

—6.7°C on February 23. 'Brookings' showed poor regrowth from earlier sampling, but at later dates regrowth ratings increased considerably. It is possible that the poor regrowth obtained from samples of 'Brookings' taken in December was due to short day lengths in the greenhouse.

In the spring 'Pee Dee 102', 'Tifgreen' and 'NEJC' were alive in a narrow band near a hedge planting. These patches were under a thicker snow cover than found on other areas of the experimental plot. Snow has an extremely low thermal conductivity and protects turf against low temperature and also serves to reduce frequency of freezing and thawing. Based on climatological data, it appears that 'Pee Dee 102', 'Tifgreen' and 'NEJC' may be able to survive less severe (more typical) winters in Fort Collins, Colorado.

**Artificial freezing test.** Starting from mid-October, 1978 and continuing monthly until May, 1979, stolons of each cultivar were taken from the field and subjected to a standard freezing test (1). The temperature range was 0 to —20°C with a temperature treatment interval of 2°. Degree of injury at a given temperature was estimated by conductivity measurements (3). The percentage of injury at each temperature treatment was determined as:

$$\left( \frac{\text{exosmosis of electrolyte at given temperature}}{\text{exosmosis of electrolyte for killed tissue}} \right) 100$$

A plot of the percentage injury against temperature was made and the killing point determined as the mid-point of the inflection of the curve. Table 2 shows low temperature killing points for cultivars on sampling dates. No data recorded for a date indicates that the cultivar was dead.

Bermudagrasses differ in cold hardiness but were generally more cold-hardy than the cultivars of *P. vaginatum* studied. 'Brookings' was the most cold-hardy followed by 'NEJC' while 'Tifway' was least cold-hardy. Bermudagrass tended to acclimate to cold slowly not reaching the maximum level of cold hardiness until mid-winter, rendering it susceptible to cold temperatures which may occur in early winter. Field test data and that for artificial freezing produced similar results.

#### Literature Cited

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# CULTIVAR & GERMPLASM RELEASES

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## 'Starlite' Peach<sup>1</sup>

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**Additional index words.** *Prunus persica*, fruit breeding

'Starlite' peach [*Prunus persica* (L.) Batsch] has been released to provide an early white-fleshed peach for local markets. The fruit is larger and more uniform in size, shape, and maturity than 'Springtime', the leading white-fleshed cultivar of its season.

#### Origin

'Starlite' originated from a cross (Fig. 1) made in 1959 by V. E. Prince. FV89-14 has early-ripening, firm, highly attractive fruit, but unfortunately is quite susceptible to bacterial spot incited by *Xanthomonas pruni* (E. F. Sm.) Dows.

'Starlite' was selected in 1964 and subsequently tested as FV9-239. It has fruited at experiment stations in Alabama, Georgia, and North Carolina and with grower cooperators in Alabama and Georgia.

#### Description

Trees of 'Starlite' are vigorous and productive for an early season cultivar. Although susceptible to bacterial spot, the fruit usually escapes injury because it matures early in the season. The chilling requirement for breaking the bud rest period is about 650 hours below 7.2°C. However, 'Starlite' has set good crops in North Carolina where cultivars requiring higher chilling are normally needed. Leaf glands are globose. Trees at Byron have been indexed and found to be free of *Prunus* ringspot virus.

The self-fertile blossoms are showy with large pink petals. Fruit (Fig. 2) are small to medium in size, about 5 cm in diameter when properly thinned. Fruit shape is round with a slight tip. The surface is 70% bright red at maturity, the undercolor being white with a slight green tint. Pubescence is light. The firm, but melting, white flesh tends to be

semi-clingstone when ripe, with medium texture and good flavor.

'Starlite' ripens with 'Springgold', about 3 days after 'Springtime', or 55 days before 'Elberta' at Byron.

#### Availability

'Starlite' should be available from commercial nurseries in 1981. Limited amounts of budwood are available from W. R. Okie.

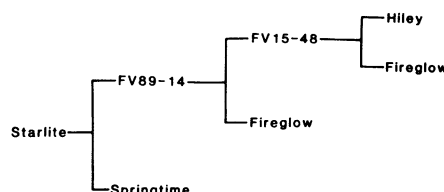


Fig. 1. Pedigree of 'Starlite' peach.

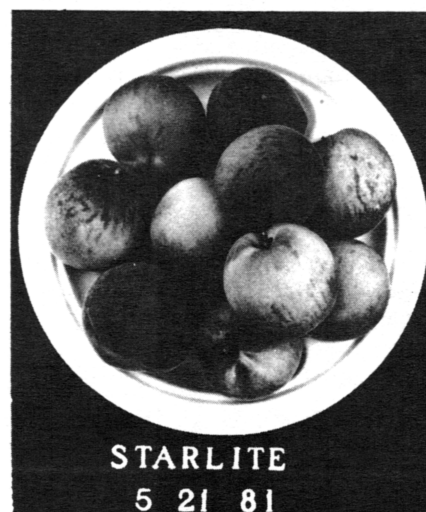


Fig. 2. Mature fruit of 'Starlite' peach harvested May 21.

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