REGISTRATION OF CULTIVARS

Registration of ‘CP 81-1238’ Sugarcane

‘CP 81-1238’ sugarcane (a complex hybrid of Saccharum spp.) (Reg. no. CV-95, PI 578048) was selected from a polycross made in November 1978 with CP 71-1027 as the female parent. The male parent could be any one of the five clones in the polycross. CP 81-1238 was developed through cooperative research by the USDA-ARS, the Institute of Food and Agricultural Sciences of the University of Florida, and the Florida Sugar Cane League, Inc., and was released to growers in Florida in the fall of 1992.

A typical stalk of CP 81-1238 is light green under the leaf sheath and yellow in areas exposed to the sun. CP 81-1238 normally flowers about the same time as ‘CP 70-1133’ (1) and ≈1 wk earlier than ‘CP 72-1210’ (2), the two commercial check varieties. Its stalk weight averaged over a three-crop cycle (plant cane and first and second ratoon) was 1.73 kg, compared with 1.38 and 1.35 kg for CP 70-1133 and CP 72-1210, respectively.

CP 81-1238 is recommended for production on sand soils. On these soils, at early harvest (late October) it had 96.5 and 99.0% of the sugar content of CP 72-1210 and CP 70-1133, respectively. However, due to its higher cane yield (103% of CP 70-1133 and 109% of CP 72-1210), CP 81-1238 produced higher sugar yields (106% of CP 70-1133 and 107% of CP 72-1210). On sand soils, averaged over the 3-crop cycle (plant cane and first and second ratoon) was 1.73 kg, compared with 1.38 and 1.35 kg for CP 70-1133 and CP 72-1210, respectively.

On muck soils, the sugar content (kg sugar Mg⁻¹ cane) of CP 81-1238 was about midway between CP 70-1133 and CP 72-1210 at both early and late harvests. Cane yields (Mg ha⁻¹) for CP 81-1238 were only 86% of those for CP 70-1133, but were 96% of those of CP 72-1210. Although sugar yields per hectare were lower for CP 81-1238 (89%) than for CP 70-1133, the economic indices were equal, because CP 81-1238 had a higher sugar content at regular harvest. The economic index of CP 81-1238 was only 75.4% of that for CP 72-1210; therefore, CP 81-1238 is not being recommended for planting on muck soils.

CP 81-1238 has shown adequate resistance for commercial production in Florida to the sugarcane mosaic virus (Strain E), eye spot (caused by Bipolaris sacchari (E.J. Butler) Shoemaker), and smut (caused by Ustilago scitaminea Syd. & P. Syd.). Low levels of sporulating pustules of rust (caused by Puccinia melanocephala Syd. & P. Syd.) have been observed on this cultivar; however, we have seen no evidence of economic impact. Plants of CP 81-1238 have been found naturally infected with the sugarcane leafhopper, but no evidence of economic impact has been determined.

In six replicated yield trials on muck soils (two first-, and 6 second-ratoon crops) harvested at the end of October, CP 81-1238 averaged 10 and 7% higher sugar content at regular harvest dates (November-March), CP 84-1198 had a sugar content equal to that of CP 72-1210, but CP 81-1238 yielded more than CP 72-1210 by 26%. Cane yields of CP 81-1238 were only 95.6% of that for CP 70-1133, but exceeded that of CP 72-1210 by 19.9%.

Published in Crop Sci. 34:1404 (1994).

Registration of ‘CP 84-1198’ Sugarcane

‘CP 84-1198’ sugarcane (a complex hybrid of Saccharum spp.) (Reg. no. CV-96, PI 578049) was selected from the cross ‘CP 70-1133’ (1) × ‘CP 72-260’ (2) at the Sugarcane Field Station, Canal Point, FL, in December 1981. CP 84-1198 was developed through cooperative research by the USDA-ARS, the Institute of Food and Agricultural Sciences of the University of Florida, and the Florida Sugar Cane League, Inc., and was released to growers in Florida in the fall of 1992.

Typical stalks of CP 84-1198 are green in color, sheath, brownish in exposed areas, and dark green in shaded areas. Dry leaf sheaths tend to cling to the stalk. Heat weight for the three-crop cycle (plant cane and first and second ratoon) was 1.60 kg, compared with 1.38 and 1.35 kg for the commercial checks CP 70-1133 and CP 72-1210, respectively.

In 19 replicated yield trials on muck soils (two first-, and 6 second-ratoon crops) harvested at the end of October, CP 84-1198 averaged 10 and 7% higher sugar content at regular harvest dates (November-March) than CP 70-1133 and CP 72-1210, respectively. Sugar yields (Mg ha⁻¹) for CP 84-1198 and CP 70-1133 were only 90% of those of CP 70-1133, but CP 84-1198 yielded more than CP 72-1210 by 26%. Cane yields of CP 84-1198 were only 90% of those of CP 70-1133, but CP 84-1198 yielded more than CP 72-1210 by 26%. Cane yields of CP 84-1198 were only 90% of those of CP 70-1133, but CP 84-1198 yielded more than CP 72-1210 by 26%

Published in Crop Sci. 34:1404 (1994).

References