Trees of 'Harrow Diamond' are of medium vigor, open, spreading, and have medium to wide crotch angles. They have moderate tolerance to perennial canker, based on natural infection outdoors, with ratings intermediate between 'Candor' and 'Earlired' (Table 1). Leaves and fruit appear resistant to bacterial spot [Xanthomonas campestris pv. pruni (Smith) Young et al.]. No symptoms of the disease have been observed in 5 years when adjacent trees of other cultivars were infected. The fruit appears resistant to brown rot [Monilinia fructicola (Wint.) Honey], split pits and preharvest drop, thereby resulting in few culls at harvest.

Flowers are showy, pink, and bloom midway between 'Candor' and 'Earlired'. Leaves, lanceolate and wavy with crenulate margins, are typically 15.2 cm long and 3.7 cm wide. There are usually 2 globose leaf glands at the junction of the leaf blade and the petiole.

Fruit, attractive in color and shape (Fig. 2), are larger than 'Candor' and slightly smaller than 'Earlired' (Table 1). They readily attain 6 cm in diameter if thinned early and about 15 cm apart. A solid, bright red blush covers 60% to 70% of the skin surface and is superimposed on a bright yellow background color. Pubescence on the skin is short and sparse resulting in a smooth fruit appearance. The blossom end of the fruit is dimpled, the suture distinct but shallow, and the cavity deep and flaring. The flesh is yellow, melting, medium firm, moderately sweet and juicy, and, when fully ripe, separates readily from the pit. The texture and flavor are fully acceptable for the early season. The flesh is resistant to oxidation and therefore does not brown readily on exposure to air.

Browning tests during the technique of Kader and Chordas (1) showed that 'Harrow Diamond' had the lowest browning potential of 9 early season cultivars (Table 2).

Pits, medium in size and typically 3.2 cm long and 2.5 cm wide, are plump, and have an acuminate apex and obtuse base. The walls are deeply sculptured and pitted and there is a shallow keel on the ventral suture, but wings are absent.

'Harrow Diamond' is being introduced for the Ontario fresh market because it seems better adapted to the peach growing regions of southern Ontario than 'Candor' or 'Earlired'. It is more cold-hardy than either cultivar, more productive, has fewer split pits, is more resistant to flesh browning, and ripens a day earlier.

Availability

Budwood of 'Harrow Diamond' from virus-indexed trees is available from the Harrow Research Station in limited quantities, and is distributed by WOFTA, Harrow, Ontario N0R 1G0. Trees in limited quantity will be available in 1986 from WOFTA: NYSFTCA, Geneva, N.Y.; and several commercial nurseries in Ontario.

Literature Cited


'Centennial Spirit' Crapemyrtle

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Additional index words. Lagerstroemia indica, mutations, powdery mildew, drought resistance

'Centennial Spirit' crapemyrtle, Lagerstroemia indica L., is a vigorous upright shrub with strong stems which may reach 2 to 3 m. Leaves are smaller and thicker than the species, and are dark green and red-orange in the fall. Inflorescences are 20 to 30 cm tall and 10 to 20 cm wide. Petals are dark wine-red. 'Centennial Spirit' is cold-hardy to −20°C and is very resistant to drought and powdery mildew.

Origin

'Centennial Spirit' was selected from a 2nd generation population of seedlings from parent plants that expressed mutant characteristics. An original lot of about 4000 seeds was collected from 16 seedling plants and treated with a 4% solution of ethylmethane sulfonate (EMS) for 1 hr in Feb. 1978 (3). About 1200 seedlings resulted, of which 60 were selected as having promising form and flowering and mildew resistance characteristics. Seeds from 32 plants that showed pronounced mutant characteristics (thick leathery leaves and variegated flowers) (1) were collected in Nov. 1981. No control of pollination was attempted; therefore, the 2nd generation seedlings were probably the progeny of the mutant parent crossed with a normal parent. The seeds were planted in the greenhouse on 12 Mar. 1982 with no further chemical treatment. After the seeds germinated, powdery mildew was introduced from susceptible seedlings in large containers. About 4000 seedlings survived with little or no powdery mildew and were transplanted into the field. 'Centennial Spirit' was selected from this population.

