

Registration of Pigeonpea Cultivar 'ICEAP 00040'

'ICEAP 00040' [*Cajanus cajan* (L.) Millsp.] (Reg. no. CV-255, PI 639265) was developed by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and released in 2003 in two countries (Malawi and Tanzania) in eastern and southern Africa (ESA). In Malawi, ICEAP 00040 was released as 'Kachangu' jointly by three agencies, namely, ICRISAT-Nairobi (ESA), Department of Agricultural Research Services (Ministry of Agriculture, Malawi), and Legumes Fibers and Oilseeds (Ministry of Agriculture, Malawi). In Tanzania, ICEAP 00040 was released as 'Mali' by ICRISAT-Nairobi (ESA) and Ilonga Agricultural Research Institute (Ministry of Agriculture, Tanzania). ICEAP 00040 is a late-maturing pigeonpea cultivar released for its resistance to the fungal pathogen *Fusarium udum* Butler (the causal agent of Fusarium wilt), and has potential use in the cropping systems of the semiarid ESA region and as a source of germplasm for pigeonpea improvement programs.

ICEAP 00040 was developed as a unique cultivar by selecting a single genotype from a landrace population that was collected from Kitui (eastern Kenya) in 1992. The genotype was purified by selfing in a controlled environment sheltered from insect pollinators. Evaluation for resistance to Fusarium wilt was conducted on-station in wilt-sick plots (Bayaa et al., 1997) located in Kenya and Tanzania. At Kiboko Research Station (Kenya), the mean percentage wilt (%W) of ICEAP 00040 was 19 and 21.0% compared with >85.0% observed for the check cultivar 'ICP 9145' during 1999 and 2001, respectively. ICP 9145 was previously classified as resistant to the disease in Malawi (Reddy et al., 1990). Similarly, at Ilonga Research Station (Tanzania), the mean %W of ICEAP 00040 was 0 and 18% (compared with 31 and 74% for the check cultivar) during 1999 and 2002, respectively.

ICEAP 00040 is an indeterminate, compact, long-duration cultivar maturing in 170 to 230 d. The stem is green and attains a height of 2.5 ± 0.6 m depending on prevailing temperatures. The branching type is compact, thus ICEAP 00040 is suitable for the intercropping systems practiced widely in the ESA region. The flowers are yellow and are borne on short racemes. The pods are long, curved slightly, and contain 5 to 6 seeds. The seed is white and large (100 seed-weight = 18.0 g).

ICEAP 00040 was evaluated for yield potential before release. During 2001–2002 cropping season, ICEAP 00040 was tested for yield under high disease pressure created by wilt-sick plots in three different countries. In Kenya, ICEAP 00040 produced 2.2 Mg ha^{-1} compared to 0.6 Mg ha^{-1} produced by the check cultivar 'ICEAP 00068'. Similarly, in Malawi, ICEAP 00040 averaged 1.6 Mg ha^{-1} and out-yielded the commercial check cultivar 'Royes' by a margin of 14% at six locations. In Tanzania, the grain yield of ICEAP 00040 was 3.0 Mg ha^{-1} compared to 0.1 and 1.0 Mg ha^{-1} produced by the check cultivar ICEAP 00068 and unimproved landrace Ex-Lugoba, respectively. The cultivar 'ICEAP 00068' is highly susceptible to the disease.

Seed of ICEAP 00040 may be obtained from ICRISAT-(Nairobi) ESA, Legume Genetic Enhancement Program, P.O. Box 39063, Nairobi 00623, Kenya. Recipients are asked to recognize the source if it contributes to the development of a cultivar or germplasm or is used for other research purposes.

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