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Published in Crop Sci. 33:356-357 (1993).

Registration of 'Lancaster Soybean

'LANCASTER' SOYBEAN [*Glycine max* (L.) Merr.] (Reg. no. CV-304, PI 561860) was developed by the Nebraska Agricultural Experiment Station. It was released in 1992 because of its superiority in yield and seed protein content to public cultivars of similar maturity, especially in Nebraska environments.

Lancaster is derived from an F_4 plant selected from the cross K1047 × 'Mead' (4). The line K1047 is a breeding line from Kansas selected from the cross 'Tracy' × 'Bonus'(1,3). The population was inbred to the F_4 generation at the University of Nebraska–Lincoln Agronomy Farm, Lincoln, NE, by single-seed descent. The F_4 plant rows were grown in Lincoln during 1985. Lancaster was evaluated for yield in Nebraska from 1986 through 1991 and in the Uniform Soybean Tests Northern States, Preliminary Test III B, during 1989 and Uniform Test III from 1990 through 1991 under the designation U86-62062.

Lancaster is a maturity Group III cultivar with purple flowers, tawny pubescence, tan pods, and a determinate growth habit (dt_1dt_1). Seeds are dull yellow with black hila. Lancaster matures 3 to 4 d later than 'Burlison' (2), and is best adapted as a full-season cultivar from approximately 40 to 42° N lat. Lancaster averaged 12% higher yield than Burlison in irrigated tests in Nebraska during 1990–1991. Compared with Burlison in regional tests, Lancaster has similar lodging resistance, 15 cm shorter plant height, better seed quality, similar seed size, almost 2% higher seed protein content, and 3.5% higher oil content. Because of its 440 g kg^{-1} seed protein, Lancaster may be useful in situations where a very high-protein meal is desired. Lancaster has excellent seedling emergence, as measured by hypocotyl elongation at 25°C, and its determinate growth habit may be advantageous under irrigation and narrow-row culture.

Lancaster is heterogeneous for resistance to race 4 of phytophthora rot (*Phytophthora sojae* J.J. Kaufmann & J.W. Gerdemann). It has moderate resistance to pod and stem blight [caused by *Diaporthe phaseolorum* (Cooke & Ellis) Sacc. var. sojae (S.G. Lehman) Whemeyer]. Lancaster is susceptible to soybean mosaic virus, purple stain [caused by *Cercospora kikuchii* (Matsumoto & Tomoyasu) M.W. Gardner], brown stem rot [caused by *Phialophora gregata* (Allington & D.W. Chamberlain) W. Gams] and bacterial tan spot [caused by *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* (Hedges) Collins & Jones].

Breeder seed of Lancaster was distributed to the Nebraska Foundation Seed Division for planting in 1992. The Nebraska Agricultural Experiment Station will maintain breeder seed. Small quantities of seed for research purposes may be obtained from the corresponding author.

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Published in Crop Sci. 33:357 (1993).

Registration of 'ICGV 86590' Peanut Cultivar

'ICGV 86590', an Indian peanut cultivar (*Arachis hypogaea* L. subsp. *fastigiata* Waldron) (Reg. no. CV-49, PI 562530), was released in 1991 by the Central Sub-committee on Crop Standards, Notification, and Release of Varieties, Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India, for rainy-season cultivation in peninsular India, where rust (*Puccinia arachidis* Speg.) and late leafspot [*Phaeoisariopsis personata* (Berk. & M.A. Curtis) Arx] are serious problems. In 25 tests conducted by the All India Coordinated Research Project on Oilseeds (AICORPO) during 1988 to 1990 in India, ICGV 86590 produced an average of 22% higher pod yield than JL 24, the most popular cultivar in peninsular India (1). In the same trials, it also outyielded local cultivars CO 2 by 30%, TMV 2 by 89%, KRG 1 by 38%, and TG 3 by 51%. ICGV 86590 was bred at the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). The cultivar was derived from a cross between a spanish breeding line (X 14-4-B-19-B), and a rust- and late leafspot-resistant valencia germplasm line (PI 259747) (2), by bulking resistant plants in six successive generations grown in rainy-season disease nurseries by following a mass pedigree method. These nurseries included spreader rows and had naturally occurring rust and late leafspot to near-epidemic proportions. The pedigree of ICGV 86590 is (X 14-4-B-19-B × PI 259747)F_2-B_2-B_1-B_1-B_1-B_1-B_2.

ICGV 86590 has an erect growth habit, with compound sequential inflorescences and medium, elliptic, green to dark green leaves. Its maturity ranges from 96 to 123 d over different locations and years during the rainy season in India. It has 65% meat. Pods are mostly three- to two-seeded, with slight to moderate ridges and slight reticulation, and slight to moderate beaks and constrictions. Seeds are tan, with a 100-seed weight of 32 g, and contain ≈48% oil and 23% protein. Because of the compound inflorescence and three- to two-seeded pods, it is difficult to classify this cultivar either as a spanish or valencia botanical type.

ICGV 86590 had resistance or tolerance to multiple stress factors when tested at various locations in India (1). It was resistant to rust and tolerant of late leafspot when tested at 6 locations against rust and 12 locations against late leafspot. It also showed less field incidence of bud necrosis disease compared with JL 24 at ICRISAT Center and other locations. When compared with popular Indian cultivars JL 24, Gangapuri, and Kadiri 3, it was less susceptible to stem and pod rots caused by *Sclerotium rolfsii* Sacc. (1). It also suffered less from *Spodoptera litura* (F.), leafhopper (*Empoasca kerri* Pruthi), and collar rot (*Aspergillus niger* Tiegh.) attacks.

