

Experiment No. :4						
1.	Title of experiment	:	OKRA (YVMV) VARIETAL RESISTANT AVT-I			
2.	Location	:	Regional Horticultural Research Station, A.C.H., N.A.U., Navsari			
3.	Agro-ecological situation	:	South Gujarat Heavy Rainfall Zone, AES-III			
4.	Name of Investigator	:	PI: Dr. J.M. Vashi Co-PI: Dr. A.I .Patel & Dr.C.G.Intwala Asso. PI: Dr.H.R.Rathod			
5.	Year and Season	:	<i>Kharif-2024</i>			
6.	Experimental detail	:				
	(a) Design	:	RBD			
	(b) No. of Entries	:	11			
			1.	2023/ OKYVVARRES-1	7.	2023/ OKYVVARRES-7
			2.	2023/ OKYVVARRES-2	8.	2023/ OKYVVARRES-8
			3.	2023/ OKYVVARRES-3	9.	2023/ OKYVVARRES-9
			4.	2023/ OKYVVARRES-4	10.	2023/ OKYVVARRES-10
			5.	2023/ OKYVVARRES-5	11.	2023/ OKYVVARRES-11
			6.	2023/ OKYVVARRES-6		
	(c) Replication	:	3			
	(d) Plot Size	:	3.0 m X 2.7 m			
	(e) Spacing	:	60 cm X 30 cm			
	(f) Fertilizer NPK kg/ha	:	150-100-100			
	(g) Date of sowing	:	28/07/2024			
	(h) Date of first picking	:	10/09/2024			
	(i) Date of last picking	:	25/10/2024			
7.	Methodology	:	Observations were recorded as per the guideline provided by PC cell, IIVR, Varanasi.			
8.	Research results	:	Table -1 to Table – 16			

Table 7.YVMV Count at end of trial at Navsari centre ((Okra YVMV Varietal Resistant AVT-I)

YVMV Count at end of trial										
Sr. No.	Entries/Genotype	Number				PDI Range				Reaction
		RI	RII	RIII	Mean	RI	RII	RII I	Mean	
1	2023/OKYVVARRES-1	0	0	0	0	0	0	0	0	Imuune
2	2023/OKYVVARRES-2	0	0	0	0	0	0	0	0	Imuune
3	2023/OKYVVARRES-3	0	0	0	0	0	0	0	0	Imuune
4	2023/OKYVVARRES-4	0	0	0	0	0	0	0	0	Imuune
5	2023/OKYVVARRES-5	0	0	0	0	0	0	0	0	Imuune
6	2023/OKYVVARRES-6	0	0	0	0	0	0	0	0	Imuune
7	2023/OKYVVARRES-7	0	0	0	0	0	0	0	0	Imuune
8	2023/OKYVVARRES-8	2	3	2	2.3	0.8	1.3	0.8	1.03	Resistance
9	2023/OKYVVARRES-9	0	0	0	0	0	0	0	0	Imuune
10	2023/OKYVVARRES-10	3	2	1	2.0	1.3	0.8	0.4	0.88	Resistance
11	2023/OKYVVARRES-11	0	0	0	0	0	0	0	0	Imuune

Table 8. ELCV Infection (%) at Navsari centre (Okra YVMV Varietal Resistant AVT-I)

Sr. No.	Entries/Genotype	ELCV Infection (%)
1	2023/OKYVVARRES-1	0.00
2	2023/OKYVVARRES-2	0.00
3	2023/OKYVVARRES-3	1.33
4	2023/OKYVVARRES-4	0.00
5	2023/OKYVVARRES-5	0.00
6	2023/OKYVVARRES-6	0.00
7	2023/OKYVVARRES-7	0.66
8	2023/OKYVVARRES-8	0.00
9	2023/OKYVVARRES-9	0.00
10	2023/OKYVVARRES-10	0.00
11	2023/OKYVVARRES-11	0.00

Table 9. Marketable fruit yield (kg/plot) at Navsari centre (Okra YVMV Varietal Resistant AVT-I)

