named; or a man who has not selected the proper location; or who has not planted the right fruit in the right soil, or has neglected to take advantage of favorable conditions, such as an early maturing district like Sacramento; or has not properly cultivated or pruned or irrigated; or who has foolishly picked, carelessly and fraudulently packed, or shipped without wisdom or without judgment.

Even the best of fruit men find a season when they will not make heavy profit. But they steadily grow wealthier by the average of their yields. Fruit-growing is the business of all others which offers a premium to brains and work. A community of fruit-growers is a community of able men,—often cultured men,—as different from a community of purely grain-growing farmers as can be. And the wealth created and the permanent prosperity insured in a fruit-growing community, the small homes horticulture creates, and the dense population it supports, all make a marked contrast with the results seen in a community devoted to general farming.

Price of Land.—Land in the vicinity of Sacramento City can be obtained at from \$60 to \$1,000 per acre. The great disparity in price is due to the difference in the quality of the soil and the crops to which it is adapted, and whether it be improved or not. Hop, gardening and fruit land is the more valuable. All of the hop and garden land and much of that adapted to orchard adjoins the river, and is a deep alluvial soil, requiring no irrigation for any purpose. It brings readily from \$150 to \$300 an acre for the bare land. Such land set to bearing trees brings from \$250 to \$1,000 an acre, and there are many orchards along the river that could not be purchased for double the latter figure; in fact, they cannot be purchased at all.

Land adapted to the growth of berries and other small fruits can be obtained for from \$60 to \$100 an acre. Land on what is called "the second bottom," on the high land near the rivers, can be obtained for \$100 an acre. A good deal of such land is sown at present to wheat, which crop can hardly pay interest on such valuation, but this land is almost all excellent orchard and vineyard land, which, with contiguity to city and railroad, gives it its value.

Land farther removed from the city and not so convenient to transportation can be purchased at much cheaper figures than stated in this article. There is a large area of desirable land that can be obtained at from \$40 to \$80 an acre, and which is in proximity to railroads. There is some good land, not at present convenient to transportation, that can be had for as low as \$25 per acre.

Vegetable Growing.

IN 1894 77,000 ACRES DEVOTED TO BEANS, POTATOES AND GARDEN TRUCK.

ALL kinds of vegetables, except rhubarb, grow luxuriantly in Sacramento County. Rhubarb does not do well because the climate here is not cold enough for it. Vegetable gardens in this county are prosperous. Gardeners pay from \$15 to \$30 per annum per acre for rent, and make a very good profit even then. The districts devoted to vegetable raising are those containing the rich bottom lands along the American, the Sacramento and the Mokelumne rivers. The soil is so moist that irrigation is not resorted to in any case, and onions and potatoes grow to a very large size. The largest acreage of vegetables is in potatoes, there being more than 20,000 acres in the esculent tuber, the principal varieties in 1894 being Early Rose, Burbanks, Snowflakes, etc.

Next in production come beans, of which there are more than 7,000 acres; then onions and cabbage. Beside the acreage in potatoes and beans, there are 50,000 acres in the county devoted to other vegetables, principally along the Sacramento River. It is a well-known fact to dealers and other experts, that the vegetable gardens of Sacramento County produce larger crops than those of any other section on the Coast. As many as 350 sacks of potatoes to the acre have been harvested under the most favorable conditions, and onions at their best produce from 300 to 500 sacks to the acre. The varieties of onions are the red and yellow. Beans yield from 20 to 30 sacks an acre, averaging from 80 to 90 pounds to the sack.

The bulk of San Francisco's vegetable shipping trade is supplied by Sacramento County. Sacramento potatoes, onions, cabbages and other vegetables find a market in every portion of the United States.

Carload after carload of beans goes to New York, Boston, Philadelphia, New Orleans, Pittsburg and Texas, and many tons are sent to Mexico by steamer. The Eastern market will not take anything but Lima beans or white beans; New Orleans and the rest of the Southern trade demand pink beans, while Texas and Mexico largely demand the Bayo.

Although a good many vegetable growers pay rent for their gardens, the majority own their own land. The difference in the rental values of these lands depends upon the richness of the soil.

Many of the gardeners form co-operative partnerships and do all their own work, which, except plowing, is all done by hand.

