

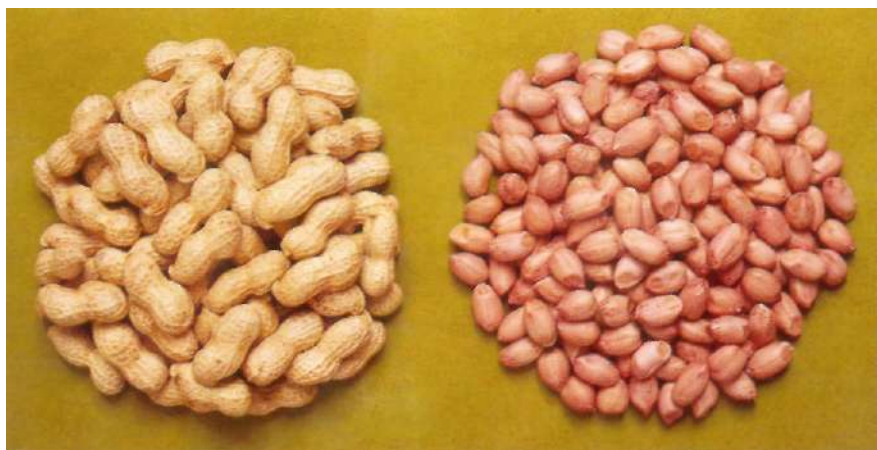
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# Groundnut Variety ICGV 86325

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- A high-yielding Virginia bunch cultivar released in India
- Average maturity duration 120 days in the rainy season
- Tolerant of peanut bud necrosis and peanut mottle virus diseases
- Average shelling percentage 70%
- Average oil content 45 %
- Average protein content 23%
- Oleic/linoleic fatty acid ratio 1.55



**ICRISAT**

**Plant Material Description no. 62**

International Crops Research Institute for the Semi-Arid Tropics  
Patancheru 502 324, Andhra Pradesh, India

## Purpose of description

ICGV 86325 was released in 1994 by the Central Subcommittee on Crop Standards, Notification, and Release of Varieties, Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India, for rainy-season cultivation in southern Maharashtra, Andhra Pradesh (excluding the northern coastal districts), Karnataka, and Tamil Nadu.

## Origin and development

ICGV 86325 was bred and developed at ICRISAT Asia Center, India. It was selected using the bulk pedigree method from a cross between ICGS 20 and G 201. The former is a high-yielding breeding line, while G 201 has been released as Kaushal in India. The pedigree of ICGV 86325 is (ICGS 20 x G 201)  $F_2$ - $B_2$ - $B_1$ - $B_1$ - $B_1$ - $B_1$ . It is suitable for low-input rainfed cultivation.

## Performance

In 4 years (1989-92) of testing in All India Coordinated Research Project on Oilseeds (AICORPO) trials, ICGV 86325 outyielded both the national control cultivar Kadiri 3 and the zonal control ICGS 76 (ICGV 87141). It gave seed yields 29% higher than Kadiri 3 and 16% higher than ICGS 76 (Table 1). It has a pod yield potential of  $3 \text{ t ha}^{-1}$  in the rainy season and  $5 \text{ t ha}^{-1}$  in the postrainy season under high-input conditions (Table 2).

## Plant characters

ICGV 86325 belongs to the Virginia botanical group and has medium to small, elliptic, dark green leaves. It has a decumbent 3 growth habit, characterized by an indistinct main axis and laterals that tend to ascend, giving the plant a bushy appearance. It has 4-8 primary and 4-9 secondary branches. It matures in about 120 days in the rainy season.

ICGV 86325 has field tolerance to peanut bud necrosis virus disease and suffers little yield loss due to peanut mottle virus disease. However, like Kadiri 3 and ICGS 76, it is susceptible to foliar diseases, rust, and leaf spots. Similarly, it is as susceptible to leaf miners and jassids as is Kadiri 3.

## Pod/seed characters

ICGV 86325 has mostly 2-seeded pods with moderate to prominent beak and reticulation, and moderate to deep constriction. Pod ridges are absent. It has tan-colored seeds and a 100-seed mass of 34 g. The seeds contain, on an average, 23% protein and 45% oil with an oleic/linoleic fatty acid ratio of 1.55. The average shelling turnover is 70%, with 80% sound mature seeds.

