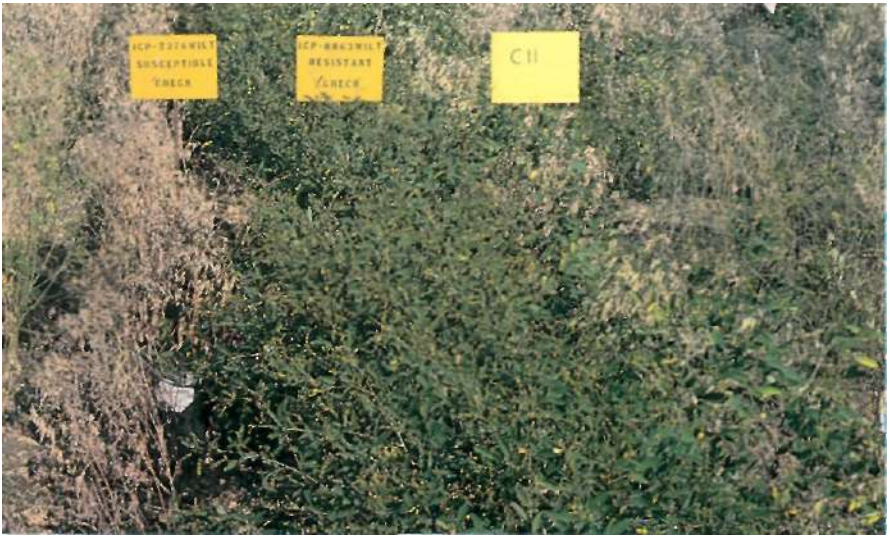
Pigeonpea Variety ICP 8863

- **Fusarium wilt resistant**
- **High yielding**
- **Medium duration (150-160 days)**
- **Semi-spreading and indeterminate**
- **Suitable for peninsular India**
- **Suitable for sole cropping and intercropping**
- **Medium-sized brown seeds**



ICRISAT
Plant Material Description no. 44

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

1993

ICP 8863 is a medium-duration, high-yielding pigeonpea variety resistant to fusarium wilt. The variety is suitable for both sole cropping and intercropping in peninsular India. It was released in 1986 as Maruti for cultivation in Karnataka state, India.

Origin and Development

ICP 8863 was developed by selection from ICP 7626 (P-15-3-3), a landrace from Uttar Pradesh state, India. The original collection was sown in a wilt-sick plot at ICRISAT Center, Patancheru, during the 1977/78 cropping season. The resistant plants were selfed using muslin cloth bags. Seeds collected from the resistant plants were resown in the wilt-sick plot for further purification. The variety was tested in wilt-sick plots at 13 locations in India between the 1978/79 and 1989/90 cropping seasons (Table 1).

Synonyms

Maruti, ICP 7626, P-15-3-3, and ICPV 1

Plant Characters

The plants of ICP 8863 are semi-spreading, indeterminate, and medium statured (150-180 cm). The plant's stem is green and its leaves are lanceolate and light green. It has yellow flowers with a few red streaks. The pods are green with purple streaks. The pods are borne singly or in clusters of two or three along the fruiting branch. Each pod has four seeds. At Patancheru (18°N, 78°E), ICP 8863 takes 111-120 days to achieve 50% flowering and 150-180 days to mature.

Seed Characters

The seeds are oval and their color ranges from orange to dark brown. They have a 100-seed mass of 9.5 g.

Performance

Over 10 years ICP 8863 showed a very high level of resistance to fusarium wilt in wilt-sick plots at ICRISAT Center, Patancheru, and at several other wilt-endemic locations in India. It is the only available pigeonpea variety that combines a high level of resistance to wilt with broad-based resistance. Its yield advantage in wilt-sick plots in multilocational trials was so apparent that it was selected for release without usual yield tests. Two other special features of ICP 8863 are that it maintains a high degree of genetic purity, and it is marginally earlier maturing than the popular medium-duration cultivars such as BDN 1 and C 11, which are currently grown in peninsular India. Thus ICP 8863 yields well both in dry and wet seasons. The variety is popular with farmers in the Indian states of Andhra Pradesh, Karnataka, and Maharashtra.

Cover: *A row of ICP 8863 plants is not affected by fusarium wilt while rows of genotypes ICP 2376 and C 11 growing alongside succumb to the disease at ICRISAT Center, India.*

Table 1. Fusarium wilt incidence (%) in wilt-resistant pigeonpea cultivar ICP 8863 and the susceptible control ICP 2376 at 13 Indian locations, 1978/79 to 1989/90 cropping seasons.

Location	State	No. of seasons tested	Mean wilt incidence (%)	
			ICP 8863	ICP 2376
Annigeri	Karnataka	5	0	86
Badnapur	Maharashtra	10	5	94
Gulbarga	Karnataka	6	6	80
Baroda	Gujarat	6	24	85
Berhampore	West Bengal	4	16	79
New Delhi	-	8	9	53
Dholi	Bihar	10	9	59
Ranchi	Bihar	9	0	78
Jabalpur	Madhya Pradesh	4	0	86
Sehore	Madhya Pradesh	5	14	53
Kanpur	Uttar Pradesh	10	11	79
Patancheru	Andhra Pradesh	10	6	100
Vamban	Tamil Nadu	4	26	45

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 to 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.

ICRISAT is a nonprofit, scientific, research and training institute receiving support from donors through the Consultative Group on International Agricultural Research. It serves as a world center for the improvement of grain yield and quality of sorghum, pearl millet, finger millet, chickpea, pigeonpea, and groundnut, and acts as a world repository for the genetic resources of these crops. The plant materials announced in these leaflets are end-products of this work, which is aimed at enhancing the agricultural productivity of resource-poor farmers throughout the semi-arid tropics.

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