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 F2 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 F2 progenies of the F2 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) F2-P3-B1-B1-B1-B1-B1-B1-B1-B1.

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 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 3.351 ha⁻¹ compared with 2.48 for 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 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) leaf spot [caused by Phaeoisariopsis personata (Curtis) Arx; syn. Cercosporellidium personatum (Curtis) Deighton], with disease reactions similar to those of Chalimbana in Malawi. Breeder seed of ICGV-SM 83708 is maintained at the ICRISAT Groundnut Project, Malawi. Limited quantities of breeder seed are also available upon request from the Germplasm 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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References and Notes
2. International Board of Plant Genetic Resources and the Germplasm Research Institute for the Semi-Arid Tropics (ICRISAT Groundnut Project, Malawi). Limited quantities of breeder seed are also available as ICGV-SM 83708.
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) leaf spot [caused by Phaeoisariopsis personata (Curtis) Arx; syn. Cercosporellidium personatum (Curtis) Deighton], with disease reactions similar to those of Chalimbana in Malawi.

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The authors wish to thank Drs. A. J. Chiyembekeza and H.K. Mande of Malawi, and Mr. M.B. Symasoni of Zambia for conducting SADC regional groundnut varietal trials in their respective countries.

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Registration of an Early-Maturing Peanut Germplasm ICGV 86015

ICGV 86015, a Spanish-type peanut (Arachis hypogaea var. vulgaris Harz) germplasm (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 a widely adapted high-yielding breeding line by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). The germplasm was designated as ICGV 86015 by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in 1986. It was developed from a single plant selection from a cross of Harz/Curtis (Reg. no. GP-6, PI 135000) and Zara (Reg. no. GP-7, PI 135002) in 1973. The germplasm was evaluated in the 1982-1983 and 1983-1984 seasons in the region. The germplasm was released as ICGV 86015 in 1986.

ICGV 86015 is an improved germplasm with an erect growth habit, moderate branching, and a narrow pod. It matures in 110-115 days and produces a high yield of 2-3 Mg ha⁻¹. The germplasm is susceptible to rust (caused by Puccinia arachidis) and early leaf spot (caused by Cercospora arachidicola S. Hori) but shows resistance to late blight (caused by Phytophthora infestans) and bacterial leaf blight (caused by Xanthomonas axonopodis pv. arachidicola). The germplasm has a high oleic acid content (0.80-0.85) and a low linoleic acid content (0.20-0.25). The germplasm is suitable for intercropping with wheat (Triticum aestivum L.) and rice (Oryza sativa L.), and for cultivation in the southeast coastal and southeastern regions of the country (4). It is also suitable for cultivation in the Pothwar area of Pakistan (5).

The germplasm was released in 1986 as ICGV 86015 and is currently under evaluation in several countries. Limited quantities of breeder seed are available for research purposes. The germplasm is being used in breeding programs to develop new cultivars with improved yield and disease resistance.

References and Notes
2. International Board of Plant Genetic Resources and the Germplasm Research Institute for the Semi-Arid Tropics (ICRISAT Groundnut Project, Malawi). Limited quantities of breeder seed are also available as ICGV-SM 83708.
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) leaf spot [caused by Phaeoisariopsis personata (Curtis) Arx; syn. Cercosporellidium personatum (Curtis) Deighton], with disease reactions similar to those of Chalimbana in Malawi.

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