

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

Notice of Naming and Release of 'Mountain Magic' Tomato

The North Carolina Agricultural Research Service announces the naming and release of a new fresh-market tomato hybrid cultivar, 'Mountain Magic'.

'Mountain Magic' (NC 05114) is the F₁ hybrid of NC 2 CELBR x NC 2 grape. NC 2 CELBR is being released as a large fruited tomato line which combines early blight resistance with the *Ph-2* and *Ph-3* genes for late blight resistance. NC 2 grape is a compact, indeterminate growth habit grape tomato line with the ripening inhibitor gene (*rin*) for long shelf life and high sugar. It was released from the NCSU tomato breeding program and is used as a parent in the F₁ hybrid grape tomato 'Smarty', which is marketed by Harris Moran Seed Co.

'Mountain Magic' has a fairly compact indeterminate growth habit with desirable foliage characteristics. Fruit are round to deep round in shape and average around 2 oz. in size. As a result of the *rin* gene in heterozygous condition and the high sugar level coming from the NC 2 grape parent, 'Mountain Magic' has very good flavor and long shelf life. Fruit are similar to those of the small-fruited, high-quality greenhouse tomatoes such as the cultivar 'Campari' and are suitable for specialty market. Immature fruit are uniform light green in color (*u* gene) and have jointed pedicels. Ripe fruit are highly crack resistant and have uniform red exterior and interior color. 'Mountain Magic' has moderate early blight resistance and a high level of late blight resistance based on the combination of the *Ph-2* and *Ph-3* genes. It is suitable for both conventional and organic field production. In addition to early blight and late blight resistances, 'Mountain Magic' has the *Ve* gene for verticillium wilt resistance and the *I-1* and *I-2* genes for resistance to races 1 and 2 of fusarium wilt.

'Mountain Magic' was tested in replicated trials comparing organic vs. conventional production at the Mountain Research Station, Waynesville, NC in the 2005 – 2007 growing seasons. In taste tests conducted each growing season, 'Mountain Magic' was rated very high in flavor compared to the heirloom varieties Cherokee Purple, German Johnson, Red Brandywine, and Mr. Strikey, which are regarded as having good flavor. In the non-sprayed treatment in the 2007 trial, 'Mountain Magic' remained free of late blight in late season when 'Red Brandywine' had severe infection of foliage and fruit. Yield of 'Mountain Magic' was comparable to that of other varieties in trial each of the three years. Because of its very smooth shape, crack resistance and good color development, almost all the fruit of 'Mountain Magic' were marketable. 'Mountain Magic' has shown good acceptability in grower testing using both conventional and organic growing systems and is well adapted for marketing as a premium quality specialty tomato in plastic clamshell packages.

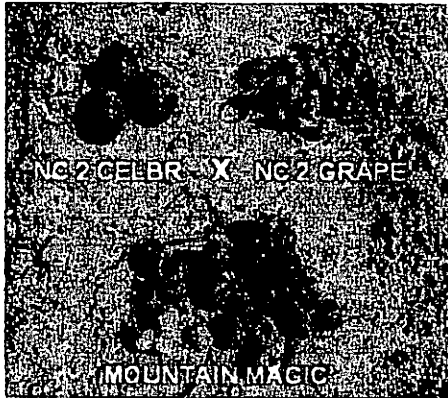
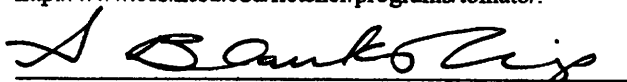


Fig. 1. Pedigree of 'Mountain Magic' fresh-market tomato.

'Mountain Magic' will be assigned to a selected seed company for exclusive production and seed sales. Small samples of 'Mountain Magic' seed for trial purposes are available from R. G. Gardner, MHCREC, 455 Research Drive, Mills River, NC 28759; email randy_gardner@ncsu.edu. Additional information and pictures of the lines are available at the following web site: <http://www.ces.ncsu.edu/fletcher/programs/tomato/>.



Director, North Carolina Agricultural
Research Service, Raleigh, NC

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Date