

Chickpea Desi Variety ICCV 10



- Released as 'Bharati' in 1992 for cultivation in the central and peninsular zones of India, and as 'Barichhola 2' in 1993 in Bangladesh
- Medium-duration, high-yielding variety
- Resistant to fusarium wilt
- Drought tolerant
- Very wide adaptation



ICRISAT

Plant Material Description no. 57

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

1994

ICCV 10 is a short- to medium-duration, high-yielding chickpea variety. It is resistant to fusarium wilt (*Fusarium oxysporum*), and tolerant of dry root rot (*Rhizoctonia bataticola*). It is drought-tolerant and is suitable for cultivation in the southern and central zones of India. It was approved for release in these zones under the name 'Bharati' in 1992. It was also released in Bangladesh under the name 'Barichhola 2' in 1993.

Origin and Development

ICCV 10 was developed at ICRISAT Asia Center, Patancheru, by pedigree breeding from a cross P 1231 x P 1265. Both parents are germplasm accessions from India. The cross was made in 1975, and the F₁ was advanced in the off-season nursery at Lahaul Valley, Himachal Pradesh, India. Following single-plant selection in F₂, the F₃ progeny was bulked. Subsequently, single-plant selections were made in F₄, F₅, and F₆ generations. The F₇ progeny was bulked and tested in the International Chickpea Screening Nursery, and later submitted for testing in the All India Coordinated Trials during 1986/87. The pedigree of ICCV 10 is ICCX-750841-32P-BP-1P-1P-1P-BP.

Synonym

Bharati, ICCL 83228, and Barichhola 2.

Performance

ICCV 10 was tested in the Initial Evaluation Trials of the All India Coordinated Pulses Improvement Project (AICPIP), 1986/87-1987/88. In 1986/87, it gave a mean seed yield of 2.1 t ha⁻¹ compared with 1.89 t ha⁻¹ of the control variety, BG 244; in 1987/88, its mean seed yield was 1.43 t ha⁻¹ compared with 1.25 t ha⁻¹ of the control.

Performance of ICCV 10 in the AICPIP Varietal Trials in the central and southern zones are given in Tables 1 and 2. In the central zone, the mean seed yield of ICCV 10 was 2.02 t ha⁻¹ over 3 seasons (1988/89-1990/91) compared with 1.75 t ha⁻¹ of the control variety, BG 244. In the southern zone, ICCV 10 produced 1.78 t seed ha⁻¹ compared with 1.43 t ha⁻¹ of the control, BDN 9-3, during 1988/89-1990/91, over several locations. ICCV 10 was also tested in the national yield trials in Bangladesh as 'ICCL 83228' by the Bangladesh Agricultural Research Institute between 1987/88 and 1992/93. It gave a mean seed yield of 1.58 t ha⁻¹ compared with 1.31 t ha⁻¹ of the local control variety over 5 seasons and 17 locations.

Table 1. Mean seed yield of ICCV 10 in the AICPIP Varietal Trials, Central Zone, India, at several locations, 1988/89-1990/91.

Variety	Seed yield (t ha ⁻¹)			Weighted mean
	1988/89	1989/90	1990/91	
ICCV 10	2.36	1.75	1.96	2.02
BG 244 (control)	2.11	1.50	1.71	1.75

Table 2. Mean seed yield of ICCV 10 in the AICPIP Varietal Trials, Southern Zone, India, at several locations, 1988/89-1990/91.

Variety	Seed yield (t ha ⁻¹)			Weighted mean
	1988/89	1989/90	1990/91	
ICCV 10	2.00	1.55	1.79	1.78
BDN 9-3 (control)	1.40	1.44	1.49	1.43

Plant Characters

ICCV 10 has a semi-erect growth habit with long fruiting branches. Its stem is purplish green. Its compound leaves are dark green with medium-sized leaflets. It has pink flowers and light yellow pods. ICCV 10 flowers in about 45 days and matures in 95-100 days in the southern zone.

Seed Characters

Seeds are yellowish brown, and ram's head shaped. They are medium-sized and have a 100-seed mass of 16.3 g.

Their protein content is comparable to that of the control, Annigeri, and they take less time to cook than those of Annigeri. The breeder seed of ICCV 10 is available from the Andhra Pradesh Agricultural University, Bangladesh Agricultural Research Institute, and ICRISAT Asia Center, India.



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**Plant Material Descriptions
from the
International Crops Research Institute for the Semi-Arid Tropics**

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;
- 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 breeding lines and to promote their wide utilization. Requests for seed should be addressed to the Director General, ICRISAT, or to appropriate seed suppliers. Materials for research are sent by ICRISAT to cooperators and other users free of charge.