

Experiment No. : 10							
1.	Title of experiment	:	BRINJAL (ROUND) 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.H.R.Rathod Asso. PI: Dr. N.K.Patel				
5.	Year and Season	:	<i>Rabi</i> 2024-2025				
6.	Experimental detail	:					
	(a) Design	:	RBD				
	(b) No. of Entries	:	14				
			1.	2022/BRRVAR-1	8.	2022/BRRVAR-8	
			2.	2022/BRRVAR-2	9.	2022/BRRVAR -9	
			3.	2022/BRRVAR-3	10.	2022/BRRVAR-10	
			4.	2022/BRRVAR-4	11.	2022/BRRVAR-11	
			5.	2022/BRRVAR-5	12.	2022/BRRVAR-12	
			6.	2022/BRRVAR-6	13.	2022/BRRVAR-13	
			7.	2022/BRRVAR-7	14.	2022/BRRVAR-14	
	(c) Replication	:	3				
	(d) Plot Size	:	4.5 m X 4.2 m				
	(e) Spacing	:	75 cm X 60 cm				
	(f) Fertilizer NPK kg/ha	:	100-50-50				
	(g) Date of seed sowing	:	20/10/2024				
	(h) Date of transplanting	:	18/11/2024				
	(i) Date of first picking	:	10/2/2025				
	(j) Date of last picking	:	22/5/2025				
7.	Methodology	:	As per the guideline given by PC cell				
8.	Research results	:	Table -1 to Table – 8				

Table 1. Days to first marketable fruit maturity (Brinjal Round - AVT- II)

Days to first marketable fruit maturity					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/BRRVAR-1	72.00	70.00	65.00	69.00
2	2022/BRRVAR-2	70.00	66.00	72.00	69.33
3	2022/BRRVAR-3	68.00	71.00	66.00	68.33
4	2022/BRRVAR-4	73.00	72.00	74.00	73.00
5	2022/BRRVAR-5	75.00	70.00	66.00	70.33
6	2022/BRRVAR-6	71.00	75.00	69.00	71.67
7	2022/BRRVAR-7	74.00	70.00	66.00	70.00
8	2022/BRRVAR-8	70.00	75.00	77.00	74.00
9	2022/BRRVAR -9	68.00	74.00	66.00	69.33
10	2022/BRRVAR-10	72.00	69.00	70.00	70.33
11	2022/BRRVAR-11	72.00	74.00	70.00	72.00
12	2022/BRRVAR-12	69.00	72.00	74.00	71.67
13	2022/BRRVAR-13	68.00	70.00	76.00	71.33
14	2022/BRRVAR-14	75.00	70.00	65.00	70.00
SEm±		1.96			
CD at 5%		NS			
CV%		4.80			

Table 2. Marketable fruit yield (kg/plot) (Brinjal Round - AVT- II)

Marketable fruit yield (kg/plot)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/BRRVAR-1	37.44	44.33	42.66	41.48
2	2022/BRRVAR-2	48.07	43.10	39.55	43.57
3	2022/BRRVAR-3	51.70	57.63	60.44	56.59
4	2022/BRRVAR-4	38.76	36.14	34.92	36.61
5	2022/BRRVAR-5	33.85	41.69	38.47	38.00
6	2022/BRRVAR-6	40.40	39.71	38.44	39.52
7	2022/BRRVAR-7	35.52	33.32	28.26	32.37
8	2022/BRRVAR-8	33.32	24.56	30.77	29.55
9	2022/BRRVAR -9	34.85	27.61	33.54	32.00
10	2022/BRRVAR-10	47.43	53.54	51.49	50.82
11	2022/BRRVAR-11	37.89	33.56	30.23	33.89
12	2022/BRRVAR-12	32.21	29.54	31.73	31.16
13	2022/BRRVAR-13	53.58	49.77	47.66	50.34
14	2022/BRRVAR-14	49.78	44.12	46.69	46.86
SEm±		2.00			
CD at 5%		5.81			
CV%		8.62			

