

NORTH CAROLINA AGRICULTURAL RESEARCH SERVICE  
NORTH CAROLINA STATE UNIVERSITY  
RALEIGH, NORTH CAROLINA

NOTICE OF NAMING AND RELEASE OF 'PLUM DANDY' TOMATO

The North Carolina Agricultural Research Service announces the release of a new fresh-market tomato cultivar, 'Plum Dandy'.

'Plum Dandy' resulted from a breeding program to develop an improved early blight resistant plum (Roma-type) tomato for fresh-market production in North Carolina. 'Plum Dandy', trialed as NC 9380, is the F<sub>1</sub> hybrid of NC EBR-5 x NC EBR-6, early blight resistant breeding lines derived from the USDA cultivar 71B2 (Fig. 1). The processing tomato line 85-PR218 from Dr. Warren Henderson's breeding program in North Carolina provided much of the improved fruit quality in the parental lines of 'Plum Dandy'.

'Plum Dandy' has a fairly compact determinate plant (sp gene) with dense, dark green foliage which provides good fruit cover. When grown using the short stake, string weave system of culture, 'Plum Dandy' normally terminates growth at 3 feet of stake height. Because of its dense growth habit and prolific fruit set, moderate to heavy pruning, depending on in-row spacing, is needed to open the plant for air circulation and to produce optimum fruit size.

Fruit of 'Plum Dandy' have 2, occasionally 3, locules and are elongate in shape resembling 'Peto 882' with a slight taper from the shoulder to blossom end. Non-ripe fruit are glossy, uniform light green color (u gene). Fruit pedicels are jointed. Fruit ripen to a bright red exterior and interior color and have good firmness and flavor. 'Plum Dandy' is adapted to both vine-ripe and mature-green production. Fruit size of 'Plum Dandy' when plants are pruned is comparable to that of the standard cultivar Peto 882. Season of maturity for 'Plum Dandy' has been similar to or slightly later than that of 'Peto 882'.

'Plum Dandy' produced marketable yields consistently exceeding those of 'Peto 882' in replicated early and late season summer trials at Fletcher over a 3-year period. Fruit of 'Plum Dandy' have shown much better resistance to weather check (fine cuticle cracks on the shoulder) than fruit of 'Peto 882'. 'Plum Dandy' was trialed extensively with growers in North Carolina in 1994 and 1995. Production and fruit quality in spring and early summer plantings have been very good in North Carolina and at several other locations in eastern and mid-western areas of the U.S. Production in late summer and fall plantings in piedmont North Carolina and in experiment station trials in Florida indicate that 'Plum Dandy' is not well-suited for high temperature production seasons because of limited fruit set and susceptibility to bacterial spot.

'Plum Dandy' is resistant to verticillium wilt (Ve gene) and to race 1 of fusarium wilt (I gene). 'Plum Dandy' is moderately resistant to early blight and has shown much less early blight than 'Peto 882' and other commercial plum tomato cultivars in early blight trial plots at Fletcher and Waynesville, NC. Fruit are highly resistant to all types of cracking, including weather check, which can be a severe problem on 'Peto 882' fruit.

'Plum Dandy' has been released on an exclusive basis for commercial seed production and sales to Ferry-Morse Seed Company. Breeder seed of the parental lines will be maintained by the North Carolina Agricultural Research Service. Small samples of 'Plum Dandy' and its parental lines for trial and breeding purposes are available from R. G. Gardner, Mountain Horticultural Crops Research and Extension Center, Fletcher, NC 28732-9216.

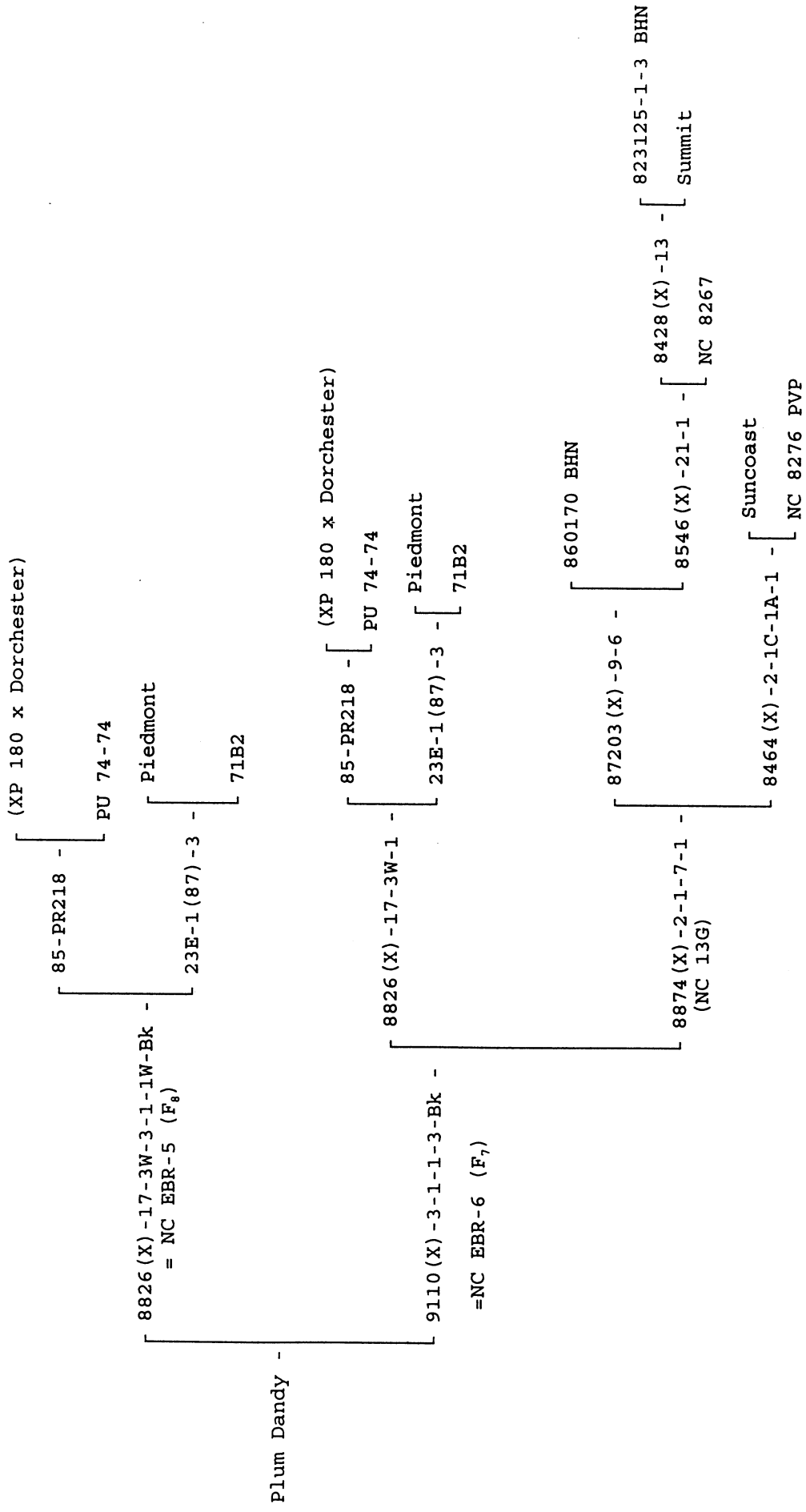


Fig. 1. Pedigree of 'Plum Dandy' F<sub>1</sub> hybrid tomato.

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 Agricultural Research Service

10-28-96  
 Date