REGISTRATION OF BIG CLUB 43 AND BIG CLUB 60 WHEATS
(Reg. Nos. 418 and 419)
C. A. Suneson

Big Club 43, CI 12244, a soft, white spring wheat, is a product of the cooperative wheat breeding investigations of the California Agricultural Experiment Station and the Agricultural Research Service of the U.S. Department of Agriculture. It was the first wheat in America with a multiple recombination of known genes for hessian fly in the Rio Vista area with a prior serious damage occurred on White Federation 38 and Ramona 50, which until the season of 1952, when race 11 became established. Severe damage occurred on White Federation 38 in 1950. Selection for rust resistance was continued each generation until the summer of 1953. F2 lines were composited to form White Federation 54, which gave ample rust protection for the next several years. The outstanding feature of this insect pest. The persistence of enduring resistance to hessian fly has been attributed to the presence of 3 genotypes (H6H1H2H3, H4H1H2H4, or h6h1h2h3) among the 144 component lines in Big Club 43.

Big Club 60, CI 13643, is a soft, white spring wheat produced by the cooperative wheat breeding investigations of the California Agricultural Experiment Station and the Agricultural Research Service of the U.S. Department of Agriculture. The best rust-resistant lines of Big Club 43 and a previously discarded purple-straw line of Big Club 43 which gives added protection from yellow dwarf virus were crossed. After multiple sib crossings and appropriate selection from 1954 to 1960, 103 lines were bulked for further testing. The F2 lines were composed of Big Club 43, which gives added protection from hessian fly, and Big Club 43, which is resistant to yellow dwarf virus. The F2 lines were further selected for rust resistance, and Big Club 60 was developed.

This variety combines the stem rust resistance of Big Club 43 (from Hope) with a Kenya type rust resistance (from Eureka), retaining the smut resistance and agronomic traits of White Federation 38.

White Federation 45 (Eureka X White Federation) was obtained from Mr. Pugsley, formerly of the Waite Agricultural Research Institute, Adelaide, South Australia, in 1949 and crossed with White Federation 38 in 1949 and 1950. Selection for rust resistance was continued each generation until the summer of 1953. F2 lines were composited to form White Federation 54, which gave ample rust protection for the next several years. The outstanding feature of this insect pest. The persistence of enduring resistance to hessian fly has been attributed to the presence of 3 genotypes (H6H1H2H3, H4H1H2H4, or h6h1h2h3) among the 144 component lines in Big Club 43.

REGISTRATION OF LAKE WHEAT
(Reg. No. 421)
A. G. Kusch

Lake Wheat, C.A.N. 3729, CI 13413, was developed by the cross Regent X Canus, made at the Canada Agricultural Experimental Farm, Scott, Saskatchewan, Canada, in 1946. It was obtained from Mr. Pugsley, formerly of the Waite Agricultural Research Institute, Adelaide, South Australia, in 1949 and crossed with White Federation 38 in 1949 and 1950. Selection for rust resistance was continued each generation until the summer of 1953. F2 lines were composited to form White Federation 54, which gave ample rust protection for the next several years. The outstanding feature of this insect pest. The persistence of enduring resistance to hessian fly has been attributed to the presence of 3 genotypes (H6H1H2H3, H4H1H2H4, or h6h1h2h3) among the 144 component lines in Big Club 43.

Lake Wheat, C.A.N. 3729, CI 13413, was developed by the cross Regent X Canus, made at the Canada Agricultural Experimental Farm, Scott, Saskatchewan, Canada, in 1946. It was obtained from Mr. Pugsley, formerly of the Waite Agricultural Research Institute, Adelaide, South Australia, in 1949 and crossed with White Federation 38 in 1949 and 1950. Selection for rust resistance was continued each generation until the summer of 1953. F2 lines were composited to form White Federation 54, which gave ample rust protection for the next several years. The outstanding feature of this insect pest. The persistence of enduring resistance to hessian fly has been attributed to the presence of 3 genotypes (H6H1H2H3, H4H1H2H4, or h6h1h2h3) among the 144 component lines in Big Club 43.

REGISTRATION OF PEMBINA CANTHATCH WHEATS
(Reg. Nos. 422 and 423)
A. B. Campbell

Pembina, R.L. 2814, CI 13332, was developed by the Rust Area Research Station, Winnipeg, Manitoba. Pembina is a hard red spring wheat of good milling and baking quality. Canus originated from the cross H-44 X Reward, is a hard red spring wheat. It is suitable for growing in the drier areas of the Canadian Plains region where it yields well under dry growing conditions.

Lake is a medium late-maturing variety with strong, medium resistance to yellow dwarf virus. The spike is fusiform, mid-long with long straw. The chaff is white and pubescent; beaks are short and acute; shoulders mid-wide, square to sloping. Kernel is medium size and red in color; the crease is shallow and the cheeks angular.

Lake is resistant to prevalent races of common bunt but moderately susceptible to loose smut. It is resistant to stem rust but susceptible to 15B races and to leaf rust with good resistance to shattering, lodging, and sprouting.

Breeders seed is maintained by the Canada Agricultural Experimental Farm, Scott, Saskatchewan, Canada.

REGISTRATION OF WHITE FEDERATION 54 WHEAT
(Reg. No. 420)
C. A. Suneson

White Federation 54, C.A.N. 3729, CI 13643, was developed by the cooperative wheat breeding investigations of the California Agricultural Experiment Station and the Agricultural Research Service of the U.S. Department of Agriculture. It was the first hard red spring wheat of good milling and baking quality. Canus originated from the cross H-44 X Reward, is a hard red spring wheat. It is suitable for growing in the drier areas of the Canadian Plains region where it yields well under dry growing conditions.

Lake is a medium late-maturing variety with strong, medium resistance to yellow dwarf virus. The spike is fusiform, mid-long with long straw. The chaff is white and pubescent; beaks are short and acute; shoulders mid-wide, square to sloping. Kernel is medium size and red in color; the crease is shallow and the cheeks angular.

Lake is resistant to prevalent races of common bunt but moderately susceptible to loose smut. It is resistant to stem rust but susceptible to 15B races and to leaf rust with good resistance to shattering, lodging, and sprouting.

Breeders seed is maintained by the Canada Agricultural Experimental Farm, Scott, Saskatchewan, Canada.