'Mountain Gold' Tomato

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'Mountain Gold' is a yellow-fruited, determinate, inbred tomato (*Lycopersicon esculentum* Mill.) superior in disease resistance, plant habit, and certain fruit characteristics to the yellow-fruited indeterminate cultivars Sunray and Jubilee. 'Mountain Gold' is resistant to verticillium wilt and to races 1 and 2 of fusarium wilt.

Origin

'Mountain Gold', an F₆ generation inbred line, was developed using the pedigree breeding method (Fig. 1). The objective in this breeding project was to develop a determinate,

yellow-fruited (tangerine gene, t) cultivar to replace 'Sunray' and 'Jubilee', which, for many years, have been grown on a limited basis for the local market in Piedmont and western North Carolina.

The source of t in 'Mountain Gold' was a breeding line, UF-D78044, obtained from the Univ. of Florida in 1981. UF-D78044 originated from a cross between 'Jubilee', which has t, and a yellow-fruited mutant of 'Flora-Dade', which resembles the tangerine virescent (t') gene (Lesley and Lesley, 1956). 'Piedmont' (Gardner, 1985) and NC8288 (Gardner, 1990), previously released from the North Carolina fresh-market tomato breeding program, are part of 'Mountain Gold's pedigree (Fig. 1).

Description

'Mountain Gold' is determinate (sp), in contrast to the indeterminate growth habit of 'Sunray' and 'Jubilee'. When grown using the short stake and string-weave system, 'Mountain Gold' has acceptable vigor and does not require plant topping, as is needed for 'Sunray' and 'Jubilee'. Foliage cover is adequate for good fruit protection.

'Mountain Gold' has the u gene for uniform, light-green nonripe fruit, in contrast to the dark-green shoulder of 'Sunray' and 'Jubilee'. Fruit are globe to flattened globe with a relatively smooth blossom scar and fairly good resistance to fruit cracking (Table 1). Ripe fruit are firm (subjective rating) and develop a uniform, deep yellow-orange characteristic of the t gene.

'Mountain Gold' fruit are similar in acidity to 'Sunray' but are lower in soluble solids concentration (SSC) (data not given). The lower SSC of 'Mountain Gold' is likely an effect of its determinate growth habit, since indeterminate cultivars have higher sugar contents than determinate isogenic versions of the same cultivars (Emery and Munger, 1970). 'Mountain Gold' flavor, although not as good

Fig. 1. Pedigree of 'Mountain Gold' tomato.

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