tent is retained until late in the season if late harvest is desired. Cl. 54-1910 has been quite useful in a parent in breeding. Cl. 54-1910 is susceptible to mosaic (virus), if inoculated mechanically, and escapes the disease under field conditions in Florida. It is susceptible to red rot (Physalospora tucumanensis Spez.) and moderately susceptible to pokkah boing (Gibberella moniliformis (Sheldon) Winem). It is resistant to brown stripe (Leucochloridium stenospermum (Drechs.) Mat. and Yam.) and to ratoon stunting disease.

The commercial growing of Cl. 54-1910 is currently restricted to the plantations of United States Sugar Corporation.

REGISTRATION OF H 59-3775 SUGARCANE1
(Reg. No. 27)

Don J Heinz and Rokuro Urata2

Clone 'H 59-3775' (Saccharum sp. hybrid) was selected and propagated as a single cone selection from the cross 'H 50-7209' × 'H 49-5' produced by the Experiment Station, Hawaiian Sugar Planters' Association. It has germplasm from S. officinarum L., S. sinense Roxb. and S. robustum Brandes and Joest ex Grant.

'H 59-3775' is a recumbent, high vigor, very tolerant to the substituted urea and is an established, 24-month crop clone. It is a rapid grower and is sparse in tillering during the first 6 months, with a heavy flush of tillers 7 or 8 months after germination. Its ability to germinate is average, and it is equal in ratooning ability to H 49-5 and H 50-7209. It is a high sucrose, mildew; and intermediate to leaf scorch Sphaeria taiwanensis (van Breda de Haan) Butler in standing cane, and mosaic (virus, Hawaiian Strain), and downy mildew (Physalospora tucumanensis (Speg.), F. H. McNeal and M. A. Berg3) in the unirrigated regions of Hawaii as well as the irrigated areas of Oahu and Kauai.

In replicated yield trials it outyielded (sugar per acre) H 49-5, H 50-7209 and H 52-283 on the Island of Hawaii and was equal to or better than H 50-7209 on the Island of Oahu and Kauai. In field blocks this clone has yielded equal to or better than the present commercial varieties with an average yield increase of 10%.

The ecological adaptation of this clone is the widest of any current commercial clone in the Hawaiian industry. It does well in the unirrigated regions of Hawaii as well as the irrigated areas of Oahu and Kauai.

H 59-3775 is resistant to eye spot (Helminthosporium sacchari (van Breda de Haan) Butler), leaf scald (Xanthomonas albilineans (Asby) Dowson), red rot (Physalospora tucumanensis Spez.) pineapple disease (Ceratoysis parasoda (de Seynes) Moreau) in standing cane, and mosaic (virus, Hawaiian Strain), and is intermediate in resistance to ratoon stunting disease (virus) and brown spot (Cercospora longipes Butler). As determined in cooperation with the South Pacific Sugar Mills, Ltd. of Lautoka, Fiji, it is susceptible to Fiji disease (virus) and resistant to downy mildew (Sclerotinia sacchari Myp.). In cooperation with the Taiwan Sugar Experiment Station it was shown to be susceptible to smut (Ustilago saccharina Sow.) and leaf blight (Leptosphaeria taiwanensis Yen et Chi); resistant to red rot and downy mildew; and intermediate to leaf scarch (Stagonospora sacchari Lo and Ling).

H 59-3775 is being spread rapidly on the Islands of Kauai, Oahu, and Hawaii, replacing its parents as well as 'H 52-4610' and H 53-263. At the end of 1968 it occupied 0.44% of the state's cane area, by December 1970, 7.47% of the area had been planted to this cane. The increase in newly planted area was the highest (28.6%) of all varieties in 1970, and the rapid increase in acreage is expected to continue.

Vegetative cuttings will be maintained by the Experiment Station, Hawaiian Sugar Planters' Association, Honolulu, Hawaii.

REGISTRATION OF PRONTO WHEAT1
(Reg. No. 494)

J. A. Wilson4

'Pronto', a hard red winter wheat (Triticum aestivum L. em. Thell.), CI 4078, was developed by DeKalb AgResearch, Inc. and released in 1970. It originated from an F1 head row selection from the backcross: 4'Tasco'/Norin'. This variety originated from crosses involved with transferring the semidwarf character into adapted, high quality wheat. The male parent, introduced by DeKalb for breeding purposes, is a semidwarf, poor quality, nominal yielding, winter hardy Norin derivative that is believed to contain 50%, hard red winter germplasm.

Prono is distinguished by the following characteristics: winter habit, very early, short, stem white, strong, spike awned, oblong to fusiform, midlength, erect to inclined; glumes glabrous, brown, midlong, midwide; shoulders midwide to wide, oblique to square; beaks midwide, acuminate, 2 to 5 mm long; awns brown, 2 to 7 cm long; kernels red, medium to hard, ovate; germ midlength; crease midwide, shallow; cheeks rounded; brush mid-sized, short.

Although Prono has semidwarf breeding in its pedigree, it is not a semidwarf. On the average, it is more than 2 inches shorter and 2 days earlier in heading than 'Improved Triumph.' It is the earliest wheat to be commercially grown in the southern hard red winter region. It has significantly better standability and straw weathering resistance than Improved Triumph. It is very resistant to shattering. In winter hardness, it is similar to Improved Triumph. It carries resistance to soil borne mosaic and its earliness generally allows it to escape serious leaf damage. It appears to have a 7 to 10% improvement in yield over Improved Triumph. It has the highest test weight of any variety that we have tested.

The grain quality and flour quality are excellent in meeting hard red winter wheat standards. The grain is hard and produces a high yield of flour with low ash. The flour has strong gluten and high water absorption. Loaf volume and texture are excellent.

Prono is adapted to all areas of the southwest where Triumph wheats are grown.

DeKalb AgResearch, Inc. is the source for registered seed.

REGISTRATION OF SHORTANA WHEAT1
(Reg. No. 495)

F. H. McNeal and M. A. Berg3

'Shortana' wheat, (Triticum aestivum L. em. Thell.), Montana selection MT 6723, Cl. 15238, is a hard red spring cultivar developed cooperatively by the Montana Agricultural Experiment Station and the Plant Science Research Division, Agricultural Research Service, U. S. Department of Agriculture. Shortana is the product of a single plant selection from the cross 'Norin 10'/

1 Registered by the Crop Science Society of America. Received May 21, 1971.
2 Research Agronomist, DeKalb AgResearch, Inc., Wichita, Kansas.
3 Author wishes to acknowledge the quality evaluation contributions by R. K. Bequette and L. H. Fischer of the DeKalb Cereal Chemistry Project.
4 Registered by the Crop Science Society of America. Received August 12, 1971. Joint contribution of the Plant Science Research Division, Agricultural Research Service, U. S. Department of Agriculture and the Montana Agricultural Experiment Station. Published with approval of the Director of the Montana Agricultural Experiment Station as Paper No. 270, Journal Series.
5 Research Agronomists, Plant Science Research Division, Agricultural Research Service, U. S. Department of Agriculture. Beoe-
6 Montana 59715.