

Napa County Viticulture.

[H. W. Crabb, of Oakville, contributes the following chapter to a recently published work in the East, entitled "American Grape Growing and Wine Making."]

The cultivation of the vine in this State was commenced by the Mission Fathers three-quarters of a century ago, with a single variety. The history of its origin is not known, further than that it is identical with the Pisco vine I imported from Chile—one of the oldest varieties in cultivation there, and is the brandy grape of that country, as the Mission grape has become of this. It is a vigorous grower and a good bearer, containing a high per cent. of sugar and a small degree of acid, and is well adapted for sherry, Madeira and angelica wines, and for brandy.

The Riessling, White Pineau and Chasselas stand at the head of the list for dry, white wines, on account of their lightness, fineness and delicacy of flavor. Black Burgundy, Zinfindel and Charbonneau are our best varieties for claret. The first makes a dark, full bodied and richly-flavored wine; the second has a fine raspberry flavor, but rather an excess of acid, and is a little light, both in body and color. The last one, like the Tinto, has but one characteristic color. Black Malvoisie is our best port wine grape. The large white Muscatel makes the finest raisins and the white Malaga the next best; while the raisins of the seedless Sultana are the *ne plus ultra* for culinary purposes.

In planting and grafting, only the cuttings of bearing canes are used, and are worth from \$2 to \$5 per thousand. In planting, I plow the ground twice, subsoiling it the last time, then harrow well and roll it. Make a chain of No. 12 or 14 steel wire, 165 feet long, and put on it a drop of solder every $6\frac{1}{2}$ feet, beginning 15 inches from one end, which serves to make a loop for an iron pin 18 inches long, to stick in the ground to hold the chain. Square the ground, chain along one side, setting a small peg or stake at each drop on the chain, then stretch the chain at right angles across the end, and chain back from the other end of the chain, setting a peg at each drop as be-

canary purposes.

In planting and grafting, only the cuttings of bearing canes are used, and are worth from \$2 to \$5 per thousand. In planting, I plow the ground twice, subsoiling it the last time, then harrow well and roll it. Make a chain of No. 12 or 14 steel wire, 165 feet long, and put on it a drop of solder every $6\frac{1}{2}$ feet, beginning 15 inches from one end, which serves to make a loop for an iron pin 18 inches long, to stick in the ground to hold the chain. Square the ground, chain along one side, setting a small peg or stake at each drop on the chain, then stretch the chain at right angles across the end, and chain back from the other end of the chain, setting a peg at each drop as before, which marks out one block. Now stretch the chain across the block, and plant 24 rows; leaving the rows of pegs for avenues. Make a dibble out of a piece of $1\frac{1}{4}$ -inch gas-pipe, by welding and sharpening one end and putting a pin near the other for the hands and one for the foot. Make a hole with this and insert the cutting and tighten it by shoving the dibble down by one side and pressing the ground against it. I use cuttings 16 inches long, leaving two buds above the surface. If rooted vines are used, cut the roots back close to the stock. We set about 500 per day to the man, 1,000 to the acre. From four to eight men work on a chain, and we can work from two to four chains or gangs on a block. Their plan is very simple, speedy and accurate, and any kind of help can do the work correctly; it is equally well adapted to planting small fruits and trees after the holes are dug. We usually plant the last of March and first of April. The loss is from 5 to 10 per cent.

Among the various methods of grafting, I have had the best success by sawing off the vine from 4 to 6 inches below the surface of the ground, making a clean cut with a razor a little diagonally, and inserting one or two scions, covering the cleft or cut with a piece of cloth, and filling up with fine earth. The graft must be staked and kept well tied up the first season, and a fair crop of grapes may be expected the next. Grafting should be done here in February and March. Two men can graft about 100 vines per day.

I prune with low heads and short

March. Two men can graft about 100 vines per day.

I prune with low heads and short spurs of two fruit buds each. Any variety that will not yield from four to six tons per acre is pruned in this manner: I leave from two to four canes of two feet each, and about as many short spurs of two buds each, for long canes the next year, when the long ones are to be entirely removed. The Riesling, Muscatel and some others will yield twice as much by this method of pruning as the other. Occasionally there are instances reported of a single variety, or a small vineyard, yielding 10, 12, 14 and even 20 tons on irrigated lands, but such crops are a positive injury to both fruit and vine. My vineyard of 120 acres yielded, in 1878, $5\frac{1}{2}$ tons per acre, on 30 acres of which the vines were only three years old; but this season, on account of cold rains, alternated by extreme heat, while

rest
crop
T
Mil
the
Fra
quin
eon
are
mor
Rey
S
ten
L.
nig
sce
cou
joy

the vines were in bloom, the same vineyard only had an average of 4 tons. The crop throughout the State is about one-fourth short.

The Department's Plot Shows