field conditions for ease of establishment, drought tolerance, plant vigor, forage production, cold tolerance, and persistence. The primary area of adaptation of Cochise is southern Arizona, New Mexico, and far west Texas, at elevations of 500 to 1,800 m (1,500 to 6,000 ft). Cochise has become established and performed well in 25- to 50-cm (10- to 20-inches) precipitation zones. However, it may require an average minimum of 9 cm (3.5 inches) of winter moisture to maintain an adequate stand. Cochise is well adapted to sandy through silt loam (coarse- to medium-textured) soils.

Breeders and foundation seed will be maintained by the SCS Tuscson Plant Materials Center. Foundation seed is available to growers through the Arizona Crop Improvement Association and Arizona natural resource conservation districts.

**REGISTRATION OF TIFBLUE-78 BLUE LUPINE**

* (Reg. No. 5)

Homer D. Wells, Ian Forbes, John D. Miller

'TIFBLUE-78' is the first winterhardy, disease resistant, sweet (low alkaloid content), soft-seeded blue lupine (*Lupinus angustifolius* L.) cultivar with seed shatter resistance. It was selected from the cross '65G-251' × 'Uniharvest,' an Australian cultivar. The strain 65G-251 was developed from the cross 'WH-1' (a winterhardy selection of PI 168858 from Portugal) × 'Rancher,' a soft-seeded cultivar with resistance to anthracnose (caused by *Gleroma cingulata* Stom) and gray leaf spot (caused by *Stemphylium solani* Weber). Uniharvest has non-shattering seed pods. Strain 65G-251 has winterhardiness and gray leaf spot resistance. Both 65G-251 and Uniharvest are sweet, soft-seeded, and have white flowers and seeds. Inoculations and screening for disease reactions were conducted on the F6 through the F8 generations in the greenhouse at Tifton, Georgia. Screening for winter-hardiness was carried out in field test nurseries at Tifton and Experiment, Georgia. The F6 and F8 generations were screened for seed shatter resistance in Western Australia by the Western Australia Dep. of Agriculture. Tifblue-78 was constituted by compositing equal amounts of seed by weight of F6 seed from 124 F6 lines with similar winterhardiness and reactions to gray leaf spot and anthracnose.

The genotype of the cultivar is *tardus* plus *lentus* (seed-shatter resistance), *gl*1, and/or *gl*2 (gray leaf spot resistance), *An* (anthracnose resistance), *iscondus* (sweetness), *mollus* (soft seed-cloths), and *leucoascus* (white flowers and seeds and absence of purplish pigments in vegetative parts). The inheritance of winterhardiness is unknown; but appears to be conditioned by one major dominant gene and one or more modifiers. Winterhardiness of the cultivar is possibly related to its slower growth rate at low temperatures. Seed are white with a light brown mottle and are intermediate in size compared to commercial cultivars of the species. Plants remain in the rosette stage during fall and winter months. In Georgia with the onset of warmer weather in late March or early April the plants elongate rapidly to about 1 m or more in height depending on soil fertility levels. The gene, *pauper*, conditions the sweetness of this cultivar. In addition to the nitrogen-fixing trait and high yields of herbage for use as a cover crop, Tifblue-78 has potential as a winter grown high protein feed grain. Nitrogen yields of forage ranged up to ca. 160 kg/ha and grain yields up to ca. 5,200 kg/ha containing ca. 30% crude protein.

Breeder seed will be maintained by the Univ. of Georgia, Coastal Plain Station, Tifton, Ga. Limited supplies (up to 100 g) will be provided researchers and other interested parties on written request. Address requests to the authors (Wells or Miller) at the Univ. of Georgia, Coastal Plain Station, Tifton, Ga. 31793.

**REGISTRATION OF TIFWHITE-78 WHITE LUPINE**

* (Reg. No. 6)

Homer D. Wells, Ian Forbes, Robert Burns, John D. Miller

'TIFWHITE-78' is the only white lupine (*Lupinus albus* L.) cultivar winterhardy in Piedmont of Georgia with low alkaloid content of plant and seed (sweetness), soft seed, and seed-shatter resistance. It was selected from the cross 'Gela,' a West German cultivar, × 'Experiment 1'. Experiment 1 was selected from a seed increase of P.I. 177456, a wild bitter biotype from Turkey, which was winterhardy at Experiment, Ga. Gela contributed seed-shatter resistance, soft seediness and low alkaloid content to the cultivar. Tifwhite-78 was constituted by bulking equal amounts of seed by weight from 56 similar F6 lines in 1975.

The cultivar's flowers are white. Seed are white, flat-oval, and intermediate in size compared to commercial cultivars of the species. Plants remain in the rosette stage during fall and winter months. In Georgia with the onset of warmer weather in late March or early April the plants elongate rapidly to about 1 m or more in height depending on soil fertility levels. The gene, *pauper*, conditions the sweetness of this cultivar. In addition to the nitrogen-fixing trait and high yields of herbage for use as a cover crop, Tifwhite-78 has potential as a winter grown high protein feed grain. Nitrogen yields of forage ranged up to ca. 160 kg/ha and grain yields up to ca. 5,200 kg/ha containing ca. 30% crude protein.

Breeder seed will be maintained by the Univ. of Georgia, Coastal Plain Station, Tifton, Ga. Limited supplies (up to 100 g) will be provided researchers and other interested parties on written request. Address requests to the authors (Wells or Miller) at the Univ. of Georgia, Coastal Plain Station, Tifton, Ga. 31793.

**REGISTRATION OF SEVILLE ST. AUGUSTINE GRASS**

* (Reg. No. 56)

T. P. Riordan, V. D. Meier, J. A. Long, and J. T. Gruis

'Seville' St. Augustinegrass (*Stenotaphrum secundatum* (Walt.) Kunze), experimental designation 'SA-516,' and 'L-162,' was developed by the O. M. Scott and Sons Company. Seville was selected from the progeny of an open pollinated purple diploid parent Ea 011081. The first commercial sod of this cultivar was vegetatively planted in 1979. Seville has a lower growth habit than other commercially available St. Augustinegrasses and has the ability to rapidly

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1 Registered by the Crop Sci. Soc. of Am. Cooperative investigations, AR-SEA, USDA and Univ. of Georgia Agric. Exp. Stn. Accepted 16 June 1968.
2 Research plant pathologist, AR-SEA-USDA, Coastal Plain Experiment Station, Tifton, Ga. 31793; research agronomist, AR-SEA-USDA (retired); associate agronomist, Univ. of Georgia, Georgia Agric. Exp. Stn., Experiment, Ga. 30212; research agronomist, Coastal Plain Experiment Station, Tifton, Ga. 31793; and associate agronomist, Univ. of Georgia, Blairsville, Ga. 30512.
3 Registered by the Crop Sci. Soc. of Am. Accepted 16 June 1980.
4 Formerly project leader, O. M. Scott and Sons, and presently turfgrass plant breeder, Dep. of Hortic., Univ. of Nebraska, Lincoln, NE 68583; senior project leader, director, agronomic research, and product development manager, respectively, O. M. Scott and Sons, Marysville, OH 43040.