

Some Variations in Russet Sports of Golden Delicious Apples

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Russet sports of Golden Delicious apple trees have been observed throughout five growing seasons in commercial orchards. Although more difficult to detect than in other varieties such as Starking, spontaneous bud sport variations do exist in the Golden Delicious apple. The Golden Delicious apple, produced throughout all the deciduous fruit growing areas of the world, has gained prominence as one of the leading apple varieties. However, since its commercial introduction, no bud sports with russet-resistant fruit have been identified.

Whole trees, individual limbs, and spurs bearing russeted fruit have been observed by the author in commercial orchards. The *Newman* strain† has been reported and compared with other russet strains.

Figure 1 illustrates some of the fruit variabilities occurring within the tree. Russet intensity varies within the mutant branch as indicated. This intensity ranged from fruit solidly russeted to those which were spotted and had a netted russet over a yellow-green background color, characteristic of a normal Golden Delicious apple. The lower right fruit in Fig. 1 illustrates the sectorial chimera that was found on the russet limb of this tree.

During the 1962 season, it was observed that one terminal branch had both normal and russet fruit on alternate fruit spurs (Fig. 2). This is apparently some form of chimeral mutation (probably sectorial) originating

within the outer layers of the growing points.

Another tree, the *Eckert* strain, has also been reported.† However, the major portion of this tree produces normal Golden Delicious apples. Russet fruit is produced on one of five scaffold branches originating from the main trunk of this tree. A slight change or constriction in the wood was noted in the area where the russet fruit spurs begin to develop. In other trees, where small limbs have produced russeted fruit, this constriction was quite noticeable.

These illustrations indicate that the

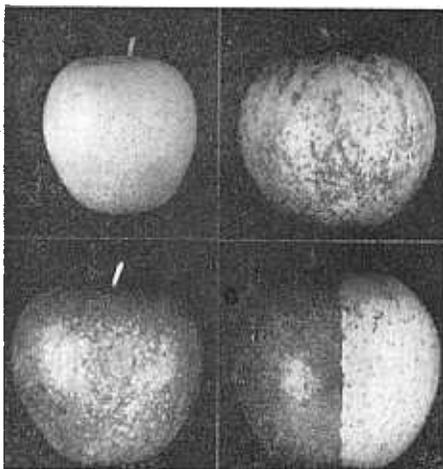


Fig. 1. Intensity of russet on Golden Delicious apples (*Newman* strain): normal (upper left), spotted or netted russet (upper right), solid russet (lower left) and sectorial chimera (lower right).

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†Simons, Roy K. 1962. Spontaneous russet sports of Golden Delicious apples—Morphological and anatomical comparison with normal fruit. *Proc. Amer. Soc. Hort. Sci.* 80: 79-89.

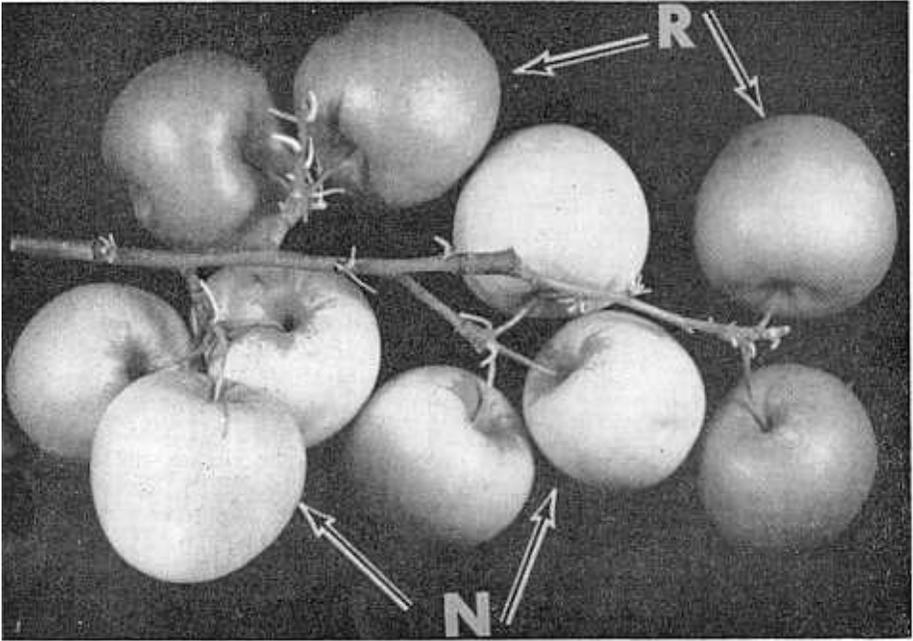


Fig. 2. Mutation variability in which alternate fruit spurs show normal (N) and russet (R) fruit on a terminal branch of Golden Delicious (Newman strain).

Golden Delicious apple is capable of reversion, and that bud sport mutations are often present. It is desirable that growers and nurserymen constantly reevaluate the Golden Delicious apple in an effort to discover a new sport that is free from russet and higher in quality than the original Golden Delicious.

Cherry Varieties in Washington

Harold W. Fogle (now in Beltsville, Md.), U.S.D.A., tested sweet cherry varieties at the Irrigation Exp. Station, Prosser, Wash., for many years. Some of his observations, as reported in *The Western Fruit Grower*, are as follows:

Van must be kept vigorous to maintain fruit size. Because it tends to color early, it could be picked too soon. It hangs on the tree well without seriously losing firmness or quality and should not be picked until Lambert

season. Van appears to be incompatible with the Mahaleb rootstock, but does well on Mazzard.

Sam lacks the quality of Bing, blooms too late in some years to pollinate most other varieties, and isn't always productive.

Chinook is a Bing type cherry with promise. It may replace other varieties now being used to pollinate Bing, because of its high quality, attractiveness and season (one week before Bing). However, it is subject to cracking.

Ranier, a Napoleon type white cherry, is a heavy, early producer, and a good pollinizer for Bing and Chinook. Its greatest possibilities lie in its excellent processing characteristics. Ranier cans and brines well, and shows fewer blemishes than Napoleon. However, its bright blushed skin may cause the syrup to be objectionably pink, if it is harvested late.