ICRISAT Center, Patancheru, India, will maintain breeder seed. Small quantities of seed can be obtained from the Principal Groundnut Breeder, ICRISAT on request.

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The assistance of the Project Director, Directorate of Oilseeds Research, Rajendranagar, Hyderabad, India, and various AICORPO scientists in evaluating ICGV 86590 is gratefully acknowledged. Information on bud necrosis disease provided by D.V.R. Reddy, on stem and pod rot incidence by V.K. Mehan, on insect pest resistance by G.V. Ranga Rao, and on oil and protein contents by R. Jambunathan of ICRISAT is highly appreciated.

Published in Crop Sci. 33:357-358 (1993).

Registration of 'Florico' Stargrass

'Florico' sargrass (*Cynodon nlemfuënsis* Vanderyst var. nlemfuësis) (Reg. no. CV-154, Pl 562690) (Puerto Rico [PR] Pl 2341) is a dark green, pubescent, high-yielding perennial grass, well adapted to many tropical soils. The grass was introduced into Puerto Rico in 1957 from Kenya, Africa. Field tests at Gurabo, PR (8), showed that dry matter and protein yields of PR pI 2341 were superior to most other grasses tested. At present, PR PI 2341 is grown extensively in Puerto Rico and is considered to have improved pasture potential compared with other forages (2). In 1972, several ramets of PR PI 2341 were brought from Puerto Rico to the Agricultural Research and Education Center (AREC), Ona, FL. Florico, an asexually propagated clone was released jointly by the Florida Agricultural Experiment Station, Puerto Rico Agricultural Experiment Station, and USDA-ARS in July 1989.

The tropical nature of Florico limits its productivity and persistance to the southern two-thirds of Florida and to the warmer tropical areas of the world. Florico stargrass is vegetatively propagated from stems and stolons. When adequate moisture and fertility are available, a dense stand of grass can be obtained 70 to 90 d after planting.

Florico is responsive to high rates of fertilization, and an intensive utilization program must be followed to obtain maximum return from this cultivar. With adequate moisture and fertility, the grass will produce forage under both wet, warm (average monthly maximum temperature 34 °C) or cool (average monthly minimum temperature 12 °C) environmental conditions. The hydrocyanic acid (HCN) potential is high under heavy N fertilization, especially during the early stages of plant development. No HCN toxicity to cattle (*Bos* spp.) grazing Florico has been evidenced at Ona in 16 yr of testing. Insect problems are less severe than on most tropical perennial grasses, but plants are susceptible to armyworm [*Spodoptera frugiperda* (J.E. Smith)] and grass looper [*Mocis latipes* (Guene'e)]. A foliar blight (caused by *Rhizoctonia solani* Kühn, (Anastomosis Group 1), was occasionally observed in Florico. The incidence of blight seemed to be associated with dense stands of tall, ungrazed forage and tended to disappear as the cool–dry season approached. Cattle consumed infected plants relatively well with no signs of rejection or plant loss. Ectoparasitic nematodes, stubby-root (*Paratrichodorus* spp.) and sheath (*Hemicycliophora* spp.), were found to be supported by Florico, but had little effect on production and persistance of this stargrass.

Dry matter (DM) yields of Florico harvested at 4 and 5 wk intervals, respectively, from two mob-grazing studies ranged from 12.0 to 15.7 Mg ha^{-1} yr^{-1} when fertilized with 160 to 220 kg ha^{-1} yr^{-1} N (5,7). In vitro organic matter digestion (IVOMD) and crude protein (CP) concentration averaged 600 g kg^{-1} and 125 g kg^{-1} for Florico pastures grazed at 4 and 5 wk intervals, respectively, during June and September (6). The IVOMD of Florico is ≈20 to 30 g kg^{-1} higher than 'Ona' stargrass and similar to 'Pangola' digitgrass (*Digitaria decumbens* Stent.) (6).

Florico grown in a reclamation study on phosphatic clay had a 3-yr average yield of 14.1 Mg ha^{-1}, with a CP range during the warm season of 107 to 139 g kg^{-1} and IVOMD range of 630 to 696 g kg^{-1} (3).

Grazing studies with Florico at the AREC, Ona, FL, produced a 3-yr average daily gain of 0.5 kg and 743 kg ha^{-1} yr^{-1} live weight gain at a stocking rate of 7.2 steers ha^{-1} over 200 d during the warm season (May to December) (4). This level of animal performance is considerably higher than that obtained from 'Pensacola' bahiagrass (*Paspalum notatum* Flügge), which is currently the most common pasture grass used in Florida.

Florico should be allowed a rest period of 4 to 5 wk between intensive grazing or harvesting treatments. This management results in excellent persistence and high DM yield of good quality. Florico should be maintained at a stubble height of 15 to 25 cm for best persistence. Because plant height above the stubble has a major effect on forage yield and quality, plants should be grazed when plant height above the stubble is 15 to 45 cm. Stubble height influences root development of Florico. Compared with an unharvested treatment, root DM accumulation was reduced 97% for plants that were repeatedly harvested to a 5-cm stubble after attaining 15 cm of top growth above the stubble (1).

Foundation vegetative planting stock of Florico is available from the University of Florida, Institute of Food and Agricultural Sciences, AREC, Ona, FL 33865. The Florida Foundation Seed Producers, Inc. P.O. Box 309, Greenwood, FL 32433, maintains a list of growers who obtained initial planting stock from 1988 to 1992.

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