REGISTRATION OF ‘CP 78-1247’ SUGARCANE

‘CP 78-1247’ sugarcane (a complex hybrid of Saccharum officinarum L., S. spontaneum L., S. barberi Jeswiet, and S. sinense Roxb. amend. Jeswiet) (Reg. no. 75) (PI 512291) was selected from progeny of the cross ‘CP 68-1067’(1) × CP 57-614’(2), which was made at Canal Point, FL, in December 1974. The cultivar, CP 78-1247 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 in the fall of 1986.

CP 78-1247 has high sucrose early in the harvest season and flowers in early December. Averaged over plant, first-, and second ratoon crops at seven locations, individual stalk weight was 1.7 kg for CP 78-1247 compared to 1.6 kg for ‘CP 63-588’ (3) and 1.4 kg for ‘CP 70-1133’ (4), the commercial checks.

In 21 replicated tests (7 plant cane, 7 first ratoon, and 7 second ratoon crops), CP 78-1247 averaged 21% more cane per hectare than did CP 63-588, and 95% as much as CP 70-1133. Sugar per ton of cane for CP 78-1247 exceeded CP 63-588 and CP 70-1133 at early harvest (last 2 wk in October) by 11 and 5% and at the regular harvest dates by 9 and 13%, respectively. Regular harvest dates range from late October through March with older ratoon crops usually harvested first and plant cane harvested latest. Sugar yield per hectare for CP 78-1247 exceeded that of CP 63-588 and CP 70-1133 at early harvest by 45 and 2%, and at regular harvest by 28 and 4%, respectively. CP 78-1247 has a millability rating of 0.957 compared to 1.00 for CP 63-588 and 0.960 for CP 70-1133. Fiber content of CP 78-1247 was 9.69% for CP 63-588, and 10.20% for CP 70-1133.

CP 78-1247 has adequate resistance to rust (caused by Puccinia melanocephala Sydow), to sugarcane mosaic virus, to leaf spot (caused by Xanthomonas oryzae pv. oryzae), to powdery mildew (caused by Sphaerotheca sacchari Butler), to smut (caused by Ustilago sacchari Butler), and to leaf scald (caused by Xanthomonas translucens f.sp.undulosa). The strain of CP 78-1247 was released in Florida, to sugarcane mosaic virus, eye spot (caused by Alternaria tenuis), and to black chaff (caused by Puccinia striiformis West.).

Treasure was released in 1978. Treasure has averaged 349.8 and 316.1 kg ha⁻¹ more than Owens and Dirkwin, respectively. In 5 yr of testing in the Idaho irrigated nurseries, Treasure has averaged 349.8 and 316.1 kg ha⁻¹ more than Owens and Dirkwin, respectively. The milling and pastry quality of Treasure is superior to that of the other currently grown soft white spring wheat cultivars.

References and Notes


Published in Crop Sci. 28:576 (1988).

REGISTRATION OF ‘TREASURE’ WHEAT

‘TREASURE’ (Reg. no. 73) (PI 468962) (Triticum aestivum L.) soft white spring wheat was developed cooperatively by the Idaho Agricultural Experiment Station and USDA-ARS. It was derived from the cross ‘Blueboy II’/4/7*Springfield’/3’Asosan’/’Federation’/A63167S-A-1-50-45-5/ID0016/‘Penjamo’sib’/’Garbo 55’. A63167S-A-1-50-45-5 is a sister selection of ‘Twin’. ID0016 was a selection from the cross ‘Lemhi 53’/2’/Nainari 60’. The final cross was made in 1973 and Treasure was obtained from a bulked F5 seed head row harvested in 1978. Treasure was tested in the Idaho yield trials for 7 yr (1979-1985), in the Tri-State Yield Nursery in 1982 and in the Western Regional Spring Wheat Nursery for 2 yr (1983-1984). It was jointly released by the Idaho and Oregon Agricultural Experiment Stations and USDA-ARS in 1986.

Treasure is a semidwarf cultivar that has erect to inclined, midwide, oblique shoulders. Beaks are narrow, white, long, and have a kernel shape similar to that of club wheat. The kernels are soft and have a kernel shape similar to that of club wheat. The straw strength of Treasure is intermediate in maturity and heads 1 or 2 d earlier than ‘Dirkwin’ and Owens, and 2 d earlier than ‘Bliss’. Treasure is similar to that of Owens and weaker than that of ‘Bliss’. It is intermediate in maturity and heads 1 or 2 d earlier than ‘Dirkwin’ and Owens, and 2 d earlier than ‘Bliss’.

Treasure has resistance to Pacific Northwest races of stripe rust (caused by Puccinia striiformis West.), to leaf rust (caused by Puccinia striiformis West.), to powdery mildew (caused by Sphaerotheca oryzae pv. oryzae), to brown spot (caused by Cercospora oryzae), to black chaff (caused by Puccinia striiformis West.), to leaf scald (caused by Xanthomonas translucens f.sp.undulosa), and to kernel black point (caused by Xanthomonas translucens f.sp.undulosa), and to leaf scald (caused by Xanthomonas translucens f.sp.undulosa), and to kernel black point (caused by Xanthomonas translucens f.sp.undulosa), and to leaf scald (caused by Xanthomonas translucens f.sp.undulosa), and to kernel black point (caused by Xanthomonas translucens f.sp.undulosa). The strain of Treasure has been closely monitored in the future.

Seedcane of CP 78-1247 will be maintained by USDA-ARS at the Sugarcane Field Station, Canal Point, FL.

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Published in Crop Sci. 28:576 (1988).