

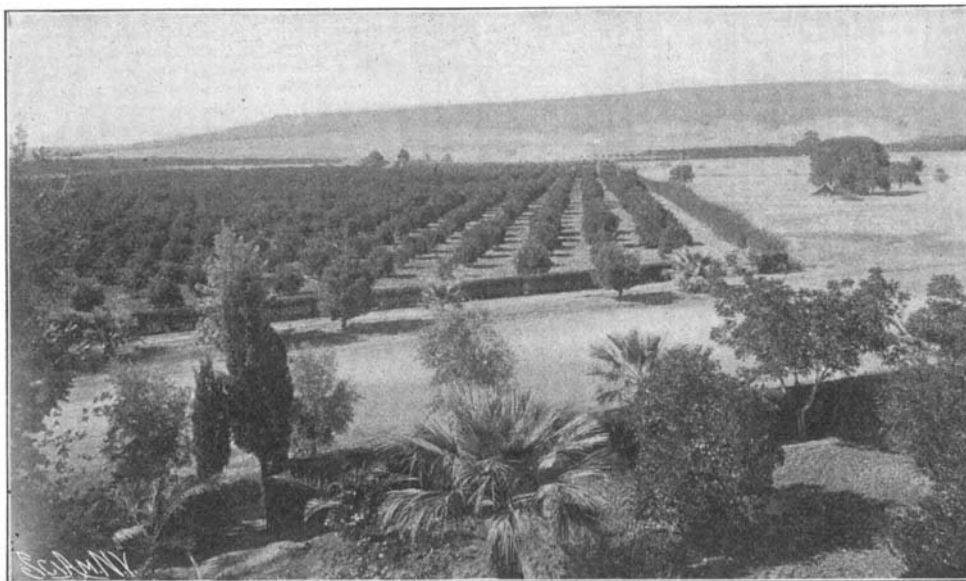
ORANGE CULTURE IN CALIFORNIA.

The fruit industry of California was founded at the time of the establishment of the missions of the Franciscan monks. As early as 1792 there were about 5,000 trees growing at the different missions. Apples, pears, oranges, lemons, limes, and olives constituted the greater portion of these trees. As they nearly all did well, they proved the possibility of fruit culture in California. The fruit era did not begin until about the time of the great gold excitement of 1849. Most of the emigrants to the State thought of nothing but gold; but a few of the more far-seeing obtained possession of some of the old orchards, and reaped a handsome profit by selling their fruit at the exorbitant prices that then prevailed.

Much of the land in California is especially adapted to the cultivation of citrus fruit. While by far the greater portion of the commercial crop of the State is at present grown in Southern California, the citrus fruit can be safely and profitably grown along the foothills

bluffs or foothills in soil of a deep, gravelly, porous nature. So boundless is the market that, although thousands of young trees are yearly planted, there is still room for more.

slope, and a regular flow of irrigating water is obtained. Since orange growing exhausts the soil in time, fertilizers, both natural and artificial, must be freely used. February, March, and April are the months when the ground is plowed and cross-plowed; afterward it is harrowed each way to within three feet of the trunks. The soil under the trees is cultivated by gangs of men. Trees are planted 25 feet apart, or 70 to the acre. Year-old seedlings are procured from the nurseries, which seedlings in three years attain a strong growth. When the trees are ready to bud they are pruned, all the upper branches being cut off, so that nothing but the forked stump, some three or four feet high, is left. Two T-like incisions are made in the bark, into which incisions the new bud is inserted. About two buds are inserted in each trunk. All superfluous growth is checked, and every atom of nourishment directed toward the development of the new graft. February and March is the time for pruning; September and October the time for budding. May,



A TYPICAL CALIFORNIA ORANGE RANCH.



GRADING THE ORANGES.



PACKING THE FRUIT FOR SHIPMENT.

of the Sierra Madre Mountains from San Diego to Tehama Counties, a distance of over 700 miles.

The method of propagating citrus trees such as the orange does not materially differ from that employed in the propagation of other fruit trees. One of the most difficult questions which the prospective orange grower must decide, is whether to use seedling or budded trees. The *pros* and *cons* of the question cannot be discussed here. The general tendency of progressive growers is to use only trees budded with thoroughly tested and approved varieties. Practically all the advance that has been made in improving citrus fruits by propagating and selecting seedlings, hybrids, and the like which produce superior or peculiar fruits, depends upon propagation by budding and grafting. The center of orange culture in California is Oroville, in Butte County, about 450 miles north of Los Angeles. The climate is especially adapted for the cultivation of citrus fruits, and is so mild that the frost never injures the trees.

Throughout the Sacramento and San Joaquin valleys orange trees are planted in

in preparing the land for orange cultivation, plowing and harrowing both ways is necessary in order to fit the soil for the orange tree. Irrigation is also necessary, because of the scant summer rains. Water is piped to the lands in a common ditch with a gentle

June, July, August, and September are devoted to cultivation and general oversight. In November the fruit begins to mature, and all else is dropped in order to gather the crop. The gathering season is in full operation by the middle of the month; every man, woman, and child must work to pick, pack, and ship the ripe fruit.

Three years after budding, or six from planting the seedlings, the trees begin to bear. The first crop is 280, the second 420, the third still greater, and that of each succeeding year slightly more than its predecessor, if cultivation be never neglected. Neglect is promptly indicated by shrinking and discolored foliage and diminutive fruit.

The oranges cultivated are Washington navel and tangerines. Co-operation among the neighboring orchards provides for handling and shipping the ripe fruit. A central packing house receives the fruit from the orchards. The highest grade is 80 to the box, diminishing to 96, 112, 126, 140, 150, 176, and 200 to the box. A hopper is employed, into which the fruit is dumped, the sizes being separated in passing down the incline, the fruit dropping in its proper opening.



HARVESTING TIME IN A CALIFORNIA ORANGE ORCHARD.