There is a large extent of fine hop and vegetable soil on the north bottoms of the American River on the Haggin horse-breeding farm, which rents for \$20 per acre.

Onions grow to an enormous size in this rich soil. Wood, Gray & Co. received from a vegetable grower in May, 1894, a load of onions from which were selected four weighing sixteen pounds. Several yellow onions were measured and showed a diameter of a little less than nine inches.

Several hundred acres in the vicinity of Sacramento City are devoted to the production of asparagus, and among these are some of the oldest asparagus gardens in the State. This is the most profitable variety of vegetable when grown in a soil and climate such as to admit of its being harvested early, Sacramento growers receiving in the beginning of the season often \$1 a pound. As the season advances, prices decrease, but there is always a good profit, taking the whole season through. The asparagus men own their own gardens, and are in comfortable circumstances. The net income for the season varies from \$100 to \$175 per acre on the richest bottom lands.

The principal markets for asparagus are Portland, Oregon, Seattle and the Territories. Between two and three carloads annually are shipped to the Eastern market.

Owing to the large profit realized in the culture of this popular vegetable, the acreage in asparagus in this county is increasing every year.

Peanuts were extensively grown in this county on the river bottoms several years ago, and were of fine size and flavor, but the land was found to be more valuable for hops, asparagus, etc., and now peanuts are grown only for local consumption.

Vegetables from Sacramento County are in the market all the year round, there never being a day in the year when fresh vegetables may not be had. In January and February celery, cauliflower, lettuce, radishes, green onions, spinach, turnips, beets, carrots, cabbage and asparagus come in. It is in these months that most of the vegetables named are at their best.

In March and April, in addition to the foregoing, come in green peas, string beans, summer squash, cucumbers, new potatoes and new onions.

In May and June, and thereafter until December 1st, come in tomatoes, green corn and all kinds of summer vegetables that are grown in any country.

Hop Cultivation.

SACRAMENTO COUNTY.—THE LARGEST HOP-GROWING DISTRICT IN THE UNITED STATES.

SACRAMENTO COUNTY is conceded to be the largest hop-growing district in the United States, more than 2,000 acres being devoted to that industry, and is the pioneer hop-growing district of the Pacific Coast, the business having been started here in Sacramento County about thirty years ago. But as the product for the first fifteen years was limited by the demand for local consumption, not much progress was made or attention given to the business. During the last fifteen years, however, the business has increased wonderfully, and has spread over all three of the Pacific Coast States, until at present almost half the American crop is grown here. Such an increase was inevitable, as the cost of production, even with the freight East added, is much under the cost of production elsewhere.

It is only recently that Washington and Oregon commenced growing hops, and owing to cheaper lands and cheaper poles, the business spread rapidly. The dreaded pest, the hop louse, soon made its appearance in these States, however, and the expense of fighting the insect very materially increased the cost of production, while rendering the product both decidedly poorer in quality and less in quantity. Oftentimes the damage resulting to a hop yard from this pest is so great as to actually destroy the entire crop. But in California the business is not threatened with this danger. A crop of hops here is a certainty, and hop-dealers possessing ample capital are always ready to make advances on growing crops. Hop-crop failures are unknown in this State, and the climatic conditions are such as to render them impossible. With a certain crop in this State, with a larger yield per acre, and at a cost of production lower than anywhere else in the world, why should not this State eventually crowd out all other sections in this business?

With a full crop on the present acreage in every hop section in the world, the prices that hops would realize would still show a fair profit on the cost of production here, and with a crop failure, or even a partial failure, in Oregon, Washington, New York, England, or Germany, the prices that hops would realize would show a higher profit than any other farm product.

The hop section that has made this State famous is the Sacramento section. Here are to be found by far the most extensive hop-yards in the world; and here are the yards that produce the heaviest yield per acre. Hop growers who consider themselves the king pins in the other hop-growing sections, quickly lose their importance when brought into contact with the growers here. Here we have ranches that grow over 3,000 bales per annum, while in New York

State the largest grower produces less than one-sixth that amount. And outside of this Sacramento section the growers whose annual production is over 500 bales can almost be counted on one's fingers. It is on account of the great extent of the hop-yards here that such consideration has been given to the business as to result in the great improvement in the manner of growing hops. It was here that the trellis was first used instead of poles, and while nearly every hop crop here is grown on trellis, this plan has been used by very few growers elsewhere.