Table 3. Marketable fruit yield (q/ha) (Brinjal Round - AVT- II)

Marketable fruit yield (q/ha)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/BRRVAR-1	198.10	234.55	225.71	219.45
2	2022/BRRVAR-2	254.34	228.04	209.26	230.55
3	2022/BRRVAR-3	273.54	304.92	319.79	299.42
4	2022/BRRVAR-4	205.08	191.22	184.76	193.69
5	2022/BRRVAR-5	179.10	220.58	203.54	201.08
6	2022/BRRVAR-6	213.76	210.11	203.39	209.08
7	2022/BRRVAR-7	187.94	176.30	149.52	171.25
8	2022/BRRVAR-8	176.30	129.95	162.80	156.35
9	2022/BRRVAR -9	184.39	146.08	177.46	169.31
10	2022/BRRVAR-10	250.95	283.28	272.43	268.89
11	2022/BRRVAR-11	200.48	177.57	159.95	179.33
12	2022/BRRVAR-12	170.42	156.30	167.88	164.87
13	2022/BRRVAR-13	283.49	263.33	252.17	266.33
14	2022/BRRVAR-14	263.39	233.44	247.04	247.95
SEm±		10.58			
CD at 5%		30.76			
CV%		8.62			

Conclusion:

Total fourteen genotypes were evaluated under Brinjal (round) AVT- II trial. Differences among the genotypes for fruit yield were found significant. Genotype 2022/BRRVAR-3 exhibited significantly higher fruit yield (299.42 q/ha), 2022/BRRVAR-3 was found promising at Navsari centre.

Table 4. Average weight of single fruit (g) (Brinjal Round - AVT- II)

Average weight of single fruit (g)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/BRRVAR-1	56.32	49.72	42.30	49.45
2	2022/BRRVAR-2	48.61	43.92	49.36	47.30
3	2022/BRRVAR-3	63.30	61.31	56.83	60.48
4	2022/BRRVAR-4	42.40	46.61	49.17	46.06
5	2022/BRRVAR-5	41.42	48.15	43.37	44.31
6	2022/BRRVAR-6	45.36	51.73	48.92	48.67
7	2022/BRRVAR-7	47.78	52.57	43.69	48.01
8	2022/BRRVAR-8	46.47	51.46	45.61	47.85
9	2022/BRRVAR -9	43.06	42.82	46.44	44.11
10	2022/BRRVAR-10	49.74	54.73	48.88	51.12
11	2022/BRRVAR-11	51.52	44.84	47.32	47.89
12	2022/BRRVAR-12	46.18	43.52	52.98	47.56
13	2022/BRRVAR-13	46.29	47.32	53.54	49.05
14	2022/BRRVAR-14	49.92	44.34	47.33	47.20
SEm±		2.29			
CD at 5%		6.65			
CV%		8.17			

Table 5. Fruit length (cm) (Brinjal Round - AVT- II)

Fruit length (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/BRRVAR-1	4.18	4.26	4.48	4.31
2	2022/BRRVAR-2	4.32	4.25	4.77	4.45
3	2022/BRRVAR-3	5.12	6.40	5.36	5.63
4	2022/BRRVAR-4	5.33	4.68	4.27	4.76
5	2022/BRRVAR-5	4.88	5.17	4.66	4.90
6	2022/BRRVAR-6	4.65	4.23	4.95	4.61
7	2022/BRRVAR-7	4.33	4.88	4.36	4.52
8	2022/BRRVAR-8	4.33	4.17	4.77	4.42
9	2022/BRRVAR -9	4.68	4.42	5.18	4.76
10	2022/BRRVAR-10	5.19	4.39	5.99	5.19
11	2022/BRRVAR-11	4.77	4.33	4.02	4.37
12	2022/BRRVAR-12	4.75	4.66	4.88	4.76
13	2022/BRRVAR-13	4.84	5.02	5.36	5.07
14	2022/BRRVAR-14	4.79	5.22	4.93	4.98
SEm±		0.24			
CD at 5%		0.69			
CV%		8.67			

