

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

NOTICE OF RELEASE OF NC 1Y TOMATO BREEDING LINE

The North Carolina Agricultural Research Service announces the release of a new fresh-market tomato breeding line, NC 1Y.

NC 1Y was developed using the pedigree breeding method (Fig. 1). It resulted from the cross of 'Mountain Gold' PVP with the high temperature fruit set line NC 82162(X)-1-1R-8. Single plant selections in segregating generations leading to NC 1Y were made in field plots at the Mountain Horticultural Crops Research Station, Fletcher, NC.

NC 1Y has the tangerine gene (t), derived from 'Mountain Gold', which produces a bright yellowish-orange exterior and interior fruit color. NC 1Y averaged higher than 'Mountain Gold' in early and total season yields over 4 years in seven replicated trials conducted at Fletcher, NC. U.S. Combination grade yield (U.S. No. 1 + U.S. No. 2) and fruit size did not differ significantly from that of 'Mountain Gold' when averaged over all trials.

Fruit of NC 1Y are deep oblate to flattened globe in shape. Immature fruit are uniform green (u gene). Fruit pedicels are jointed. Fruit ripen to a uniform yellowish-orange exterior and interior color. Fruit are firm and similar in flavor to 'Mountain Gold'. Plant type of NC 1Y is determinate (sp gene) with good foliage cover for fruit protection.

NC 1Y is resistant to races 1 and 2 of fusarium wilt (I, I-2 genes) and to verticillium wilt (Ve gene). Fruit are highly resistant to the fruit ripening disorder graywall. Fruit are also resistant to cracking and weather check (fine cuticle cracks on the shoulder area of the fruit).

NC 1Y is being released primarily for use in seed production of the F₁ hybrid 'Carolina Gold'. It should prove useful to other breeders in further breeding of yellow tomatoes or possibly as a parent for other hybrids.

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 28732-9244. Application is being made for a Plant Variety Protection Certificate.

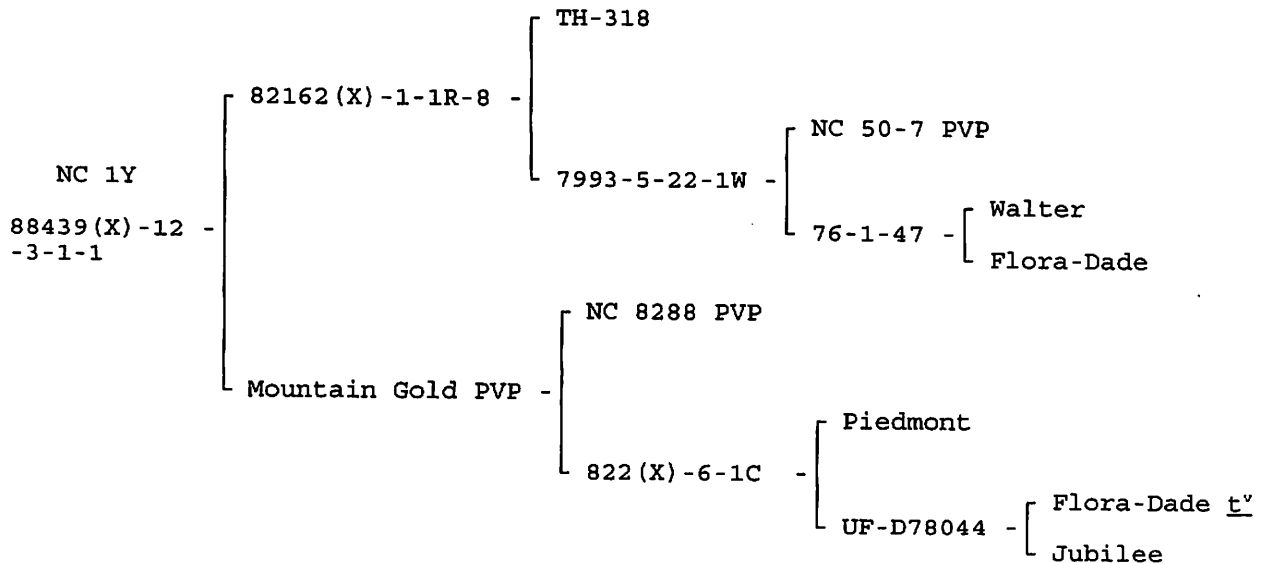


Fig. 1. Pedigree of NC 1Y tomato line.

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 Date