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# Chickpea Cultivar ICCV 1

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ICRISAT

Plant Material Description no. 9  
International Crops Research Institute for the Semi-Arid Tropics  
Patancheru P.O., Andhra Pradesh 502324, India

1984

## Purpose of Description

ICCV 1 has been released (as ICC 4) for general cultivation in Gujarat state, India, by the State Varietal Release Committee.

## Origin and Development

ICCV 1 was developed by pedigree selection from a cross of H-208 (ICC 4954) and T-3 (ICC 4998) made in 1973-74. The latter, developed by Chandra Shekhar Azad University of Agriculture and Technology, Kanpur, was released for cultivation in north plains and peninsular zones (India) in 1973, and the former, developed by Haryana Agricultural University, Hissar, was released for cultivation in north central plains (India) in 1977. ICCV 1 was bulked in the F<sub>4</sub> generation, following single plant selection in F<sub>2</sub> and F<sub>3</sub>. It was then selected and bulked at Hissar, India, as selection number IC-7310-3-2-B-BH.

## Performance

IC-7310-3-2-B-BH was included in the ICRISAT International Chickpea Screening Nursery of long-duration desi types (ICSN-B) in 1976-77. At 13 locations in India it ranked 10th out of 100 entries, giving a mean yield of 2048 kg/ha.

In 1977-78 it was promoted to the International Chickpea Cooperative Trial of long-duration lines (ICCT-DL), in which it gave a mean seed yield of 1927 kg/ha. As ICCL-78013, it was tested for the 2nd year in ICCT-DL, in which all locations except Faizabad were outside India. In that year it ranked third, giving a mean yield of 1779 kg/ha.

Based on ICSN-B results ICCV 1 was proposed for entry in the Coordinated Trials of the All India Coordinated Pulse Improvement Project in 1977-78, in which it has given a seed yield in 5 years of testing at many locations of over 2000 kg/ha of seed, as shown in the table below.

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### Mean seed yields (in kg/ha) of ICCV 1, H-208, and BG-212 in GIET (1977-78) and in GOVT in the central zone, India, in 1978-82.

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Cultivar	1977-78	1978-79	1979-80	1980-81	1981-82	Mean
ICCV 1	2358	1880	2039	1913	1969	2032
H-208	2177	1743	1652	1768	1838	1836
BG-212	--	<b>1887</b>	1791	2017	1918	1903

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## Plant Characteristics

ICCV 1 is semierect, predominantly basal-branching, and of moderate plant height.

It is of medium maturity. In central India it flowers between 60 and 70 days after sowing and matures in 110-140 days, depending on growing conditions.

Its responsiveness to inputs is illustrated by the seed yield of 2800 kg/ha obtained at Patancheru with fertilizer application and irrigation.

ICCV 1 is moderately resistant to *Heliothis* pod borer but, in common with most other cultivars in coordinated trials, it does not have resistance to wilts and root rots. Nevertheless, it has given consistent yield performance in coordinated trials in the central zone of India. Other diseases and pests are not important in such ecological zones.

## Seed Characteristics

The seeds are medium to large (16 g/100 seed) and yellow to light brown in color. The seed protein content ranges from 18.5 to 23.0%, with a mean of about 21%.

In cooking quality tests whole seed samples of ICCV 1 cooked significantly quicker than Annigeri and BDN-9-3 (two released cultivars in south India), and water absorption rates were similar. With dhal samples, ICCV 1 was superior to Annigeri and BDN-9-3 in cooking time, water absorption, and solids dispersal. These results indicate pronounced improvements in cooking quality of ICCV 1 over Annigeri and BDN-9-3.

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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 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.

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