REGISTRATION OF ‘FERGUS’ BIRDSFOOT TREFOIL

FERGUS birdsfoot trefoil (Lotus corniculatus L.) (Reg. no. 50) was developed by the Univ. of Kentucky Agric. Exp. Stn. and released in 1980. It was tested experimentally as Kentucky Ecotype. The name ‘Fergus’ was chosen to honor Dr. E.N. Fergus for his 50 years of outstanding contributions in forage crops at the Univ. of Kentucky.

A mixture of equal parts of certified ‘Empire’ and imported birdsfoot trefoil seed of French origin was sown in April 1954 as one of the treatments in a grazing experiment on the experimental farm in Woodford County, KY. The following September, Kentucky bluegrass was sown into the trefoil stand. Four experimental bluegrass-trefoil pastures and a reserve area were grazed from 1955 through 1958. The reserve pasture was grazed from 1959 through 1969.

The trefoil crop was permitted to set seed during 10 of the 15 years of grazing. After the pods began shattering, the crop was utilized by grazing animals. The amount of seed present in the upper 5 cm of soil at the end of the 12th growing season was 211 kg/ha (1). Also stand evaluations in the 12th growing season showed that 173 plants/m² were present, varying in size from seedlings to old plants with 19 or more crown branches. This wide range of plant size indicated that stands were being regenerated through natural reseeding.

In 1969, sufficient seed was harvested from 15-year-old stands for experimental testing and to make a seed increase planting. Two acres of Kentucky Ecotype Birdsfoot trefoil were sown with Kentucky bluegrass as a seed-increase field in September 1969 with first generation seed harvested in 1970. From 1970 through 1976 Kentucky Ecotype was advanced four generations. The fourth generation seed was designated breeder seed.

Kentucky Ecotype was tested over a 15-state area from Alabama to Minnesota and from the East Coast to Kansas and was found to be equal or superior to named cultivars in most tests. Fergus trefoil is adapted throughout much of the humid transition zone that separates the southern and northern regions of the USA. It is well adapted to the northern tier of states from Pennsylvania through Iowa. In Kentucky tests, Fergus was higher yielding and more persistent than ‘Dawn’, ‘Carroll’, or ‘Viking’. In strip mine spoil reclamation studies in Kentucky, Fergus has performed well compared with other trefoil cultivars and other grass species, including ‘Dawn’ and ‘Carroll’.

REGISTRATION OF ‘COMPTON’ WHEAT

COMPTON soft red winter wheat (Triticum aestivum L.) (Reg. no. 697) PI 469272 was developed by the Georgia Agric. Exp. Stn. in cooperation with USDA-ARS and released in 1983. ‘Compton’, whose experimental designation was P6728A3-22-4-2-1-2, has a diverse genetic background. It was derived from crosses consisting of germplasm enhanced for resistance to Septoria blotch, and to naturally occurring races of Erysiphegraminis (Fuckel) Schroeter, which causes septoria tritici E. Marchal in Indiana. It has both seedling and adult-plant resistance to disease.

Compton was developed by a modified pedigree method of breeding. Individual plants were selected in the F₂, F₄, F₅, F₇, and F₁₄ generation seed from 78 of 100 head rows from single F₁ generation seed from 78 of 100 head rows from single F₄ generation seed from 78 of 100 head rows from single F₄ generations. The 78 progeny rows were selected for uniformity of plant type and resistance to disease.

Following the last cross, Compton was tested for performance in Eastern Soft Red Winter Wheat Performance Nurseries for 2 years, 1982 to 1983. It was consistently in the top-yielding group of cultivars, including ‘Caldwell’ and ‘Auburn’. It formed well compared with other trefoil cultivars and other grass species, including ‘Dawn’ and ‘Carroll’.

Compton was tested for performance in commercial production nurseries for 4 years, 1980 to 1983, and in the Eastern Soft Red Winter Wheat Performance Nursery for 2 years, 1982 to 1983. It was consistently in the top-yielding group of cultivars, including ‘Caldwell’ and ‘Auburn’. It formed well compared with other trefoil cultivars and other grass species, including ‘Dawn’ and ‘Carroll’.

References and Notes

2. Professor of agronomy, emeritus, Univ. of Kentucky, Lexington, KY 40506, and professor of agronomy, Purdue Univ. and formerly director, U.S. Regional Pasture Research Lab, ARS, University Park, PA. Registration by the Crop Sci. Soc. of Am. Accepted 11 Jan. 1985.