

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

NOTICE OF RELEASE OF NC 8288 TOMATO BREEDING LINE

The North Carolina Agricultural Research Service announces the release of a new fresh market tomato breeding line, NC 8288.

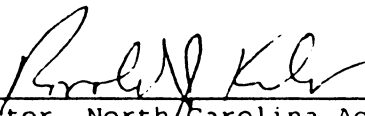
NC 8288 is an inbred line in the F<sub>6</sub> generation. It resulted from the cross of 'Piedmont' x 'Fla. 1B'. It has been tested in the Southern Tomato Exchange Program (STEP) trials since 1984 as STEP 689.

NC 8288 resembles 'Fla. 1B' in plant and fruit characteristics. Plants are short to medium determinate. Leaves have a characteristic marginal curl similar to 'Fla. 1B', but foliage is heavier and provides better fruit coverage than 'Fla. 1B'. NC 8288 has the nipples blossom trait (n gene) derived from 'Fla. 1B' and generally produces fruit with a smooth, pinpoint blossom scar. Non-ripe fruit of NC 8288 have uniform light green color (u gene), in contrast to the dark green shoulder color of 'Fla. 1B'. Fruit pedicels are jointed. Fruit shape of NC 8288 is deep oblate and generally symmetrical. Fruit remain very firm during ripening and have good uniform red external and internal color. NC 8288 is early in maturity. In trials in North Carolina, it has been comparable in maturity to the cultivar 'Pikred'.

NC 8288 is resistant to races 1 and 2 (I and I-2 genes) of Fusarium oxysporum f. sp. lycopersici (Fusarium wilt) and to race 1 (Ve gene) of Verticillium dahliae (Verticillium wilt). NC 8288 has moderate resistance to fruit cracking. Under conditions of high nitrogen fertility and wet soil, NC 8288 has shown some susceptibility to the fruit disorder of gray wall. Like 'Fla. 1B' and other early maturing cultivars with curled foliage, NC 8288 is more susceptible to early blight than cultivars lacking the curled foliage trait.

Total yields of NC 8288 have generally been slightly lower than those of mid and late season cultivars. However, because of its smooth blossom scar, NC 8288 has been equivalent in yield of U. S. Combination Grade (U.S. No. 1 + U.S. No. 2) fruit to later maturing cultivars. Fruit size of NC 8288 averaged 8.8 oz. in trials in North Carolina in 1984 and 1985.

NC 8288 is being released primarily for its use as the male parent of the F<sub>1</sub> hybrid 'Mountain Delight', which is being released concurrently with NC 8288. Breeder seed will be maintained by the North Carolina Agricultural Research Service. Small samples for trial and breeding purposes are available from R. G. Gardner, Mountain Horticultural Crops Research and Extension Center, Fletcher, NC 28732-9628. Application is being made for a Plant Variety Protection Certificate.

  
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Director, North Carolina Agricultural  
Research Service, Raleigh, N.C.

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Date