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

NOTICE OF RELEASE OF NC 1C CHERRY TOMATO BREEDING LINE

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

NC 1C is an inbred line in the F_5 generation. It resulted from a backcross breeding effort to incorporate the jointless pedicel (j-2) and Verticillium wilt resistance (Ve) genes into a line similar to NY 402 (Fig. 1).

NC 1C has a determinate plant with an open growth habit and slight adaxial leaf curl similar to NY 402. Fruit have two locules, are round in shape and separate easily from the pedicel without tearing at the stem end. Ripe fruit are firm and have excellent holding ability on the vine without cracking or bursting. Fruit have the u gene for uniform light green color of non-ripe fruit. They ripen to a uniform red color free of the yellow shoulder defect. The fruit range in size from 1-1½" in diameter. Uniformity in size is very good with most of the fruit around 1½" in diameter. NC 1C is early in maturity and produces early season yields similar to the hybrid cultivar 'Cherry Grande'. Total season yields of NC 1C have been lower than those of 'Cherry Grande'.

NC 1C has a high level of resistance to race 1 of Verticillium dahliae (Verticillium wilt) resulting from the single dominant gene Ve.

NC 1C is being released primarily for its use in seed production of the F_1 hybrid 'Mountain Belle', which is being released concurrently with NC 1C. However, it should prove useful to other breeders because of the addition of the Ve and j-2 genes into a NY 402 background. 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 28732-9216. Application is being made for a Plant Variety Protection Certificate.

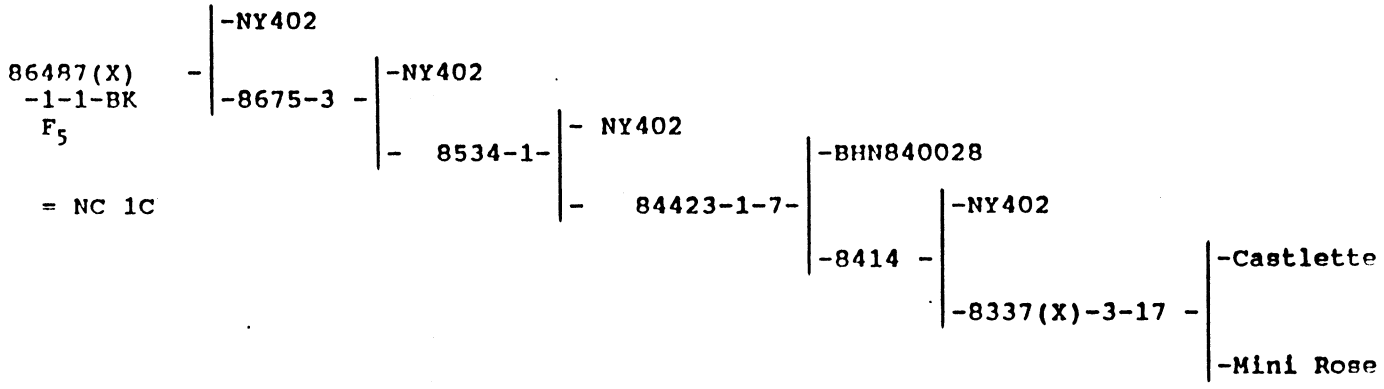

Fig. 1. Pedigree of NC 1C cherry tomato breeding line.

Director, North Carolina Agricultural Research Service, Raleigh, NC

11/14/90
Date