

<b>Experiment No. :12</b>						
<b>1.</b>	<b>Title of experiment</b>	<b>:</b>	<b>BOTTLE GOURD HYBRID-AVT-I</b>			
<b>2.</b>	<b>Location</b>	<b>:</b>	Regional Horticultural Research Station, A.C.H., N.A.U., Navsari			
<b>3.</b>	<b>Agro-ecological situation</b>	<b>:</b>	South Gujarat Heavy Rainfall Zone, AES-III			
<b>4.</b>	<b>Name of Investigator</b>	<b>:</b>	PI: Dr.J.M.Vashi Co-PI: Dr. N.K.Patel Asso. PI: DrD.R.Bhanderi			
<b>5.</b>	<b>Year and Season</b>	<b>:</b>	Summer-2025			
<b>6.</b>	<b>Experimental detail</b>	<b>:</b>				
	<b>(a) Design</b>	<b>:</b>	RBD			
	<b>(b) No. of Entries</b>	<b>:</b>	7			
			1.	2023/BOGHYB-1	5.	2023/BOGHYB-5
			2.	2023/BOGHYB-2	6.	2023/BOGHYB-6
			3.	2023/BOGHYB-3		
			4.	2023/BOGHYB-4		
	<b>(c) Replication</b>	<b>:</b>	3			
	<b>(d) Plot Size</b>	<b>:</b>	3.0 m X 7.5 m			
	<b>(e) Spacing</b>	<b>:</b>	300 cm X 50 cm			
	<b>(f) Fertilizer NPK kg/ha</b>	<b>:</b>	100-50-50			
	<b>(g) Date of sowing</b>	<b>:</b>	14/02/2025			
	<b>(h) Date of first fruit harvest</b>	<b>:</b>	10/04/2025			
	<b>(i) Date of last fruit harvest</b>	<b>:</b>	26/05/2025			
<b>7.</b>	<b>Methodology</b>	<b>:</b>	As per the guideline given by PC cell, IIVR, Varanasi.			
<b>8.</b>	<b>Research results</b>	<b>:</b>	Table -1 to Table – 10			

**Table 1. Days to first picking at Navsari centre (Bottle gourd HYBRID-AVT-I)**

<b>Days to first picking</b>					
<b>Sr. No.</b>	<b>Entries/Genotype</b>	<b>RI</b>	<b>RII</b>	<b>RIII</b>	<b>Mean</b>
1	2023/BOGHYB-1	62.00	60.80	56.20	59.67
2	2023/BOGHYB-2	54.40	62.80	66.20	61.13
3	2023/BOGHYB-3	55.60	60.20	57.60	57.80
4	2023/BOGHYB-4	65.60	69.00	72.40	69.00
5	2023/BOGHYB-5	59.20	64.70	62.80	62.23
6	2023/BOGHYB-6	72.40	66.80	74.60	71.27
<b>SEm±</b>		<b>2.13</b>			
<b>CD at 5%</b>		<b>6.72</b>			
<b>CV%</b>		<b>5.81</b>			

**Table 2. Average weight of single fruit (g) at Navsari centre (Bottle gourd HYBRID-AVT-I)**

<b>Average weight of single fruit (g)</b>					
<b>Sr. No.</b>	<b>Entries/Genotype</b>	<b>RI</b>	<b>RII</b>	<b>RIII</b>	<b>Mean</b>
1	2023/BOGHYB-1	630.43	620.00	672.00	640.81
2	2023/BOGHYB-2	493.33	477.78	508.33	493.15
3	2023/BOGHYB-3	550.00	553.57	537.50	547.02
4	2023/BOGHYB-4	544.12	566.67	565.79	558.86
5	2023/BOGHYB-5	670.00	661.11	625.00	652.04
6	2023/BOGHYB-6	900.00	740.00	731.48	790.49
<b>SEm±</b>		<b>25.03</b>			
<b>CD at 5%</b>		<b>78.85</b>			
<b>CV%</b>		<b>7.06</b>			

**Table 3. No. of fruits/plant at Navsari centre (Bottle gourd HYBRID-AVT-I)**

<b>No. of fruits/plant</b>					
<b>Sr. No.</b>	<b>Entries/Genotype</b>	<b>RI</b>	<b>RII</b>	<b>RIII</b>	<b>Mean</b>
1	2023/BOGHYB-1	4.60	6.60	5.00	5.40
2	2023/BOGHYB-2	3.00	3.60	2.40	3.00
3	2023/BOGHYB-3	2.40	2.80	3.20	2.80
4	2023/BOGHYB-4	3.40	3.60	3.80	3.60
5	2023/BOGHYB-5	4.00	3.60	3.20	3.60
6	2023/BOGHYB-6	3.60	5.00	5.40	4.67
<b>SEm±</b>		<b>0.36</b>			
<b>CD at 5%</b>		<b>1.15</b>			
<b>CV%</b>		<b>16.44</b>			

