

REGISTRATION OF CULTIVARS

Registration of 'ICPL 151' Pigeonpea

'ICPL 151' pigeonpea [*Cajanus cajan* (L.) Millsp.] (Reg. no. CV-111, PI 564587) was developed by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Patancheru, India. It was tested extensively by the All India Coordinated Pulses Improvement Project (AICPIP) and released for general cultivation as 'Jagriti' by the Indian Central Sub-Committee on Crop Standards Notification and Releases of Varieties in 1989. In 1991, ICPL 151 was also released for cultivation in Myanmar. ICPL 151 was developed through pedigree selection from the cross ICPX 74092 (ICP 6997/Prabhat) made in 1974 at ICRISAT Center. The F₁ and F₂ generations were grown at ICRISAT Center in 1975. Unselected early-maturing F₃ segregants were bulk harvested for sowing in the 1976 rainy season at ICRISAT's Cooperative Research Station at Hisar, Haryana, India, for pedigree selection. In 1978, F₆ single-plant progeny were bulked as selection number ICPX 74092-NDTB-16-1-HIDT3-B₈-B₈.

In 1981, ICPL 151 was included in AICPIP trials. Over 5 yr of testing in these trials, ICPL 151 had 10% greater yields than the control cultivar UPAS 120 in the North West Hills Zone and 54% greater yields in the Central Zone of India. In four large demonstration plots at Hisar and Gwalior, ICPL 151 yielded between 2 and 4 t ha⁻¹. In pigeonpea-wheat crop rotation on-farm trials conducted from 1982 to 1986 in Gwalior district of central India, ICPL 151 (1.5 t ha⁻¹) had 12% greater yields than the control UPAS 120.

Plants of ICPL 151 are semispreading, with a determinate growth habit, and about 1 to 1.5 m in height. The recommended plant population is 330 000 plants ha⁻¹, which requires a seeding rate of 36 kg ha⁻¹. ICPL 151 is suitable for sole-cropping production systems. In India, ICPL 151 matures an average of 127 d after sowing in the Central Zone and 147 d in the North Zone and therefore can be grown successfully in rotation with winter crops such as wheat.

Plants of ICPL 151 have green stems, narrow and dark green leaves, and yellow flowers with red streaks on the back of the standard petal. Pods are borne in large loose clusters at the top of stem branches and are green with dark purple streaks. Seeds are large, round, cream-colored with a brown eye, and have an average 100-seed weight of 10.8 g. ICPL 151 has field resistance to sterility mosaic disease, but is susceptible to *Phytophthora drechsleri* Tucker f. sp. *cajani*. It is also susceptible to wilt disease (caused by *Fusarium oxysporum* Schlechtend.:Fr. f. sp. *udum*) disease, but in most cases escapes the disease due to its early maturity. ICPL 151 is susceptible to attacks by pod borers [e.g., *Helicoverpa armigera* (Hübner) and *Maruca testulalis* (Geyer)], but the short stature and determinate growth habit of this variety permit easy and effective spraying with insecticides.

The Legumes Program, ICRISAT Center, Patancheru, A.P. 502324, maintains the breeder seed.

K. B. SAXENA,* S. C. GUPTA, D. SHARMA, M. C. REDDY,
J. M. GREEN, Y. L. NENE, D. G. FARIS,
AND LAXMAN SINGH (1)

References and Notes

1. ICRISAT, Patancheru, Andhra Pradesh 502324, India. ICRISAT Journal Article no. 1510. Registration by CSSA. Accepted 31 Oct. 1993. *Corresponding author.

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Registration of 'Colfax' Soybean

'Colfax' soybean [*Glycine max* (L.) Merr.] (Reg. no. CV-319, PI 573008) was developed by the Nebraska Agricultural Experiment Station. It was released in 1993 because of its superiority in yield and other agronomic traits to public cultivars of similar maturity, especially in Nebraska environments.

Colfax is derived from an F₄ plant selected from the SG1E1 population (1). The population was inbred to the F₄ generation at the University of Nebraska-Lincoln Agronomy Farm and greenhouses at Lincoln, by single-seed descent. The F₄ plant rows were grown at Lincoln during 1988. Colfax was evaluated for yield in Nebraska from 1989 through 1992 and in the Uniform Soybean Tests Northern States (coordinated by J.R. Wilcox, USDA-ARS), Preliminary Test II B during 1990 and Uniform Test II from 1991 through 1992, under the designation U89-2035 (3).

Colfax is a late Maturity Group II cultivar with white flowers, gray pubescence, tan pods, and a determinate growth habit. Seeds are yellow, with intermediate luster and buff hila. Colfax matures 3 d later than 'Kenwood' (2), and is best adapted as a full-season cultivar from approximately 41 to 43°N latitude. Compared with Kenwood in the Uniform Soybean Tests-Northern States, Colfax has better lodging resistance, 18 cm shorter plant height, similar seed quality, 25 mg seed⁻¹ larger seed size, 1.5 percentage points higher seed protein content, and similar oil content. Colfax has very good seedling emergence, as measured by hypocotyl elongation at 25°C, and its determinate growth habit may be advantageous under irrigation and narrow-row culture.

Colfax is heterogeneous for resistance to races 1, 4, and 7 of phytophthora rot (*Phytophthora sojae* J.J. Kaufmann & J.W. Gerdemann). It is resistant to soybean mosaic virus. Colfax is susceptible to pod and stem blight [caused by *Diaporthe phaseolorum* (Cooke & Ellis) Sacc. var. *sojae* (S.G. Lehman) Wehmeyer], purple stain [caused by *Cercospora kikuchii* Matsumoto & Tomoyasu) M.W. Gardner], and brown stem rot [caused by *Phialophora gregata* (Allington & D.W. Chamberlain) W. Gams].

Breeder seed of Colfax was distributed to the Nebraska Foundation Seed Division for planting in 1993. The Nebraska Agricultural Experiment Station will maintain breeder seed. Small quantities of seed for research purposes may be obtained from the corresponding author for at least 5 yr from the date of this publication.

G. L. GRAEF,* J. E. SPECHT, L. L. KORTE,
AND D. M. WHITE (4)

References and Notes

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2. Cianzio, S.R., S.P. Schultz, B.K. Voss, and W.R. Fehr. 1990. Registration of 'Kenwood' soybean. Crop Sci. 30:1162.
3. Wilcox, J.R. 1993. The Uniform Soybean Tests, Northern States, 1993. USDA-ARS, West Lafayette, IN.
4. Dep. of Agronomy, Univ. of Nebraska, Lincoln, NE 68583-0915. Contribution from the Nebraska Agric. Exp. Stn., Journal Paper No. 10439, Project 12-184. The research was supported in part by a grant from the Nebraska Soybean Development, Utilization, and Marketing Board. Registration by CSSA. Received 31 Oct. 1993. *Corresponding author.

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