Tyler, a New Peach from Virginia

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The Tyler peach, most recent introduction from the peach breeding program under way at Virginia Polytechnic Institute and State University, was named and released for public use by Director C. T. Wilson of the Research Division of Agriculture and Life Sciences. The official release was made on August 31, 1970 at which time the National Peach Breeders Association met at Blacksburg for their annual meeting and review of peach breeding programs.

Tyler was developed by crossing Rio Oso Gem with pollen from an unnamed peach seedling that resulted from crossing Shippers Late Red with Sunhigh in 1949. The cross that produced Tyler was made in 1955. This cross also provided the seedling that was named Monroe in 1966.

The original tree of Tyler first bore fruit in 1958. The fruits were noted in the field records as being of above average size, brightly colored and attractive, and having very firm flesh with texture and flavor superior to those of other varieties ripening in this season, about six days after Elberta. The selection number V.P.I. 60 was assigned to this seedling in 1960 after its blossoms had shown above average tolerance to blossoming season frosts. It was propagated for further testing at that time.

The tree of Tyler is of average vigor, probably comparable to that of Triogem, Halehaven, Veteran and Elberta, and noticeably more vigorous than that of Rio Oso Gem or Shippers Late Red. Its growth habit is moderately spreading, with few if any narrow crotch angles. The leaf glands are of the reniform type. It has been a heavy producer of fruit buds, approaching Redhaven and Madison in that respect. The flowers are of the small-petaled, deep rose colored type, and are self-fruitful. They have shown above average tolerance to blossoming season frosts. The buds are definitely more hardy to low winter temperatures than are those of Monroe and Washington, but probably are less tolerant to winter cold than buds of Madison. A freeze on December 12, 1962, with temperatures of —14°F, destroyed all fruit buds on all varieties of peaches and nectarines in the only severe test for winter hardiness that has occurred at Blacksburg since Tyler has been available for testing. The chilling requirements for Tyler are not known since this factor is never a problem in Virginia. It appears likely, however, that its chilling requirement may be above average as compared to most of the varieties grown in Virginia.

Tyler fruit are considered of average size at Blacksburg, with representative fruits ranging for 2½"-2¾". They do not average as large as those of Monroe, Rio Oso Gem, Sunhigh, J. H. Hale and other varieties, which are notoriously light setters of fruit. The fruit ripen about August 31 at Blacksburg, which is about six days after Elberta or in Rio Oso Gem season. The fruit are rounded in shape with no tendency to develop noticeable tips at Blacksburg. The suture is fairly smooth and much less prominent than that of Rio Oso Gem or Monroe. The bright, attractive, skin color of about two-thirds medium red over orange yellow ground color is enhanced by short pubesence. The

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flesh is orange-yellow in color, with moderate amounts of pinkish-red adjacent to the pit area. The flesh is above average in firmness, and of relatively smooth texture. The flavor is mild, and noticeably less sharp and astringent than that of Rio Oso Gem. The quality has been rated well above that of other varieties ripening in its season.

Tyler has not shown problems of particular susceptibility to brown rot, mildew or bacteriosis. Bacteriosis seldom occurs in the mountain sections of Virginia and the reaction of Tyler to this disease has not been reported from areas in which it does occur. Trees have been distributed to Experiment Stations in twenty states, two Canadian provinces, Mexico, Italy and France. Reports on its response to diseases and other pests in the various regions should soon be forthcoming.

Trees of Tyler were propagated by several commercial nurseries for delivery in the winter of 1970-1971 and will be available from additional nurseries in subsequent winters.

Seed Germination in the Red Raspberry

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Raspberry breeding programs are often hampered by poor seed germination. Germination may be improved by seed treatments. Jennings and Tulloch (1) reported on several of these, but even with the best (20 minutes in concentrated sulphuric acid followed by six days in 1.0 per cent calcium hypochlorite and a six-week period of moist chilling) germination seldom

Table 1. Germination per cent for raspberry cultivars, means of counts 30 and 90 days after overwintering.

	Cultivars				
Treatments[2]	Creston	Trent	Ottawa Latham	Boyne	Mean[1]
Dry seed, 50 min. conc. H_2SO_4	72.5	37.8	35.5	12.3	39.5 a
Dry seed, 20 min. conc. H_2SO_4	55.0	30.8	25.8	34.3	36.4 b
Dry seed, sandpaper scharified	50.3	22.5	2.0	1.5	19.1 cd
Wet seed, 6 months –2°C peat moss	54.8	19.5	0.5	1.0	18.9 cd
Fruit 6 months –5°C freezer bag	41.5	14.8	11.5	4.5	18.1 cd
Fruit (fresh seed sown) overwintered in cold frames	32.0	19.8	10.4	18.6	20.2 cd
Control	29.0	10.0	1.0	1.0	10.3 d
Mean[1]	47.9 a	22.2 b	12.4 cd	10.5 d	

[1]Means followed by the same letter are not significantly different at the 5% level.

[2]All treatments were followed by a four months' period of overwintering, outdoors, in a covered frame. The first five treatments listed were duplicated by overwintering for four months in a cold room at 0°C, but the data were bulked with the closely similar data from outdoors.

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