Registration of ICGV-SM 83708 Peanut Germplasm

ICGV-SM 83708 (Reg. no. GP-68, PI 585000), an improved peanut (*Arachis hypogaea* L. subsp. *hypogaea* Krap & Rig. var. *hypogaea* Greg.) germplasm, was developed at the Asia Center of the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Patancheru, India. It was introduced into the SADC (Southern African Development Community)/ICRISAT Groundnut Project, Malawi, in 1982 as an advanced breeding line. After initial evaluation in the 1982–1983 crop season in Malawi, it was included in the SADC regional groundnut varietal trial in 1983–1984 as ICGMS 42. Subsequently, it was redesignated ICGV-SM 83708. After extensive evaluation in regional, national, and on-farm trials, it was released in 1990 as 'CG 7' in Malawi, and in 1991 as 'MGV 4' in Zambia. It is particularly well adapted to the central plateau of Lilongwe and Kasungu, low-lying areas of Salima and Chitipa, and the Karonga plains in Malawi, and to the Eastern Province areas of Zambia. It is suitable for red skin and confectionery trades because of its red testa color, uniform seed size, and ease in blanching.

ICGV-SM 83708 originated from a single F_2 plant selection in a cross of USA 20/'TMV 10' in 1977–1978. USA 20, an unknown germplasm line introduced from the USA into India and renamed in India, belongs to the virginia (subsp. *hypogaea* var. *hypogaea*) botanical group, runner growth habit. TMV 10, a natural mutant selected from an unknown variety introduced to India from Argentina that belongs to the virginia botanical group and has a bunch growth habit, is a widely adapted cultivar released in India in 1970 (1). Phenotypically similar F_3 progenies of the F_2 plant were selected and bulked at harvest. This process of bulking the phenotypically similar plants was repeated in successive generations until the bulk was phenotypically homogeneous. The pedigree of ICGV-SM 83708 is (USA 20/TMV 10) F_2-P_3-B_1-B_1-B_1-B_1-B_1-B_1-B_1-B_1.

ICGV-SM 83708 has an erect to Decumbent 3 growth habit, with alternate branching and elliptical dark green, medium-sized leaves (2). It matures in approximately 135 d in Malawi and Zambia. It has mostly two-seeded pods, characterized by a slight beak, moderate to deep constriction, moderate reticulation, and no or slight ridges. One- and three-seeded pods occur occasionally. The average pod length is 41 mm, and average pod breadth is 14 mm. The testa of ICGV-SM 83708 is red in color. Its average meat content varies from 68 to 74%, and the average 100-seed mass from 61 to 64 g, depending on the location in which it is grown in the region. Oil content averages 470 g kg^{-1} in Malawi. The oleic/linoleic fatty acid ratio of ICGV-SM 83708 (1.88) is superior to that of Malawi cultivars Chalimbana (1.20), Chitembana (1.64), Mani Pintar (1.43), and Mawanga (1.58). The seeds are of uniform size and shape; very few have flat end surfaces. Unlike Chalimbana, the seed of ICGV-SM 83708 blanches easily.

ICGV-SM 83708 was compared with local cultivars Chalimbana, Chitembana, Mani Pintar, and Mawanga in different yield trials during the 1983–1984 to 1991–1992 seasons in Malawi. It produced an average pod yield of 3.35 t ha^{-1} compared with 2.48 t of Chalimbana in 14 trials, 2.39 t compared with 2.16 t of Mawanga in 10 trials, 1.96 t compared with 1.64 t of Chitembana in 5 trials, and 2.61 t compared with 2.25 t of Mani Pintar in 6 trials. The pod yield advantage of ICGV-SM 83708 over these cultivars ranged from 11 to 35% (3). In Zambia, ICGV-SM 83708 was compared with 'Makulu Red' for five seasons (1983–1984, and 1985–1986 to 1988–1989) in 10 trials, and averaged 10% more pod yield than Makulu Red, which produced 1.75 t pod ha^{-1} (3).

ICGV-SM 83708 is as susceptible to early leaf spot (caused by *Cercospora arachidicola* S. Hori) and rosette disease as local cultivars Chalimbana in Malawi, and Makulu Red in Zambia. It is also susceptible to rust (caused by *Puccinia arachidis* Speg.) and late leaf spot [caused by *Phaeoisariopsis personata* (Berk. & M.A. Curtis) Arx; syn. *Cercosporidium personatum* (Berk. & M.A. Curtis) Deighton], with disease reactions similar to Kadiri 3 in India.

Breeder seed of ICGV-SM 83708 is maintained by the SADC/ICRISAT Groundnut Project, Malawi. Limited quantities of seed are also available upon request from the Genetic Resources Division, ICRISAT Asia Center. Seeds of ICGV-SM 83708 are also deposited with the National Seed Storage Laboratory, 1111 Mason St., Fort Collins, CO 80521-4500.

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The authors wish to thank Drs. A.J. Chiyembekeza and P.K. Sibale, and Mr H.K. Mande of Malawi, and Mr. M.B. Syamasonta and Dr. J.M. Mulila of Zambia for conducting SADC regional groundnut variety trials, and national and on-farm trials in their respective countries.

Published in Crop Sci. 35:1718 (1995).

Registration of an Early-Maturing Peanut Germplasm ICGV 86015

ICGV 86015, a spanish-type peanut (*Arachis hypogaea* L. subsp. *fastigiata* Waldron var. *vulgaris* Harz) germplasm (Reg. no. GP-73, PI 585005) was bred at the Asia Center of the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Patancheru, India. It was identified and released as an early-maturing widely adapted high-yielding breeding line (3) by the Plant Materials Identification Committee of ICRISAT in 1993. This improved germplasm has been designated as Hung Loc 25 (HL 25) in Vietnam, where, in 33 field experiments and 6 trials involving 344 farming families, it was found most suitable for intercropping with cassava (*Manihot esculenta* Crantz) and maize (*Zea mays* L.) in the southeast coastal and southeastern regions of the country (4). It is proposed for release as BARD 92 in Pakistan for double cropping with wheat (*Triticum aestivum* L.) and is particularly adapted to the *barani* (rainfed) conditions of the Pothwar area in the country (1).

ICGV 86015 [also known as ICGS(E) 56] originated from a cross made in the 1981–1982 postrainy season between 'ICGS 44' and TG 2E. ICGS 44 (PI 537112) is a high-yielding, medium-maturity cultivar released in 1988 for postrainy season cultivation