

Experiment No. : 8							
1.	Title of experiment	:	BRINJAL (ROUND) IET				
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	:	11				
			1.	2024/BRRVAR-1	7.	2024/BRRVAR -7	
			2.	2024/BRRVAR-2	8.	2024/BRRVAR-8	
			3.	2024/BRRVAR-3	9.	2024/BRRVAR-9	
			4.	2024/BRRVAR-4	10.	2024/BRRVAR-10	
			5.	2024/BRRVAR-5	11.	2024/BRRVAR-11	
			6.	2024/BRRVAR-6			
	(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	:	22/11/2024				
	(i) Date of first picking	:	10/2/2025				
	(j) Date of last picking	:	15/5/2025				
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-IET)

Days to first marketable fruit maturity					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2024/BRRVAR-1	68.00	69.00	73.00	70.00
2	2024/BRRVAR-2	68.00	70.00	74.00	70.67
3	2024/BRRVAR-3	70.00	73.00	65.00	69.33
4	2024/BRRVAR-4	70.00	72.00	74.00	72.00
5	2024/BRRVAR-5	65.00	68.00	70.00	67.67
6	2024/BRRVAR-6	70.00	74.00	71.00	71.67
7	2024/BRRVAR-7	70.00	69.00	65.00	68.00
8	2024/BRRVAR -8	72.00	67.00	70.00	69.67
9	2024/BRRVAR-9	74.00	70.00	69.00	71.00
10	2024/BRRVAR-10	75.00	72.00	68.00	71.67
11	2024/BRRVAR-11	66.00	70.00	74.00	70.00
SEm±		1.78			
CD at 5%		NS			
CV%		4.40			

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

Marketable fruit yield (kg/plot)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2024/BRRVAR-1	40.84	44.16	38.93	40.84
2	2024/BRRVAR-2	44.28	49.67	50.96	44.28
3	2024/BRRVAR-3	52.36	46.80	55.82	52.36
4	2024/BRRVAR-4	52.92	55.51	47.87	52.92
5	2024/BRRVAR-5	63.17	58.76	51.76	63.17
6	2024/BRRVAR-6	38.10	35.53	37.12	38.10
7	2024/BRRVAR-7	40.02	44.39	58.04	40.02
8	2024/BRRVAR -8	43.80	48.35	45.43	43.80
9	2024/BRRVAR-9	39.91	50.43	48.35	39.91
10	2024/BRRVAR-10	52.00	48.37	69.11	52.00
11	2024/BRRVAR-11	50.35	56.53	42.63	50.35
SEm±		3.50			
CD at 5%		10.31			
CV%		12.47			

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

Marketable fruit yield (q/ha)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2024/BRRVAR-1	216.08	233.66	205.98	218.57
2	2024/BRRVAR-2	234.31	262.82	269.63	255.59
3	2024/BRRVAR-3	277.04	247.59	295.34	273.32
4	2024/BRRVAR-4	280.00	293.70	253.28	275.66
5	2024/BRRVAR-5	334.23	310.90	273.84	306.32
6	2024/BRRVAR-6	201.57	187.96	196.40	195.31
7	2024/BRRVAR-7	211.73	234.85	307.11	251.23
8	2024/BRRVAR -8	231.75	255.80	240.37	242.64
9	2024/BRRVAR-9	211.19	266.82	255.80	244.60
10	2024/BRRVAR-10	275.14	255.91	365.66	298.90
11	2024/BRRVAR-11	266.39	299.12	225.56	263.69
SEm±		18.50			
CD at 5%		54.56			
CV%		12.47			

Conclusion:

Total eleven genotypes were evaluated under Brinjal (Round) IET trial. Differences among the genotypes for fruit yield were found significant. Genotype 2024/BRRVAR-5 exhibited significantly higher fruit yield (306.32 q/ha), 2024/BRRVAR-5 was found promising at Navsari centre.