**Table 4. Marketable fruit yield (kg/plant) at Navsari centre (Bottle gourd HYBRID-AVT-I)**

<b>Fruit yield (kg/plant)</b>					
<b>Sr. No.</b>	<b>Entries/Genotype</b>	<b>RI</b>	<b>RII</b>	<b>RIII</b>	<b>Mean</b>
1	2023/BOGHYB-1	2.90	4.18	3.36	3.48
2	2023/BOGHYB-2	1.48	1.72	1.22	1.47
3	2023/BOGHYB-3	1.32	1.55	1.72	1.53
4	2023/BOGHYB-4	1.85	2.04	2.15	2.01
5	2023/BOGHYB-5	2.68	2.38	2.00	2.35
6	2023/BOGHYB-6	3.24	3.70	3.95	3.63
<b>SEm±</b>		<b>0.20</b>			
<b>CD at 5%</b>		<b>0.63</b>			
<b>CV%</b>		<b>14.44</b>			

**Table 5. Marketable fruit yield (kg/plot) at Navsari centre (Bottle gourd HYBRID-AVT-I)**

Fruit yield (kg/plot)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/BOGHYB-1	77.33	85.47	89.80	84.20
2	2023/BOGHYB-2	44.40	51.60	36.60	44.20
3	2023/BOGHYB-3	39.60	46.50	51.60	45.90
4	2023/BOGHYB-4	55.50	61.20	64.50	60.40
5	2023/BOGHYB-5	70.42	61.59	60.00	64.00
6	2023/BOGHYB-6	67.20	78.40	98.45	81.35
SEm±		4.78			
CD at 5%		15.06			
CV%		13.07			

**Table 6. Marketable fruit yield (q/ha) at Navsari centre (Bottle gourd HYBRID-AVT-I)**

Fruit yield (q/ha)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/BOGHYB-1	343.69	379.87	399.11	<b>374.22</b>
2	2023/BOGHYB-2	197.33	229.33	162.67	196.44
3	2023/BOGHYB-3	176.00	206.67	229.33	204.00
4	2023/BOGHYB-4	246.67	272.00	286.67	268.44
5	2023/BOGHYB-5	312.98	273.73	266.67	284.46
6	2023/BOGHYB-6	298.67	348.44	437.56	361.56
SEm±		21.24			
CD at 5%		66.93			
CV%		13.07			

**Table 7. Fruit diameter (cm) at Navsari centre (Bottle gourd HYBRID-AVT-I)**

Fruit diameter (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/BOGHYB-1	14.75	12.90	13.60	13.75
2	2023/BOGHYB-2	5.82	7.14	6.85	6.60
3	2023/BOGHYB-3	6.88	5.07	5.95	5.97
4	2023/BOGHYB-4	6.45	5.80	6.66	6.30
5	2023/BOGHYB-5	7.10	7.95	8.02	7.69
6	2023/BOGHYB-6	6.57	6.02	7.89	6.83
SEm±		0.44			
CD at 5%		1.37			
CV%		9.59			

**Table 8. Fruit length (cm) at Navsari centre (Bottle gourd HYBRID-AVT-I)**

Fruit length (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/BOGHYB-1	13.66	11.82	13.22	12.90
2	2023/BOGHYB-2	23.66	22.18	27.65	24.50
3	2023/BOGHYB-3	30.12	36.65	33.45	33.41
4	2023/BOGHYB-4	29.25	32.77	28.95	30.32
5	2023/BOGHYB-5	33.47	30.40	36.80	33.56
6	2023/BOGHYB-6	37.69	33.57	36.90	36.05
SEm±		1.51			
CD at 5%		4.76			
CV%		9.20			

**Table 9. Vine length (cm) at Navsari centre (Bottle gourd HYBRID-AVT-I)**

Vine length (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/BOGHYB-1	220.24	200.60	185.60	202.15

2	2023/BOGHYB-2	375.40	270.40	300.20	315.33
3	2023/BOGHYB-3	274.60	254.20	300.60	276.47
4	2023/BOGHYB-4	285.60	260.40	275.40	273.80
5	2023/BOGHYB-5	275.20	260.40	280.20	271.93
6	2023/BOGHYB-6	309.20	298.00	300.20	302.47
<b>SEm±</b>		<b>12.83</b>			
<b>CD at 5%</b>		<b>40.41</b>			
<b>CV%</b>		<b>8.12</b>			

**Table 10. Ancillary Observations**

<b>Sr. No.</b>	<b>Entries/Genotype</b>	<b>Colour</b>	<b>Shape</b>	<b>P.M</b>	<b>G.S.B</b>	<b>Anthracnose</b>
1	2023/BOGHYB-1	Light Green	Round	Tolerant	Tolerant	Tolerant
2	2023/BOGHYB-2	Green	Cylindrical	Tolerant	Tolerant	Tolerant
3	2023/BOGHYB-3	Green	Cylindrical	Tolerant	Tolerant	Tolerant
4	2023/BOGHYB-4	Green	Cylindrical	Tolerant	Tolerant	Tolerant
5	2023/BOGHYB-5	Green	Cylindrical	Tolerant	Tolerant	Tolerant
6	2023/BOGHYB-6	Light Green	Cylindrical	Tolerant	Tolerant	Tolerant

**Conclusion:**

Total 6 hybrids were evaluated in HYBRID-AVT-I of Bottle gourd trial. Differences among the genotypes for fruit yield were found significant. Entry 2023/BOGHYB-1 exhibited significantly high fruit yield (374.22 q/ha). Among all the coded entries, 2023/BOGHYB-1 was found promising at Navsari centre.