

# How Grapes are Grown in the Chautauqua Grape Belt\*

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**T**HERE are 35,000 acres of bearing vineyard in the Chautauqua grape belt. The Concord is the standard variety. Some Niagaras are raised, but of late years they have not found a ready market, the price rarely being equal to that of the Concord. Only very few of other varieties are grown, and are mostly sold in local markets.

Our grapes were formerly set eight feet in the row, the rows being nine feet apart. For the past few years the roots have been set six or seven feet apart in the row, the object being to put up fewer canes from each vine and still maintain an average. The posts should be between the third and fourth vines to prevent the wires from sagging when loaded.

The best roots obtainable should be purchased. They are now so graded that those designated "Extra Number Ones" are the kind to get. Other grades are set, but the best are always the most satisfactory. During recent years newly set vineyards have not done as well as in former years. The cause has not been definitely determined. It is believed by some that the vitality of the grape cuttings has been weakened by the general deterioration of the vines from which the grape bush is taken for cuttings. With all the fungous diseases that infest the vines, the grape root grower should use extra precaution in obtaining grape brush for cuttings. No wood should be used unless taken from sprayed vineyards.

These roots are set very deep, from fourteen to eighteen inches below the general surface of the soil. As the ground is worked, the high centres are gradually worked toward the roots. Corn or potatoes are usually planted between

A portion of a paper read at the convention of the Ontario Fruit Growers' Association. Mr. Falvay's remarks on spraying, harvesting, cost of production and marketing, will be published in later issues of THE CANADIAN HORTICULTURIST.

the grape rows the first year. The first year's growth is cut back to two or three buds the second spring. The third spring the canes are tied up; not more than two canes should be used. One and a half canes are better, that is, one cane to the top wire and a shorter one to the bottom wire, the shorter cane making the better wood growth for the following year. Invariably the best growth of wood is near the top of the cane, and if both canes are tied to the top wire the growth of wood will be too far from the ground to make a good shaped vine. The first wire is usually twenty-four inches from the ground; the second wire is from twenty-six inches to twenty-eight inches from the lower wire.

The canes are tied with No. 21 wire cut about five inches long, and so twisted around the cane and trellis wire as to come off with the old wood. String is used when necessary to tie any of the canes to the lower wire. Tie a loose knot to prevent girdling. We tie but once, unless some of the vines should be broken down with wind or other causes. A good tier can tie an acre a day in a vineyard with four canes to the vine. There are from 540 to 600 vines per acre according to distance apart in the row.

It requires about six years to get a strong vineyard; that is, one that is capable of supporting from four to six canes. The constant temptation among vineyardists is to tie up too many canes on young vines; and by so doing they injure their vineyards seriously.

In old vineyards we usually put up from four to six canes if the vine will support that many. The judgment of the trimmer must be exercised constantly. He must treat each vine individually, and not only train for the present year but also must have in view which canes and buds will produce wood in the proper place for the following year's crop.

An extra good trimmer will trim an acre of heavy vines in from ten to twelve hours. The work is done during the winter months. After the brush is pulled from the wires it is drawn out by a team hitched to a long pole. Two men with a team can pull out and burn the brush from ten to twelve acres in a day. The work in the vineyard is all done by horse power except the hand hoeing. The one-horse plow, the gang plow, the spring-tooth harrow, and the two-horse vineyard cultivator with the disc wheel to guide it, are the principal tools used during the season. The horse-hoe, of course, is used for cleaning out under the wire.

The Chautauqua grape grower has the method of cultivation reduced to a science. Nowhere are grapes cultivated so cheaply or rapidly as in Chautauqua County.

A vineyard should be gang-plowed twice during the season, horse-hoed and hand-hoed once, and be cultivated every ten days, at least, up to August 10 or 15. The cost of trimming, tying and care should be about \$13.00 an acre up to time of harvesting. Vineyards that are infested with grape pests, such as the root worm and leaf hopper, require special treatment—that is, cultivation and spraying—which adds to the expense quoted.

Cox's Orange Pippin, an English apple greatly in favor with English consumers, is being planted at Vernon, B. C., and other places in the Okanagan Valley for export. Newtown Pippin promises to succeed well in Kelowna district.

Photographs of orchards and of orchard operations, such as spraying and pruning, are wanted for publication in these columns.



A Glimpse of the Vineyards in the Chautauqua Grape Belt of New York State where 35,000 Acres of Grapes are in Bearing.