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Screening of Okra Varieties Against Okra Yellow Vein Mosaic Virus

Okra (*Abelmoschus esculentus* (L.) Moench) is one of the most popular vegetable crops cultivated throughout India for its characteristic tender fleshy fruits. Among many diseases affecting the crop the most important and destructive disease is okra yellow vein mosaic. This viral disease causes colossal losses in the crop by affecting the quality and yield of the fruits. The disease occures throughout the country wherever okra is grown. Therefore, attempts have been made through the use of resistant genotypes which is an effective and cheapest method to combat the disease, similar work has been reported by several workers (Anju Handa and Gupta., 1993, Sharma *et al*, 1993).

A field experiment was conducted at Main Research Station, UAS, Dharwad during summer-2001 under irrigated conditions. A total of 19 genotypes were planted in five rows of 10 m length each. Susceptible bhendi cultivar, Pusa Sawani was planted at an interval of five rows of every test lines as check. Percent disease incidence was calculated by counting number of plants in each entry. The genotypes were later grouped into different categories based on 0 to 9 scale (Mayee and Datar, 1980).

Ninteen varieties were screened at pre and post flowering stages of the crop against BYVMV to identify the source of resistance. Results indicated that the disease incidence varied from 0.80 to 74.99 per cent.

Among the 19 lines tested least disease incidence and highest yield was observed in Arka Anamika (0.80% and 23.00t/ha) as compared to the highest yellow vein mosaic incidence and the lowest yield recorded in Pusa sawani (74.99% & 7.90 t/ha) (Table 1). Further, these genotypes were grouped into different categories based on 0-9 scale. None of the genotypes tested were immune, Arka Anamika, Hybrids 8 & 10 genotypes showed resistant reaction and Soumya F_1 (OH4002) and Reshma were moderately resistant, and 13 genotypes exhibited susceptible whereas Pusa sawani showed highly susceptible reaction to BYVMV. Similar work was carried out by several workers. (Suresh Kumar, 2000; Anju Handa and Gupta, 1993; Sharma *et al*., 1993).

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Table 1. Screening of bhendi genotypes against BYVMV during 2001

Sl. No	Genotype	Pre-flowering Incidence (%)	Post Flowering Incidence (%)	Mean Incidence (%)	Yield (t/ha)	Disease reaction
1	Pusa Sawani	55.55	94.44	74.99	7.90	HS
2	490327	30.52	73.15	46.83	12.57	S
3	27930	22.64	72.94	47.73	15.58	S
4	495458	21.66	71.11	46.88	16.20	S
5	357995	20.11	76.66	43.88	16.60	S
6	357996	20.52	72.63	46.57	17.50	S
7	217922	23.50	73.15	48.32	12.89	S
8	481999	21.50	70.14	45.82	14.58	S
9	Harbhajan	20.78	77.89	49.33	12.01	S
10	496753	21.76	72.58	47.17	14.56	S
11	496750	23.66	74.29	48.97	14.01	S
12	40 days bhendi	22.28	77.80	50.00	13.58	S
13	496667	21.11	76.77	48.94	13.90	S
14	Arka Abhaya	16.52	56.58	36.55	18.50	S
15	Arka Anamika	0.10	1.50	0.80	23.00	R
16	Reshma	0.40	5.55	2.97	21.58	MR
17	Hybrid No.8	0.20	1.76	0.93	22.09	R
18	Soumya F1	0.50	6.00	3.25	20.55	MR
19	(OH4002) Hybrid No.10	0.20	1.72	0.96	22.52	R

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