

the schedule of sprays recommended for commercial peach orchards in Virginia. The decision was made in 1964 to release it as Monroe in 1966. Buds from the original tree were distributed to nurseries interested in propagating it in 1964. Trees of Monroe will be available from ten commercial nurseries during the winter of 1966-1967.

Monroe has been tested primarily in the mountain and Piedmont sections of Virginia, and appears to be well adapted to the soils and climate prevailing there. Growers and horticulturists in other areas having similar environmental conditions may also find it worthy of testing. Its ripening season of approximately ten days after Elberta will limit Monroe's usefulness to areas having growing seasons long enough to ripen its fruits to the level of flavor and quality it is capable of developing.

The tree of Monroe is above average in vigor. The leaf glands are of the reniform type. It is only a moderate producer of fruit buds. The blossoms open a day or two later than most varieties of peach, and appear

to have considerable tolerance to blossoming season frosts at Blacksburg. The flowers are of the large, pale pink, showy type, and apparently are self-fruitful. Representative fruits have averaged two-and-one-half to three inches in diameter. They are essentially spherical in shape, but the suture is inclined to be somewhat raised, although less so than that of its Rio Oso Gem parent. The skin color is about sixty percent bright medium red over rich orange-yellow ground color. The pubescence is short, enhancing its attractiveness. The orange-yellow flesh has a moderate amount of pinkish red color adjacent to the pit cavity. The fruits are fully freestone. The flesh is very firm and of relatively smooth texture. The flavor is mild with characteristic peach aroma. Its quality at Blacksburg has been rated well above that of other varieties ripening in its season.

Monroe may be a useful variety for growers interested in supplying their customers with attractive, firm-fleshed, high quality peaches after the commercial crop of the Elberta season has been sold.

### Oregon's OP-9 Bartlett Pear

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Oregon pear #9 (OP-9 Bartlett) was selected in 1956 by the late Dr. Jess Kienholz from a commercial orchard. It appeared to him to be better than other trees in the orchard, and subsequent nursery trials showed that trees budded with OP-9 grew faster than did another Bartlett selection. Dr. Kienholz distributed budwood of OP-9 pear (originally called KPB-1)

to several Oregon nurserymen. In 1961 and 1962 tests at O.S.U. confirmed that OP-9 grew faster in the nursery than several other Bartlett selections.\*\*

In 1963 OP-9 and 11 other Bartlett selections were established in a plot at the Medford Experiment Station in a uniform granite soil. All trees were propagated on a clonal *Pyrus*

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\*\*Westwood, M. N. 1963. Superior Bartlett pear found, called OP-9. Oregon Orn. and Nursery Digest 7(3):1-2.

Table 1. OP-9 Bartlett pear compared with other Bartlett selections (1965 season)

Selection	% Bloom	% Set	1965 X-Sect. trunk Cm <sup>2</sup>	Virus <sup>a</sup>
OP-9	87		22.5	
3	58		14.9	
	86		21.1	
5	65		22.5	
6	54		17.5	
7	81		17.9	
8	68		19.1	
9	56		17.9	
10	43		14.9	
11	80		22.5	
12	80		22.7	
13	88		17.5	

<sup>a</sup>0 = no virus detected

1 to 3 = different degrees of detected virus expression

*communis* rootstock (Old Home X Farmingdale #97) and each selection was replicated four times in a randomized block design.

Measurements of growth, flowering, and fruit set have been recorded and virus tests have been run each year. Tests for virus have been made only on B-13, a Bartlett seedling selected for greenhouse screening tests. Visual leaf symptoms on the inoculated indicator were used to determine the presence of virus. The use of other virus indicators might have detected other viruses not shown by our test.

After three years in the orchard, three of the selections have grown as well as OP-9, but only one other (No. 12) tested virus negative (Table 1). Either some viruses did not reduce growth or else some of the selections are physiological mutants and if so are genetically different from OP-9.

Percentage bloom and set varied considerably from selection to selection, but the virus-negative trees aver-

aged higher for both (84% bloom, 26% set) than virus infected ones (68% bloom, 13% set).

Our work thus far indicates that OP-9 is equal to but no better than the best other selections, but it is definitely better than the poorest selections. Virus infection is at least partly responsible for poor performance.

For the reasons stated above, most Oregon nurserymen are using OP-9 Bartlett in preference to others. Research in this area will be continued.

## Scottish Strawberry Breeders Campaign Against Diseases

Problems in breeding strawberries, particularly for resistance against *Phytophthora fragariae*, or red core, are pointed out in The Grower by Ronald Webber, breeder of the Scottish Horticultural Research Institute, at Auchincruive, near Ayre. For one thing, varieties bred for immunity to one form of red core, eventually become infected with new strains of the disease, and new strawberry varieties have to be found. Also, indexing for resistance by grafting on an indicator plant, such as *F. vesca*, eliminates those selections which may have enough field resistance to be grown successfully.

The American red core resistant variety, Aberdeen, was crossed with promising Auchencruive selections, and out of these crosses Climax was obtained. Climax later fell victim to genetic June Yellows and had to be replaced. Talisman was introduced in 1955, Red Gauntlet in 1957, Templar in 1964, and Crusader in 1966. But breeding must go on at Auchencruive.