

Experiment No. : 13						
1.	Title of experiment	:	MUSKMELON 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. A.I.Patel Asso. PI: Dr. C.G.Intwala			
5.	Year and Season	:	Summer-2025			
6.	Experimental detail	:				
	(a) Design	:	RBD			
	(b) No. of Entries	:	6			
			1.	2024/MMVAR-1	5.	2024/MMVAR-5
			2.	2024/MMVAR-2	6.	2024/MMVAR-6
			3.	2024/MMVAR-3		
			4.	2024/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 IET)

Days to first picking					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2024/MMVAR-1	82.40	88.60	77.20	82.73
2	2024/MMVAR-2	88.60	84.20	76.20	83.00
3	2024/MMVAR-3	89.60	82.20	79.20	83.67
4	2024/MMVAR-4	80.20	84.60	80.60	81.80
5	2024/MMVAR-5	82.60	77.20	81.20	80.33
6	2024/MMVAR-6	77.20	73.20	80.20	76.87
SEm±		2.56			
CD at 5%		NS			
CV%		5.45			

Table 2. Average weight of single fruit (kg) at Navsari centre (Muskmelon IET)

Average weight of single fruit (kg)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2024/MMVAR-1	490.00	470.00	440.00	466.67
2	2024/MMVAR-2	600.00	580.00	620.00	600.00
3	2024/MMVAR-3	420.00	370.00	430.00	406.67
4	2024/MMVAR-4	510.00	500.00	440.00	483.33
5	2024/MMVAR-5	560.00	500.00	460.00	506.67
6	2024/MMVAR-6	580.00	600.00	550.00	576.67
SEm±		17.51			
CD at 5%		55.17			
CV%		5.99			

Table 3. No. of fruits/plant at Navsari centre (Muskmelon IET)

No. of fruits/plant					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2024/MMVAR-1	1.60	1.40	1.60	1.53
2	2024/MMVAR-2	1.80	2.00	1.60	1.80
3	2024/MMVAR-3	1.60	1.80	1.40	1.60
4	2024/MMVAR-4	1.80	1.80	1.60	1.73
5	2024/MMVAR-5	1.60	1.40	2.00	1.67
6	2024/MMVAR-6	2.40	2.40	2.60	2.47
SEm±		0.12			
CD at 5%		0.38			
CV%		11.48			

Table 4. Marketable fruit yield (kg/plant) at Navsari centre (Muskmelon IET)

Marketable fruit yield (kg/plant)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2024/MMVAR-1	1.60	1.40	1.60	1.53
2	2024/MMVAR-2	1.80	2.00	1.60	1.80
3	2024/MMVAR-3	1.60	1.80	1.40	1.60
4	2024/MMVAR-4	1.80	1.80	1.60	1.73
5	2024/MMVAR-5	1.60	1.40	2.00	1.67
6	2024/MMVAR-6	2.40	2.40	2.60	2.47
SEm±		0.12			
CD at 5%		0.38			
CV%		11.48			

Table 5. Marketable fruit yield (kg/plot) at Navsari centre (Muskmelon IET)

Marketable fruit yield (kg/plot)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2024/MMVAR-1	20.92	15.33	17.68	17.98
2	2024/MMVAR-2	18.42	24.66	20.3	21.13
3	2024/MMVAR-3	15.57	19.36	13.72	16.22
4	2024/MMVAR-4	16.35	18.2	17.57	17.37
5	2024/MMVAR-5	18.22	17.4	16.95	17.52
6	2024/MMVAR-6	23.98	24.78	27.30	25.35
SEm±		1.38			
CD at 5%		4.34			
CV%		12.40			

Table 6. Marketable fruit yield (q/ha) at Navsari centre (Muskmelon IET)