Nearly all our hop-growers are found among our wealthy citizens. Many of them live here in the city, and, leaving to others the actual work, do little else than exercise a general supervision of the yards, and figure profits on the year's business.

Hops are grown on our rich river bottoms, requiring a very fertile soil. Once planted, the roots produce a crop yearly without replanting. The cost of setting out, say 100 acres of hops with trellis, is about as follows:

Cost of trellis, 100 acres, at \$85.....	\$ 8,500.00
Cost of hop kilns, warehouse, etc.....	4,000.00
Cost for hop roots for 100 acres	1,200.00
Total.....	\$13,700.00

It would be difficult for most farmers to do the above work at these figures, but they can make contracts to have the work done at this cost. The annual cost of growing the crop, aside from the above, is as follows:

Cost to picking time:

Cost of twine	\$ 750.00
All labor up to picking time.....	2,500.00
Total.....	\$3,250.00

plus the cost of picking, drying and baling (including cost of hop cloth, firewood and sulphur), which amounts to about $4\frac{3}{10}$ cents per pound of dry hops. Good bottom land in this vicinity, if in trellis, will produce from 1,500 to 2,000 pounds of dried hops per acre, some of it yielding as high as 3,000 pounds. Figuring the cost of production then on a basis of only 1,500 pounds per acre, the 100 acres would yield 150,000 pounds, and the cost would be:

Cost to picking time, \$3,250 for 150,000 pounds.....	\$2.17 per 100 pounds
Cost of picking, drying and baling	4.30 per 100 pounds
Total	\$6.47

or say about $6\frac{1}{2}$ cents per pound.

A 40-Mile Orchard.

THE RICH BOTTOM OF THE SACRAMENTO RIVER AND THE WEALTH IT HAS CREATED.

WHOEVER heard of an orchard forty miles in length? Most readers may smile incredulously when they read the statement that a bearing orchard of that magnitude, and with a river frontage for the entire distance, exists in Sacramento County; yet such is the fact. It consists of a marvelously rich belt of alluvial soil, of veritable garden loam, extending from Sacramento City to a point below Isleton, forty miles south of this city.

The road runs on top of the levee for almost the entire distance, and the traveler cannot help being charmed with many beautiful vistas afforded by the bends of the river and its placid waters reflecting the foliage of the sycamore, the willow, the live-oak, the



FERRY AT FREEPORT.

cottonwood and the walnut, all of which are indigenous to this region. The foliage is rendered all the softer and the more umbrageous by the masses of wild grape and wild blackberry vines which cover the banks of the river. The sides of the high levees are perennially emerald with alfalfa and barley grass, forming in the depth of winter a most pleasing contrast to the bare limbs of the deciduous trees. On the other hand, as far as the eye can see, is a vast orchard of cherries, plums, prunes, pears, peaches and other deciduous fruits which yield enormously on the fat lands that have been built up for thousands of years by the decomposition of vegetable matter and the deposition of the same by the great Sacramento River.

This orchard has also the distinction of being the oldest in the State, and of having passed through the least number of hands since the first trees were planted, more than forty years ago. This of itself is a significant fact as corroborating the claims set forth as to the fertility of the soil and the largeness of the returns on the money invested. The great bulk of these lands still remains in the hands of the men or of the sons and daughters of the men who first planted the trees, and it is a fact of general repute that it is impossible to buy an acre of orchard in any part of the forty-mile belt. The newcomer must take the virgin tule land now being reclaimed, and must plant his trees thereon, and for this bare land, but recently redeemed from the floods which have fertilized it for thousands of years, the purchaser must pay from \$100 to \$200 per acre.

The soil is of great depth and contains no stones or pebbles, no matter how small, until a depth varying from eighty to one hundred feet, when a stratum of blue gravel and clay, the bed of the ancient rivers, is reached. Many of the orchardists use water from the river for domestic purposes, but others bore wells eighty to one hundred feet deep, and obtain therefrom a pure, soft, clear and wholesome quality of water.