Fruit yield (kg/plot)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/OKYVVARRES-1	9.66	8.96	9.75	9.46
2	2023/OKYVVARRES-2	7.20	9.20	9.42	8.61
3	2023/OKYVVARRES-3	6.78	7.21	8.14	7.38
4	2023/OKYVVARRES-4	7.45	6.31	7.99	7.25
5	2023/OKYVVARRES-5	5.96	8.59	6.31	6.95
6	2023/OKYVVARRES-6	6.95	8.05	6.64	7.21
7	2023/OKYVVARRES-7	7.88	7.04	7.51	7.48
8	2023/OKYVVARRES-8	6.30	6.80	7.06	6.72
9	2023/OKYVVARRES-9	6.80	7.18	8.05	7.34
10	2023/OKYVVARRES-10	7.72	8.26	7.92	7.97
11	2023/OKYVVARRES-11	7.72	7.04	8.21	7.66
S. Em ±		0.43			
CD at 5%		1.28			
CV%		9.83			

Table 10. Marketable fruit yield (q/ha) at Navsari centre (Okra YVMV Varietal Resistant AVT-I)

Fruit yield (q/ha)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/OKYVVARRES-1	119.26	110.62	120.37	116.75
2	2023/OKYVVARRES-2	88.89	113.58	116.27	106.25
3	2023/OKYVVARRES-3	83.73	89.00	100.47	91.07
4	2023/OKYVVARRES-4	92.00	77.87	98.67	89.51
5	2023/OKYVVARRES-5	73.60	106.00	77.87	85.82
6	2023/OKYVVARRES-6	85.80	99.33	82.00	89.04
7	2023/OKYVVARRES-7	97.33	86.87	92.67	92.29
8	2023/OKYVVARRES-8	77.73	84.00	87.13	82.96
9	2023/OKYVVARRES-9	84.00	88.67	99.33	90.67
10	2023/OKYVVARRES-10	95.33	102.00	97.73	98.36
11	2023/OKYVVARRES-11	95.33	86.93	101.33	94.53
.S. Em ±		5.35			
CD at 5%		15.78			
CV%		9.83			

Table 11. Average weight of single fruit (g) at Navsari centre (Okra YVMV Varietal Resistant AVT-I)

Average Single fruit weight (g)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/OKYVVARRES-1	11.70	12.66	12.99	12.45
2	2023/OKYVVARRES-2	10.60	11.34	11.88	11.27
3	2023/OKYVVARRES-3	10.45	9.87	10.51	10.28
4	2023/OKYVVARRES-4	6.97	10.47	9.67	9.04
5	2023/OKYVVARRES-5	9.70	10.42	9.65	9.92
6	2023/OKYVVARRES-6	9.75	9.45	9.90	9.70
7	2023/OKYVVARRES-7	9.66	9.88	9.50	9.68
8	2023/OKYVVARRES-8	9.70	9.92	10.14	9.92
9	2023/OKYVVARRES-9	9.83	10.02	10.76	10.20
10	2023/OKYVVARRES-10	9.77	10.90	9.95	10.21
11	2023/OKYVVARRES-11	9.85	9.15	10.10	9.70
S. Em ±		0.37			
CD at 5%		1.10			
CV%		6.34			

Table 12. Fruit Length (cm) at Navsari centre (Okra YVMV Varietal Resistant AVT-I)

Fruit Length (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/OKYVVARRES-1	11.66	11.20	12.77	11.88
2	2023/OKYVVARRES-2	10.88	11.55	10.32	10.92
3	2023/OKYVVARRES-3	9.08	10.14	10.24	9.82
4	2023/OKYVVARRES-4	10.09	10.41	9.84	10.11
5	2023/OKYVVARRES-5	9.44	9.99	10.49	9.97
6	2023/OKYVVARRES-6	10.40	10.14	10.04	10.19
7	2023/OKYVVARRES-7	10.49	10.12	10.31	10.31
8	2023/OKYVVARRES-8	10.55	10.07	9.59	10.07
9	2023/OKYVVARRES-9	10.61	11.06	9.55	10.41
10	2023/OKYVVARRES-10	10.51	10.24	10.64	10.46
11	2023/OKYVVARRES-11	9.88	10.04	10.83	10.25
S. Em ±		0.31			
CD at 5%		0.93			
CV%		5.23			

Table 13. Fruit Girth (cm) at Navsari centre (Okra YVMV Varietal Resistant AVT-I)

