

Experiment No. :3						
1.	Title of experiment	:	OKRA (YVMV) HYBRID RESISTANT AVT-II			
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.D.R.Bhanderi Asso. PI: Dr.H.R.Rathod			
5.	Year and Season	:	<i>Kharif-2024</i>			
6.	Experimental detail	:				
	(a) Design	:	RBD			
	(b) No. of Entries	:	8			
			1.	2022/ OKYVHYBRES-1	6.	2022/ OKYVHYBRES-6
			2.	2022/ OKYVHYBRES-2	7.	2022/ OKYVHYBRES-7
			3.	2022/ OKYVHYBRES-3	8.	2022/ OKYVHYBRES-8
			4.	2022/ OKYVHYBRES-4		
			5.	2022/ OKYVHYBRES-5		
	(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	:	26/07/2024			
	(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 Hybrid Resistant AVT-II)

YVMV Count at end of trial										
Sr. No.	Entries/Genotype	Number				PDI Range				Reaction
		RI	RII	RIII	Mean	RI	RII	RII	Mean	
1	2022/OKYVHYBRES-1	0	0	0	0	0	0	0	0	Imuune
2	2022/OKYVHYBRES-2	0	0	0	0	0	0	0	0	Imuune
3	2022/OKYVHYBRES-3	0	0	0	0	0	0	0	0	Imuune
4	2022/OKYVHYBRES-4	0	0	0	0	0	0	0	0	Imuune
5	2022/OKYVHYBRES-5	0	0	0	0	0	0	0	0	Imuune
6	2022/OKYVHYBRES-6	4	3	4	3.66	1.77	1.33	1.77	1.62	Resistanc e
7	2022/OKYVHYBRES-7	0	0	0	0	0	0	0	0	Imuune
8	2022/OKYVHYBRES-8	0	0	0	0	0	0	0	0	Imuune

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

Sr. No.	Entries/Genotype	ELCV Infection (%)
1	2022/OKYVHYBRES-1	0.00
2	2022/OKYVHYBRES-2	0.00
3	2022/OKYVHYBRES-3	0.00
4	2022/OKYVHYBRES-4	0.00
5	2022/OKYVHYBRES-5	0.00
6	2022/OKYVHYBRES-6	0.00
7	2022/OKYVHYBRES-7	0.00
8	2022/OKYVHYBRES-8	4.44

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

Fruit yield (kg/plot)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/OKYVHYBRES-1	7.77	7.92	6.30	7.33
2	2022/OKYVHYBRES-2	8.69	6.60	7.19	7.49
3	2022/OKYVHYBRES-3	10.25	6.30	8.62	8.39
4	2022/OKYVHYBRES-4	10.90	10.69	10.78	10.79
5	2022/OKYVHYBRES-5	7.90	11.60	10.30	9.93
6	2022/OKYVHYBRES-6	10.69	9.88	11.48	10.68
7	2022/OKYVHYBRES-7	7.62	8.33	7.29	7.75
8	2022/OKYVHYBRES-8	8.60	7.95	7.33	7.96
S. Em ±		0.70			
CD at 5%		2.13			
CV%		13.83			

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

Fruit yield (q/ha)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/OKYVHYBRES-1	95.93	97.78	77.78	90.49
2	2022/OKYVHYBRES-2	107.28	81.48	88.77	92.51
3	2022/OKYVHYBRES-3	126.54	77.78	106.42	103.58
4	2022/OKYVHYBRES-4	134.57	131.98	133.09	133.21
5	2022/OKYVHYBRES-5	97.53	143.21	127.16	122.63
6	2022/OKYVHYBRES-6	131.98	121.98	141.73	131.89
7	2022/OKYVHYBRES-7	94.07	102.84	90.00	95.64
8	2022/OKYVHYBRES-8	106.17	98.15	90.49	98.27
S. Em ±		8.67			

CD at 5%	26.29
CV%	13.83

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

Average Single fruit weight (g)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/OKYVHYBRES-1	10.70	9.60	9.44	9.91
2	2022/OKYVHYBRES-2	10.29	10.66	9.60	10.18
3	2022/OKYVHYBRES-3	10.78	9.30	11.45	10.51
4	2022/OKYVHYBRES-4	12.58	12.90	12.44	12.64
5	2022/OKYVHYBRES-5	11.45	10.44	10.99	10.96
6	2022/OKYVHYBRES-6	12.65	11.72	11.90	12.09
7	2022/OKYVHYBRES-7	10.02	10.33	10.25	10.20
8	2022/OKYVHYBRES-8	10.39	9.70	10.20	10.10
S. Em ±		0.32			
CD at 5%		0.96			
CV%		5.08			

