REGISTRATION OF CROP CULTIVARS

The yield potential, both in terms of millable stalks and theoretical recoverable sugar per hectare, of TCP 81-3058 is not significantly different from CP 65-357. Trials conducted over a 3-yr period, 1984–1986, show that TCP 81-3058 produced an average yield of 115 t ha^{-1} of millable stalks, while CP 65-357 averaged 124 t ha^{-1}. Theoretical recoverable sugar yields of both TCP 81-3058 and CP 65-357 were 14.3 t ha^{-1}. TCP 81-3058 tends to have a slightly better juice quality and lower fiber content than CP 65-357.

Vegetative cuttings of TCP 81-3058 will be maintained by the Texas Agricultural Experiment Station at Weslaco.

S. KRESOVICH,* R. D. BREAUX, AND J. D. MILLER (1)

References and Notes

1. S. Kresovich, USDA-ARS Germplasm Resources Unit, Geneva, NY 14456 (formerly, Texas Agric. Exp. Stn., Weslaco); R. D. Breaux, USDA-ARS Sugarcane Res. Unit, Houma, LA 70361; and J. D. Miller, USDA-ARS Sugarcane Field Stn., Canal Point, FL 33438. Registration by CSSA. *Corresponding author. Accepted 30 July 1987.


REGISTRATION OF 'H74-1715' SUGARCANE

Clone 'H74-1715' sugarcane (Saccharum spp. hybrid) (Reg. no. 73) (PI 510676) was selected by the staff of the Experiment Station, Hawaiian Sugar Planters' Association, from progeny derived from random pollination of 'H61-1820' in a polycross involving several commercial-type clones selected on the basis of resistance to culmicolous smut (caused by Ustilago scitaminea Syd.). This polycross, formed immediately following the discovery of smut in Hawaii, was designed to increase the frequency of smut-resistant clones in the selection program. H74-1715, released in 1984, contains germplasm from S. officinarum L., S. spontaneum L., S. sinense Roxb. amend. Jeswiet, and possibly S. robustum Brandes and Jeswiet ex Grassl.

H74-1715 is a clone adapted to a 2- to 3-yr crop with high cane tonnage and average sucrose content compared to 'H70-144' (1). the major commercial clone in unirrigated areas. H74-1715 is somewhat faster and more erect in its early growth habit, but has fewer tillers than H70-144. The clone sustained less rat (Rattus spp.) damage than most clones in cultivar trials; this factor contributed to its better than average condition at harvest. H74-1715 is nonflowering and is tolerant to ametryn[2-(ethylamino)-4-isopropylamino-6-methylthio-i-triazine] herbicides.

A pairwise comparison between H70-144 and H74-1715 in 25 advanced yield tests over a 3-yr period on the Island of Hawaii showed that H74-1715 had a 6% cane and sugar yield advantage. Cultivar H74-1715 is adapted to unirrigated environments with medium to high rainfall on the Islands of Hawaii and Kauai.

H74-1715 is resistant to eye spot [caused by Bipolaris sacchari (Butler) Shoemaker] and leaf scald [Xanthomonas albilineans (Ashby) Dowson], and moderately resistant to both races of smut present in Hawaii and common rust [caused by Puccinia melanocephala H. & P. Syd.].

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

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References and Notes


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REGISTRATION OF 'DODGE' WHEAT

'Dodge' (Reg. no. 724, PI 506344, KS82H144) is a hard red winter wheat (Triticum aestivum L.) developed cooperatively by the Kansas Agricultural Experiment Station and the USDA-ARS. It was selected from the cross KS73H530 ('Newton' sib)/KS76HN 1978-1 ('Arkan' sib). The cross was made at the Fort Hays Branch Agricultural Experiment Station by the late Dr. R.W. Livers in the winter of 1976–1977. Dodge is an increase of an F3 plant row, grown at Oxford, KS in 1981. It was distributed to Kansas seed producers in 1986.

Dodge is medium-early in maturity; it heads about 1 to 2 d earlier than Newton and 1 d later than Arkan. Dodge is semidwarf in stature, 30 mm shorter than Newton, but its coleoptile length is 10% longer than that of Newton. Its winterhardiness is equal to that of Newton. Spikes of Dodge are oblong to fusiform and middense. Glumes are white, midlong, and narrow to midwide. Shoulders are narrow and oblique in basal glumes and approach square at midspike to the top. Beaks are midwide, acuminate, and 3 to 6 mm long. Awns are white and range from 2 to 7 mm long on a single spike. The kernel is red, hard, midlong, and ovate to elliptical; the germ is small to midsmall; the crease is midwide and middeep; the cheeks are angular; and the brush is mid-sized, midlong, and has no collar.

Dodge was evaluated in Kansas advanced performance tests from 1983 to 1986, in the Kansas Wheat Variety Performance Tests in 1986, and in the 1985 and 1986 Southern Regional Performance Nurseries, and appears to be best adapted for production in the southern two-thirds of western Kansas. Its yield has been superior or equal to or better than the most commonly grown cultivars in western Kansas (Newton, 'Eared', and 'TAM 105') and its grain volume weight has been superior compared to these cultivars.

Hard wheat milling and bread making qualities of Dodge are excellent. Mixing time of Dodge, as measured by the mixograph, is about 0.5 min shorter than that of 'Eagle', but its is rated equal to Eagle in overall baking quality. Grain protein of Dodge has averaged 0.8 of a percentage point higher than that of Arkan or Eagle and 1.8 percentage points higher than that of Newton.

Dodge has resistance to wheat soilborne mosaic virus, leaf rust (caused by Puccinia recondita Rob. ex Desm. f. sp. Tritici Eriks), and stem rust (caused by P. graminis Pers. f. sp. tritici Eriks and E. Henn.). It is moderately resistant to speckled leaf blotch (caused by Septoria tritici Rob. in Desm.). It is susceptible to wheat streak mosaic virus and Hessian fly (Mayetiola destructor Say).

Application for cultivar protection under the Plant Variety Protection Act, Public Law 91-577 has been made. Dodge breeder's seed will be maintained at the Fort Hays Branch Experiment Station, Hays, KS 67601.

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