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Contrast, both ‘Victor’ and ‘Regal Red’ retain old flowers which fade to an unattractive blue-purple to black before falling, and these flowers detract from the remaining blooms.

‘Centennial Spirit’ begins flowering in late June and continues through early October in Central Oklahoma. After summer rains, inflorescences of most crapemyrtle droop under the weight of water. By contrast, because of the strength of the stem, ‘Centennial Spirit’ remains erect and attractive. The strong stems and few basal suckers provide for easy training as a tree form in hardiness zones 7b, 8, 9 and 10 (USDA). The flower color is not as red as ‘Victor’ but distinctly red when compared to ‘Durant Red’, ‘Dallas Red’, ‘Watermelon Red’, and ‘Regal Red’. The large strongly upright inflorescences appear much like a torch with a strong handle, thus the name ‘Centennial Spirit’.

‘Centennial Spirit’ has shown consistent resistance to powdery mildew both in the landscape and under conditions of daily overhead watering in containers. It has withstood temperatures of −20°C with no dieback. In contrast, moderate to severe dieback will occur on many cultivars under Central Oklahoma conditions. However, plants of ‘Centennial Spirit’ were killed to the soil line by −30°C temperatures, but regrew the following spring with full flowering by early July. Plants of ‘Centennial Spirit’ in containers in an unheated poly covered greenhouse were the only cultivar to survive temperatures in the structure of −18°C, probably due to the rapid development of large stems and roots which are relatively tolerant to low temperatures (4).

Additional index words. *Cucumis sativus*, vegetable breeding, disease resistance

‘Redlands Long White’ cucumber

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Fig. 1. ‘Redlands Long White’ cucumber.

‘Redlands Long White’ cucumber (*Cucumis sativus* L.) was developed by Redlands Horticultural Station to provide the Queensland cucumber industry, seedsmen, and breeders with a high quality white-skinned long cucumber. In addition to high consumer acceptability, ‘Redlands Long White’ is productive and has resistance to downy mildew [*Pseudoperonospora cubensis* (Berk. et Curt) Rost.] and should carry resistance to some isolates of powdery mildew [*Sphaerotheca fuliginea* (Schlecht ex Fr.) Poll.].

Origin

‘Redlands Long White’ (Fig. 1) was developed from a cross made in 1972 between ‘Green Gem’ (Poinsett) and ‘Crystal Apple’. ‘Crystal Apple’ is a local andromonoecious cucumber cultivar that produces a pleasant flavored, short, blocky white-skinned fruit. It is susceptible to both powdery and downy mildew, and yields erratically. ‘Green Gem’ was resistant to isolates of both the mildews but recently was found susceptible to an isolate of powdery mildew [*Sphaerotheca fuliginea* (Schlecht ex Fr.) Poll.].

In replicated trials and commercial production, yields of ‘Redlands Long White’ have compared favorably with those from ‘Green Gem’, ‘Hybrid Sprint’, and ‘Crystal Apple’. ‘Redlands Long White’ has produced high yields (22 t/ha) of attractive high quality fruit in commercial plantings at Mareeba 17°0’S, Rockhampton 23°23’S, and Ormiston 27°3’S. Resistance of ‘Redlands Long White’ (1.4) to downy mildew compared favorably (0–5 scale), with ‘Poinsett’ (1.3) and ‘Hybrid Sprint’ (1.7) and was superior to ‘Crystal Apple’ (3.3). However, all cultivars have been susceptible to the powdery mildew isolate recently used in glasshouse inoculations. Watermelon mosaic virus does not visibly affect the fruit.

‘Redlands Long White’ is the first white-skinned long fruited cucumber cultivar developed specifically for Queensland production. The combination of high quality, high yields, high consumer demand, and disease resistance enhance its appeal to commercial growers.

**Availability**

‘Redlands Long White’ seed is available from New World Seeds, Box 18, Dural, NSW 2158 and Yates Seeds, Box 72, Reversby, NSW 2212, Australia. The plants are monococious, and the cultivar can be maintained readily by open pollination.

**Literature Cited**


**Propagation**

Softwood cuttings from the original parent and from subsequent plants root 100% under intermittent mist in a medium of equal parts peat and perlite.