REGISTRATION OF LEW WHEAT1
(Reg. No. 582)
F. H. McNeal and M. A. Berg2

‘Lew’ wheat (Triticum aestivum L. em. Thell.), Cl 17429, Montana selection MT 711, is a hard red spring wheat cultivar that is resistant to the wheat stem sawfly (Cephus cinctus Norton). It was developed cooperatively by the Montana Agricultural Experimental Station, the North Dakota Agricultural Experiment Station, and the ARS, USDA. Lew was selected at Minot, N. D. in 1969, from the cross Fortuna/Rescue ‘1959-56’/2/CI 13253. CI 13253 is a selection from the cross Norton/Rescue ‘1959-56’/2/CI 13253 and includes the cultivars ‘Thatcher’, ‘Kenya Farmer’ 338 ‘Ace’, ‘Rescue’, ‘Chinook’, ‘Fron- tana’, ‘Kenya 38’, and ‘Newlatchet’ in its pedigree.

The cross from which Lew was selected was made in 1964. An F2 seed bulk was subsequently harvested from an F1 hea vicinity at Minot, N. D. in 1969, and this seed was then used for planting in a single row yield nursery at Bozeman, Mont. in 1970. This selection was advanced to the Montana Yield Nursery in 1971 when it was assigned Montana Selection number MT 711. MT 711 was then grown in the Montana Advanced Yield Nursery at six research centers, 1972-1975. It was also included in the International Wheat Yield Program 1972-1975 and the Uniform Regional Hard Red Spring Wheat Nursery 1974-1975.

Lew has a solid stem that provides resistance to the wheat stem sawfly, an insect pest found in wheat producing areas of Montana and North Dakota. The cultivar has white straw and chaff and is midseason in maturity. The spike is awnless, fusiform, middense to lax, and has a tendency to nod at maturity. The awns are white and the glumes are glabrous. Kernels are red, hard, and midlong; the brush is midshaped.

Montana data suggest that Lew has a yield and test weight advantage over ‘Tioga’, a sister selection released in Montana in 1974. Lew is also resistant to the wheat stem sawfly (Cephus cinctus Norton), Fl. sp. tritici (Eriks.) Carl), while Tioga is susceptible to both. Lew is also resistant to stem rust (Puccinia graminis f. sp. tritici Eriks.) Carl), but susceptible to leaf rust (Puccinia rubigo-vera DC. Winit. f. sp. tritici Eriks.) Carl), while Tioga has been superior to that of both Norana and Era, and nearly equal to that of Fortuna. Yield and test weight advantages of Lew over Norana or Era are justification for commercial production.

The flour yield of Lew, like that of Norana, is slightly lower than that of most wheats evaluated for production for production in Montana. However, the baking characteristics of Lew are superior to those of Norana and equal to those of Era. and other good quality cultivars currently recommended.

Approximately 9,550 kg (350 bu) of breeder seed was released to Montana certified seed growers in the spring of 1975. Breeder and foundation seed will be maintained by the Plant and Soil Science Department, Montana State University, Bozeman, MT 59715.

REGISTRATION OF DAWS WHEAT1
(Reg. No. 584)
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‘Daws’ wheat (Triticum aestivum L. em. Thell.), Cl 17419, is a semidwarf, soft white common winter cultivar developed cooperatively by the ARS, USDA and Washington State Agricultural Research Center. Daws was released jointly by the Agricultural Experimental Stations of Washington, Oregon, Idaho and the ARS in 1976.

Selected in the F4 generation from the cross CI 14484/Cl 13645/PI 178383 made at Pullman, Wash. in 1967, Daws has a bearded, lax spike with long, midwide, white glumes. The kernels are elliptical, white, soft, and midlong, with a shallow crease. The germ is midhybrid. Daws is considerably more winterhardy than ‘Nugaines’, CI 13685, but not as hardy as ‘Wanser’, CI 13684. It emerges slower than Nugaines.

Daws (WA 6099, VH 3749) was evaluated in the observation and performance nurseries of Washington from 1971 to 1975. It was included in the Western Regional Soft Winter Wheat Nursery in 1974 and 1975. Grain yields of Daws have equaled or exceeded those of Nugaines. The test weight of Daws is generally 1.5 kg/bu less than that of Nugaines. Daws is resistant to local races of stripe rust (Puccinia striiformis, West) and common bunt (Tilletia foetida (Walla) Liro). It is susceptible to dwarf bunt (Tilletia controversa, Kuhn), flag smut (Ustilago viciae Koen.), leaf rust (Puccinia graminis f. sp. tritici Eriks.) Carl), and Fusarium stripe (Cercospora herpotrichoides, Fries). The milling characteristics of Daws are