

Let us hope that this development will result in more improved plant material, and not trees infected with viruses, bark disorders or other maladies. This danger suggests that caution be exercised in determining what trees to plant and where scion wood

is obtained. If growers persist in propagating their own trees and using questionable sources of scion wood, rather than waiting for healthy, certified trees from reliable nurserymen, they could create problems in the future.

Three New Stone Fruit Cultivars Introduced by the U. S. Department of Agriculture

JOHN H. WEINBERGER*

The U. S. Department of Agriculture recently announced the naming and release of Fairtime peach, Flamekist nectarine, and Friar plum, each developed at the U. S. Horticultural Field Station, Fresno, California. They have been grown and tested primarily in California.

Fairtime peach originated as an open-pollinated seedling of selection C69-42 (Rodeo x Kirkman Gem) in 1958, and was formerly tested as selection F102-13. The seedling fruited first in 1961. Fairtime ripens at Fresno in the second week of September, or about 6 weeks after Elberta. The fruit is large, round, freestone and has very light pubescence. The flesh is yellow, firm but melting, smooth-textured and good flavored. The exterior color is an attractive yellow with a bright red blush. Tree vigor should be controlled for most attractive color and finish.

Trees of Fairtime are vigorous and productive. Heavy cropping is desirable to prevent excessive fruit size in California. The blossoms are self-fertile and large petaled. Leaf glands are reniform. The chilling requirement of Fairtime is moderately low, as indicated by time of bloom.

Fairtime fruit have received favorable market acceptance in Los Ange-

les. It has also rated high in commercial freezing tests.

Flamekist nectarine resulted from a self-pollinated seed of the Gold King variety in 1959. The seedling first fruited in 1962 and was tested as F113-87. Flamekist ripens about 3 weeks after Elberta, or in the third week of August at Fresno. The fruit is large, ovate, and clingstone. The flesh is yellow, firm, smooth-textured, and of excellent quality. A bright red blush partially covers an attractive yellow ground color. On excessively vigorous trees color may be inadequate.

Trees of Flamekist are moderately vigorous and productive. The blossoms are self fertile and large-petaled. Leaf glands are reniform. A moderately low chilling requirement is indicated by early bloom. The clingstone character may be a drawback in future years, but consumers now accept clingstone nectarines. The trade has reacted against late freestone nectarines because of lack of firmness.

Friar plum resulted from a cross of Gaviota x Nubiana made in 1957. The seedling was tested as selection F34-29. Friar ripens at the end of July at Fresno, several days later than its parent, Nubiana. The fruit is large

*Research Horticulturist, Crops Research Division, Agricultural Research Service, U. S. Department of Agriculture, Fresno, California.

and oblate. The flesh is amber-colored, firm, and slow-softening after picking. Flavor is good. The pit is small and free. The skin color is black when fully mature. The fruit have been practically free of growth cracks, compared to those of Nubiana.

Trees of Friar are very vigorous and productive. The flowers are self-unfruitful, and a pollinizer is required.

Since it blossoms nearly at the same time as Santa Rosa, effective pollinizers have been Santa Rosa, Late Santa Rosa, Laroda, Redroy, and Redheart. Friar was introduced as a replacement for Nubiana, which has been very subject to fruit growth cracks in some seasons. It should be planted only where Japanese plums grow satisfactorily.

Shenandoah and Roanoke, New Apple Varieties From Virginia

G. D. OBERLE*

Two new apple varieties developed from the apple breeding program at Virginia Polytechnic Institute were named and released recently. Both are early fall ripening varieties and were selected to fill a period in the ripening season before harvest of Delicious and its sports gets underway. Areas to which they appear adapted include the mountain and higher Piedmont sections of Virginia where Delicious, Rome, Winesap and Golden Delicious perform well. Possibly other areas which grow these varieties well may find Shenandoah and Roanoke of interest. Brief descriptions of their fruit and tree characteristics follow.

Shenandoah, formerly identified as V.P.I. 2, is a seedling of Winesap crossed with Opalescent in 1942 by R. C. Moore who was a member of the V.P.I. Horticulture Department for more than 40 years prior to his retirement in 1964. The first fruit was borne in 1948, and the original tree bore annually through 1952, when the land on which it grew was lost to other uses. Propagations of it have fruited since 1956. The average ripening date at Blacksburg has been September 15, or about ten days be-

fore Delicious. The round, conic fruits are remarkably smooth and symmetrical. They are of uniform size, averaging $2\frac{1}{2}$ to 3 inches in diameter even when the trees are heavily loaded. The skin is of greater than average thickness and fairly tough, to make for good handling quality. The crisp, juicy flesh is of medium texture. The flavor is sprightly to slightly tart suggesting Winesap. The skin is heavily waxed, thus giving long storage life with very little tendency to shrivel. It was first selected for possible processing use. Its usefulness for sauce and canned slices was first demonstrated in trials conducted by Professor Robert LaBelle, of the New York State Agricultural Experiment Station's Food Science and Technology Department. Professor Charles Wood, of the V.P.I. Fruit and Vegetable Processing Laboratory later confirmed these observations. Tests conducted at North Carolina State University reported that Shenandoah had exceptional quality for frozen pie slices. Its flavor may be a bit sprightly for some tastes, but we consider it to be well within the range of consumer acceptability for fresh use.

*Professor of Horticulture, Virginia Polytechnic Inst., Blacksburg, Va.