Table 6. Fruit diameter (cm) (Brinjal Round - AVT- II)

Fruit diameter (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/BRRVAR-1	4.35	4.77	5.14	4.75
2	2022/BRRVAR-2	5.01	4.33	4.65	4.66
3	2022/BRRVAR-3	5.95	5.33	5.48	5.59
4	2022/BRRVAR-4	4.16	4.28	4.37	4.27
5	2022/BRRVAR-5	4.66	4.72	4.39	4.59
6	2022/BRRVAR-6	4.33	4.28	4.95	4.52
7	2022/BRRVAR-7	4.23	4.39	4.55	4.39
8	2022/BRRVAR-8	4.14	4.83	4.59	4.52
9	2022/BRRVAR -9	4.37	4.35	5.20	4.64
10	2022/BRRVAR-10	5.47	4.39	5.33	5.06
11	2022/BRRVAR-11	4.56	4.22	4.80	4.53
12	2022/BRRVAR-12	4.33	4.73	4.90	4.65
13	2022/BRRVAR-13	5.77	4.66	5.12	5.18
14	2022/BRRVAR-14	4.92	5.22	4.55	4.90
SEm±		0.21			
CD at 5%		0.60			
CV%		7.55			

Table 7. Plant height (m) (Brinjal Round - AVT- II)

Plant height (m)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/BRRVAR-1	0.88	0.77	0.92	0.86
2	2022/BRRVAR-2	0.96	0.84	0.92	0.91
3	2022/BRRVAR-3	1.19	1.12	1.06	1.12
4	2022/BRRVAR-4	0.68	0.77	0.80	0.75
5	2022/BRRVAR-5	0.69	0.77	0.85	0.77
6	2022/BRRVAR-6	0.82	0.75	0.83	0.80
7	2022/BRRVAR-7	0.74	0.82	0.84	0.80
8	2022/BRRVAR-8	0.92	0.86	0.77	0.85
9	2022/BRRVAR -9	0.72	0.82	0.68	0.74
10	2022/BRRVAR-10	1.05	0.88	0.85	0.93
11	2022/BRRVAR-11	0.80	0.65	0.70	0.72
12	2022/BRRVAR-12	0.72	0.77	0.88	0.79
13	2022/BRRVAR-13	1.03	0.77	0.95	0.92
14	2022/BRRVAR-14	0.75	0.85	0.72	0.77
SEm±		0.05			
CD at 5%		0.13			
CV%		9.47			

Table.8 Ancillary observation

Sr. No.	Entries/Genotype	FSB	BW	Nematode
1	2022/BRRVAR-1	Tolerant	Tolerant	Tolerant
2	2022/BRRVAR-2	Tolerant	Tolerant	Tolerant
3	2022/BRRVAR-3	Tolerant	Tolerant	Tolerant
4	2022/BRRVAR-4	Tolerant	Tolerant	Tolerant
5	2022/BRRVAR-5	Tolerant	Tolerant	Tolerant
6	2022/BRRVAR-6	Tolerant	Tolerant	Tolerant
7	2022/BRRVAR-7	Tolerant	Tolerant	Tolerant
8	2022/BRRVAR-8	Tolerant	Tolerant	Tolerant
9	2022/BRRVAR -9	Tolerant	Tolerant	Tolerant
10	2022/BRRVAR-10	Tolerant	Tolerant	Tolerant
11	2022/BRRVAR-11	Tolerant	Tolerant	Tolerant
12	2022/BRRVAR-12	Tolerant	Tolerant	Tolerant
13	2022/BRRVAR-13	Tolerant	Tolerant	Tolerant
14	2022/BRRVAR-14	Tolerant	Tolerant	Tolerant

