



## ABOUT FRUIT RANCHING.

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TEN or twelve years ago, and for all preceding time, there lay, on the southerly side of the Santa Ana Valley, a few miles from where the river of the same name emerges from the mountains, a gently sloping *mesa* of red soil—soil which bakes like a brick in the sun and melts like sugar when wet. In the winter the *mesa* was green and luxuriant with wild grasses, in the spring golden with the yellow of the *Eschscholtzia* or Californian poppy, later in the year, when the summer heat had absorbed all moisture, a brown and desolate landscape, with here and there a patch of cactus which heightened the desert-looking appearance of the scene. To-day the place is a succession of orange orchards and vineyards, intersected by wide and handsome avenues of Palm, Pepper, and Grevillia trees, while scattered about are comfortable cottages and pretty villas, wherein dwell the inhabitants, who number nearly three thousand people, all full of energy and very busy. Water and work have made the change. Water is obtainable, by gravitation, from the mountains a few miles away. This part of the Santa Ana Valley is encircled on the north, east, and south by the Sierra Madre Range, and while the valley here is only about one thousand five hundred feet above sea level, the peaks of San Bernardino, Greyback, and San Jacinto, look down upon us from heights of ten thousand to twelve thousand feet.

My ranch, or orange orchard and vineyard, contains twenty acres—indeed very few fruit ranches in the settlement are larger than twenty, and the greater number are not more than ten acres. It fronts on one of the avenues, and has similar orchards and vineyards on either side which run back to an irrigation *zanja* or ditch. It has been planted some eight or nine years and is in fair bearing. And now as to the routine of work on my fruit farm.

First with regard to the vines. In January, when the vines are leafless, I get a gang of Mexicans to prune off the last year's canes, leaving the vines with about three eyes or buds on each spur. The pruning leaves the vines mere stumps, about a foot in height, and after it is finished a large sheet iron hearth, mounted on a sledge and drawn by two horses, is used to burn up the brush left by the pruners. The sledge, after the fire is started in it, is drawn up and down the rows of vines, and the brush pitchforked



on to the fire. This operation concluded, the vineyard is ready for ploughing and harrowing, or cultivating as it is more commonly called here. The final ploughing leaves a deep furrow on either side of and close to the vines, and through this furrow the irrigating is done during the summer. In April the vines begin to leaf out, and few more beautiful transformation scenes in the vegetable kingdom are to be seen than that which takes place in a muscat vineyard<sup>1</sup> between the months of April and May. The practice in this settlement is to sift sulphur on the vines during May as a preventive and cure for mildew. During the summer months (June, July, and August) the vineyard is irrigated three or four times, and about the second week of September the grapes are ripe enough to convert into raisins. The pickers then set to work cutting off the bunches with knives, spreading them evenly on wooden trays, and tilting the filled trays against a vine, so that the grapes will have full exposure to the sun. In fifteen days, or less if the weather is propitious, the grapes are dry on one side, and the turning is done by placing an empty tray on top of a full one and so turning the whole contents over in one operation. When the second side is dried the grapes have become raisins and are ready for the packer, to whom the crop has probably been already sold. The only further handling that the farmer gives the raisins is to put them into



THE VINEYARD.

sweat boxes, in which they are conveyed from the farm. These boxes are about the same superficial size as the trays, but are deep enough to hold the contents of fifteen or twenty trays; here the raisins are allowed to lie for a few days so that the moisture remaining in them may be evenly distributed, through stems as well as fruit, thus rendering the stems pliant, and easily packed in the boxes in which the raisins make their appearance at the grocers'.

A vineyard in full bearing produces between eight thousand and ten thousand pounds of grapes per acre; and, at a rough calculation, four pounds of grapes will make one pound of raisins. Artificial manures are considered better adapted for vineyards than the manures of the barnyard, since they do not introduce weeds, and weeds are very difficult to get rid of after the vines begin to get their summer growth.<sup>2</sup>

A raisin vineyard, though a profitable property, is not looked upon generally with so much favour as land planted with orange trees, one reason being that in several other parts of the State there are good raisin-growing districts, while the upper Santa Ana Valley and immediate neighbourhood is pre-eminently the most satisfactory orange land in California. An orange orchard in good health (and there are no sickly ones in this neighbourhood) after the fifth year from planting is a fine sight at all times. The foliage is always dark and lustrous, and the seasons of flowering and ripening add

<sup>1</sup> The vines are of the variety called here the white muscat of Alexandria.

