

**Experiment No. : 15**

<b>1.</b>	<b>Title of experiment</b>	<b>:</b>	<b>MUSKMELON AVT-II</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. A.I.Patel Asso. PI: Dr. D.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.	2022/MMVAR-1	5.	2022/MMVAR-5
			2.	2022/MMVAR-2	6.	2022/MMVAR-6
			3.	2022/MMVAR-3	7.	2022/MMVAR-7
			4.	2022/MMVAR-4		
	<b>(c) Replication</b>	<b>:</b>	3			
	<b>(d) Plot Size</b>	<b>:</b>	7.5 m X 3.0 m			
	<b>(e) Spacing</b>	<b>:</b>	150 cm X 50 cm			
	<b>(f) Fertilizer NPK kg/ha</b>	<b>:</b>	100-50-50			
	<b>(g) Date of sowing</b>	<b>:</b>	20/01/2025			
	<b>(h) Date of first fruit harvest</b>	<b>:</b>	10/04/2025			
	<b>(i) Date of last fruit harvest</b>	<b>:</b>	18/05/2025			
<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 –11			

**Table 1. Days to first picking at Navsari centre (Muskmelon varietal AVT-II)**

<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	2022/MMVAR-1	82.60	90.00	88.40	87.00
2	2022/MMVAR-2	90.60	86.40	85.20	87.40
3	2022/MMVAR-3	91.40	97.20	95.00	94.53
4	2022/MMVAR-4	87.20	84.60	84.20	85.33
5	2022/MMVAR-5	88.60	72.20	80.00	80.27
6	2022/MMVAR-6	81.20	87.60	84.60	84.47
7	2022/MMVAR-7	78.60	84.20	85.60	82.80
<b>SEm±</b>		<b>2.64</b>			
<b>CD at 5%</b>		<b>NS</b>			
<b>CV%</b>		<b>5.32</b>			

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

<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	2022/MMVAR-1	400.00	450.00	520.00	456.67
2	2022/MMVAR-2	720.00	660.00	590.00	656.67
3	2022/MMVAR-3	410.00	480.00	460.00	450.00
4	2022/MMVAR-4	720.00	690.00	650.00	686.67
5	2022/MMVAR-5	520.00	560.00	540.00	540.00
6	2022/MMVAR-6	480.00	560.00	500.00	513.33
7	2022/MMVAR-7	480.00	420.00	460.00	453.33
<b>SEm±</b>		<b>26.91</b>			
<b>CD at 5%</b>		<b>82.90</b>			
<b>CV%</b>		<b>8.68</b>			

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

<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	2022/MMVAR-1	1.60	1.40	1.80	1.60
2	2022/MMVAR-2	1.80	2.20	2.00	2.00
3	2022/MMVAR-3	1.60	1.20	1.40	1.40
4	2022/MMVAR-4	1.80	2.00	2.60	2.13
5	2022/MMVAR-5	1.40	1.60	2.00	1.67
6	2022/MMVAR-6	1.60	1.40	1.80	1.60
7	2022/MMVAR-7	1.60	1.40	1.40	1.47
<b>SEm±</b>		<b>0.13</b>			
<b>CD at 5%</b>		<b>0.40</b>			
<b>CV%</b>		<b>13.21</b>			

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

<b>Marketable 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	2022/MMVAR-1	1.25	1.37	1.14	1.25
2	2022/MMVAR-2	1.26	1.10	1.28	1.21
3	2022/MMVAR-3	0.68	0.98	1.07	0.91
4	2022/MMVAR-4	1.55	1.89	2.02	1.82
5	2022/MMVAR-5	1.07	1.22	1.14	1.14
6	2022/MMVAR-6	1.02	0.98	1.21	1.07
7	2022/MMVAR-7	0.95	1.10	0.66	0.90
<b>SEm±</b>		<b>0.10</b>			
<b>CD at 5%</b>		<b>0.29</b>			
<b>CV%</b>		<b>13.89</b>			

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

Marketable fruit yield (kg/plot)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/MMVAR-1	27.52	33.1	34.72	31.78
2	2022/MMVAR-2	37.33	29.02	26.62	30.99
3	2022/MMVAR-3	24.47	27.62	22.11	24.73
4	2022/MMVAR-4	42.56	46.71	50.6	46.62
5	2022/MMVAR-5	22.19	26.65	34.21	27.68
6	2022/MMVAR-6	24.36	29.47	26.30	26.71
7	2022/MMVAR-7	28.50	21.49	23.62	24.54
<b>SEm±</b>		<b>2.60</b>			
<b>CD at 5%</b>		<b>8.01</b>			
<b>CV%</b>		<b>14.79</b>			

