

# REGISTRATION OF CULTIVARS

## REGISTRATION OF 'ICCV 6' CHICKPEA

'ICCV 6' CHICKPEA (*Cicer arietinum* L.) (Reg. no. CV-89, PI 548067) was developed by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and was approved for notification by ICRISAT in 1986 after it was identified for release as ICC 32 in India by the All India Coordinated Pulses Improvement Project (AICPIP) in 1985. In 1990, it was released in Nepal. ICCV 6 is the first high-yielding kabuli cultivar which combines resistance to wilt, caused by *Fusarium oxysporum* Schlechtend.: Fr. f. sp. *ciceri* (Padwick) Matuo & K. Sato, and tolerance to *Helicoverpa armigera* (Hübner) pod borer and soil salinity.

ICCV 6 was developed by pedigree selection from the cross 'L 550' (ICC 4973) × 'L 2' (ICC 4965). Following single-plant selection in the F<sub>2</sub> to F<sub>6</sub> generations at the ICRISAT Center, Patancheru, the ICRISAT cooperative research station, Hisar, and in an off-season nursery in Lebanon, it was identified as resistant to fusarium wilt in a wilt-sick plot and was bulked in the F<sub>7</sub> generation as Selection no. ICCX 7385-15-1-1H-1P-BP. Its resistance to Race 1 of fusarium wilt was confirmed in pot screening.

In 1980-1981 it was yield tested in a replicated trial at Hisar and ranked first out of 49 entries with a mean seed yield of 2630 kg ha<sup>-1</sup>, compared with 1170 kg ha<sup>-1</sup> for that of control cultivar L 550. In the irrigated trials in the Central Zone of India, its mean yield was 2040 kg ha<sup>-1</sup>, compared with 1810 kg ha<sup>-1</sup> for that of L 550 over 3 yr of testing. It was also tested in the North-West Plain Zone of India from 1981-1982 to 1984-1985 in the irrigated trials where its mean seed yield was 2050 kg ha<sup>-1</sup> as compared to 1690 kg ha<sup>-1</sup> for that of L 550. ICCV 6 was evaluated in minikit trials in farmers' fields in India (70 locations) from 1984-1985 to 1987-1988, where it outyielded L 550 by 18%. Currently it is under on-farm tests in Madhya Pradesh and Maharashtra states in India.

ICCV 6 also was tested in the nonirrigated replicated yield trials and farmers' field trials in Nepal from 1986-1987 to 1989-1990. Over four seasons and five locations in western Nepal, its mean seed yield was 1450 kg ha<sup>-1</sup> which was comparable with the desi-type control cultivar Sita. As a kabuli type receiving a premium market price, ICCV 6 was released for general cultivation in western Nepal in 1990. It is the first released kabuli cultivar in that country.

ICCV 6 is semierect, with plant height ranging from 45 to 80 cm, and with predominantly basal branching (up to five branches per plant). Plant parts are green without anthocyanin pigment; flowers are white. It has compound leaves, with leaflets of medium size. It flowers between 60 to 70 d after sowing in central India and between 75 to 85 d in northern India and in Nepal. It matures in 130 to 170 d, depending on the growing conditions. ICCV 6 is resistant to Races 1 and 4 of *F. oxysporum* f. sp. *ciceri*. It tolerates attack by *Helicoverpa* pod borer (4.2% borer damage, compared with 7.8% for that of L 550 in 1984-1985 and 1985-1986), and is relatively tolerant to soil salinity, frost, and lodging compared with L 550. It has a high nodulation capacity. It yields well under both irrigated and rainfed conditions and is adapted to late sowing, as indicated by its superior performance (980 kg ha<sup>-1</sup>, compared with 620 kg ha<sup>-1</sup> for L 550) in trials at Hisar, India.

Seeds of ICCV 6 are salmon-white and owl-head shaped. They are of medium size, with a mean 100-seed mass of 21 g, ranging from 18 g to 22 g, compared with 22.5 g for that of L 550. The seeds are attractive to consumers and have a mean protein content of 21.3% as against 20.3% in L 550.

The sugar, starch, and ash content of ICCV 6 are similar to those of L 550. Seeds of ICCV 6 take slightly longer time to cook than control variety L 550.

Breeder seed of ICCV 6 has been made available to the AICPIP, Ministry of Agriculture, and other institutions in India, and to the National Grain Legume Improvement Program, Nepal. Breeder seed will be maintained by the Legumes Program, ICRISAT.

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## References and Notes

1. Legumes Program, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Patancheru P.O., Andhra Pradesh 502 324, India. ICRISAT Journal Article no. 1118. Registration by CSSA. Accepted 28 Feb. 1991. \*Corresponding author.

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## REGISTRATION OF 'GRUENING' ALPINE BLUEGRASS

'GRUENING' ALPINE BLUEGRASS (*Poa alpina* L.) (Reg. no. CV-45, PI 540425) was selected and developed at the Alaska Plant Materials Center, Division of Agriculture, Alaska Department of Natural Resources. It was released 25 November 1986 to provide a cultivar of a native species useful in reclamation and erosion control. The first harvest of certified Gruening alpine bluegrass occurred in July 1989.

The name Gruening was chosen to honor Ernest Gruening, who served as Alaska territorial governor, 1939 to 1953, and as U.S. senator for the State of Alaska from 1958 to 1968.

Gruening was based on a mass selection from a 6-m row of PI 235491 in 1981. The plant material was received from the U.S. National Plant Germplasm System in 1977. The material was originally collected at a high-elevation site near LaCure, Switzerland.

Gruening alpine bluegrass is a low-growing perennial bunchgrass. This circumpolar species is native to Alaska and other arctic and boreal regions. At lower latitudes, the species can be found at higher elevations (1).

Gruening was evaluated at the Alaska Plant Materials Center at Palmer, AK, from 1979. The accession from which Gruening was selected outperformed 24 other accessions of alpine bluegrass in hardiness and seed production while undergoing initial evaluations from 1979 to 1983.

Off-site evaluations started in 1983 and included 24 locations in Alaska, with tests ranging from 1 to 6 yr. All evaluations were based on performance under reclamation, revegetation, and erosion control treatments. The cultivar was not evaluated for forage production or yield (2).

One of the outstanding attributes of Gruening alpine bluegrass is early seed maturation. Winter hardiness and early maturation of seed are critical at the high latitudes where Gruening is expected to be used and grown. Yields of clean seed usually exceed 224 kg ha<sup>-1</sup>, with harvesting during the last week of June or first week of July.