Carroll was tested under the experimental designation Iowa R-1. It is a synthetic variety derived from two introductions from the USSR, PI 228151 (Kuban 44) and PI 258467 (Moshanshik 528). Selection was practiced for vigor, winterhardiness, large seed, and good seed-production characteristics. Thirty-four second-cycle selections from crosses among 28 plants of the 2 introductions were intercrossed to produce Syn. 1 seed. Syn. 2 seed was produced from 1966 to 1970 in Minnesota under North Central Regional Project NC-83.

Carroll is a winterhardy variety suitable for pasture. It is more upright, blooms 2 to 5 days earlier, and has larger seeds than 'Empire.' Carroll has outstanding seedling vigor, an attribute that will reduce difficulties often encountered in establishing stands of birdsfoot trefoil. Carroll also is superior to Empire and 'Dawn' in spring vigor, recovery after cutting, and winterhardiness. It is more upright than Dawn and usually yields more forage than Empire. Carroll is similar to 'Leo' in growth habit, spring vigor, recovery after cutting, forage yield, and winterhardiness. Observations and performance data indicate that Carroll is adapted wherever birdsfoot trefoil is adapted in the North Central States.

Four classes of seed are recognized for this variety: breeder, foundation, registered, and certified. Present supplies of Syn. 2 seed of Carroll are classed as breeder seed. In the future, breeder seed will be produced from breeder seed by the Iowa Experiment Station. Foundation seed production is handled by the Committee for Agricultural Development, the Iowa foundation seedstocks organization. Foundation seed was first produced in 1970 in Minnesota, and a small quantity of registered seed was produced in that state in 1972.

REGISTRATION OF ADELPHI KENTUCKY BLUEGRASS
(Reg. No. 9)
C. R. Funk, R. E. Engel, G. W. Pepin, and Robert A. Russell

'ADELPHI' Kentucky bluegrass (Poa pratensis L.) was developed cooperatively by the New Jersey Agricultural Experiment Station and J. and L. Adikes, Inc. Its experimental designation was NJE P-69.

Adelphi is a first generation hybrid developed from the cross 'Bellevue' × 'Belturf' Kentucky bluegrass. An unreduced egg of Bellevue was fertilized by a reduced gamete from Belturf resulting in a facultatively apomictic hybrid possessing approximately 80 chromosomes. The mode of reproduction of Adelphi was established by examination of field grown progenies. Adelphi is a moderately low-growing, leafy, turf-type bluegrass with good density, good vigor, and medium texture. One of its most distinctive features is an attractive, bright, dark green color which is especially noticeable in early spring before many other bluegrasses become green and again in late fall after most other cultivars start to lose color. A pleasing, moderately dark green color is also apparent at only moderate fertility levels.

Adelphi has demonstrated good or moderately good resistance to the leaf spot and crown rot disease incited by Helminthosporium vagans Drechsler, leaf rust caused by Puccinia poae-nemoralis Otth, stripe smut caused by Ustilago striiformis (Westend.) Niessl, and snow mold caused by Typhula itoana Imai.

Adelphi is well suited for quality lawns, parks, and sports turf in regions where Kentucky bluegrass is well adapted. It is compatible in blends with other darker cultivars and in mixtures with fine fescues and textured ryegrasses.

Seed propagation is limited to two generations from breeder seed, one each of foundation and certified. Breeder seed is maintained by Jacklin Seed Company, Inc. under the direction of the New Jersey Agricultural Experiment Station.

Plant Patent 3150 has been issued for Adelphi.

REGISTRATION OF PLAINS
(Reg. No. 4)
C. M. Taliaferro and J. R. Harlan

'PLAINS' bluestem, Bothriochloa ischaemum (Schult.) Keng var. 'ischaemum,' was cooperatively released in Oklahoma Agricultural Experiment Station and Plant Science Research Division, Agricultural Research Service, U.S. Department of Agriculture.

Plains is a composite of equal weights of 30 selected highly apomictic, but morphologically distinct lines. The 30 lines trace to seed accessions introduced from Iran, Iraq, India, Turkey, and Afghanistan tested under the experimental designation M-blend since 1962.

Plains is an erect, tufted perennial with prostrate mostly basal leaves reaching an average length of 15 cm. Foliage color is predominantly light green but exhibit a bluish-green cast. The forage is produced with .9 to 1.5 m long culms. Plants tend to produce forage continuously from early summer to frost. Culm length consists of several unbranched racemes, which are tightly, and more or less, digitated on axis distinctly shorter than the internodes. Culm nodes are glabrous to minutely pubescent, the lower nodes often recurving up from the periphery of the clump by oblong, or nearly oblong, apomixis.

Plains is a warm-season bunch grass that possesses the attributes of good productivity, aggressiveness, and drought tolerance. In evaluation trials in Oklahoma, Plains produced 50 to 50% more dry weight forage than 'King Ranch' cultivar. In addition, Plains is more geographically adapted to drought stress. Plains and King Ranch are similar in forage characteristics. Plains is less productive than the cultivar 'Bothriochloa caucasian' (Trin.) Compendium in Oklahoma over a 3-year-period in producing dry weight forage as Caucasian. However, Plains produced 16% higher in vitro dry matter digestibility of forage.

At present, the northern limits of adaptation have not been well-defined. However, it is well adapted in Oklahoma with the possible exception of the western Panhandle area where it has not been tested.

Seed production of Plains will be limited to 30 equal weights of seed of each line. Foundation seed is the first generation bred seed. Certified seed may be produced only from the 2 introductions by the New Jersey Agricultural Experiment Station.