Pigeonpea Variety ICPL 87

- **High yielding**
- **Short duration (110-130 days)**
- **Short statured**
- **Wide adaptation**
- **Tolerant of fusarium wilt**
- **Suitable for single and multiple harvests**
- **Recovers from insect damage**

ICRISAT
Plant Material Description no. 42

International Crops Research Institute for the Semi-Arid Tropics
Patancheru, Andhra Pradesh 502 324, India

1993

ICPL 87 is a short-duration, wilt-tolerant, high-yielding pigeonpea variety suitable for both single and multiple harvest systems. It was released as Pragati in the peninsular zone of India in 1986.

Origin and Development

ICPL 87 was developed by pedigree selection from a cross ICPX 73052 (T 21 x JA 277) made in 1973 at ICRISAT Center. In 1978 it was bulked in the F_6 generation as selection number ICPX 73052-211-1-1-HIDT2-B-B® at ICRISAT's Cooperative Research Station at Hisar, Haryana, India, following single plant selections in the F_2, F_3, and F_4 generations at ICRISAT Center and the F_5 generation at Hisar.

Synonyms

Pragati and ICPX 73052-211-1-I-HIDT2-B-B®.

Plant Characters

ICPL 87 is a short-statured, semi-spreading type of plant with a determinate growth habit. Its pods are borne in clusters at the top of the canopy. This variety has yellow flowers and green stems; its leaves are narrow and dark green and its pods are green with purple streaks. At ICRISAT Center, it takes about 70-75 days to flower and 110-130 days to mature. Its plant height is about 80-90 cm. Details of its plant characteristics are given in Table 1.

Seed Characters

The seeds of ICPL 87 are light brown and round in outline but slightly flattened with a 100-seed mass of about 9 g. The mean seed protein content is 22.3% and its *dhal* cooks in about 28 min.

Table 1. Characteristics of pigeonpea variety ICPL 87 compared with those of the control cultivar UPAS 120 in the Ail India Coordinated Pulses Improvement Project (AICPIP) trials in the peninsular zone, India, 1980-83.

Trait	ICPL 87	UPAS 120
Time to 50% flowering (days)	77	69
Time to 50% maturity (days)	116	112
100-seed mass (g)	8.6	7.0
Plant height (cm)	82	107

Performance

In 1980, ICPL 87 was included in the All India Coordinated Pulses Improvement Project (AICPIP) trials. Over 5 years of trials in peninsular India, on average its seed yields were 10% higher than that of the control cultivar UPAS 120 (Table 2). It has performed well in the multiple-harvest trials at ICRISAT Center. In small plot trials in 1982-83, this variety produced 5.2 t ha^{-1} in three harvests during a growing period of about 220 days (Table 3). In 12 on-farm trials conducted in three districts of Madhya Pradesh state, India, in 1984, ICPL 87 gave 1.45 t ha^{-1} which was 20% higher in seed yield than that of the control cultivar UPAS 120. A special feature of ICPL 87 is that it is capable of recovering from insect damage and can give a good ratoon yield under optimal moisture conditions.

Table 2. Mean seed yields (t ha^{-1}) of pigeonpea variety ICPL 87 compared with those of the control cultivar UPAS 120 in the peninsular zone, India, 1980-83.

Year	Number of comparisons	ICPL 87	UPAS 120
1980	1	0.79	0.44
1981	1	1.05	0.83
1982	3	1.68	1.55
1983	6	0.95	0.91
Total	11		
Weighted mean		1.14	1.04

Table 3. Seed yields (t ha^{-1}) of pigeonpea variety ICPL 87 compared with those of the control cultivar Prabhat in multiple harvests at ICRISAT Center, 1982-83.

Harvest	ICPL 87	Prabhat
First flush	2.21	2.15
Second flush	2.04	0.67
Third flush	0.97	0.23
Total yield	5.22	3.05

Plant Material Descriptions from ICRISAT

Leaflets in this series provide brief descriptions of crop genotypes identified or developed by ICRISAT, including:

- germplasm accessions with important agronomic or resistance attributes;
- breeding materials, both segregating and stabilized, with unique character combinations; and
- cultivars that have been released for cultivation.

These descriptions announce the availability of plant material, primarily for the benefit of the Institute's cooperators. Their purpose is to facilitate the identification of cultivars and lines and to promote their wide utilization. Requests should be addressed to the Director General, ICRISAT, or to appropriate seed suppliers. Stocks for research use issued by ICRISAT are sent to cooperators and other users free of charge.

ICRISAT is a nonprofit, scientific, research and training institute receiving support from donors through the Consultative Group on International Agricultural Research. It serves as a world center for the improvement of grain yield and quality of sorghum, pearl millet, finger millet, chickpea, pigeonpea, and groundnut, and acts as a world repository for the genetic resources of these crops. The plant materials announced in these leaflets are end-products of this work, which is aimed at enhancing the agricultural productivity of resource-poor farmers throughout the semi-arid tropics.

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