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

Marketable fruit yield (q/ha)					
Sr. No.	Entries/Genotype	RI	RII	RIII	Mean
1	2022/MMVAR-1	122.31	147.11	154.31	141.24
2	2022/MMVAR-2	165.91	128.98	118.31	137.73
3	2022/MMVAR-3	108.76	122.76	98.27	109.93
4	2022/MMVAR-4	189.16	207.60	224.89	<b>207.21</b>
5	2022/MMVAR-5	98.62	118.44	152.04	123.04
6	2022/MMVAR-6	108.27	130.98	116.89	118.71
7	2022/MMVAR-7	126.67	95.51	104.98	109.05
<b>SEm±</b>		<b>11.55</b>			
<b>CD at 5%</b>		<b>35.58</b>			
<b>CV%</b>		<b>14.79</b>			

**Conclusion:**

Total 7 entries were evaluated in AVT-II of Muskmelon varietal trial. Differences among the genotypes for fruit yield were found significant. Entry 2022MMVAR-4 exhibited significantly high fruit yield (207.21 q/ha). Among all the coded entries, 2022MMVAR-4 was found promising at Navsari centre.

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

<b>Fruit diameter (cm)</b>					
<b>Sr. No.</b>	<b>Entries/Genotype</b>	<b>RI</b>	<b>RII</b>	<b>RIII</b>	<b>Mean</b>
1	2022/MMVAR-1	11.66	10.95	9.85	10.82
2	2022/MMVAR-2	11.78	13.65	12.85	12.76
3	2022/MMVAR-3	11.02	10.52	9.66	10.40
4	2022/MMVAR-4	11.70	14.65	12.66	13.00
5	2022/MMVAR-5	11.04	10.42	10.20	10.55
6	2022/MMVAR-6	12.95	11.55	11.06	11.85
7	2022/MMVAR-7	9.85	10.26	10.78	10.30
<b>SEm±</b>		<b>0.52</b>			
<b>CD at 5%</b>		<b>1.61</b>			
<b>CV%</b>		<b>7.97</b>			

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

<b>Fruit length (cm)</b>					
<b>Sr. No.</b>	<b>Entries/Genotype</b>	<b>RI</b>	<b>RII</b>	<b>RIII</b>	<b>Mean</b>
1	2022/MMVAR-1	8.02	7.45	9.33	8.02
2	2022/MMVAR-2	8.69	7.65	9.52	8.69
3	2022/MMVAR-3	8.32	8.14	7.65	8.32
4	2022/MMVAR-4	9.14	9.36	9.12	9.14
5	2022/MMVAR-5	7.95	8.36	8.44	7.95
6	2022/MMVAR-6	8.36	7.85	7.60	8.36
7	2022/MMVAR-7	7.67	6.99	7.38	7.67
<b>SEm±</b>		<b>0.32</b>			
<b>CD at 5%</b>		<b>1.00</b>			
<b>CV%</b>		<b>6.80</b>			

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

<b>TSS (°Brix)</b>					
<b>Sr. No.</b>	<b>Entries/Genotype</b>	<b>RI</b>	<b>RII</b>	<b>RIII</b>	<b>Mean</b>
1	2022/MMVAR-1	7.90	7.62	8.44	7.99
2	2022/MMVAR-2	8.92	8.69	9.33	8.98
3	2022/MMVAR-3	7.90	8.02	7.35	7.76
4	2022/MMVAR-4	8.40	9.65	9.05	9.03
5	2022/MMVAR-5	7.68	8.95	7.62	8.08
6	2022/MMVAR-6	7.32	8.45	7.33	7.70
7	2022/MMVAR-7	7.09	8.58	7.66	7.78
<b>SEm±</b>		<b>0.29</b>			
<b>CD at 5%</b>		<b>0.89</b>			

<b>CV%</b>	<b>6.13</b>
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**Table 10. Vine length (cm) at Navsari centre (Muskmelon varietal AVT-II)**

<b>Vine length (cm)</b>					
<b>Sr. No.</b>	<b>Entries/Genotype</b>	<b>RI</b>	<b>RII</b>	<b>RIII</b>	<b>Mean</b>
1	2022/MMVAR-1	201.30	185.66	185.90	190.95
2	2022/MMVAR-2	175.65	188.44	214.12	192.74
3	2022/MMVAR-3	185.60	178.45	214.33	192.79
4	2022/MMVAR-4	212.78	202.90	184.62	200.10
5	2022/MMVAR-5	187.65	174.62	188.70	183.66
6	2022/MMVAR-6	210.69	176.30	185.45	190.81
7	2022/MMVAR-7	158.20	152.30	168.70	159.73
<b>SEm±</b>		<b>8.10</b>			
<b>CD at 5%</b>		<b>24.97</b>			
<b>CV%</b>		<b>7.50</b>			

**Table 11. Ancillary Observations**

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

7	2022/MMVAR-7	Cream	Round	Present	Cream e	Present	Tolerant	Present
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