
Groundnut Variety ICGV 87187 (ICGS 37)



- A high-yielding Spanish variety
- Matures in 110-120 days during summer
- Tolerant of bud necrosis disease
- Tolerant of end-of-season drought
- Insensitive to photoperiod changes
- Shelling turnover 70%
- Oil content 48%
- Oil quality (Oleic/linoleic acid ratio) similar to JL 24, J 11, ICGS 11, and Kadiri 3
- Released for summer cultivation in Gujarat, Madhya Pradesh, and northern Maharashtra in India



ICRISAT

Plant Material Description no.27

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Purpose of Description

ICGV 87187 (ICGS 37), tested under the name of ICGS 37 in the All India Coordinated Research Project on Oilseeds (AICORPO) trials, was released in 1990 by the Central Sub-Committee on Crop Standards, Notification and Release of Varieties, Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India, for cultivation in the summer groundnut zone II consisting of Gujarat, Madhya Pradesh, and northern Maharashtra in India.

It is also registered with the National Seed Registration Department, National Agricultural Research Center, Islamabad, Pakistan. It forms a component line together with another ICRISAT groundnut selection, ICGV 87128 (ICGS 44), of a recently released groundnut variety BARD-699 in Pakistan.

Origin and Development

ICGV 87187 (ICGS 37) was bred and developed at ICRISAT Center. It derives its origin from a single-plant selection made in a natural hybrid population of an Indian cultivar Robut 33-1 (now known as Kadiri 3) in 1977/78. This plant was grown in progeny rows for two seasons following the pedigree method and later advanced to uniformity by the bulk pedigree method. Its pedigree is (Robut 33-1)-I-I-B₁-B₁-B₁-B₁-B₁. Kadiri 3 is an early-maturing virginia-type variety. The other parent of ICGV 87187 is unknown, but may have been a spanish-type variety since the natural hybrids were identified by the presence of flowers on the main axis, and the sequentially branched Spanish forms were subsequently observed in the segregating generations.

Performance

ICGV 87187 (ICGS 37) has shown, on an average, 41.5% pod yield advantage over the national control variety J 11 in 6 years (1980/81 to 1986/87) of testing in AICORPO trials in the summer groundnut zone II in India (Table 1). It has also outyielded another released variety ICGV 87128 (ICGS 44) by 27% in the National Elite Trial in Gujarat. In another experiment at Raipur in Madhya Pradesh, ICGV 87187 showed a consistent pod yield advantage over another popular variety JL 24 on different dates of sowing. The average pod yield advantage of ICGV 87187 in this experiment was 53% (Table 2). Limited on-farm adaptive trials data in Gujarat indicated that ICGV 87187 was superior by 62% over J 11 and by 17% over GG 2. It has a pod yield potential of 3-4 t ha⁻¹ under good management conditions.

Plant Characters

ICGV 87187 (ICGS 37) belongs to the Spanish botanical group and has decumbent 2 to decumbent 3 growth habit with sequential flowering, small-medium dark green elliptic leaves. It has four to five primary, and one to four secondary branches. The height of the main axis is 16.5 cm and the canopy breadth is 30.3 cm. It matures in 110-120 days and has a shelling turnover of 70%.

ICGV 87187 (ICGS 37) has shown tolerance to end-of-season drought and bud necrosis disease, and is photoperiod insensitive. It has shown a moderately resistant reaction to rust and late leaf spot. The percentage of pod yield loss due to peanut mottle virus in ICGV 87187 is less than that of TMV 2 and JL 24.

Pod/Seed Characters

ICGV 87187 has 2-1 seeded medium-sized attractive pods, slightly reticulated with slight-to-moderate constriction and none-to-slight beak. Its seeds are tan in color with a 100-seed mass of 53 g. It contains 48% oil and 23% protein. The oil quality (oleic/linoleic acid ratio of 1.04) is similar to that of J 11, JL 24, ICGS 11, and Kadiri 3.

Table 1. Performance of ICGV 87187 (ICGS 37) in AICORPO trials in the summer groundnut zone II (Gujarat, Madhya Pradesh, and northern Maharashtra), postrainy season/summer, 1980/81 to 1986/87.

Trial	Year	Mean pod yield (t ha ⁻¹)	Increase over control variety (%)				
			J 11	JL 24	ICGS 44	SB XI	GG 2
AICORPO-ICRISAT Cooperative Trial	1980/81	2.85	1.96	- ¹	-	-	-
AICORPO-ICRISAT Cooperative Trial	1981/82	4.34	46.8	-	-	-	-
AICORPO-ICRISAT Cooperative Trial	1982/83	2.74	18.8	-	-	-	-
National Elite Trial	1983/84	2.19	149.4	69.8	-	123.0	-
National Elite Trial	1985/86	2.14	63.8	-	-	69.8	-
National Elite Trial	1986/87	2.63	54.8	-	27.1	35.6	48.6
Average increase in pod yield (%)			41.5	69.8	27.1	76.1	48.6

1. - Not tested.

Source:

Annual Progress Reports, Groundnut, 1980/81, 1981/82, 1982/83, 1983/84, 1985/86, and 1986/87. Annual Rabi/Summer Groundnut Research Workers Group Meetings. AICORPO. Directorate of Oilseeds Research, Rajendranagar, Hyderabad 500 030, Andhra Pradesh, India.

Table 2. Performance of ICGV 87187 (ICGS 37) and control variety JL 24 on different dates of sowing, Raipur, Madhya Pradesh, postrainy season/summer, 1987/88.

Variety	Pod yield (t ha ⁻¹) on different dates of sowing					Mean pod yield	Increase over JL 24 (%)
	24 Dec 87	2 Jan 88	18 Jan 88	26 Jan 88	4 Feb 88		
ICGV 87187	2.96	3.22	3.64	2.86	1.83	2.90	53.44
JL 24	2.25	2.13	2.03	1.67	1.39	1.89	

Source:

1. Annual Progress Report, Groundnut, 1987/88, IX Annual Rabi/Summer Groundnut Workshop, 1988, AICORPO, Directorate of Oilseeds Research, Rajendranagar, Hyderabad 500 030, Andhra Pradesh, India. pp. 127-130.



Plant Material Descriptions from ICRISAT

Leaflets in this series provide 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; and
- 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 lines and promote their wide utilization. Requests should be addressed to the Director General, ICRISAT, or to appropriate seed suppliers. Stocks for research use issued by ICRISAT are sent to cooperators and other users free of charge.

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