

Experiment No. : 14							
1.	Title of experiment	:	MUSKMELON 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 Asso. PI: Dr. D.R.Bhanderi				
5.	Year and Season	:	Summer-2025				
6.	Experimental detail	:					
	(a) Design	:	RBD				
	(b) No. of Entries	:	6				
			1.	2023/MMVAR-1	5.	2023/MMVAR-5	
			2.	2023/MMVAR-2	6.	2023/MMVAR-6	
			3.	2023/MMVAR-3			
			4.	2023/MMVAR-4			
	(c) Replication	:	3				
	(d) Plot Size	:	7.5 m X 3.0 m				
	(e) Spacing	:	75 cm X 300 cm				
	(f) Fertilizer NPK kg/ha	:	100-50-50				
	(g) Date of sowing	:	27/01/2025				
	(h) Date of first fruit harvest	:	18/04/2025				
	(i) Date of last fruit harvest	:	26/05/2025				
7.	Methodology	:	As per the guideline given by PC cell, IIVR, Varanasi.				
8.	Research results	:	Table -1 to Table –11				

Table 1. Days to first picking at Navsari centre (Muskmelon AVT-I)

Days to first picking					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/MMVAR-1	87.40	80.60	72.20	80.07
2	2023/MMVAR-2	87.60	85.20	82.00	84.93
3	2023/MMVAR-3	90.20	81.20	78.20	83.20
4	2023/MMVAR-4	82.80	81.60	78.60	81.00
5	2023/MMVAR-5	77.20	80.80	85.20	81.07
6	2023/MMVAR-6	81.40	83.20	86.60	83.73
SEm±		2.69			
CD at 5%		NS			
CV%		5.66			

Table 2. Average weight of single fruit (kg) at Navsari centre (Muskmelon AVT-I)

Average weight of single fruit (g)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/MMVAR-1	450.00	520.00	430.00	466.67
2	2023/MMVAR-2	620.00	590.00	680.00	630.00
3	2023/MMVAR-3	460.00	500.00	420.00	460.00
4	2023/MMVAR-4	470.00	520.00	480.00	490.00
5	2023/MMVAR-5	520.00	420.00	490.00	476.67
6	2023/MMVAR-6	600.00	490.00	550.00	546.67
SEm±		28.26			
CD at 5%		89.05			
CV%		9.57			

Table 3. No. of fruits/plant at Navsari centre (Muskmelon AVT-I)

No. of fruits/plant					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/MMVAR-1	1.20	2.00	1.40	1.53
2	2023/MMVAR-2	2.60	2.40	2.60	2.53
3	2023/MMVAR-3	1.40	2.00	1.40	1.60
4	2023/MMVAR-4	1.20	1.20	1.60	1.33
5	2023/MMVAR-5	1.80	1.20	1.60	1.53
6	2023/MMVAR-6	2.20	1.60	2.00	1.93
SEm±		0.19			
CD at 5%		0.60			
CV%		18.92			

Table 4. Marketable fruit yield (kg/plant) at Navsari centre (Muskmelon AVT-I)

Marketable fruit yield (kg/plant)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/MMVAR-1	0.95	1.12	0.77	0.95
2	2023/MMVAR-2	1.54	1.57	2.02	1.71
3	2023/MMVAR-3	0.88	0.95	0.79	0.87
4	2023/MMVAR-4	1.02	1.12	0.88	1.01
5	2023/MMVAR-5	1.14	0.88	0.70	0.91
6	2023/MMVAR-6	1.17	1.10	1.14	1.14
SEm±		0.10			
CD at 5%		0.33			
CV%		16.52			

Table 5. Marketable fruit yield (kg/plot) at Navsari centre (Muskmelon AVT-I)

Marketable fruit yield (kg/plot)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/MMVAR-1	18.98	21.32	17.77	19.36
2	2023/MMVAR-2	28.42	20.66	26.3	25.13
3	2023/MMVAR-3	16.57	18.33	14.72	16.54
4	2023/MMVAR-4	14.39	21.2	19.68	18.42
5	2023/MMVAR-5	19.33	14.72	15.82	16.62
6	2023/MMVAR-6	21.95	20.55	22.36	21.62
SEm±		1.67			
CD at 5%		5.25			
CV%		14.71			

