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Growing Nursery Stock in a Cold Climate*

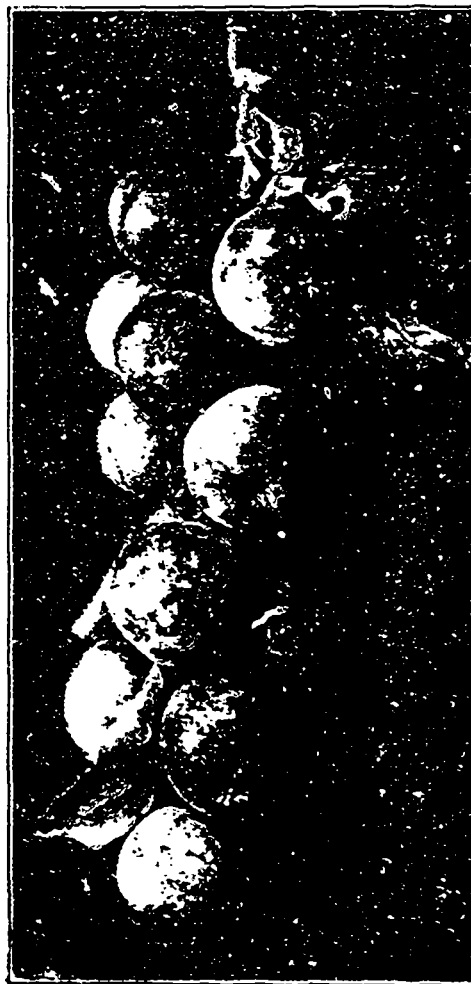
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THE question of nursery stock is one of much importance to the fruit grower. If he does not get the right kind of stock, no matter how closely he follows everything recommended, he will not have good success with his orchard.

It is sometimes unfortunately the case when a man orders trees, that the order is not filled by good stock and he is not able to get redress. There are several advantages, therefore, in ordering nursery stock from home nurseries. One advantage is that you can go and see the trees you are going to plant. If the trees are not satisfactory when you get them, you can return them and demand redress. This is a much more difficult process, when the man is a thousand miles away. If your trees prove to be diseased or are affected by insects it is also easier to get redress. These are some of the advantages of getting stock from a local nursery. On the other hand there are disadvantages.

The range of the native trees north to south has been determined by probably thousands of years of acclimatization. Our experiments at Ottawa for over twenty years show that native ornamental or forest trees from the south might fruit at Ottawa, but some years would be tender and kill back and not be vigorous and hardy. It has probably taken thousands of years to acclimatize those tender trees to their present northern limit. They might be hardy enough to produce seed, but the wood of individual trees keeps killing back. When we come to such apples as King and Baldwin, Rhode Island Greening, and some of the tender varieties, tender for certain parts of the province of New Brunswick, we find the same thing happening. These trees originated in a much milder climate than the province of New Brunswick. Their range has been determined largely by the relative degree of hardiness that is inherent in them, and it has been found by experience that if one introduces these trees and tries to grow them in northern nurseries, tries to grow Rhode Island Greening or King or Baldwin or any of these apples that require a long season's growth and are what we

call tender, they prove a failure, they kill back, the bark splits. We cannot grow these trees in northern nurseries profitably. A tree that is tender will not be made hardier by growing it in cold districts.



How is This for Apple-Bearing?

This short stalk contained twenty-one full grown apples when it was taken from the tree. Three were lost on the way to the studio. Grown in the orchard of Robert Bell, Sackville, N. B.

COMPARATIVE HARDINESS

You might ask: Will the average apple originated, say, in the province of New Brunswick be necessarily hardier than the apple which is originated, say, in the state of New York or Rhode Island? No, it might not be hardier if originated there. If I sow the seed of the Wealthy apple in the province of New Brunswick, the seedling of that

apple is not necessarily hardy. Some may be hardy and some may be tender, and it will require a great number of years before one will find out which seedlings are going to be hardy in New Brunswick. When one has a seedling, say, the Merrit, which originated in the province of New Brunswick, an apple tree that has been able to withstand the cold climate year after year, you cannot say that variety is hardy because it is able to withstand the cold climate. Seedlings from a hardy tree, however, are much more likely to be hardy than seedlings from a tender tree. We have found that in our experience.

Which, you may ask, is the better, Northern or United States grown stock, local grown New Brunswick stock or stock grown, say, in the province of Ontario? Which is the better stock for us to use? Are there great advantages in growing home-grown stock, or are there not such great advantages?

CLIMATIC DIFFERENCES

In the warmer parts of Canada and the United States they have a much longer growing season than you have here. The result is that they can plant nursery stock on much richer soil than you can and have the trees ripen thoroughly. If you plant nursery stock in Northern New Brunswick, for instance, on your richest soil, your trees will not be properly ripened and will be almost certain to winter kill.

There is danger in getting nursery stock, even from a southern district, in getting it not properly ripened because trees are dug which are not thoroughly ripened. For instance, it has been the practice I won't say it is the practice now—to dig trees in large nurseries while the leaves are still green and strip the leaves off so as to give the tree the appearance of being thoroughly ripened. You can easily see that if such trees are planted in another district they are liable to be too tender for the first winter. So that you see from my standpoint there is not sufficient evidence in regard to the quality of the trees from the southern nurseries and the northern nurseries to warrant the statement which has been made that northern stock is the best stock. For instance, I believe you can get hardy stock properly ripened in

*Extract from an address delivered before the New Brunswick Fruit Growers' Association, November, 1910.