

**North Carolina Agricultural Research Service  
North Carolina State University  
Raleigh, North Carolina**

**Notice of Release of NC 1 Grape Tomato Breeding Line**

NC 1 Grape (NC 1) tomato breeding line is an open-pollinated, high sugar grape tomato breeding line similar in fruit characteristics to the hybrid cultivar 'Santa,' which is the current standard for grape tomato production. NC 1 Grape has an indeterminate plant growth habit, with compact growth conditioned by the brachytic gene (*br*). It has the jointless fruit pedicel for detachment of fruit free of stems and has the uniform light green color gene (*u*) of immature fruit. NC 1 Grape is suitable as a parent for crossing with other grape tomato and cherry lines to develop improved high sugar hybrid cultivars.

NC 1 Grape was developed by crossing the high sugar grape tomato hybrid 'Santa' with a compact, determinate NC State cherry tomato line with ovate fruit shape (see pedigree in Figure 1). NC 1 Grape has very sweet flavor derived from the 'Santa' parent, and fruit size (10 g/fruit) and shape are similar to that of 'Santa.' NC 1 Grape has a much more compact growth habit than 'Santa,' which has a very vigorous, tall growing plant, requiring a tall trellis system for production. NC 1 Grape has the jointless pedicel for detachment of the fruit without the stem at harvest, and it has the *u* gene for uniform light green color of immature fruit. 'Santa' has jointed pedicels and has dark green shoulder color of immature fruit. NC 1 Grape has shown a good level of foliar early blight resistance derived from the breeding line NC EBR-6, which is a parent in the early blight resistant plum tomato hybrid 'Plum Dandy.' NC EBR-6 was the source of the brachytic gene for compact growth habit of NC 1 Grape.

NC 1 Grape is a breeding line with desirable features for use as a parent in grape tomato and other small-fruited hybrids and for additional breeding of grape tomatoes.

Breeder seed of NC 1 Grape are available by contacting Dr. Randy Gardner or Dr. Dilip Panthee, Mountain Horticultural Crops Research and Extension Center, 455 Research Drive, Mills River, NC 28759 or by telephone: 828.684.3562; fax: 828.684.8715; email addresses: [randy\\_gardner@ncsu.edu](mailto:randy_gardner@ncsu.edu) or [dilip\\_panthee@ncsu.edu](mailto:dilip_panthee@ncsu.edu). A fully executed tomato seed transfer agreement with NC State University's Office of Technology Transfer will be required to acquire seed of NC 1 Grape.

  
Director, North Carolina Agricultural Research Service

10-16-09

Date

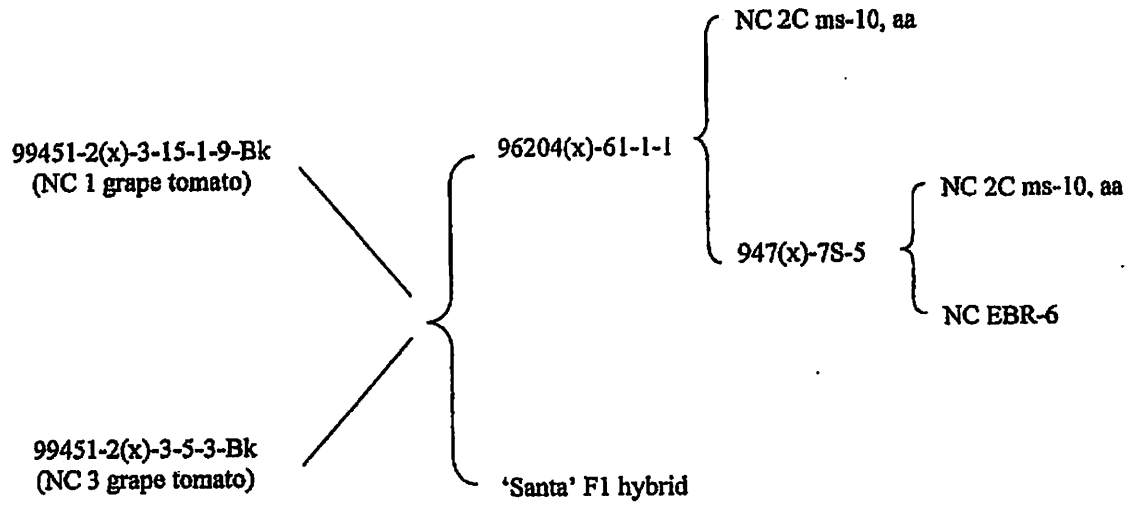


Figure 1. Pedigrees of NC 1 grape and NC 3 grape tomatoes.