

'Gujarat Vari-1' A New Variety for South Gujarat

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Little millet (*Panicum miliare* Lamk.) is grown as *kharif* rainfed crop in the hilly tract of Dangs district and adjoining areas in South Gujarat. The local cultivars possess wide variation in respect of pigmentation, height, grain colour, panicle shape and duration. This minor millet is used as staple food by the tribal inhabitants of hilly tract of Dangs district in place of rice. In Gujarat little millet is known as 'Vari' or 'Morio' and occupies 8000 hectare of land with an estimated grain production of about 7000 ton. This millet though represents a very important group of cereals have been neglected by the plant breeders and little attention has been paid towards its

genetic improvement with particular reference to yield.

The systematic work on these lines was started at the Hill Millet Research Station, Waghai and a large collection of germplasm of Vari was made from Dangs district and the adjoining areas. This material was highly heterogeneous in respect of different plant characters. A number of pure lines were developed from the germplasm collection and tested in yield trials. Intensive yield trials were conducted from 1973-74 onwards with thirteen promising pure lines of Vari alongwith Vari 10 as local check. After three years of experimentation, three pure lines viz. Vari-66-2, Vari 3-4 and Vari 8-3 were tested in large scale yield trial in the year 1976-77.

Based on the average performance of 4 years Vari-8-3 ranked first, yielding 1844 kg/ha. grain which was 16.5% higher than Vari 10 (Table 1). In

TABLE 1

Comparative performance of Vari varieties from 1973-74 to 1976-77.

Name of variety	Yield/ha. kg.				Average
	1973-74	1974-75	1975-76	1976-77	
Vari 60-1	1426	641	698	—	922
Vari 15-5	1270	559	751	—	860
Vari 66-2	1377	501	852	1527	1064
Vari 3-4	1340	574	881	1536	1083
Vari 2-2	1289	699	797	—	928
Vari 57-1	1239	635	820	—	898

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1	2	3	4	5	6
Vari 20-5	1289	423	818	—	843
Vari 8-3	1252	731	960	1794	1184
Vari 1-4	1302	759	817	—	959
Vari 47-5	1239	390	637	—	755
Vari 13-4	1289	624	849	—	921
Vari 62	1315	532	894	—	914
Vari 5-5	1315	577	674	—	855
Vari 10 (Control)	1264	434	842	1523	1016
S Em	211.61	64.65	68.68	56.93	
C.D.	615.85	188.79	191.41	173.42	
C.V. %	10.16	22.4	16.9	7.38	

addition to its high yielding potentiality, variety Vari 8-3 possesses bold grains alongwith long panicle and early maturity. The plants of Vari 8-3 are very attractive pinked coloured panicles and profuse tillering. It is also tolerant to drought as well as frost injury. This variety is free from the attack of insect pests as well as diseases. The panicles are non-shattering type which gives an added advantage of minimum losses of grain at the time of harvesting (Fig. 1).



The salient feature of Vari 8-3 in comparison with Vari 10 are given in Table 2. Vari 8-3 has been released as Gujarat Vari 1 for general cultivation in hilly areas of South Gujarat and for other similar agroclimatic zones of

the State. The "Bhaggar" prepared from this variety is of better taste in comparison to Vari 10.

TABLE 2

Comparison of important characters of Vari 8-3 and Vari 10.

Informations	Vari 8-3	Vari 10
Germination	Good	Good
50% flowering	102	106
100% flowering	105	108
Average tillers/plant	5.0	4.4
Average length of main ear in cm.	37.19	39.0
Shape of Earhead	Feathery	Feathery
Compactness of spikes	More compact	Less compact
Average weight of main ear in gm.	14.5	6.2
Average weight of grain of main ear in gm.	12.0	5.4
Average plant height in cm.	172	169
Days to maturity	123	132
Disease	Nil	Nil
Pests	Nil	Nil
Average grain yield/ha in kg	1184	1016
Colour of grain	Yellowish	Yellowish