REGISTRATION OF ICPL 87 PIGEONPEA

‘ICPL 87’, a cultivar of pigeonpea [Cajanus cajan (L.) Millsp.], (Reg no 76) (PI 520598) was developed by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) through pedigree selection from the cross ICPLX 73052 (‘T.21’ × ‘JA 277’) that was made in 1973 at ICRISAT Center. It was bulked in the F, generation as selection no 73052-211-1-1-HIDT2-B-B @ at ICRISAT’s Cooperative Research Station at Hisar, Haryana, India in 1978, following single-plant selection in F, F, and F, generations at ICRISAT Center, Patancheru, Andhra Pradesh, India, and F, generation at Hisar.

In 1980, ICPL 87 was included in All India Coordinated Pulses Improvement Project (AICPIP) coordinated trials. Over 5 yr of trials in peninsular India, it outyielded the control cultivar, ‘UPAS 120’, by 10% on average. It also performed well in Adaptive Research Trials in central India, where it outyielded UPAS 120 by 28%. It has performed well in the multiple-harvest trials at ICRISAT Center. In small plot trials in 1982 to 1983, this cultivar produced 5200 kg ha⁻¹ in three harvests during a growing period of about 220 d. In 1983 to 1984, two harvests yielded 3700 kg ha⁻¹ and in 1984 to 1985 three harvests yielded 4100 kg ha⁻¹. In summer sowings at Hisar, ‘ICPL 87’ has given 50% higher yields than UPAS 120. Delayed sowing reduces yield but it remains similar to that of UPAS 120.

The plants of ICPL 87 are much smaller than conventional longer-duration types of pigeonpea and are grown at high population density [330 000 plant ha⁻¹]; this practice requires a higher seeding rate (30 kg ha⁻¹). ICPL 87 is thus more suited to sole cropping than to intercropping. ICPL 87 matures 110 to 130 d after sowing. If harvested by picking the pods, or by cutting the uppermost pod-bearing branches, the plants produce a second flush of pods that can be harvested again in another 50 to 60 d. Under favorable conditions, this process can be repeated for a third harvest. ICPL 87 is morphologically short-statured (80-90 cm in the peninsular zone of India), a semi-spreading type with a determinate growth habit, where pods are borne in clusters at the top of the plant canopy. ICPL 87 has yellow flowers and green stems; its leaves are narrow and dark green, and they usually remain dark green while pods are maturing. At the grain-filling stage the pods are green with purple streaks. Seeds are large with a 100 seed mass of 10 g, light brown in color, and round in outline but slightly flattened.

ICPL 87 is tolerant to wilt disease caused by Fusarium udum (Butler). Although it is susceptible to attacks by the pod borer (Heliothis armigera (Hb)), it compensates strongly in the second flush, and because of its short stature, insecticide spraying is easy and effective.

ICPL 87 was tested extensively by AICPIP and was released for general cultivation in the peninsular zone of India as ‘Pragati’ by the Indian Central Subcommittee on Crop Standards Notification and Releases of Varieties in 1986. Seeds of ICPL 87 have been made available for adaptation trials to the Ministry of Agriculture, and to various national, state, and private seed agencies in India, Malawi, Kenya, Tanzania, Zimbabwe, and Belize.


References and Notes

1. ICRISAT Patancheru, Andhra Pradesh, India, P.O. Box 503 324 ICRISAT
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