aptation, its yield has been less than that of Newton. Based on composite grain samples from the regional and state performance tests, Arkan has good overall hard-wheat milling and bread-making properties. It has a somewhat longer than medium mixing time and a very good loaf volume potential. Grain and flour protein contents of Arkan have averaged one percentage point more than those of Newton.

Arkan is resistant to: soilborne wheat mosaic virus; leaf rust, caused by *Puccinia recondita* Rob. ex Desm. f. sp. tritici; Eriks (Lr24 plus at least one additional unidentified Lr gene); stem rust, caused by *P. graminis* Pers. f. sp. tritici; Eriks and E. Henn (Sr6, Sr24, and SrTt-1); powdery mildew, caused by *Erysiphe graminea* f. sp. tritici; Em; Marchal; and Hessian fly, *Mayetiola destructor Say* (H3). It is moderately resistant to Cephalosporium stripe, caused by *Cephalosporium gramineum* Nisikado and Ikata. Arkan is very susceptible to wheat streak mosaic virus.

Variety protection has been applied for under the Plant Variety Protection Act, Public Law 91-577. Breeder seed of Arkan is maintained at the Ft. Hays Branch Exp. Stn., Hays, KS 67601.


References and Notes


REGISTRATION OF WINRIDGE WHEAT

‘WINRIDGE’, CI 17902, is a hard red winter wheat (*Triticum aestivum* L.) (Reg. no. 677) developed cooperatively by the Montana Agricultural Experiment Station and USDA-ARS. Winridge was tested as MT 77077 in state and regional dwarf bunt (caused by *Tilletia controversa* Kühn) screening trials from 1976 through 1980 and in state and regional yield trials from 1978 through 1981. This cultivar was named and released in 1981 with foundation seed available to the public for planting that fall. It originated from an F1 lines selected at Montana State University, Bozeman. The pedigree is C61-9/’Winalta’/’Crest’. C61-9 is a stripe rust (caused by *Puccinia striiformis* West.) and dwarf bunt resistant selection from the cross ‘Burt’/PI 178383. Winridge is intended to replace Crest.

Winridge has resistance to prevalent races of dwarf bunt governed by resistance genes Bt4 and Bt10. It has a moderate level of resistance to stripe rust. The close linkage of brown glume with the major gene for stripe rust in parents of the original cross, allowed the intentional selection of white glumed progeny possessing nonspecific resistance to stripe rust. Winridge is less susceptible to Cephalosporium stripe (caused by *Cephalosporium gramineum* Nis. & Ika.) than other winter wheat cultivars currently grown in Montana.

Winridge averaged 88 cm in height, which was 6 cm taller than Crest and 9 cm shorter than Winalta, in Montana dryland trials. It has straw strength superior to Crest and Winalta. Winridge has white straw and glumes, and heads 1 and 4 days later than Winalta and Crest, respectively. Spikes are upright, awned, and oblong to clavate. Kernels are red, hard, large, somewhat blunt, with a deep crease, high cheeks, and a prominent brush.

Quality tests indicate that Winridge is superior to Crest for test weight, milling and baking characteristics, and similar for grain protein content.

Although Winridge is intended primarily for production areas requiring dwarf bunt and stripe rust resistance, it has a good yield record in other areas of Montana. It has averaged 10% higher grain yield than Crest and Winalta in tests conducted from 1977 through 1982. The winterhardiness of Winridge is greater than Crest but less than Winalta.

The name Winridge combines “Win” from one parent Winalta and “ridge” from Mr. Lance Claridge, a Montana farmer-cooperator who for years provided land for a dwarf bunt screening nursery.

Breeder and Foundation seed will be maintained by the Montana Agric. Exp. Stn., Bozeman, MT 59717.


References and Notes


REGISTRATION OF REDWIN WHEAT

‘REDWIN’, CI 17844, is a hard red winter wheat (*Triticum aestivum* L.) (Reg. no. 678) developed cooperatively by the Montana Agricultural Experiment Station and USDA-ARS. Redwin was tested as MT 7216 in Montana trials from 1971 through 1979 and in regional trials in 1977 and 1978. Redwin was named and released in 1979 with foundation seed available to the public in September of that year. Redwin was selected as a stiff-strawed, shatter resistant F1 line at Montana State University, Bozeman. The pedigree is MT 6324/MT 7301. MT 6324 is a tall selection with the pedigree ‘Eriks’/Cheyenne’. Selection MT 7301 is ‘Norin 10’/‘Yogo’/Cheyenne’. Selection MT 7301 is ‘Norin 10’/‘Brevor’14’/3*Yogo’ a stiff-strawed, shatter resistant semi-dwarf with brown awned spikes.

Redwin has not lodged in 40 dryland and irrigated field trials. Although it possesses excellent shatter resistance, compared to currently recommended cultivars, Redwin threshes easily.

Redwin averaged 0.5% higher grain protein than Cheyenne or ‘Winalta’ and 2.0% higher than ‘Centurk’ in 40 Montana trials. Redwin is the first hard red winter wheat tested by the Montana Wheat Quality Council (industry collaborative group) which was equal to or better than Winalta, for grain protein, milling, baking, and dough handling characteristics. The test weight of Redwin is generally superior to Winalta, Cheyenne, and Centurk, the predominant HRWW cultivars grown in Montana.

The winterhardiness of Redwin is similar to Winalta. The average 91 cm height of Redwin is 5 and 6 cm shorter than Cheyenne and Winalta, respectively, and 2 cm taller than Centurk. Redwin yields averaged 5% above Winalta and