'Prairie Schooner' Inbred Cherry Tomato

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'Prairie Schooner' is an early to midseason, red-fruited, cherry tomato (*Lycopersicon esculentum* Mill.) inbred developed at Iowa State Univ. Muscatine Island Horticultural Research Center, Fruitland. 'Prairie Schooner' was created to provide commercial producers and home gardeners with a uniform-ripening, determinate, disease-resistant, inbred cherry tomato that would produce superior fruit yields when grown under overhead irrigation in the central United States.

Origin

'Prairie Schooner' is an F₁₁ selection from a cross between 'Droplet' (Honma and Murakishi, 1971) and 'Ontario 7710' (Kerr and Cook, 1983). 'Prairie Schooner' was evaluated in trials as IA 11003.

Description

'Prairie Schooner' is a determinate (*sp*) cultivar. The dark-green foliage provides sufficient shade to protect the fruit from discoloration due to solar injury.

Fruit are round, similar in shape to 'Droplet' (Fig. 1). Nonripe fruit are a uniform, light green (*u*) and have a glossy finish. Fruit pedicels are jointed. Externally, fruit become bright red [*L* = 34.18, *a* = 38.88, and *b* = 16.28]; the internal color reading was *L* = 30.64, *a* = 28.03, and *b* = 15.12. Based on sales volume after sampling, firmness and flavor have been rated subjectively by farm market clientele as superior to 'Cherry Grande'. 'Prairie Schooner' juice has a pH of 4.36; a soluble solids concentration of 3.5%; and color readings of *L* = 28.51, *a* = 27.96, and *b* = 13.90.

'Prairie Schooner' produced total fruit yields similar to that of 'Cherry Grande' and 'Baxter's Bush' (Table 1). Mean fruit weight of 'Prairie Schooner' was similar to those of 'Baxter's Bush' and 'Cherry Grande'.

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'Prairie Schooner' fruit mature 74 days post-transplant, requiring 1527 heat units at >10°C. In general, vine-ripe fruit are harvested 1 week earlier than those of 'Cherry Grande'.

'Prairie Schooner' contains the *Ve*, *I*, and *Pto* genes that confer resistance to race 1 of *Verticillium albo-atrum* Reinke & Berth. (verticillium wilt), race 1 of *Fusarium oxysporum* f. sp. *lycopersici* (Sacc.) Snyder and Hans. (fusarium wilt), and *Pseudomonas syringae* pv. *tomato* Okabe (bacterial speck), respectively.

Uses

'Prairie Schooner' is adapted to vine-ripe production when grown on the ground or upright on stakes. It has performed well in research center trials in Iowa and North Carolina.

Availability

'Prairie Schooner' was released by the Iowa Agriculture and Home Economics Expt. Station on 8 Feb. 1995. Small seed samples are available from W.L.S., Iowa State Univ., Dept. of Horticulture, Room 251, Ames, IA 50011-1100 (e-mail: summers@iastate.edu).

Literature Cited

- Honma, S. and H.M. Murakishi. 1971. Droplet—A new fresh-market tomato. Michigan State Univ. Res. Rpt. 138.
Kerr, E.A. and F.I. Cook. 1983. Ontario 7710—A tomato breeding line with resistance to bacterial speck—*Pseudomonas syringae* pv. *tomato* (Okabe). Can. J. Plant Sci. 63:1107–1109.

Fig. 1. Fruit of 'Prairie Schooner' cherry tomato. The diameter of the fruit is 41 mm.

Table 1. Total marketable yield and fruit weight of 'Prairie Schooner' compared with commercial cherry tomato lines in replicated vine-ripe trials at various Iowa locations.^z

Cultivar	U.S. no. 1 + no. 2 fruit yield (t·ha ⁻¹)			Fruit wt (g/fruit)		
	1992	1993 ^y	1994	1992	1993	1994
Prairie Schooner	86	35	58	24	25	22
Cherry Grande, F ₁	85	35	57	25	26	22
Baxter's Bush	73	33	51	22	20	20
LSD _{0.05}	6	14	7	5	7	4

^zTrials were conducted at Ames, Castana, and Muscatine.

^yRainfall classified as more than a once-in-200-year event.