The country is level and lower than the surface of the river in the spring and early summer, when the volume of water is swollen by the heavy rains melting the snow in the Sierra. Hence, in the hot summer time, the seepage from the river keeps the soil moist to within a few inches below the surface, and irrigation is not practiced, as it would be unnecessary, if not harmful to do so, except in the case of orange and lemon trees planted for ornament. The absence of irrigation from this district may be the chief reason why this region is remarkably salubrious and free from chills and fever and malaria. Several ambitious young doctors have from time to time settled in the little towns and stations on the river, resolving to grow up with the country and to assist in the same; but, after a few months of patient waiting and getting no calls except for accouchements, they were obliged to seek some other community where the services of a physician were more in demand. There is not now a solitary physician in the forty-mile belt, nor a drug store. When physicians are needed they are obtained from Sacramento City and other places.

Robert Argyle Gordon Gourlie has resided on his place between Freeport and Courtland for thirty-six years, and in 1894 claimed to have celebrated the ninety-second anniversary of his birthday. He is as hale and hearty as a man of fifty. Indeed it must be presumed

that wealthy men would not live all their lives with their families in an unwholesome locality.

This river orchard belt has been very appropriately named the Menlo Park of Northern California. No other region in the State, of equal population, contains so many beautiful homes and elegant mansions. It should be understood at the outset that the orchard holdings are very large, ranging from one hundred to several hundred acres each, and consequently the owners are wealthy, and out of their vast incomes can afford to build fine mansions and to surround them with beautiful grounds. One of these is Hon. William Johnston, who owns not less than seventeen hundred acres. Another is Benjamin Bates, an orchardist residing near Courtland, reputed to be the owner of \$250,000 worth of real estate and improvements in the Nob Hill district in San Francisco, besides his property in this county. John Miller, of Tyler Island, near Walnut Grove, owns several hundred acres of the richest loam, all of which are under cultivation. Among the other elegant residences are those of Dwight Hollister, Sol Runyon, Mrs. Kercheval, George A. Smith, O. R. Runyon, W. N. Runyon, C. V. Talmage, John Crofton, Joseph Greene, Jr., and T. W. Dean.

In view of the fact that the owners of these rich lands are wealthy, and have become wealthy out of the soil, an additional reason may be cited why they are unwilling to sell any of the realty constituting a part of their elegant and luxurious homes. These homes are built on the levee or a little way back on elevated ground and facing the placid river. They are surrounded by pleasant grounds, shaded with the lemon, the orange, the fan palm, the walnut, the pepper tree, the magnolia, the sycamore and the eucalyptus, and ornamented with roses, oleanders, calla lilies, tiger lilies, geraniums, heliotropes, pinks, fuchsias, etc., all above perennial lawns. The majority of these homes with the furnishings cost from \$5,000 to \$50,000 each, and extend all the way from Sacramento to Isleton, the full distance of forty miles. The photographic illustrations accompanying this text will give the reader but a faint idea of the beauty of these homes.

Another point of vantage in this orchard belt is the fact that each fruit-grower ships his produce from the levee in front of his orchard. A shed stands close to the water's edge in each of the orchards. Here the fruit is packed and shipped on steamboats which ply daily between Sacramento and San Francisco during the entire season. The advantage of such an arrangement, not only in the saving of expense but also in avoiding the jolting of the fruit in wagons on roads, is obvious to even the least reflecting persons.

Another peculiarity of this region, and one which has assisted in making it so popular and so valuable, is the fact that it is included within the early ripening district in which fruit is ready for market earlier than that of any other district in the State. For most of the deciduous fruits, the river district is only a few days later than the earliest part of the Vacaville region.

In fertility, the soil of this great orchard is unexcelled by that of any other part of the United States. What it can do under the most favorable conditions in the way of raising deciduous fruits, the orchardists themselves can tell most accurately.



RIPE NAVEL ORANGES.
In Yard of George A. Smith, Courtland.
Photographed January 7, 1894.

Robert Argyle Gordon Gourlie is a pioneer of Sacramento County, having arrived here on June 10, 1849. Mr. Gourlie and his estimable wife have a very comfortable home a few miles below Freeport. Their orchard comprises 168 acres, of which the greater