
Groundnut Variety ICGV 87121 (ICGS 5)



- A high-yielding Virginia bunch variety released for rainy-season cultivation in Uttar Pradesh (U.P.), India
- Also performs well in the summer season in U.P.
- Matures in about 120 days in the rainy season
- Tolerant of mid-season drought
- Average shelling turnover of 68%
- Average oil content of 50%
- Oil quality similar to that of Kadiri 3



ICRISAT

Plant Material Description no. 28

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

Purpose of Description

ICGV 87121, also known as ICGS 5, was released in 1989 by the Uttar Pradesh (U.P.) State Varietal Release Committee for rainy-season cultivation in U.P., India. It also performs well in the summer season.

Origin and Development

ICGV 87121 was bred at ICRISAT Center, India. It was selected from a cross between an adapted variety, Kadiri 3, and an introduced germplasm line, NC Ac 316, following the bulk pedigree method. Its pedigree is (Robut 33-1 x NC Ac 316) F₂B₂-B₁-B₁-NIB₁-B₁-B₁-B₁-B₁-B₁-B₁.

Performance

ICGV 87121 has shown on an average 56% and 12% pod yield superiority over national control varieties, TMV 10 and Kadiri 3, respectively, in AICORPO trials during 1981-84 in Zone I in India (Table 1). Subsequently, it continued to maintain its superior performance in AICORPO trials in Zone I, where it was included as a minikit control during 1985-88. In these trials it had on average 5% higher seed yield than the highest yielding test entries and 6% higher seed yield than the highest yielding control varieties. When this variety was tested in the summer (*zaid*) season in U.P., it produced 109-141% higher pod yield than the recommended varieties (Table 2).

Plant Characters

ICGV 87121, which belongs to the Virginia botanical group, has decumbent 2 growth habit with alternate flowering, small- to medium-sized elliptic dark green leaves, and five to seven primary and two to four secondary branches. The main axis is 16 cm high with a 37 cm broad canopy. It matures in about 120 days in the rainy season, and has an average shelling turnover of 68%.

ICGV 87121 shows good recovery for pod yield from mid-season drought.

Pod/Seed Characters

ICGV 87121 has 2-1 seeded medium-sized pods with none to slight beak and reticulation, and slight to moderate constriction. It's seeds are tan-colored and have a 100-seed mass of 38 g. They contain on average 50% oil and 22.0% protein. The oil quality of ICGV 87121 (oleic/linoleic acid ratio of 1.54) is similar to that of Kadiri 3.

Table 1. Performance of ICGV 87121 (ICGS 5) and control varieties in AICORPO trials, Zone I (Uttar Pradesh, Bihar, Rajasthan, Punjab, and Haryana), rainy seasons 1981-84.

Trials ¹	Year	Mean pod yield of ICGV 87121 (t ha ⁻¹)	Increase over control varieties (%)		
			TMV 10	RSB 87	Kadiri 3
IET(VB)	1981	2.38	38.1	-24.0	- ²
CVT(VB)	1982	2.28	73.8	—	—
NET(VB)	1983	2.07	- ²	40.0	6.9
NET(VB)	1984	2.67	—	32.0	17.1
Average % increase in pod yield			55.9	24.0	12.0

1. IET = Initial Evaluation Trial; CVT = Coordinated Varietal Trial; NET = National Elite Trial; VB = Virginia bunch.

2. - = Not tested.

Sources:

Annual Progress Report, Groundnut, 1981-82, Annual Kharif Oilseeds Workshop, 1982, AICORPO, DOR, Rajendranagar, Hyderabad. pp. 100-106.

Annual Progress Report, Groundnut, 1982-83, Annual Kharif Oilseeds Workshop, 1983, AICORPO, DOR, Rajendranagar, Hyderabad. pp. 121-122.

Annual Progress Report, Groundnut, 1983-84, Annual Kharif Oilseeds Workshop, 1984, AICORPO, DOR, Rajendranagar, Hyderabad. p. 199.

Annual Progress Report, Groundnut, 1984. XXVI Annual Kharif Oilseeds Workshop, 1983, AICORPO, DOR, Rajendranagar, Hyderabad. p. 86.

Table 2. Performance of ICGV 87121 (ICGS 5) and recommended varieties in Uttar Pradesh, summer (*zaid*) seasons, 1985-87.

Variety	Pod yield (t ha ⁻¹)				% yield advantage	
	1985	1986	1987	Mean	Kaushal	T64
ICGV 87121	1.94	2.07	2.43	2.15	109	141
Kaushal	0.86	1.07	1.17	1.03		
T 64	0.66		1.13	0.89		

Lal, B. 1988. Zaid groundnut in Uttar Pradesh: a national achievement. Uttar Pradesh: Department of Agriculture, Lucknow. (Limited distribution.)

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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