REGISTRATION OF CROP CULTIVARS

Reed is midseason, midtall (110 cm), with strong white or very lightly tinged purple stems. Spikes are awnleted, fusiform, middense, and erect to inclined. Glumes are glabrous, white, midlong, and midwide. Shoulders are wide and square with obtuse, midwide beaks about 0.5 mm long. Awnlets are white and about 3 to 15 mm long. Kernels are red, midlong, soft, and ovoid with a mid sized germ and midwide, middeep crease with rounded cheeks. The brush is large and midlong.

Reed was resistant to the races of leaf rust (Puccinia recondita Rob. ex Desm. f. sp. tritici Eriks.) in the eastern U. S. when it was released. It is resistant to the soil-borne mosaic disease. Reed is susceptible to stem rust (Puccinia graminis f. sp. tritici Eriks. & E. Henn.), powdery mildew (Erysiphe graminis DC. f. sp. tritici Em. Marchal), and loose smut (Ustilago tritici (Pers.) Rostr.). It has resistance (H_E H_E) to Hessian fly (Mayetiola destructor Say) races GP, A, and C derived from II. No. 1, W38. Reed excelled in yielding ability, straw strength, and forage production. It was recommended as a replacement for 'Dual' wheat in Indiana. Its winterhardiness is somewhat lower than that of Dual. Reed was grown on an estimated 5% of the wheat area in Indiana in 1967 and 1968. Reed is good in soft wheat quality.

Breeder seed will be maintained by Purdue University.

REGISTRATION OF KNOX 62 WHEAT

F. L. Patterson, J. F. Schafer, and R. L. Gallun

Knox 62, tested earlier as Purdue 551G3-1-1, is a 'Knox' (Reg. No. 555) type with resistance to the Hessian fly (Mayetiola destructor (Say)) added by backcross breeding of an F1 of two Purdue lines, Purdue 4718A7-26-2 and Purdue 4126A9-16-1-3, to Knox. The parentage of Knox 62 is Knox*5/8/'Kawvale'/5/'Trumbull'/3/'Hope'/2/'Ill. No. 1, W38/6/'Wabash'/4/'Fairfield'/6/'Trumbull'*3/2/'Hope'/2/'Hussar'/2/PI 103,835/7/'Fultz'/Hungarian'/7/Knox'. Knox 62 was derived from 16 F1 plants which were derived from one F3 plant following the backcrosses.

Knox 62 is indistinguishable from Knox in maturity, yield, hardness, and milling and baking qualities. Both are resistant to the soil-borne mosaic virus disease and both have the slow-rusting and slow-awnledging type of general resistances, in the adult-plant stage, to leaf rust (Puccinia recondita Rob. ex Desm. f. sp. tritici Eriks.) and powdery mildew (Erysiphe graminis DC. f. sp. tritici Em. Marchal).

Knox 62 carries the H_E H_E resistant gene from PI 94587 conditioning resistance to races A and B of the Hessian fly, whereas Knox is susceptible. Knox 62 has not been as susceptible as Knox to loose smut (Ustilago tritici (Pers.) Rostr.) from artificial inoculation or to natural infection. Knox 62 is slightly inferior to Knox in straw strength, but is identical to Knox in spike, glume, awn, and kernel characteristics. Knox 62 has been grown as a replacement for Knox in various locations.

Breeder seed will be maintained by Purdue University.