REGISTRATION OF 'CP 81-1302' SUGARCANE

'CP 81-1302' SUGARCANE (a complex hybrid of Saccharum officinarum L., S. spontaneum L., S. barberi Jeswiet, and S. sinense Roxb. em Jeswiet) (Reg. no. CV-81, PI 542103) was selected from progeny of the cross CP 72-2079 × CP 71-1086 made at Canal Point, FL, in December 1978. CP 81-1302 was developed through cooperative research by the USDA-ARS, the Institute of Food and Agricultural Sciences (IFAS) of the University of Florida, and the Florida Sugar Cane League, Inc., and was released in fall 1989.

The stalks of CP 81-1302 are medium to large in diameter, and they develop a maroon color where exposed to the sun. CP 81-1302 has the favorable combination of good early vigor and broad leaves; thus, it covers the row quickly, but not as early as 'CP 70-1133' (1), a commercial check. The average stalk weight of CP 81-1302 was 1.49 kg, compared with 1.38 kg for CP 70-1133 and 1.35 kg for 'CP 72-1210' (2), another commercial check. The average time to hand cut the amount of CP 81-1302 required to produce 1.0 Mg of sugar was 6.4 h compared with 9.3 and 7.3 h for CP 70-1133 and CP 72-1210, respectively.

Averaged across 21 replicated yield trials (seven locations each harvested in the plant-cane, first-ratoon, and second-ratoon crops), CP 81-1302 had essentially the same sugar per ton of cane as the two commercial checks at early harvest (the last 2 wk in October). However, at regular harvest (November through March) it averaged 106.6% of the sugar per ton of CP 70-1133, but only 96.2% of that of CP 72-1210. Cane yield in tonnage was 92.4% of that for CP 70-1133 and 97.6% of that of CP 72-1210. Sugar yield per hectare at harvest for CP 81-1302 was 99.2% of that of CP 70-1133 and 97.6% of that of CP 72-1210. CP 81-1302 has a millability rating of 1.001 and a fiber content of 9.6%, compared with 0.980 and 10.41% for CP 70-1133 and 0.965 and 10.22% for CP 72-1210, respectively.

CP 81-1302 has shown adequate resistance (for commercial production in Florida) to sugarcane mosaic virus, leaf scald (caused by Xanthomonas albilineans (Ashby) Dowson); eye spot (caused by Bipolaris sacchari (E.J. Butler) Shoemaker); and smut (caused by Ustilago scitaminea Syd. & P. Syd.). While sporulating rust pustules (caused by Puccinia melanocephala Syd. & P. Syd.) have been found on this cultivar, we have seen no evidence of economic loss due to rust.

Seedcane of CP 81-1302 will be maintained by USDA-ARS at the Sugarcane Field Station, Canal Point, FL.

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References and Notes


REGISTRATION OF 'CP 80-1743' SUGARCANE

'CP 80-1743' SUGARCANE (a complex hybrid of Saccharum officinarum L., S. spontaneum L., S. barberi Jeswiet and S. sinense Roxb. em Jeswiet) was selected from progeny of the cross CP 72-2083 × 'CP 68-1067' (1) made at Canal Point, FL, in December 1977. Cultivar CP 80-1743 was developed through cooperative research by the USDA-ARS, the Institute of Food and Agricultural Sciences (IFAS) of the University of Florida, and the Florida Sugar Cane League, Inc., and was released in the fall of 1989.

CP 80-1743 is a shy to nonflowering clone that has light green foliage with a green stalk. It grows fast early in the spring, has a high stalk population, and covers the row early. Its stalk weight averaged 1.34 kg across three crops (plant cane through second ratoon) at eight locations, compared with 1.38 kg and 1.35 kg for the commercial checks, 'CP 70-1133' (2) and 'CP 72-1210' (3), respectively. Averaged across crops and locations, it took 9.9 h to hand cut the amount of cane required to produce 1.0 Mg of sugar from CP 80-1743 and CP 70-1133 compared with 6.9 hours for CP 72-1210.

Sugar per ton of cane at early harvest (last 2 wk in October) averaged across 24 replicated yield trials (eight locations each harvested in the plant-cane, first-ratoon, and second-ratoon crops) for CP 80-1743 was 17.2 and 15.9% higher than CP 70-1133 and CP 72-1210, respectively; however, CP 80-1743 produced only 78.3 and 86.8% as much cane tonnage as did CP 70-1133 and CP 72-1210, respectively. At early harvest, CP 80-1743 produced 88.3% as much sugar per hectare as did CP 70-1133. At regular harvest (November through March), CP 80-1743 had 5.9% more sugar per ton of cane than did CP 70-1133, but only 95% of that of CP 72-1210. Sugar yield per hectare at regular harvest for CP 80-1743 was only 85.1 and 83.0% of that of CP 70-1133 and CP 72-1210, respectively. Therefore, CP 80-1743 is recommended only for early harvest; it should be harvested no later than January 1. CP 80-1743 has shown the ability to produce good yields across a three-crop cycle when harvested mechanically. This clone has a millability rating of 1.001 and a fiber content of 9.6%, compared with 0.980 and 10.41% for CP 70-1133, and 0.965 and 10.22% for CP 71-1210, respectively.

CP 80-1743 has shown adequate disease resistance (for commercial production in Florida) to sugarcane mosaic virus, leaf scald (caused by Xanthomonas albilineans (Ashby) Dowson); eye spot (caused by Bipolaris sacchari (E.J. Butler) Shoemaker); and smut (caused by Ustilago scitaminea Syd. & P. Syd.). While sporulating rust pustules (caused by Puccinia melanocephala Syd. & P. Syd.) have been found on this cultivar, we have seen no evidence of economic loss due to rust.

Seedcane of CP 80-1743 will be maintained by USDA-ARS at the Sugarcane Field Station, Canal Point, FL.

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