Marketable fruit yield (q/ha)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2024/MMVAR-1	92.98	68.13	78.58	79.90
2	2024/MMVAR-2	81.87	109.60	90.22	93.90
3	2024/MMVAR-3	69.20	86.04	60.98	72.07
4	2024/MMVAR-4	72.67	80.89	78.09	77.21
5	2024/MMVAR-5	80.98	77.33	75.33	77.88
6	2024/MMVAR-6	106.58	110.13	121.33	112.68
SEm±		6.31			
CD at 5%		19.31			
CV%		12.40			

Conclusion:

Total 6 entries were evaluated in IET of Muskmelon trial. Differences among the genotypes for fruit yield were found significant. Entry 2024MMVAR-6 exhibited significantly high fruit yield (112.68 q/ha). Among all the coded entries, 2024MMVAR-6 was found promising at Navsari centre.

Table 7. Fruit diameter (cm) at Navsari centre (Muskmelon IET)

Fruit diameter (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2024/MMVAR-1	10.08	9.68	8.98	9.58
2	2024/MMVAR-2	10.66	10.66	10.05	10.46
3	2024/MMVAR-3	8.95	10.14	9.66	9.58
4	2024/MMVAR-4	9.66	9.45	10.11	9.74
5	2024/MMVAR-5	9.45	10.16	9.52	9.71
6	2024/MMVAR-6	11.52	12.85	11.52	11.96
SEm±		0.28			
CD at 5%		0.89			
CV%		4.79			

Table 8. Fruit length (cm) at Navsari centre (Muskmelon IET)

Fruit length (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2024/MMVAR-1	7.11	7.06	7.66	7.28
2	2024/MMVAR-2	8.02	8.44	9.22	8.56
3	2024/MMVAR-3	7.66	8.02	7.54	7.74
4	2024/MMVAR-4	7.55	8.00	7.52	7.69
5	2024/MMVAR-5	7.72	7.02	7.66	7.47
6	2024/MMVAR-6	9.22	8.70	8.14	8.69
SEm±		0.26			
CD at 5%		0.83			
CV%		5.79			

Table 9. TSS (°Brix) at Navsari centre (Muskmelon IET)

TSS (°Brix)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2024/MMVAR-1	7.33	8.60	7.47	7.80
2	2024/MMVAR-2	8.02	7.74	8.30	8.02
3	2024/MMVAR-3	7.95	7.25	7.33	7.51
4	2024/MMVAR-4	8.40	8.44	7.95	8.26
5	2024/MMVAR-5	8.02	7.60	8.60	8.07
6	2024/MMVAR-6	8.92	8.60	7.88	8.47
SEm±		0.29			
CD at 5%		NS			
CV%		6.28			

Table 10. Vine length (cm) at Navsari centre (Muskmelon IET)

Vine length (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2024/MMVAR-1	155.20	174.30	160.20	163.23
2	2024/MMVAR-2	175.20	185.60	195.80	185.53
3	2024/MMVAR-3	159.20	160.20	172.20	163.87
4	2024/MMVAR-4	174.20	200.20	165.40	179.93
5	2024/MMVAR-5	162.20	155.20	185.60	167.67
6	2024/MMVAR-6	215.60	185.20	195.60	198.80
SEm±		8.29			
CD at 5%		NS			
CV%		8.13			

Table 11. Ancillary Observations

Sr No	Entries/Genotype	Colour	Shape	Fruit surface netting	Flesh colour	F.W	G.S.B	D.M.
1	2024/MMVAR-1	Cream	Round	Present	Cream	Tolerant	Tolerant	Tolerant
2	2024/MMVAR-2	Cream	Round	Present	White	Tolerant	Tolerant	Tolerant
3	2024/MMVAR-3	Cream	Round	Present	Cream	Tolerant	Tolerant	Present
4	2024/MMVAR-4	Brown	Round	Present	Cream	Present	Tolerant	Present
5	2024/MMVAR-5	Cream	Round	Present	White	Present	Tolerant	Present
6	2024/MMVAR-6	Cream	Round	Present	White	Tolerant	Tolerant	Tolerant