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

Fruit Length (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/OKYVHYBRES-1	9.36	10.02	8.90	9.43
2	2022/OKYVHYBRES-2	9.20	10.39	7.66	9.08
3	2022/OKYVHYBRES-3	9.14	8.78	8.60	8.84
4	2022/OKYVHYBRES-4	10.78	10.88	12.45	11.37
5	2022/OKYVHYBRES-5	11.22	10.95	10.55	10.91
6	2022/OKYVHYBRES-6	10.78	12.25	10.12	11.05
7	2022/OKYVHYBRES-7	9.66	9.27	8.25	9.06
8	2022/OKYVHYBRES-8	10.72	9.57	9.02	9.77
S. Em ±		0.45			

CD at 5%	1.36
CV%	7.80

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

Fruit Girth (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/OKYVHYBRES-1	5.26	4.66	5.50	5.14
2	2022/OKYVHYBRES-2	5.22	5.41	5.25	5.29
3	2022/OKYVHYBRES-3	5.24	4.58	5.13	4.98
4	2022/OKYVHYBRES-4	5.66	5.94	5.69	5.76
5	2022/OKYVHYBRES-5	5.22	5.14	5.09	5.15
6	2022/OKYVHYBRES-6	5.49	5.18	5.10	5.26
7	2022/OKYVHYBRES-7	5.24	5.11	5.20	5.18
8	2022/OKYVHYBRES-8	5.21	5.07	5.14	5.14
S. Em ±		0.13			
CD at 5%		0.38			
CV%		4.18			

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

Plant height at harvest (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/OKYVHYBRES-1	130.60	123.80	128.60	127.67
2	2022/OKYVHYBRES-2	129.40	127.40	135.40	130.73
3	2022/OKYVHYBRES-3	128.40	130.00	132.80	130.40
4	2022/OKYVHYBRES-4	139.20	144.20	155.20	146.20
5	2022/OKYVHYBRES-5	129.80	127.00	128.40	128.40
6	2022/OKYVHYBRES-6	138.00	146.00	126.80	136.93
7	2022/OKYVHYBRES-7	120.80	125.80	134.00	126.87
8	2022/OKYVHYBRES-8	126.60	113.80	131.20	123.87
S. Em ±		3.64			

CD at 5%	11.05
CV%	4.80

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

Number of fruits per plant					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/OKYVHYBRES-1	10.60	10.40	11.20	10.73
2	2022/OKYVHYBRES-2	12.80	11.60	11.40	11.93
3	2022/OKYVHYBRES-3	12.00	11.40	11.40	11.60
4	2022/OKYVHYBRES-4	14.80	15.40	14.20	14.80
5	2022/OKYVHYBRES-5	13.20	14.80	10.80	12.93
6	2022/OKYVHYBRES-6	13.40	15.60	11.80	13.60
7	2022/OKYVHYBRES-7	11.60	11.60	12.00	11.73
8	2022/OKYVHYBRES-8	12.00	11.80	11.20	11.67
S. Em ±		0.56			
CD at 5%		1.71			
CV%		7.88			

Table 16. Ancillary Observations at Navsari centre (Okra YVMV Hybrid Resistant AVT-II)

Sr. No.	Entries/Genotype	Number of ridges/fruit	Fruit colour	Fruit texture
1	2022/OKYVHYBRES-1	5.00	Green	Smooth
2	2022/OKYVHYBRES-2	5.00	Light Green	Smooth
3	2022/OKYVHYBRES-3	5.00	Green	Smooth
4	2022/OKYVHYBRES-4	5.00	Green	Smooth
5	2022/OKYVHYBRES-5	5.00	Green	Smooth
6	2022/OKYVHYBRES-6	5.00	Green	Smooth
7	2022/OKYVHYBRES-7	5.00	Light Green	Smooth
8	2022/OKYVHYBRES-8	5.00	Green	Smooth

Conclusion:

In this trail total eight hybrids were tested. Marketable fruit yield difference was significant among hybrids evaluated. Looking to marketable fruit yield with resistance

against YVMV and ELCV, 2022/OKYVHYBRES-4 was the best hybrid with yield potential of 133.21 q/ha.