

# Red Stele Resistant Strawberries for Ohio

by

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The occurrence of the fungus disease red stele has made the production of standard varieties of strawberry no longer practical in many areas of Ohio. As a result, there has developed a considerable interest in the relative worth of red stele resistant varieties grown under Ohio conditions. This paper is a resumé of the experiences during the past several years with a number of red stele resistant varieties at the Ohio Agricultural Experiment Station, Wooster, Ohio.

Although there was some variation in plant growth, all of the varieties under consideration made satisfactory growth and matured their fruit during the last three weeks in June. In many instances they were superior to some of our standard June bearing varieties.

*Aberdeen* was one of the least productive of the red stele resistant varieties grown at Wooster. The berries were large, relatively soft, of an unusual light red color, and of only fair eating quality. The berries of *Aberdeen* made one of the least desirable frozen products of any of the varieties being considered, due to their poor color and texture. *Aberdeen* cannot be considered a satisfactory commercial berry for Ohio.

*Fairland* was one of the most vigorous and productive of the varieties tested. For three consecutive years it produced over 5,000 quarts per acre. The productivity of this variety has also been demonstrated in commercial plantings in Ohio. *Fairland* produced medium sized berries which ripened in early midseason, were uniform in appearance, firm, and of good, red color and flavor. It is recommended as one of the best of the red stele resistant varieties, and is gaining in grower acceptance.

*Pathfinder* was found to be one of the less desirable varieties of the group. It exhibited a low productive capacity, with an average yield of only 3,677 quarts per acre for three seasons. The nearly round berries of *Pathfinder* were low in eating quality, tended to have hollow centers and white flesh, and were found to be unsuitable for freezing.

*Red Crop*, one of the more recently introduced of the red stele resistant strawberries, appears most promising. While under test at Wooster during the 1952 and 1953 seasons, *Red Crop* produced an average yield in excess of 5,000 quarts per acre. Its solid, medium to large sized berries were firm and attractive, but showed a tendency to darken upon ripening. In spite of this latter weakness, *Red Crop* is a variety well worthy of trial.

*Sparkle* is one of the later maturing of the varieties tested. Although it has shown some very good qualities, it has not been too productive in recent tests.

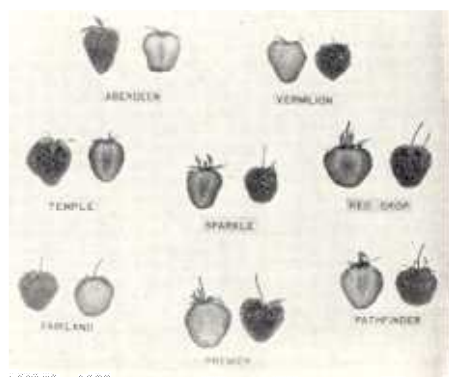


Fig. 1. A comparison of the berry characteristics of several red stele resistant strawberry varieties with those of *Premier*, a standard non-resistant variety.

The berries are of medium size, firm, of good eating quality, and characterized by the prominence of their achenes or "seeds." The frozen berries of Sparkle are above average in quality.

*Temple* is a variety that produces a medium sized, firm, bright red, attractive, high quality berry, well suited for table use and for freezing. In Ohio it has proved to be a vigorous plant maker, but unreliable in fruit production. Although its value as a commercial variety in this state is doubtful except in certain local areas, *Temple* is still considered worthy of trial because of its outstanding fruit characteristics.

*Vermillion* was one of the less productive of the tested varieties during the 1952 season, producing only 3,291 quarts

per acre. Yet in 1953 it was the top yielding variety, producing 7,357 quarts per acre. Its berries were of medium size and bright, but tended to be soft and of only fair eating quality. The frozen berries of this variety were only fair in quality. Although *Vermillion* requires more extensive testing it appears to be worthy of trial in Ohio on a limited basis.

Of all the red stele resistant strawberry varieties under test at Wooster, Fairland was found to be the best both for commercial and home garden production. Of the remaining varieties, *Red Crop* appeared to be the most promising, and although *Sparkle* and *Temple* were also good, they weren't as productive. *Aberdeen* and *Pathfinder* were not found suitable for Ohio production.

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## More About the Melrose Apple

Additional information dealing with the Melrose apple recently published by F. S. Howlett and T. E. Fowler in Ohio Farm and Home Research, merits our attention.

The Melrose, it will be recalled,\* is a very attractive Jonathan type apple resulting from a cross between Jonathan and Delicious.

The fruit of Melrose handle well in the fresh state. Tests have also shown that in addition to being a good cooking apple, this variety is excellent for freezing, being equal to Stayman Winesap and better than Baldwin.

It is of interest that although both parents bloom in midseason, Melrose is late blooming, being comparable to Rome Beauty.

Melrose offers little labor competition to our present commercial varieties at harvest, since its average picking date (Sept. 10 at Wooster, Ohio) falls after Jonathan and Delicious and just before Stayman Winesap and Rome Beauty.

Harvest and storage studies indicate that Melrose should be picked mid-October or later. Pressure tests show that it will keep as well as Rome Beauty in storage. It is almost free of Jonathan Spot and has never shown scald in storage.

From a disease standpoint, however, it is more susceptible to scab than Jonathan, and is also subject to surface russetting under conditions favorable to its development.

There is no evidence that Melrose is as late in bearing as Delicious or as uncertain in setting fruit. It appears to bear annually.

Pollination studies during two seasons have shown that Melrose pollen is highly viable, that it is compatible with Jonathan, Rome Beauty and Gallia Beauty, but not with Delicious.

Although more extensive trials throughout the country still have to be made, the favorable reports that have come in are very promising for the future of the Melrose apple.

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\*See F.V.H.D. Vol. 1, No. 4: p. 92 (1946).