

Trees on "redleaf" roots were supplied to several growers in Virginia and also to other experiment stations during the early years of the use of this rootstock. Reports of trees declining in vigor and eventually dying were received from some of the co-operating growers. Complete records of the rootstock on which trees were propagated were not kept until 1960. Therefore, in many cases it was not possible to be certain that a given tree had been propagated on a redleaf seedling unless suckers arose from the roots of the tree. Probably one-half of the trees known to be propagated on "redleaf" seedlings have developed such suckers from the roots.

The use of this "redleaf" stock certainly is not desirable. The obvious solution lies in discontinuing commercial use of this particular clone of "redleaf" seedlings as a rootstock. This was done in 1962. It still would be desirable to know why such apparently closely related stock and scion material should exhibit such pronounced incompatibility. In addition to the usual physical barrier or interference to free translocation of nutrients through the point of graft union, which often accompanies graft incompatibility in plants, other possibilities suggest themselves, including the possibility of a symptomless, seed transmitted virus carried by the "redleaf stock."

Literature Cited

1. Argeles, G. K., 1937. A review of the literature on stock-scion incompatibility in fruit trees with particular reference to pome and stone fruits. *Imp. Bur. Fruit Prod. Tech. Commun.* 9. 115 pp.
2. Bregger, J. T., 1948. Peach variety incompatibilities on seedlings of a Yunnan understock. *Proc. Amer. Soc. Hort. Sci.* 52: 141-142.
3. Gardner, V. R., F. C. Bradford and H. D. Hooker, 1922. Fundamentals of fruit production. Chapt. XXXI, The reciprocal influences of stock and scion: 552-583. McGraw-Hill Book Company, Inc., New York.

More on the Spartan Apple

Interest in the apple variety, Spartan, appears to be growing in areas where McIntosh thrives. D. V. Fisher, of Summerland, B. C., reports that in his area Spartan is vigorous, and yet a very early bearer, and can be expected to produce 1000 bu. per acre at seven years of age, when propagated on dwarfing stocks, and planted at the rate of 200 trees per acre. Although the fruit is large on young trees, it gets small on older trees, and requires thinning.

Spartan is harvested in British Columbia a day or two before Delicious. If picked earlier, the fruit has poor storage quality.

Stewart Bartlett Pear

The Stewart Bartlett is a sport of Bartlett pear discovered in Wenatchee, Washington, which has been found to be somewhat resistant to fire blight in the West. H. J. Brooks, of the Crops Research Division of the U. S. D. A., reports in the *Plant Disease Reporter*, Nov. 15, 1964, that Stewart Bartlett at Beltsville, Maryland, has not shown this resistance to fire blight.

Observations of three year old trees of this variety at Beltsville indicated that seven out of ten trees were seriously infected with blight, while only two out of ten Bartlett trees of the same age and in the same plot were infected. Brooks concludes that Stewart Bartlett is not resistant to fire blight under eastern conditions.

According to the N. J. Crop Reporting Service the leading apple variety in New Jersey in 1944 was Rome Beauty, with 25% of the total crop. Stayman Winesap ranked second with 17.6%. Golden Delicious declined from 7.2% in 1963 to 3.8% in 1964.