REGISTRATION OF ‘H78-0292’ SUGARCANE

Sugarcane (Saccharum spp. hybrid) clone ‘H78-0292’ (Reg. no. CV-88, PI 553071) was selected by the staff of the Experiment Station, Hawaiian Sugar Planters’ Association (HSPA), from progeny derived from random pollination of ‘H70-0144’ (1) in a polycross made in 1977 involving a wide array of commercial-type clones. H70-0144 was the most important clone for unirrigated areas from 1984 through 1986. H78-0292 contains germplasm from S. officinarum L., S. spontaneum L., S. sinense Roxb., and possibly S. robustum Brandes & Jeswiet ex Grassl.

H78-0292 should be harvested at 24 to 30 mo of age; the clone is adapted to a wide range of unirrigated environments. It is particularly competitive on the Hilo Coast of the island of Hawaii, with its cane tonnage and sucrose content superior to that of the current major unirrigated commercial clone grown in this environment, namely ‘H74-1715’ (2). It has excellent germination ability and a rapid early growth habit. It is average in tillering, has an average diameter stalk, and is light flowering in most unirrigated environments. H78-0292 appears to be more responsive to fertilizer inuts than most other clones and has exhibited particular sensitivity to P levels in the soil, as measured by the effect P has on tillering. The clone is tolerant to triazine herbicides. Although H78-0292 is currently recommended only for unirrigated environments, initial harvest data suggest that its range of adaptation may include some irrigated environments as well.

After seven advanced yield trials, H78-0292 produced an average of 15% more cane and 20% greater total sugar yield than H74-1715 on the Hilo Coast; its parent, H70-0144, is even more impressive. Harvest suggest that this clone is distinctly lower in stem yield than H74-1715.

H78-0292 is resistant to common rust (caused by Puccinia graminis Pers.:Pers. present in the field during the test period. Sharp probably has rust (caused by Puccinia recondita Roberge ex Desmaz.) present in the stem at maturity. Spikes are awned, fusiform, and erect. Awns are white and 6 to 130 mm long. Kernels are red, hard, midsize, ovate with rounded cheeks, and having a narrow and mid/deep crease. A tall and very tall variant has been identified in the breeder seed population of similar height occurred at 0.03% frequency. In addition, it is moderately resistant to culmicolous smut [caused by Ustilago scitaminea Syd. & P. Syd.]. In spring, it is moderately resistant to brown spot (caused by Xanthomonas albilineans [caused by Cercospora melanocephala Syd. & P. Syd.]).

Vegetative cuttings will be maintained by the Experiment Station, Hawaiian Sugar Planters’ Association, Aiea, HI 96701.

T. L. Tew, K. K. Wu,* C. Nagai, AND W. C. Wells

References and Notes

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REGISTRATION OF ‘SHARP’ WHEAT

‘Sharp’, SD 2980 (Reg. no. CV-770, PI 540401), is a hard red spring wheat (Triticum aestivum L.) developed by the South Dakota Agricultural Experiment Station, South Dakota State University, Brookings, SD, in cooperation with the USDA-ARS and released in 1990. It is an F5-derived selection from the backcross ‘Butte’*2/MN7125 made in 1980. MN7125 is a line from the University of Minnesota, St. Paul, whose parentage is ‘Fletcher’/CI 13990. The F5 was grown in a winter nursery in Mexico and bulk harvested. Head selections from the F5 population grown at Brookings were grown as single rows at Brookings. From the single F5, was grown in a winter nursery in Mexico and bulk harvested, bulked, and designated SD 2980. Sharp was tested by the Rust Lab., St. Paul, MN, indicated that the probable genes for stem rust resistance are that Butte 86. Sharp was resistant to leaf rust (incited by Puccinia graminis Lrl, LrlO, and Srwld. present in the environments. H78-0292 appears to be more responsive to environment, namely ‘H74-1715’ (2). It has excellent germination ability and a rapid early growth habit. It is average in tillering, has an average diameter stalk, and is light flowering in most unirrigated environments. H78-0292 appears to be more responsive to fertilizer inuts than most other clones and has exhibited particular sensitivity to P levels in the soil, as measured by the effect P has on tillering. The clone is tolerant to triazine herbicides. Although H78-0292 is currently recommended only for unirrigated environments, initial harvest data suggest that its range of adaptation may include some irrigated environments as well.

After seven advanced yield trials, H78-0292 produced an average of 15% more cane and 20% greater total sugar yield than H74-1715 on the Hilo Coast; its parent, H70-0144, is even more impressive. Harvest suggest that this clone is distinctively less prone to stem yield than H74-1715.

H78-0292 is resistant to common rust (caused by Puccinia graminis Pers.:Pers. present in the field during the test period. Sharp probably has rust (caused by Puccinia recondita Roberge ex Desmaz.) present in the stem at maturity. Spikes are awned, fusiform, and erect. Awns are white and 6 to 130 mm long. Kernels are red, hard, midsize, ovate with rounded cheeks, and having a narrow and mid/deep crease. A tall and very tall variant has been identified in the breeder seed population of similar height occurred at 0.03% frequency. In addition, it is moderately resistant to culmicolous smut [caused by Ustilago scitaminea Syd. & P. Syd.]. In spring, it is moderately resistant to brown spot (caused by Xanthomonas albilineans [caused by Cercospora melanocephala Syd. & P. Syd.]).

Vegetative cuttings will be maintained by the Experiment Station, Hawaiian Sugar Planters’ Association, Aiea, HI 96701.

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