Fruit Girth (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/OKYVVARRES-1	5.66	5.44	5.50	5.53
2	2023/OKYVVARRES-2	5.22	5.41	5.25	5.29
3	2023/OKYVVARRES-3	4.92	4.58	5.13	4.88
4	2023/OKYVVARRES-4	4.66	4.94	4.88	4.83
5	2023/OKYVVARRES-5	4.89	5.14	4.93	4.99
6	2023/OKYVVARRES-6	4.88	5.18	4.85	4.97
7	2023/OKYVVARRES-7	4.77	5.11	4.66	4.85
8	2023/OKYVVARRES-8	5.33	4.77	4.55	4.88
9	2023/OKYVVARRES-9	5.12	4.90	4.55	4.86
10	2023/OKYVVARRES-10	4.95	5.33	4.67	4.98
11	2023/OKYVVARRES-11	4.99	5.22	4.53	4.91
S. Em ±		0.14			
CD at 5%		0.40			
CV%		4.69			

Table 14. Plant height at harvest (cm) at Navsari centre (Okra YVMV Varietal Resistant AVT-I)

Plant height at harvest (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/OKYVVARRES-1	152.50	158.40	142.80	151.23
2	2023/OKYVVARRES-2	133.20	143.00	128.50	134.90
3	2023/OKYVVARRES-3	122.50	128.40	111.30	120.73
4	2023/OKYVVARRES-4	114.60	132.20	116.50	121.10
5	2023/OKYVVARRES-5	128.00	120.20	114.40	120.87
6	2023/OKYVVARRES-6	118.40	132.40	130.00	126.93
7	2023/OKYVVARRES-7	124.00	114.30	134.20	124.17
8	2023/OKYVVARRES-8	123.20	122.60	128.60	124.80
9	2023/OKYVVARRES-9	121.50	126.30	118.20	122.00
10	2023/OKYVVARRES-10	116.20	124.20	132.20	124.20
11	2023/OKYVVARRES-11	138.30	116.90	134.20	129.80
S. Em ±		4.78			
CD at 5%		14.10			
CV%		6.50			

Table 15. Number of fruits per plant at Navsari centre (Okra YVMV Varietal Resistant AVT-I)

Number of fruits per plant					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/OKYVVARRES-1	12.60	13.60	14.20	13.47
2	2023/OKYVVARRES-2	11.20	12.60	12.20	12.00
3	2023/OKYVVARRES-3	12.00	11.40	11.40	11.60
4	2023/OKYVVARRES-4	11.80	12.40	10.20	11.47
5	2023/OKYVVARRES-5	12.20	11.80	10.80	11.60
6	2023/OKYVVARRES-6	10.40	10.60	11.80	10.93
7	2023/OKYVVARRES-7	10.60	12.60	10.00	11.07
8	2023/OKYVVARRES-8	11.00	11.80	11.20	11.33
9	2023/OKYVVARRES-9	11.20	11.60	11.00	11.27
10	2023/OKYVVARRES-10	11.00	10.60	11.00	10.87
11	2023/OKYVVARRES-11	10.40	11.00	10.60	10.67
S. Em ±		0.41			
CD at 5%		1.20			
CV%		6.16			

Table 16. Ancillary Observations at Navsari centre (Okra YVMV Varietal Resistant AVT-I)

Sr. No.	Entries/Genotype	Number of ridges/fruit	Fruit colour	Fruit texture
1	2023/OKYVVARRES-1	5.00	Green	Smooth
2	2023/OKYVVARRES-2	5.00	Green	Smooth
3	2023/OKYVVARRES-3	5.00	Green	Smooth
4	2023/OKYVVARRES-4	5.00	Green	Smooth
5	2023/OKYVVARRES-5	5.00	Green	Smooth
6	2023/OKYVVARRES-6	5.00	Green	Smooth
7	2023/OKYVVARRES-7	5.00	Green	Smooth
8	2023/OKYVVARRES-8	5.00	Green	Smooth
9	2023/OKYVVARRES-9	5.00	Green	Smooth
10	2023/OKYVVARRES-10	5.00	Green	Smooth
11	2023/OKYVVARRES-11	5.00	Green	Smooth

Conclusion:

In this trail total eleven genotypes were tested. 2023/OKYVVARRES-1 was found significant with 116.75 q/ha fruit yield which was at par with 2023/OKYVVARRES-2 genotype.