**Table 1. Performance of ICGV 86325 and control cultivars in AICORPO<sup>1</sup> trials, India, 1989-92 rainy seasons.**

Trial <sup>2</sup>	Year	Number of locations	Genotype	Average yield (t ha <sup>-1</sup> )	
				Pod	Seed
IVT (VB)	1989	4	ICGV 86325	1.10	0.77
			Kadiri 3	0.82	0.57
AVT-I (VB)	1990	5	ICGV 86325	0.86	0.58
			Kadiri 3	0.61	0.43
			ICGS 76	0.68	0.46
AVT-I (VB)	1991	6	ICGV 86325	1.66	1.24
			Kadiri 3	1.37	1.00
			ICGS 76	1.39	0.98
AVT-II (VB)	1992	7	ICGV 86325	1.52	1.02
			Kadiri 3	1.23	0.81
			ICGS 76	1.45	1.01
Average over 4 years (1989-92)		22	ICGV 86325	1.29	0.90
			Kadiri 3	1.01	0.70
Average over 3 years (1990-92)		18	ICGV 86325	1.35	0.95
			ICGS 76	1.17	0.82

1. All India Coordinated Research Project on Oilseeds. Trials were conducted in zone V in India, i.e., southern Maharashtra, Andhra Pradesh (excluding the northern coastal districts), Karnataka, and Tamil Nadu.

2. IVT = Initial Varietal Trial, AVT = Advanced Varietal Trial, VB = Virginia bunch.

Sources: Department of Oilseeds Research 1990, 1992a, b, 1993

**Table 2. Performance of ICGV 86325 and control cultivar Kadiri 3, ICRISAT Asia Center, India, 1986-89.**

Production environment	Year	Pod yield (t ha <sup>-1</sup> )		Superiority over Kadiri 3 (%)
		ICGV 86325	Kadiri 3	
Low input <sup>1</sup> (rainy season)	1987	1.38	0.96	44
	1988	1.84	1.41	30
	Average	1.61	1.18	36
High input <sup>2</sup> (rainy season)	1986	3.15	2.93	8
	1988	3.06	1.88	63
	Average	3.11	2.41	29
High input (postrainy season)	1987/88	5.04	4.24	19
	1988/89	3.90	3.53	10
	Average	4.47	3.89	15

1. Low input = rainfed, 20 kg P<sub>2</sub>O<sub>5</sub> ha<sup>-1</sup>, no protection against insect pests and foliar diseases.

2. High input - irrigated, 60 kg P<sub>2</sub>O<sub>5</sub> ha<sup>-1</sup>, 400 kg gypsum ha<sup>-1</sup>, full protection against insect pests and foliar diseases.

## References

**DOR (Department of Oilseeds Research). 1990.** Annual Progress Report, Groundnut, 1989. Pages B109-110 *in* Proceedings of the XXXVI Annual *Kharif* Oilseeds Workshop, 17-20 Apr 1990, University of Agricultural Sciences, Bangalore, Karnataka. Rajendranagar, Hyderabad: DOR, Indian Council for Agricultural Research.

**DOR (Department of Oilseeds Research). 1992a.** Annual Progress Report, Groundnut, 1990. Page B101 *in* Proceedings of the XXXVIII Annual *Kharif* Oilseed Research Workers' Group Meeting, 6-8 May 1991, Gujarat Agricultural University, Junagadh. Rajendranagar, Hyderabad: DOR, Indian Council for Agricultural Research.

**DOR (Department of Oilseeds Research). 1992b.** Annual Progress Report, Groundnut, 1991. Page PB107 *in* Proceedings of the XL Annual *Kharif* Oilseed Research Workers' Group Meeting, 21-24 Apr 1992, University of Agricultural Sciences, Dharwad, Karnataka. Rajendranagar, Hyderabad: DOR, Indian Council for Agricultural Research.

**DOR (Department of Oilseeds Research). 1993.** Annual Progress Report, Groundnut, 1992. Page PB88 *in* Proceedings of the XLII Annual *Kharif* Oilseed Research Workers' Group Meeting, 20-23 Apr 1992, Gujarat Agricultural University, Junagadh. Rajendranagar, Hyderabad: DOR, Indian Council for Agricultural Research.



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### **Plant Material Descriptions**

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### **International Crops Research Institute for the Semi-Arid Tropics**

Brief descriptions of crop genotypes identified or developed by ICRISAT, including

- germplasm accessions with important agronomic or resistance attributes
- breeding materials, both segregating and stabilized, with unique character combinations
- cultivars that have been released for cultivation.

These descriptions announce the availability of plant material, primarily for the benefit of the Institute's cooperators. Their purpose is to facilitate the identification of cultivars and breeding lines and to promote their wide utilization. Requests for seed should be addressed to the Director General, ICRISAT, or to appropriate seed suppliers. Materials for research are sent by ICRISAT to cooperators and other users free of charge.