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'Clark Hill Redleaf' Plum

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This plum has been mentioned in two recent reports (1, 2), but has never been described.

The plum now called 'Clark Hill Redleaf' was collected by Jim Thompson and Walt Knight in 1973 or 1974 while Thompson was the USDA apple and plum breeder at the ARS Laboratory at Byron. Buds of this plum came from a large (10 m tall), healthy, seedling tree found at an old homesite on the Georgia side of the Savannah River about 1 km from Clarks Hill Dam, which is near Augusta, GA (approximately 33°40′ N x 82°12′ W).

The tree resembles a redleaf *P. cerasifera* Ehrh. and may have been a seedling of an ornamental plum. Subsequent tests indicated it did not root as readily as 'Fruitland' plum (probably Marianna) when dormant cuttings were stuck outside during the winter. Several Japanese-type plums and apricots budded on 'Clark Hill Redleaf' 5 years ago are still living. With a weakly growing scion the stock has produced basal suckers but not root suckers. 'Clark Hill Redleaf' propagates readily in tissue culture (2).

Reeves and Edwards showed 'Clark Hill Redleaf' was less efficient at calcium uptake compared to GF655-2 and Damas 1869 plums and 'Lovell' peach (1). On the other hand, at higher calcium levels, 'Clark Hill Redleaf' was more tolerant than the other stocks (2). Thus, it may be well adapted to calcareous soils. However, trees at Byron on acid soil (pH 5.7) have been vigorous, with no serious bacterial spot (*Xanthomonas campestris* pv *pruni* (Smith) Dye) or canker (*Pseudomonas*

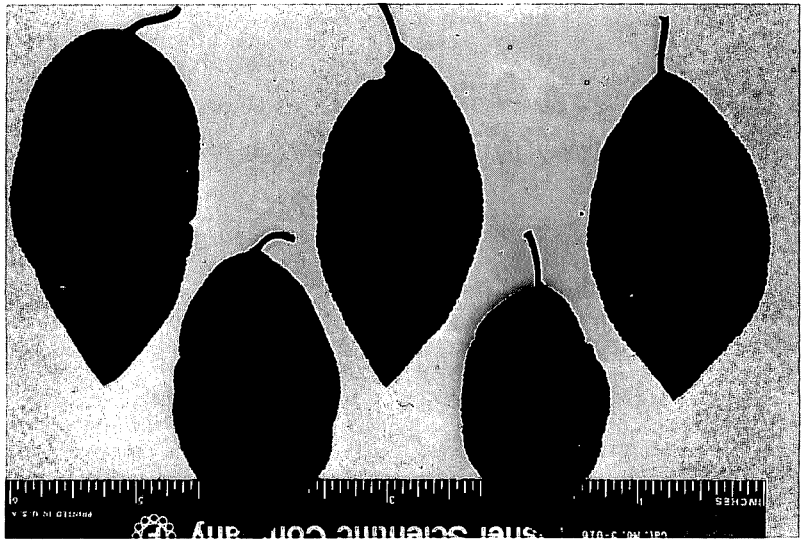

Figure 1. Mature leaves of 'Clark Hill Redleaf' plum.

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syringae pv *syringae* van Hall) damage observed. Trees show moderate resistance to plum leaf scald (*Xylella fastidiosa* Wells et al.) based on visual foliage ratings in comparison to other plum cultivars in the same block.

Cropping records are incomplete but some years it has had a heavy fruit set. Fruit are round, 2-3 cm in diameter, red with yellow to yellow-red flesh. Quality is insipid and rated only fair which is typical of most red-leafed stone fruits. Bloom at Byron is in mid-March, later than most of the Japanese plums but similar to 750-850 chill hour peaches such as 'Redglobe.' The flowers, borne in clusters of 2 or 3, are light pink consistent with the red leaf character, rather than white as most plums are. Blooms are about 15 mm diameter, on a 5 mm pedicel, with orange anthers containing moderate amounts of pollen. Leaves are ovate, about 6 cm x 3 cm with a glandular serrate margin (Fig. 1). The deep red leaf color fades to purple-green on mature leaves during the summer as do other redleaf trees. Small quantities of non-virus-indexed budwood are available from W. R. Okie.

Literature Cited

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Peach Cultivar and Advanced Selection Evaluation in the Medium-Chill Region of Texas

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Abstract

In the last century, peach production in Texas has fluctuated with erratic weather and economic conditions, and has expanded from a 6-8 week harvest season in northern Texas to a 20 week harvest period beginning in the Lower Rio Grande Valley and ending in northern Texas. Thirty-one peach cultivars and seven advanced selections were evaluated in a medium chill zone of Texas. Most peach cultivars with a chilling requirement of 700 or more hours below 7.2°C cropped inconsistently and although the fruit is round or oblong in more northern regions, when grown in a medium-chill zone, the fruits have prominent sutures or tips. As compared to more northern zones very few cultivar choices are available for mild-winter regions.

Since the beginning of the century until the 1940's Texas peach production shifted from one major production center in the northeast corner of the state to two major centers of production: one in the northeast and the other center starting near Dallas-Fort Worth and continuing about 100 miles west with the production centered around the Parker-Erath county area (2, 4, 6, 7). During this time peach production was based mainly on the 'Elberta' cultivar and harvest began mid-June and lasted until mid-August.

By the 1950's, a third major production center began to appear: the Hill Country region—an area about about 70 miles northwest of San Antonio. This trend to develop peach orchards further south has continued to the present, with significant production coming from areas south of San Antonio that need peach cultivars that require 650 hours or less of chilling temperatures (2, 4, 6, 7, 8, 9, 10). In the past five years, with the availability of peach cultivars adapted to subtropical conditions (chill requirements <200 chill units, the production of peaches

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