Table 6. Marketable fruit yield (q/ha) at Navsari centre (Muskmelon AVT-I)

Marketable fruit yield (q/ha)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/MMVAR-1	84.36	94.76	78.98	86.03
2	2023/MMVAR-2	126.31	91.82	116.89	111.67
3	2023/MMVAR-3	73.64	81.47	65.42	73.51
4	2023/MMVAR-4	63.96	94.22	87.47	81.88
5	2023/MMVAR-5	85.91	65.42	70.31	73.88
6	2023/MMVAR-6	97.56	91.33	99.38	96.09
SEm±		7.40			
CD at 5%		23.32			
CV%		14.71			

Conclusion:

Total 6 entries were evaluated in AVT-I of Muskmelon trial. Differences among the genotypes for fruit yield were found significant. Entry 2023MMVAR-2 exhibited significantly high fruit yield (111.67 q/ha). Among all the coded entries, 2023MMVAR-2 was found promising at Navsari centre.

Table 7. Fruit diameter (cm) at Navsari centre (Muskmelon AVT-I)

Fruit diameter (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/MMVAR-1	10.08	9.68	9.98	9.91
2	2023/MMVAR-2	11.52	12.85	11.52	11.96
3	2023/MMVAR-3	9.66	10.02	10.30	9.99
4	2023/MMVAR-4	9.75	9.40	10.23	9.79
5	2023/MMVAR-5	9.78	10.12	9.66	9.85
6	2023/MMVAR-6	10.68	11.14	9.85	10.56
SEm±		0.29			
CD at 5%		0.90			
CV%		4.80			

Table 8. Fruit length (cm) at Navsari centre (Muskmelon AVT-I)

Fruit length (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/MMVAR-1	7.22	7.08	7.42	7.24
2	2023/MMVAR-2	8.22	9.44	9.88	9.18
3	2023/MMVAR-3	8.36	7.85	7.64	7.95
4	2023/MMVAR-4	7.65	8.14	7.70	7.83
5	2023/MMVAR-5	7.85	8.12	7.33	7.77
6	2023/MMVAR-6	8.02	9.33	8.25	8.53
SEm±		0.30			
CD at 5%		0.94			
CV%		6.38			

Table 9. TSS (°Brix) at Navsari centre (Muskmelon AVT-I)

TSS (°Brix)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/MMVAR-1	8.02	7.33	8.47	7.94
2	2023/MMVAR-2	9.05	8.74	9.36	9.05
3	2023/MMVAR-3	7.66	8.55	7.36	7.86
4	2023/MMVAR-4	9.40	9.40	8.95	9.25
5	2023/MMVAR-5	8.66	7.42	8.68	8.25
6	2023/MMVAR-6	7.66	8.62	7.95	8.08
SEm±		0.33			
CD at 5%		NS			
CV%		6.77			

Table 10. Vine length (cm) at Navsari centre (Muskmelon AVT-I)

Vine length (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2023/MMVAR-1	181.20	188.60	174.30	181.37
2	2023/MMVAR-2	221.40	195.60	210.40	209.13
3	2023/MMVAR-3	152.30	162.20	178.25	164.25
4	2023/MMVAR-4	179.60	210.70	175.60	188.63
5	2023/MMVAR-5	192.20	178.40	188.60	186.40
6	2023/MMVAR-6	184.60	202.20	188.30	191.70
SEm±		7.59			
CD at 5%		23.90			
CV%		7.03			

Table 11. Ancillary Observations

Sr · No	Entries/Genotype	Colour	Shape	Fruit surface netting	Flesh colour	F.W	G.S.B	D.M.
1	2023/MMVAR-1	Cream	Round	Present	Cream	Tolerant	Tolerant	Tolerant
2	2023/MMVAR-2	Brown	Round	Absent	White	Tolerant	Tolerant	Tolerant
3	2023/MMVAR-3	Cream	Round	Present	Cream	Tolerant	Tolerant	Tolerant
4	2023/MMVAR-4	Cream	Round	Present	Cream	Present	Tolerant	Present
5	2023/MMVAR-5	Cream	Round	Present	Cream	Present	Tolerant	Present
6	2023/MMVAR-6	Brown	Round	Absent	White	Tolerant	Tolerant	Tolerant

