

Experiment No. :16						
1.	Title of experiment	:	MUSKMELON HYBRID 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. 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	:	7			
			1.	2022/MMHYB-1	5.	2022/MMHYB-5
			2.	2022/MMHYB-2	6.	2022/MMHYB-6
			3.	2022/MMHYB-3	7.	2022/MMHYB-7
			4.	2022/MMHYB-4		
	(c) Replication	:	3			
	(d) Plot Size	:	7.5 m X 3.0 m			
	(e) Spacing	:	50 cm X 150 cm			
	(f) Fertilizer NPK kg/ha	:	100-50-50			
	(g) Date of sowing	:	16/01/2025			
	(h) Date of first fruit harvest	:	10/04/2025			
	(i) Date of last fruit harvest	:	18/05/2025			
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 hybrid AVT-II)

Days to first picking					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/MMHYB-1	75.40	80.20	90.00	81.87
2	2022/MMHYB-2	75.20	76.40	82.20	77.93
3	2022/MMHYB-3	87.60	78.80	90.20	85.53
4	2022/MMHYB-4	73.60	74.40	77.60	75.20
5	2022/MMHYB-5	84.20	77.40	80.20	80.60
6	2022/MMHYB-6	82.20	78.60	86.20	82.33
7	2022/MMHYB-7	78.80	80.40	77.00	78.73
SEm±		2.19			
CD at 5%		6.74			
CV%		4.72			

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

Average weight of single fruit (g)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/MMHYB-1	570.00	630.00	540.00	580.00
2	2022/MMHYB-2	950.00	800.00	880.00	876.67
3	2022/MMHYB-3	500.00	550.00	600.00	550.00
4	2022/MMHYB-4	510.00	620.00	540.00	556.67
5	2022/MMHYB-5	600.00	700.00	520.00	606.67
6	2022/MMHYB-6	440.00	480.00	540.00	486.67
7	2022/MMHYB-7	500.00	600.00	430.00	510.00
SEm±		38.40			
CD at 5%		118.31			
CV%		11.17			

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

No. of fruits/plant					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/MMHYB-1	1.40	2.00	1.60	1.67
2	2022/MMHYB-2	3.00	2.60	3.40	3.00
3	2022/MMHYB-3	1.40	2.40	2.60	2.13
4	2022/MMHYB-4	2.40	2.00	1.60	2.00
5	2022/MMHYB-5	2.00	2.20	2.40	2.20
6	2022/MMHYB-6	1.40	1.60	1.80	1.60
7	2022/MMHYB-7	2.00	1.80	2.00	1.93
SEm±		0.21			
CD at 5%		0.65			
CV%		17.63			

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

Marketable fruit yield (kg/plant)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/MMHYB-1	1.40	2.00	1.60	1.67
2	2022/MMHYB-2	3.00	2.60	3.40	3.00
3	2022/MMHYB-3	1.40	2.40	2.60	2.13
4	2022/MMHYB-4	2.40	2.00	1.60	2.00
5	2022/MMHYB-5	2.00	2.20	2.40	2.20
6	2022/MMHYB-6	1.40	1.60	1.80	1.60
7	2022/MMHYB-7	2.00	1.80	2.00	1.93
SEm±		0.21			
CD at 5%		0.65			
CV%		17.63			

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

Marketable fruit yield (kg/plot)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/MMHYB-1	36.00	40.50	33.00	36.50
2	2022/MMHYB-2	62.20	68.40	67.00	65.87
3	2022/MMHYB-3	33.00	43.50	40.50	39.00
4	2022/MMHYB-4	39.00	43.50	34.50	39.00
5	2022/MMHYB-5	40.50	48.00	40.20	42.90
6	2022/MMHYB-6	42.00	33.00	37.80	37.60
7	2022/MMHYB-7	34.20	34.50	33.00	33.90
SEm±		2.17			
CD at 5%		6.70			
CV%		8.94			

