

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

NOTICE OF NAMING AND RELEASE OF 'MONTE VERDE' TOMATO

The North Carolina Agricultural Research Service announces the release of a new fresh market tomato cultivar, 'Monte Verde'.

'Monte Verde' (trialed as NC 73388) is an inbred line in the F₇ generation. It resulted from the cross of 'Flora-Dade' x 'Summit' (Fig. 1) in a breeding project to develop a jointless pedicel tomato cultivar with improved marketable yield for mature green harvest.

'Monte Verde' has a vigorous, determinate (sp gene) growth habit. Plant height is slightly greater than 'Colonial' and 'Flora-Dade' and less than 'Summit'. 'Monte Verde' has shown good adaptability to the short-stake, string-weave system of culture. Foliage cover is similar to that of 'Colonial' and provides good fruit protection.

Fruit of 'Monte Verde' have a waxy finish. Shoulder color of non-ripe fruit is dark green. Fruit are deep oblate to flattened globe in shape, are symmetrical and typically have a small blossom scar. Fruit pedicels are jointless (j-2 gene). Maturity of 'Monte Verde' is intermediate to that of 'Flora-Dade' and 'Summit' and slightly later than 'Colonial'. Fruit size of 'Monte Verde' is similar to that of 'Sunny' and 'Colonial' and has been very desirable from the standpoint of sizes desired for mature green harvest. In ripening studies, 'Monte Verde' colored as well as 'Flora-Dade', 'Sunny' and 'Colonial', developing uniform external and internal red color with good firmness and acceptable flavor.

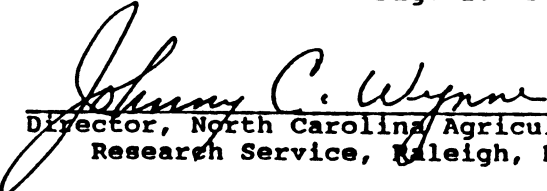
'Monte Verde' was not significantly different from its parents or other entries in total yield in replicated trials over a 3-year period. However, because of its consistently smooth fruit and small blossom scar, 'Monte Verde' was higher in percent U.S. Combination Grade fruit than 'Flora-Dade', 'Summit', and 'Sunny' in all trials and higher than 'Colonial' in three of five trials. U.S. Combination Grade yields of 'Monte Verde' exceeded those for 'Flora-Dade', 'Sunny', and 'Colonial' in 1989 and 1990. 'Monte Verde' has performed well in numerous observational trials in research station and grower fields in North Carolina. In grower trial plantings of several acres in western North Carolina in 1991, 'Monte Verde' had a higher percentage pack-out than 'Colonial' because of its consistently smoother blossom scar.

'Monte Verde' is resistant (I, I-2 genes) to races 1 and 2 of Fusarium oxysporum f sp lycopersici (fusarium wilt) and is resistant (Ve gene) to Verticillium dahliae (verticillium wilt). 'Monte Verde' is resistant to radial and concentric fruit cracking. It has moderate resistance to weather check, similar to 'Flora-Dade', 'Summit', and 'Colonial' and superior to 'Sunny'. 'Monte Verde' has shown excellent resistance to rough blossom scar (catfacing).

'Monte Verde' offers the potential for improved marketable yields of mature-green harvest tomatoes because of its smoother fruit than currently used cultivars. In addition, 'Monte Verde' should be useful to other breeders because of its improved smoothness combined with the jointless pedicel. 'Monte Verde' was released on an exclusive basis for commercial seed production and sales to Ferry-Morse Seed Co. 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. Use of 'Monte Verde' as a parental line in production of F₁ hybrid seed for sale will require approval by and negotiated royalty payments to NCARS.

8322(X)-46-1-1-1	-	Flora-Dade
'Monte Verde'	-	Summit

Fig. 1. Pedigree of 'Monte Verde' tomato.


Director, North Carolina Agricultural
Research Service, Raleigh, NC


Date