

'Topaz' Sweet Potato

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The 'Topaz' (Fig. 1) sweet potato [*Ipomoea batatas* (L.) Lam.], developed by the Texas Agricultural Experiment Station, combines high yield good sprout production, and excellent baking and canning quality.

Origin

'Topaz', previously tested as 8W2641, originated as an open-pollinated seedling of W-26 polycrossed at the U.S. Vegetable Laboratory, ARS/USDA, Charleston, SC 29407 in 1973 with other parental types developed for multiple disease and soil insect resistances. W-26 was from the fifth generation of mass-selection population I. Seedlings from which 'Topaz' was selected were evaluated by us.

Description

The vines of the 'Topaz' are trailing with medium internodes. Stems and leaves are green. The leaves are medium in size and generally heart-shaped. The roots have good girth and are slightly tapered at each end. They have a medium orange flesh color and a smooth, bronze, skin color. 'Topaz' was third in U.S. No. 1, fourth in marketable, and fifth in canning grade yield of roots among eight entries tested by the National Sweet Potato Collaborators Group at 16 locations in 1982 (Table 1). In 1983, of 6 entries in the replicated trials at 19 locations, 'Topaz' was first in U.S. No. 1 and marketable grades and third in canning grade of roots (Table 1). 'Topaz' rated better than the check cultivars in baking but not in canning quality. 'Topaz' was found to be resistant to both fusarium wilt (stem rot), caused by the soil-borne fungus *Fusarium oxysporum* f. sp. *batatas* (Wr.) Synd. & Hans., and to southern root knot (*Meloidogyne incognita*). 'Topaz' was susceptible to the wireworm-Diabrotica-Systema (WDS) complex. Intermediate resistance to the sweet potato flea beetle (SPFB) was noted in this cultivar. 'Topaz'

was susceptible to soil rot (Pox) caused by *Streptomyces ipomoea* (Person & W. J. Martin) Waks. & Henrici. This cultivar was early, uniform in emergence, and had good plant production in sprouting trials. 'Topaz' is similar in dry matter and yield to 'Jewel'.

Availability

Foundation planting stock in limited quantities will be available commercially for the 1987 crop season. Requests for roots should be made to the Foundation Seed Service, Texas A&M Univ., College Station, TX 77843.

Table 1. A 2-year comparison of yields and quality of 'Topaz', 'Jewel', and 'Centennial' sweet potato cultivars from 1982 and 1983 National Sweet Potato Collaborators regional trials in 16 states.

Year and cultivar	Yield (t·ha ⁻¹) ^z			Canning score ^y	Baking score ^y
	U.S. no. 1	Canning	Total marketable		
1982					
Topaz	19.1 a*	7.2 a	29.4 a	74.1	75.9
Jewel	14.2 a	7.8 a	24.8 a	76.3	75.5
Centennial	17.9 b	6.6 a	27.3 a	77.3	73.1
1983					
Topaz	17.0 a	7.2 a	26.8 a	74.1	75.9
Jewel	15.6 a	6.1 a	24.2 a	76.3	75.5
Centennial	14.6 a	7.8 a	23.1 a	77.3	73.1

^z States include Alabama, Arkansas, California, Georgia, Kansas, Louisiana, Maryland, Missouri, New Mexico, New York, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia; t·ha⁻¹ × 0.446 = U.S. tons per acre.

^y Rated in a scale of 0–100 for each of 10 characters—the higher the score, the better the quality. Average of seven baking and canning trials in 1982 and six baking and canning trials in 1983.

* Mean separation in columns within years by Duncan's multiple range test, 5% level.



Fig. 1. Roots of 'Topaz' sweet potatoes.

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