REGISTRATION OF PEAK WHEAT

D. W. Sunderman and Martin Wise

'Peak' hard red spring wheat (Triticum aestivum L. em. Thell.), C.I. 14587, resulted from seed of F₁ lines of Tezanos Pintos Precor/Sonora 64 sent by the Rockefeller Foundation in Mexico to the University of Idaho in 1963. Seed was divided so rust tests could be made at Aberdeen and Moscow, Idaho in 1964. The stripe and stem rust-resistant F₄ line resulting in Peak was harvested at Aberdeen in 1964. It was placed in yield trials so rust tests could be made at Aberdeen and Moscow, Idaho in 1971 by the Agricultural Experiment Stations of Idaho and Oregon and the Plant Science Research Division, Agricultural Research Service, U.S. Department of Agriculture, for use on the irrigated lands of Idaho and Oregon.

Peak is a semi-dwarf, stiff strawed variety, of medium maturity. The average height of Peak grown under irrigation is 76 cm; however, it may vary from 55 to 101 cm, depending upon cultural practices and location. It is resistant to the prevalent races of leaf, stripe, and stem rusts found in Idaho. Average test weight of Peak is equal to that of 'Thatcher'; however, individual plants of Peak vary in stem rust resistance. Peak has outyielded presently grown varieties, but on dryland it yields no better than 'Moran.' The milling and baking quality of Peak grown under irrigation is satisfactory, but slightly inferior to that of Moran. Bread dough from Peak grown on dryland has a tendency to be bucky.

Spikes of Peak are inclined, awned, fusiform to oblong and midwide. Glumes are glabrous, white, long, and midwide; shoulders are midwide; and oblique; beaks are midwide, acuminate 2 to 7 mm long. Awns are white, 1 to 8 cm long. Kernels are hard, red, ovate and midlong with a narrow middeep crease. Kernel cheeks are rounded and the mid-sized brush is short to midlong.

Breeder seed is maintained by the University of Idaho at the Tetonia Branch Experiment Station.

REGISTRATION OF CULTIVARS

REGISTRATION OF TWIN WHEAT

Springfield.

Spikes of Springfield are erect, awnleted, oblong to clavate and dense (lower ¼ of spike is middense). Glumes are glabrous, white, long, midwide. Shoulders are midwide, oblique to rounded and beaks are obtuse (approximately .5 mm long). The kernels are white, short, soft, oval to ovate with a midwide, deep crease. Kernel cheeks are rounded and the brush is mid-sized and midlong.

Breeder seed is maintained by the University of Idaho at the Tetonia Branch Experiment Station.

Springfield.

Spikes of Springfield are erect, awnleted, oblong to clavate and dense (lower ¼ of spike is middense). Glumes are glabrous, white, long, midwide. Shoulders are midwide, oblique to rounded and beaks are obtuse (approximately .5 mm long). The kernels are white, short, soft, oval to ovate with a midwide, deep crease. Kernel cheeks are rounded and the brush is mid-sized and midlong.

Breeder seed is maintained by the University of Idaho at the Tetonia Branch Experiment Station.

1 Registered by the Crop Science Society of America. Contribution from Plant Science Research Division, Agricultural Research Service, U.S. Department of Agriculture and the University of Idaho. Approved by the Director of the Agricultural Experiment Station as Research Paper Number 861. Received Nov. 19, 1971.

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REGISTRATION OF CULTIVARS

REGISTRATION OF TWIN WHEAT

D. W. Sunderman and Martin Wise

'Twin' soft white spring wheat (Triticum aestivum L. em. Thell.), C.I. 14588, was developed cooperatively by the Idaho Agricultural Experiment Station and the Plant Science Research Division, Agricultural Research Service, U.S. Department of Agriculture. A rust-susceptible, short-strawed 'Lemhi' type, 'Norin 10'/'Brevor'/'3*LEMHI 53/3/LEMHI 62,' was crossed with a stripe and stem rust-resistant line similar to 'Lemhi 66,' '5*Lemhi 53/2/7*Lee'/'Chinese'/'Argiopsis umbellulata at the Aberdeen Branch of the Idaho Experiment Station in 1963. Stripe and stem rust-resistant lines were selected from the F₂ and F₃ progeny of this cross during 1965 and 1966. Twin, a sister selection of 'Springfield,' was released by Idaho, Oregon and Washington Agricultural Experiment Stations and the U.S. Department of Agriculture in 1971 for use on irrigated and high rainfall dryland acreage in the Pacific Northwest.

Twin is a semi-dwarf moderately stiff strawed variety with medium maturity. The average height of Twin grown under irrigation is 84 centimeters; however, it may vary from 55 to 101 cm depending on cultural practices and location. It is resistant to the prevalent races of stripe and stem rust found in Idaho, but it is susceptible to leaf rust and powdery mildew. In Idaho irrigated nurseries, the average test weight of Twin was 76 kg/hl (58.9 lb/bu), similar to that of Springfield, but it had a 3-year yield record averaging 4 and 26% higher than Springfield and Lemhi 66, respectively. Pastry quality of Twin is satisfactory and similar to that of Lemhi 66 and Springfield. Its grain flour extraction is equal to Lemhi 66 but lower than Springfield.

Spikes of Twin are erect to inclined, awnless (rarely apically awnleted, awnless 2 to 6 mm long), oblong to clavate, dense (lower ¼ of head is middense). Glumes are glabrous, white, long and wide; shoulders are midwide, oblique to rounded and beaks are midwide, obtuse (approximately .5 mm long). The kernels are white, short, soft, oval to ovate with a midwide, deep crease. Kernel cheeks are rounded and the brush is mid-sized and midlong.

Breeder seed is maintained by the University of Idaho at the Tetonia Branch Experiment Station.

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