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

Marketable fruit yield (q/ha)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/MMHYB-1	160.00	180.00	146.67	162.22
2	2022/MMHYB-2	276.44	304.00	297.78	292.74
3	2022/MMHYB-3	146.67	193.33	180.00	173.33
4	2022/MMHYB-4	173.33	193.33	153.33	173.33
5	2022/MMHYB-5	180.00	213.33	178.67	190.67
6	2022/MMHYB-6	186.67	146.67	168.00	167.11
7	2022/MMHYB-7	152.00	153.33	146.67	150.67
SEm±		9.66			
CD at 5%		29.77			
CV%		8.94			

Conclusion:

Total 7 hybrids were evaluated in AVT-II of Muskmelon hybrid trial. Differences among the genotypes for fruit yield were found significant. 2022/MMHYB-2 exhibited significantly higher fruit yield (292.74 q/ha). Among all the coded entries, 2022/MMHYB-2 was found promising at Navsari centre.

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

Fruit diameter (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/MMHYB-1	11.90	12.42	13.10	12.47
2	2022/MMHYB-2	14.33	14.85	14.02	14.40
3	2022/MMHYB-3	11.62	10.78	11.36	11.25
4	2022/MMHYB-4	11.90	11.45	12.30	11.88
5	2022/MMHYB-5	12.36	13.39	11.09	12.28
6	2022/MMHYB-6	11.58	13.30	12.40	12.43
7	2022/MMHYB-7	11.25	10.82	11.46	11.18
SEm±		0.40			
CD at 5%		1.24			
CV%		5.69			

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

Fruit length (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/MMHYB-1	7.90	8.09	8.75	8.25
2	2022/MMHYB-2	10.36	11.62	11.44	11.14
3	2022/MMHYB-3	9.74	9.04	9.68	9.49
4	2022/MMHYB-4	7.96	7.40	8.48	7.95
5	2022/MMHYB-5	9.53	9.17	8.69	9.13
6	2022/MMHYB-6	8.05	8.62	7.40	8.02
7	2022/MMHYB-7	8.40	8.14	7.62	8.05
SEm±		0.32			
CD at 5%		0.98			
CV%		6.20			

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

TSS (°Brix)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/MMHYB-1	9.10	8.45	9.46	9.00
2	2022/MMHYB-2	9.66	11.90	10.36	10.64
3	2022/MMHYB-3	8.45	8.40	7.99	8.28
4	2022/MMHYB-4	11.71	12.30	10.66	11.56
5	2022/MMHYB-5	8.05	7.99	7.69	7.91
6	2022/MMHYB-6	9.47	10.78	10.69	10.31
7	2022/MMHYB-7	9.66	8.49	9.88	9.34
SEm±		0.43			
CD at 5%		1.31			
CV%		7.71			

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

Vine length (cm)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/MMHYB-1	226.60	210.10	189.35	208.68
2	2022/MMHYB-2	226.45	237.36	251.60	238.47
3	2022/MMHYB-3	185.60	213.47	211.20	203.42
4	2022/MMHYB-4	160.20	175.30	180.90	172.13
5	2022/MMHYB-5	200.10	178.30	192.30	190.23
6	2022/MMHYB-6	185.60	185.30	175.40	182.10
7	2022/MMHYB-7	178.20	165.20	185.60	176.33
SEm±		9.53			
CD at 5%		NS			
CV%		6.02			

Table 11. Ancillary Observations

Sr. No.	Entries/Genotype	Colour	Shape	Fruit surface netting	Flesh colour	F.W	G.S.B	D.M.
1	2022/MMHYB-1	Cream	Round	Present	Cream	Tolerant	Tolerant	Tolerant
2	2022/MMHYB-2	Cream	Round	Present	White	Tolerant	Tolerant	Tolerant
3	2022/MMHYB-3	Cream	Round	Present	Cream	Tolerant	Tolerant	Tolerant
4	2022/MMHYB-4	Cream	Round	Present	Cream	Present	Tolerant	Present
5	2022/MMHYB-5	Cream	Round	Present	Cream	Present	Tolerant	Present
6	2022/MMHYB-6	Cream	Round	Present	White	Tolerant	Tolerant	Tolerant
7	2022/MMHYB-7	Cream	Round	Present	White	Present	Tolerant	Present