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

Average weight of single fruit (g)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2024/BRRVAR-1	42.74	48.33	39.73	43.60
2	2024/BRRVAR-2	50.92	49.63	46.34	48.96
3	2024/BRRVAR-3	46.93	52.60	47.70	49.08
4	2024/BRRVAR-4	48.62	44.72	54.67	49.34
5	2024/BRRVAR-5	58.82	50.36	54.63	54.60
6	2024/BRRVAR-6	44.71	43.39	42.20	43.43
7	2024/BRRVAR-7	50.33	38.26	42.22	43.60
8	2024/BRRVAR -8	47.40	42.57	43.39	44.45
9	2024/BRRVAR-9	46.92	51.11	47.33	48.45
10	2024/BRRVAR-10	57.22	53.69	52.50	54.47
11	2024/BRRVAR-11	43.69	49.66	50.12	47.82
SEm±		2.16			
CD at 5%		6.36			
CV%		7.79			

Table 5. Fruit length (cm) ((Brinjal Round-IET)

Fruit length (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2024/BRRVAR-1	4.69	4.08	4.34	4.37
2	2024/BRRVAR-2	4.77	4.96	4.69	4.81
3	2024/BRRVAR-3	4.68	5.02	4.86	4.85
4	2024/BRRVAR-4	5.19	4.92	4.88	5.00
5	2024/BRRVAR-5	6.33	5.88	5.47	5.89
6	2024/BRRVAR-6	4.94	4.56	4.68	4.73
7	2024/BRRVAR-7	4.68	4.72	4.70	4.70
8	2024/BRRVAR -8	4.82	4.77	4.92	4.84
9	2024/BRRVAR-9	5.12	4.36	4.78	4.75
10	2024/BRRVAR-10	5.09	5.33	5.68	5.37
11	2024/BRRVAR-11	4.38	4.69	4.52	4.53
SEm±		0.14			
CD at 5%		0.42			
CV%		5.03			

Table 6. Fruit diameter (cm) (Brinjal Round-IET)

Fruit diameter (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2024/BRRVAR-1	4.47	4.36	4.61	4.48
2	2024/BRRVAR-2	4.66	5.02	4.71	4.80
3	2024/BRRVAR-3	4.33	4.68	4.95	4.65
4	2024/BRRVAR-4	4.14	4.82	4.33	4.43
5	2024/BRRVAR-5	5.37	5.69	4.96	5.34
6	2024/BRRVAR-6	4.60	4.19	4.56	4.45
7	2024/BRRVAR-7	4.77	4.57	4.92	4.75
8	2024/BRRVAR -8	4.09	4.75	4.60	4.48
9	2024/BRRVAR-9	4.80	5.66	4.36	4.94
10	2024/BRRVAR-10	4.66	5.18	5.33	5.06
11	2024/BRRVAR-11	4.38	4.95	4.44	4.59
SEm±		0.18			
CD at 5%		0.53			
CV%		6.59			

Table 7. Plant height (m) (Brinjal Round-IET)

Plant height (m)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2024/BRRVAR-1	0.69	0.82	0.77	0.76
2	2024/BRRVAR-2	0.80	0.76	0.98	0.85
3	2024/BRRVAR-3	0.95	1.06	0.79	0.93
4	2024/BRRVAR-4	0.80	0.95	0.88	0.88
5	2024/BRRVAR-5	1.14	0.94	0.86	0.98
6	2024/BRRVAR-6	0.72	0.90	0.72	0.78
7	2024/BRRVAR-7	0.76	0.78	0.88	0.81
8	2024/BRRVAR -8	0.88	0.69	0.78	0.78
9	2024/BRRVAR-9	0.72	0.70	0.59	0.67
10	2024/BRRVAR-10	1.12	0.95	0.84	0.97
11	2024/BRRVAR-11	0.73	0.82	0.69	0.75
SEm±		0.06			
CD at 5%		0.18			
CV%		12.40			

Table 8. Ancillary observation.

Sr. No.	Entries/Genotype	Fruit Colour	Calayx Colour	FW	BW	Nematode
1	2024/BRRVAR-1	Black	Light green	Tolerant	Tolerant	Tolerant
2	2024/BRRVAR-2	Light purple	Light green	Tolerant	Tolerant	Tolerant
3	2024/BRRVAR-3	Light green	Light green	Tolerant	Tolerant	Tolerant
4	2024/BRRVAR-4	Light purple	Light green	Tolerant	Tolerant	Tolerant
5	2024/BRRVAR-5	Purple green	Purple white	Tolerant	Tolerant	Tolerant
6	2024/BRRVAR-6	Light green	Purple	Tolerant	Tolerant	Tolerant
7	2024/BRRVAR-7	White	Light green	Tolerant	Tolerant	Tolerant
8	2024/BRRVAR -8	Light green	Purple	Tolerant	Tolerant	Tolerant
9	2024/BRRVAR-9	Purple	Purple	Tolerant	Tolerant	Tolerant
10	2024/BRRVAR-10	Purple	Light green	Tolerant	Tolerant	Tolerant
11	2024/BRRVAR-11	Purple	Light green	Tolerant	Tolerant	Tolerant