Registration of ICGV-SM 86715 Peanut Germplasm

ICGV-SM 86715 (Reg. no. GP-89, PI 598133), an improved virginia peanut (*Arachis hypogaea* L. subsp. *hypogaea* var. *hypogaea*) germplasm line, was developed by the SADC/ICRISAT (Southern African Development Community/International Crops Research Institute for the Semi-Arid Tropics) Groundnut Project in Malawi. It was released in 1992 as 'Veronica' for pure stand cultivation in Mauritius by the Mauritius Sugar Industry Research Institute (MSIRI), Reduit, Mauritius (5). It has resistance to rust (caused by *Puccinia arachidis* Speg.), late leafspot [caused by *Phaeoisariopsis personata* (Berk. & M.A. Curtis) Arx; syn. *Cercosporidium personatum* (Berk. & M.A. Curtis) Deighton], and pepper spot [caused by *Leptosphaerulina crassiasca* (Sechet) C.R. Jackson & D.K. Bell]. It was also found free from early leafspot (caused by *Cercospora arachidicola* S. Hori) in Mauritius.

ICGV-SM 86715 is derived from a cross between *Arachis hypogaea* subsp. *hypogaea* var. *hypogaea* cv. Makulu Red and a tetraploid interspecific backcross derivative, ('Samaru 38'/*Arachis diogoi* Hoehne (GKP 10602)//'Samaru 61'. It was developed by following repeated bulk selections. At the time of harvest, the selected plants were grouped into three bulks based on similarity of their growth habit, maturity, and reaction to foliar diseases (leaf spots and rust), and each bulk was further evaluated in separate rows. This process of selection was continued until the selected bulks stabilized. One such stabilized bulk was designated as ICGV-SM 86715.

In trials conducted in Malawi at two locations during the 1987–1988 and 1988–1989 crop seasons, ICGV-SM 86715 (with mean seed yield of 1.61 t ha^{-1}) outyielded the local cultivars 'Chitembana' by 388% (mean seed yield, 0.33 t ha^{-1}) and 'Mawanga' by 41% (mean seed yield, 1.14 t ha^{-1}). In regional trials conducted during the same period in Mozambique, Swaziland, and Zambia, it outyielded the local cultivars 'Egret' by 26.7% and 'Mani Pintar' by 13.6%. In four trials conducted at three locations in Mauritius during the 1988 and 1989 crop seasons, it had a mean pod yield advantage of 65.3% over 'Cabri' and 23.5% over DHT 200. In these trials, the pod yield of ICGV-SM 86715 ranged from 2.4 to 4.7 t ha^{-1}, with a mean of 3.52 t ha^{-1} (2,3).

In nine trials conducted on experiment stations and on-farm in Mauritius, ICGV-SM 86715 was rated 2.0 for rust on a scale of 0 to 9 (where 0 = immune and 9 = very highly susceptible), compared with a rating of 5.8 for Cabri (2,4). In six on-farm trials, ICGV-SM 86715 did not show any incidence of early leafspot, compared with a score of 5.0 for Cabri and 4.0 for DHT 200 on a similar scale of 0 to 9 (4). ICGV-SM 86715 was also found free from late leafspot, compared with a score of 4.0 for both Cabri and DHT 200 on a similar scale of 0 to 9 at three experiment stations in Mauritius (2). In the same six on-farm trials conducted in Mauritius, ICGV-SM 86715 showed only slight incidence of pepper spot, compared with moderate incidence in Cabri (4). In Swaziland, ICGV-SM 86715 maintained its rust and late leafspot resistance superiority over the local cultivars Egret and Mani Pintar. Compared with Cabri, ICGV-SM 86715 is less susceptible to leaf tier (*Lamprosema indicata* F.) infestation in Mauritius (5).

ICGV-SM 86715 has a Decumbent 3 growth habit (1), alternate branching, and medium-sized elliptic green leaves. It has, on average, seven primary and four secondary branches. It matures in 117 to 159 d, depending on the season and location in southern Africa. It has medium-sized pods (34.7 mm average length, 11.2 mm average width) with prominent reticulation, moderate beak, and moderate to deep constriction. The majority of pods are two- or one-seeded (occasionally, three-seeded), with average meat content of 64%. Seeds are red, weigh 57 g 100 $seed^{-1}$, and contain 48% oil.

Breeder seed of ICGV-SM 86715 is maintained by the SADC/ICRISAT Groundnut Project, Malawi. Limited quantities of seed are available upon request from the Genetic Resources Division, ICRISAT Asia Center. Seed of ICGV-SM 86715 is also deposited with the National Seed Storage Laboratory, 1111 S. Mason St.,t Fort Collins, CO 80521-4500.

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Registration of ICGV-SM 85048 Peanut Germplasm

ICGV-SM 85048 (Reg. no. GP-90, PI 598134), an improved spanish peanut (*Arachis hypogaea* L. subsp. *fastigiata* var. *vulgaris*) germplasm, was developed at the SADC/ICRISAT (Southern African Development Community/International Crops Research Institute for the Semi-Arid Tropics) Groundnut Project in Malawi. It was first tested at the Mauritius Sugar Industry Research Institute (MSIRI), Mauritius, in 1988. After evaluations in on-station and on-farm trials, it was released in 1992 as 'Stella' in Mauritius (8). It is suitable for cultivation both in sugarcane (*Saccharum officinarum* L.) interrows and in pure stands.

ICGV-SM 85048 originated from a double cross ['Goldin 1'/Faizpur 1-5//Manfredi/'M 13'] made in the 1980–1981 season at the Asia Center of ICRISAT, Patancheru, India. Goldin 1, a spanish cultivar and M 13, a large-seeded virginia (subsp. *hypogaea* var. *hypogaea*) cultivar, were released in the USA (4) and India (1), respectively. Faizpur 1-5 is a spanish breeding line from India. Manfredi (probably Manfredi 68) is a breeding line originating from Argentina. The F_3 population from this cross was tested in the 1982–1983 season at the SADC / ICRISAT Groundnut Project, Malawi. The first selection for high pod yield and other desirable agronomic characteristics was visually made in the F_3 population at time of harvest. Selected plants were bulked together based on similar phenotypes. One such bulk was designated as B_1. This process of selection and bulking was repeated for the next two generations in the B_1 bulk after which the selected bulk stabilized. The full pedigree of ICGV-SM 85048 is [Goldin 1/Faizpur 1-5// Manfredi/M 13]F_3-B_1-B_2-B_1.

ICGV-SM 85048 has an erect growth habit, sequential flowering, and elliptic light green medium-sized leaves (2). It has, on