'Firefox' Fresh-market Tomato

V.Q. Nguyen¹

New South Wales Agriculture & Fisheries, Horticultural Research & Advisory Station, P.O. Box 581, Gosford, NSW 2250 Australia

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'Firefox' is a semi-determinate, red-fruited, fresh-market tomato (*Lycopersicon esculentum*, Mill.) developed at the Gosford Horticultural Research & Advisory Station, New South Wales, Australia, and was released by NSW Agriculture & Fisheries in 1990. 'Firefox' may be grown as a midseason crop, using trellises or by an on-ground cropping system. It produces a high yield of large and medium fruits of good quality. Fruits are smooth, firm, deep-red, and oblate for harvesting mature-green or vine-ripe. 'Firefox' is resistant to Fusarium Wilt race 1, Verticillium wilt strain 1, root-knot nematodes (*Meloidogyne* spp.) and tobacco mosaic virus.

Origin

'Firefox' is the cultivar name for HARU 83-131, an F₁ hybrid from the cross of 79T1 (R. Jones, personal communication) × NC50-7 (Gardner, 1982). 79T1 is a breeding line originating from the Univ. of California, Davis. This line is the source of resistance to root-knot nematode *Meloidogyne* spp. (*Mi* gene), tobacco mosaic virus (*Tm-2* gene) and early blight *Alternaria solani* (*ad* gene). NC50-7 is a breeding line released by North Carolina State Univ. Both 79T1 and NC50-7 are resistant to Fusarium wilt (*I* gene) race 1 and Verticillium wilt (*Ve* gene) strain 1.

Description

'Firefox' is a semi-determinate cultivar with heavy foliage cover and average height of 1.2 to 1.4 m in trellised systems. With on-ground cropping, the foliage spreads to 1.2 m, providing good fruit coverage. 'Firefox' is midseason in maturity. When harvested at the vine-ripe stage, it is similar to 'Flora-

Dade' and slightly later than 'Sunny'. The fruits of 'Firefox' are smooth and oblate with uniform shoulder (u gene) and jointed pedicels. They ripen to deep red and are multilocular (Fig. 1).

'Firefox' has yielded better than the standard cultivar Flora-Dade in most tests with various cultivation methods and at several locations in New South Wales (Table 1; Nguyen et al., 1986, 1988).

Size distribution (NSW Govt. Gazette, 1977) ranged between 13%-44% for large (≥ 80-mm diameter), 69%-84% for medium (60- to 79-mm diameter) and 1%-18% for small (45- to 59-mm diameter) fruits, depending on cultivation method. On-ground and trellised cultivation produced an average proportion of 18% large, 77% medium, and only 5% small-sized fruit compared with 'Flora-Dade', which produced 3% large, 77% medium, and 20% small. Staked cultivation

gave 44% large fruit, a proportion considered too high for markets in New South Wales. Fruit firmness, total soluble solids concentration, titratable acidity, and flavor of 'Firefox' were not significantly different from those of 'Flora-Dade' (Nguyen et al., 1986, 1988).

Availability

Commercial seed of 'Firefox' is available from New World Seeds Pty. Ltd., P.O. Box 18, Dural, NSW 2158 Australia. Small samples for trial and breeding purposes may be obtained from the author.

Literature Cited

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Table 1. Marketable yield of 'Firefox' tomato in comparison with 'Flora-Dade' and 'Sunny' under several cultivation procedures and locations in New South Wales.

Cultivar	Marketable yield (t·ha ⁻¹) ^a						
	Trellises			Stakes	On-ground		
	Central Mangrove (1984-85)	Somersby (1985-86)	Alstonville (1984-85)		Richmond (1984-85)	Leeton (1985-86)	
Flora-Dade	88 a	118 b	83 cd	54 b	49 b	105 a	47 b
Sunny	57 b	112 b	91 bc	58 ab	64 ab	110 a	67 a
Firefox	76 ab	138 a	104 a	67 a	74 a	108 a	62 a

^aMean separation within columns, by Duncan's multiple range test, *P* = 0.05. All experiments were replicated four times in a randomized-block design. Yields were total of eight (trellis, stake) and four (on-ground) harvests.

Fig. 1. Fruit of 'Firefox' tomato.

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¹Senior Research Horticulturist.