<sup>2</sup> No trellising is practised here. The vines are allowed to spread on the ground. One year's growth will sometimes extend fourteen or sixteen feet from the main trunk.



fragrance and colour to the scene. The orange in greatest favour here among growers is a seedless variety of fine size, flavour, and colour, called the "Washington Navel," originally introduced into this country from Brazil by the Agricultural Department of the United States Government.

Work on an orange orchard begins generally with the removal of the fruit, which is ripe from January to March, or later for some varieties. Then follow ploughing, pruning, and frequently an irrigation; then a second ploughing and harrowing, after which the ground is in good condition to be left until irrigation is again required. Cultivation follows each irrigation, so that not a weed or a clod larger than a man's fist is to be found in the orchard. Irrigation takes place every month from May to September, both inclusive; in exceptional seasons it may begin a month earlier and go on for a month later. In the fall the trees are manured, and at the beginning of winter, drainage furrows are run to carry off any unusually heavy rains.

In some portions of the vineyard and orchard districts of California irrigation is practised by having the fields laid off in checks, with *levées* or dykes around each check. The checks are flooded by water from the main canal. Another plan is to irrigate from open canals or ditches, running the water in furrows, in a good-sized stream, alongside the trees or vines. The manner in vogue here is to have a flume or wooden aqueduct laid



TURNING THE TRAYS.

along the ground in such position that the water will flow, from holes pierced in its side, over the ground. The holes are bored on the edge of the bottom of the flume and the flow is regulated by a valve on each hole. The water runs from the flume, into a furrow prepared for it, in a very small stream, merely a trickle, the object being to have the water run as slowly as possible, consistent with reaching the end of the furrow in the time appropriated. Orange trees are usually set in rows from twenty to twenty-four feet apart, and between two rows of trees there may be six or seven irrigating furrows. These furrows are made by rigging shovel-bladed tools on to the beam of the riding cultivator, making three or four furrows at a trip. The various water companies have different rules for the use of the irrigating water they supply. The water supplied to the ranch under notice is used night and day for about one week in each month of the irrigating season, and during the week is spread, in the manner described, over the whole twenty acres.

As to the climate it is hot in summer throughout the day, and with the same unflinching regularity it is cool at night. In this place last summer for four days at one spell the thermometer indicated  $130^{\circ}$  to  $134^{\circ}$  Fahr. in the sun about noon, and yet work went on as usual, and there were no cases of sunstroke. The exceeding dryness of the atmosphere renders the great heat bearable and uninjurious. During the period above named I worked exposed to the sun all four days with no worse effect than a little extra fatigue, and up to that year I had been leading an indoor and sedentary life. In the winter the weather is glorious when it is not raining. The



rainfall averages only fifteen or sixteen inches per annum, and it nearly all falls between November and March, and mostly during the night time. In the morning there may be a touch of frost, merely enough to make the air feel sharp, but as the day advances the warmth becomes genial and pleasant. Sometimes the mountains are white with snow to the edge of the valley—the mountains rise very abruptly—while in the valley the wild land is becoming green and flowery. The only drawback to the enjoyment of foot or horseback exercise on such a day is the badness of the

roads, which in winter are rough, but this is excusable in a new country.

Even to those who are familiar with the rapid growth of places in the Western States of America, the change and improvement in this valley within the last five years seems marvellous. About the beginning of the period referred to, the earliest planted orchards had reached an age, and for their age a size and thriftiness, that set aside all doubts as to the success of the plantations. Confidence in the settlement was then firmly secured, and it has since had an accession of a very desirable class of people. The professions in all branches, are well represented. Retired clergymen are probably the most numerous. Harvard and Yale men are plentiful, and many retired business men have made the place their home. The price of land, which ten years ago was fifty dollars per acre, including the right to water conducted in pipes to the highest



IRRIGATION OF AN ORANGE ORCHARD.

point on each ten acres, runs now from four hundred to six hundred dollars per acre for similar unimproved land, and from fifteen hundred to two thousand dollars per acre for orchards and vineyards in bearing, always including a water right. At these latter prices it is only persons of some means who can buy, and the society of the place has in this way a tendency to become more select. That the land is not dear even at the highest figures given will be admitted when it is understood that two hundred dollars per acre net profit from an orange crop is a very moderate estimate of the yield from a bearing orchard.

There is undoubtedly to people who have lived entirely in the higher latitudes a certain degree of romance associated with orange groves, vineyards, and palms, and it is not altogether dispelled by familiarity; but there is, in the care of an orchard or vineyard, quite a lot of hard work entailed on the owner if he lives on his place and makes any pretence to look after it himself. There are of course a great many places where people of independent means may find congenial residences, but for the combination of remunerative farming, charming climate, and desirable neighbourhood it would be difficult to find a substitute for an orange grove out here in the sunny "Land of the Afternoon."