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The Best Stock on Which to Top-Graft the Spy

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THERE is no winter apple so popular in the province of Ontario as the Northern Spy, and its popularity is not confined to Ontario alone. The men who have gone from that province and settled in the newer parts of Canada remember the Spy as the favorite variety of their youth, and they want it in their homes in the west. Owing to its fine appearance and good quality, it is popular in every part of Canada where it succeeds and is in high favor in Great Britain. Because of its popularity there is a great demand for this fruit, and it is proving one of the most profitable apples where there are trees in full bearing. Unfortunately it has one serious defect, which has checked in some measure the general planting of it. It does not bear early enough. The well-known fact that "top-grafts" fruit sooner than standard trees has induced fruit growers to top-graft the Northern Spy either on bearing trees of less value or on young trees planted especially for the purpose. The increasing attention which is being given to top-grafting makes it important that the best stocks for Northern Spy should be known and this article is written partly for the purpose of getting others to give their experience in THE CANADIAN HORTICULTURIST, of top-grafting this variety on different varieties.

The Northern Spy is a strong-growing tree; hence, in order to have a tree which is not top heavy, and that will not break down, it is necessary to have a strong growing stock, for, although the kind of stock used does in some measure check the growth of the top, the individual characteristics of the two remain largely the same, and if the Northern Spy is top-grafted on a slow-growing tree, it will sooner or later so outgrow it that the tree becomes top heavy, and just when we are expecting good returns it may blow down or break off at the grafted part. Even strong growing trees sometimes do not make good unions with other strong growing trees. For best results, the Northern Spy should be grafted on a strong grow-

ing variety which will make a good union with it. At the Central Experimental Farm, parts of three trees were top-grafted with Northern Spy in 1891. Two trees were Wealthy, and one was Duchess. These were chosen as being hardy, and not with the idea that they were especially good stocks for the Northern Spy, nor did they turn out to be. They all fruited in 1897. The graft broke off one Wealthy tree during a high wind in 1899, and off the other from the same cause in 1902. The stocks were not strong enough growers

Officially Adopted

At the annual meeting of the New Brunswick Fruit Growers' Association, held at Fredericton on January 24, 1908, it was decided, on motion, to adopt THE CANADIAN HORTICULTURIST as their official organ for the Dominion.—S. B. Hatheway, Secretary.

and the grafts were top heavy. The grafts on the Duchess tree remained longer, but during the winter of 1903-4, the Northern Spy was killed, the stock remaining alive. If the Spy had not been killed, it would have soon broken off, as it had already begun to go. The results of these tests show the importance of having strong growing stocks.

Mr. G. C. Caston, Craighurst, Ontario, has had considerable experience in top-grafting Northern Spy. Following are extracts from a letter received from him: "I have Northern Spy on many different stocks—Tolman Sweet, Wealthy, Baxter, Yellow Transparent, on several kinds of crabs, on Belle de Boskoop, and over a dozen of the other Russian varieties. I may say that it is doing well on all of them. No variety has done better as a stock for Spy than Yellow Transparent. The union is perfect, and the top luxuriant. The worst I have tried are Golden Russet and Astrachan."

Mr. J. I. Graham, Vandeleur, Ontario, stated at the last annual meeting of the Ontario Fruit Growers' Association that he had had good success in the use of Ben Davis as a stock for Northern Spy. In a letter since received from Mr. Graham he states: "My trees were planted in the early '80's. I was guided by the Provincial Agricultural Committee Report, which was published in '81. When they began to bear I was not suited with them. I am well pleased with the Ben Davis as a stock. At first I grafted a few of the best varieties, such as King, Baldwin and Hurlbut. The last was highly recommended, but I do not like it, but they are choice trees in every way. No person could tell that they were grafted, and they are very heavy bearers. I have Spys also on Colvert, twenty-five years grafted and a number later. The union is good and stocks sufficiently large. About the time of grafting the Ben Davis, I grafted some Duchess. I was telling you then, and you expressed a doubt about the stock being sufficiently large. A year ago the 10th of October last, we had a heavy fall of soft snow, twelve inches, and they were loaded with apples. They broke at the crotch, while about twelve Spys split. They were raised with team, rope and pulley, and had a nice crop. This year the Duchess were done.

"One spring I grafted a number of Colvert, St. Lawrence, Astrachan, and Sherwoods' Favorite. None of the Sherwoods' Favorite I considered a success. They seemed to sunscald, to send out shoots and the scions did not grow like the others. I have Spy on Fall Jennetting, Fall Pippin, Colvert, Wealthy, Keswick, Codlin, and a seedling. I regard the seedling the best where the branches grow out from the stock without making a crotch. I have some old Spy grafts; the tree is twenty-five feet high, and of late years I am trying to cut back about one-half of the year's growth to see if I can get them to bear nearer the ground. That seems to be the fault of the scion even more so than the Spy tree. I have some Ben Davis