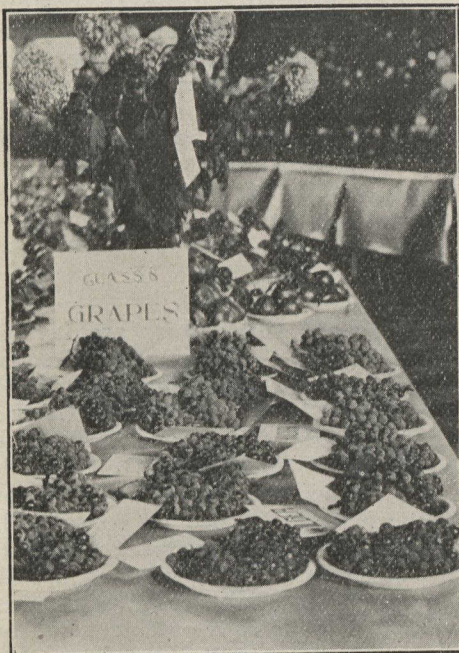


Propagate the Grape When Vines are Dormant

GRAPe cuttings may be taken in the fall from wood of the past season's growth. The best ones are secured



A Display of Grapes

from vines that are well matured and short jointed. The length of the cutting

is governed by the distance apart of the buds. Single bud cuttings may be used to propagate new and scarce varieties. Two or three bud lengths are used for the established sorts. Two bud lengths are desired by most growers, as more of them can be taken from a vine. Those of three buds are more clumsy to handle, but give stronger plants, as roots start from both underground joints. Mallet cuttings also may be used, but as only one can be made from a cane, and as the use of them interferes with good pruning, they are seldom adopted.

Tie the cuttings in bunches and store over winter with the butts uppermost, in sand, moss or sawdust. In spring they should be examined and, if the butts are not properly callused, they should be treated so as to hasten or complete the process. A trench should be dug in a warm spot in the garden or vineyard. In this place the bunches of cuttings with the butts uppermost. Fill the interspaces with some poor conductor of heat, such as sawdust, and cover the butts with an inch or so of warm sandy soil. This method may be practised, also, with cuttings that are not taken from the vines until late winter or early spring. In a short time, say two or three weeks, the butts will be well callused. Then, if all danger of frost is passed, the

cuttings should be taken up and planted in a nursery row, preferably in light, sandy soil.

When transplanting to permanent quarters in the vineyard, some growers prefer one-year-old vines, while other prefer those of two years' growth. The proper age to transplant depends not only upon personal preference, but also upon the strength of the plant and upon existing local conditions as effected by climate and location. Two-year-old vines are the better of the two, if they have been left in the ground until they become of age, but this is not the customary practice amongst nurserymen. The two year vines offered by nurserymen are, in most cases, nothing more than the culls of the one-year-old stock replanted and allowed to grow for another year. Growers who desire good two-year-old stock can get it by doing their own propagating as here outlined.

When transplanting grape cuttings, it is customary to set the plants every 10 or 12 feet, in rows 10 feet apart. Two seasons after transplanting, they are usually ready to be trellised. The number of posts for the trellis is governed by the distance apart of the vines—usually one post for two vines. The number of wires depends upon the method of training to be adopted.

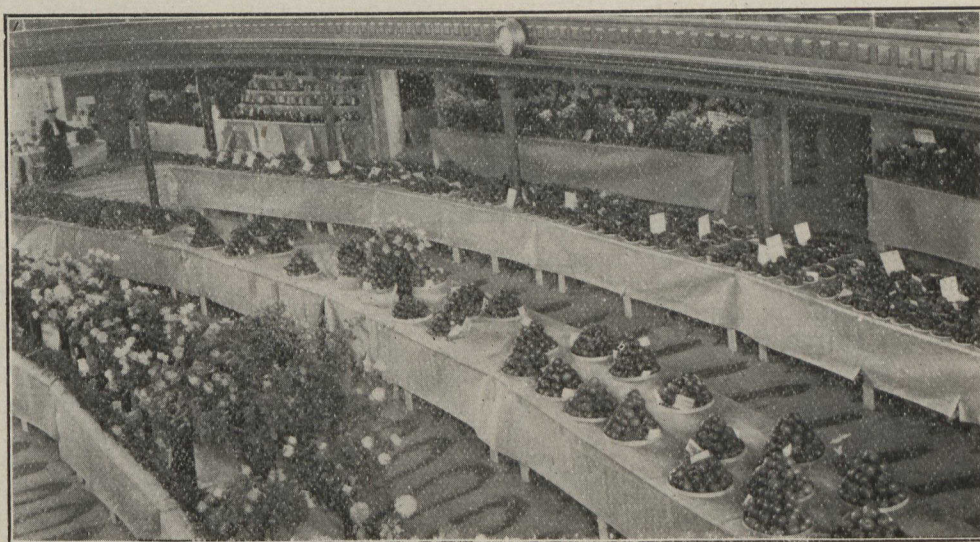
Winter Protection for Tender Fruit Trees

PROLONGED mildness in winter weather is as injurious to tender fruit trees as prolonged cold. During warm spells, the buds are induced to swell and, if not properly protected, a subsequent freezing will greatly injure, if not kill them. On the other hand, prolonged cold or severe freezing in itself is oftentimes the direct cause of winter injury. Between these two conditions of weather there is an optimum winter temperature for tender fruit trees, particularly the peach, which is one of the most susceptible to sudden changes. The optimum temperature for peaches is that condition or degree which will winter the greatest possible number of trees with the least possible loss. Unfortunately such ideal winter weather is seldom experienced in this country. It is necessary, therefore, to find some means of protection.

It is well known by those who observe that buds often burst into growth when the roots of the tree are frozen and inactive. The dark-colored twigs and buds of fruit trees, like all dark-colored objects, absorb heat rather than reflect it. For this reason, tender fruit trees are

in danger of injury during mild winters. In the Niagara district the past winter did considerable damage in this respect.

coun, at Ottawa; Wm. Orr and Jos. Tweddle, at Fruitland, and others, is whitewashing the branches and buds.



Fruits and Flowers at the Ontario Horticultural Exhibition

A practical means of winter protection, originated by Prof. J. C. Whitten, of Missouri, and confirmed by W. T. Ma-

Whitewashing prevents the premature swelling of the buds as heat is reflected by whitened buds rather than absorbed.