‘Mountain Belle’ Cherry Tomato; NC 1C and NC 2C Cherry Tomato Breeding Lines

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‘Mountain Belle’ is a determinate cherry tomato [Lycopersicon esculentum var. cerasiforme (Dunal.) A. Gray] F₁ hybrid with a desirable combination of plant, fruit, and disease resistance characteristics. ‘Mountain Belle’ and its parent lines, NC 1C and NC 2C, were developed at the Mountain Horticultural Crops Research Station, Fletcher, NC.

Origin

NC 1C, an inbred line in the F₁ generation, resulted from backcross breeding to incorporate the j-2 and Ve genes and to select for NY 402 type (Fig. 1).

NC 2C, an inbred line in the F₁ generation, resulted from a cross between the F₁ hybrid ‘Castlette’ and ‘Mini Rose’.

‘Mountain Belle’ is the F₁ hybrid of NC 1C x NC 2C. ‘Mountain Belle’ was tested in North Carolina and several other states as NC 8642D.

Description

NC 1C. Plant type is determinate (sp) with an open growth habit and slight adaxial leaf curl similar to NY 402. Fruit are round and separate easily from the jointless pedicels without tearing at the stem end. Ripe fruit are firm (subjective ratings) and hold well on the vine without cracking or bursting. Nonripe fruit are uniformly light green (u gene). They ripen to a uniform red, free of the yellow shoulder defect. Fruit have two locules; the gel of ripe fruit is yellow.

NC 1C yield was significantly less than that of other entries in replicated trials in 1988 and 1989 (Table 1). Early yield was similar to that of ‘Cherry Grande’ and higher than those of other entries in 1988. Fruit size is very uniform and ranges from 2.5 to 3.8 cm in diameter (average 3.2 cm) (Table 2).
NC 1C's resistance to race 1 of *Verticillium dahliae* Kleb. (verticillium wilt) is conferred by the single dominant gene Ve. NC 2C. Plant habit is determinate (sp). Plant growth is vigorous and provides excellent foliage cover for the fruit. Plant height has been acceptable when grown nonpruned on stakes.

Fruit are round to slightly ovate in shape. Fruit pedicels are jointless, and fruit separate easily from them. Nonripe fruit are uniformly light green (u) and have a glossy finish; ripe fruit are bright, glossy uniform red. Fruit have two locules; the gel of ripe fruit is yellow. NC 2C fruit size is uniform, desirable, and maintained throughout the plant (Table 2). Few fruit exceed 3.8 cm in diameter.

In replicated trials conducted over 4 years, NC 2C produced excellent yields (Table 1). Fruit mature later than that of 'Cherry Grande' and at the same time as that of 'Castlette' (Table 1).

'Mountain Belle' has shown good acceptability in comparison with 'Cherry Grande' in grower trials in North Carolina. 'Mountain Belle' earlier maturity and less vegetative growth make it more desirable than 'Castlette'. It is widely adaptable and has produced well in observational trials in Florida, several other eastern states, and in Ontario.

NC 1C and NC 2C are not intended for direct use as cultivars. NC 1C should prove useful to other breeders because of the addition of the Ve and j-2 genes into a NY 402 background. NC 2C should be useful because of its desirable fruit and plant characteristics and its high yield. Plant Variety Protection Certificates for NC 1C and NC 2C have been granted.

**Availability**

'Mountain Belle' was released on an exclusive basis to Rogers NK Seed Co. Small samples of 'Mountain Belle', NC 1C, and NC 2C for trial and breeding purposes are available from R.G.G., Mountain Horticultural Crops Research Station, Fletcher, NC 28732.