

# Red Sports of Delicious Apple

reversion to striped fruit can be minimized by selecting red sports and using scion wood from nonreverted trees

Dillon S. Brown, Claron O. Hesse, and Edward C. Koch

The red sport of the Delicious apple most commonly planted in California is Starking. Richared Delicious has been planted on only a limited acreage since it colors later than Starking. The popularity of Starking has declined, however, because many trees or parts of trees have reverted toward the parent Delicious type and produce fruit less highly colored. Reverted fruit appears distinctly striped. Though lighter red, the stripes are prominent on reverted fruit because of the lack of the characteristic red background of the normal Starking. The reverted Starking is often called Stripes, or Common Delicious, as opposed to Double-red for well-colored fruit.

The reversion may involve isolated spurs, small branch units, scaffold limbs, or entire trees. In the Watsonville area, where the problem is most severe, reverted fruit accounts for more than 20% of the crop in some orchards. It is a problem of serious economic concern to the growers because reverted fruit does

not command the premium price received for normal, well-colored Starking. Occasionally the reversion is so extreme that no red color develops even as striping.

The amount of reversion in other districts is nearly as great as in Watsonville orchards, but the problem is less acute in those districts where the climatic conditions favor color development and the reverted fruit colors reasonably well.

Reversion is relatively rare on Richared Delicious. Because of their dark red striping, reverted Richared Delicious resemble moderately well-colored Starking. Observations of a number of the newer sports of Delicious, both in California and elsewhere, indicate that those which are of a striped type, such as Starking, are more prone to revert than those with a normally uniform or solid red color, such as Richared Delicious. A typical example of the reversion in the newer sports is that for the Red King Delicious apple.

Once a spur, branch, or tree has reverted it will continue to produce reverted fruit. Therefore, care must be exercised in selecting scion wood for budding or grafting, particularly from trees of the striped types with which reversion is most apt to occur. Fruit produced in test plots in Santa Cruz County on trees grafted with scion wood selected from reverted and nonreverted Starking trees clearly demonstrate the need for careful scion-wood selection. Grafts with scions from nonreverted trees have produced only well-colored fruit in the first years of fruiting after grafting. With the strong tendency for reversion in the Watsonville area, it is probable that some reversion will gradually develop on trees worked with scions from nonreverted sources, as spurs here and there revert as the trees become older.

The most promising solution to the reversion problem lies in the initial choice of the particular sport to be

Concluded on page 10

The apple in the upper left corner of the first group is a normally colored Starking. The others show various degrees of reversion. At the upper left in the second group is a normally colored Red King Delicious apple; at the upper right, a reverted Red King Delicious apple; at the lower left, a normally colored Richared Delicious apple; and at the lower right, a reverted Richared Delicious apple.



