

## PREVALENCE AND INCIDENCE OF MELON MOSAIC VIRUS OF TWO MUSKMELON (*CUCUMIS MELO*) VARIETIES 'ARKAJEET' AND 'ARKA RAJHAN' IN FAIZABAD (U.P.)

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Muskmelon (*Cucumis melo*) are grown in almost all states of India. It belongs to cucurbitaceous vegetable crops. Muskmelon are good sources of Carbohydrates, Vitamin A and C and minerals. So It play an important role in human nutrition.

In Faizabad district of Uttarpradesh, two muskmelon varieties 'Arka Rajhan and Arkajeet' were commercially grown in large scale with an average yield of 320q./hact. from 'Arka Rajhan' and 156q./hact. from 'Arkajeet' varieties<sup>1</sup>. However, plant pathogens have always been posing a problem in successful cultivation of these vegetable crops. Bhargava and Joshi<sup>2</sup> reported a mosaic disease of cucurbita pepo in Eastern U.P., Bhargava and Joshi<sup>3</sup> also reported perpetuation of water melon mosaic in U.P. (India) and Jaganathan and Rama Krishan<sup>4</sup> studied the virus disease of cucurbits.

In 1998 -2000, Melon mosaic virus

disease was found to be wide spread in muskmelon crops<sup>4</sup>, and as in faizabad (U.P.) Its incidence was as high as 80% at farmer fields, keeping in view the magnitude of the disease, survey was conducted to assess the severity of this disease on muskmelon vegetable crops grown in the Faizabad (U.P. ) district.

Survey of different Muskmelon growing farmer field area of the faizabad (U.P.) district was conducted to record the incidence of melon mosaic virus in two varieties of Muskmelon (Arkajeet and Arka Rajhan). Ten fields were examined throughout faizabad district and 25 plants were observed at random (from each field plot) to record the incidence and prevalence of the melon mosaic virus disease.

Prevalence of the disease was recorded as number of field infected divided by the total number of the field surveyed in each village and multiplied by 100, the

**Table 1.** Prevalence of melon mosaic virus disease of two Muskmelon varieties 'Arka jeet' and Arka Rajhan' in Faizabad district of Uttar pradesh.

Villages	No. of fields Examined		No. of fields infected		Disease Prevalence %	
	A	B	A	B	A	B
1. Ayodhya	10	10	08	05	80%	50%
2. Bikapur	10	10	03	03	30%	30%
3. Dabhasemar	10	10	03	05	30%	50%
4. Darshan nagar	10	10	04	02	40%	20%
5. Guptar Ghat	10	10	06	03	60%	30%
6. Kumarganj	10	10	05	05	50%	50%
7. Masodha	10	10	04	03	40%	30%
8. Pura Bazar	10	10	04	04	40%	40%
9. Rudauli	10	10	08	06	80%	60%
10. Sohawal	10	10	06	05	60%	50%

**Table 2.** Incidence of melon mosaic virus disease of two Muskmelon varieties 'Arka jeet' and Arka Rajhan' in Faizabad district of Uttar Pradesh.

Villages	No. of Plants Examined		No. of infected plants		Incidence %	
	A	B	A	B	A	B
1. Ayodhya	25	25	15	10	60%	40%
2. Bikapur	25	25	08	05	32%	20%
3. Dabhasemar	25	25	06	10	24%	40%
4. Darshan nagar	25	25	12	08	48%	32%
5. Guptar Ghat	25	25	20	15	80%	60%
6. Kumarganj	25	25	12	10	48%	40%
7. Masodha	25	25	10	12	40%	48%
8. Pura Bazar	25	25	12	10	48%	40%
9. Rudauli	25	25	15	12	60%	48%
10. Sohawal	25	25	16	10	68%	40%

A = Arkajeet variety of Muskmelon

B = Arka Rajhan variety of Muskmelon

disease incidence was calculated as number of diseased plant over number of plant examined (in each location) multiplied by 100.

Survey of the ten villages of the Faizabad (U.P.) district (Table 1, 2) revealed that in Rudauli, Ayodhya, Sohawal, Kumarganj the prevalence of the disease was higher in Arkajeet variety and ranged from 50-80% where as in other villages it ranged between 30-40%. The maximum incidence of the melon mosaic virus disease was recorded at Guptarghat village, while it was minimum 24% at Dabhasemar village.

In case of Arka Rajhan variety, the prevalence was maximum 60% at Rudauli village and minimum 20% at Darshan Nagar village. Maximum incidence of melon mosaic virus disease was recorded 60% at

Guptarghat village and minimum 20% at Bikapur village of the Faizabad district of Uttar Pradesh.

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#### References

1. NathPrem and Dutta OP 1969, *Indian J. Hort.* 26 (1&2) 74
2. Bhargava KS and Joshi RD 1960, *A mosaic disease of cucurbita pepo in eastern Uttar pradesh.* Proc. 47<sup>th</sup> Indian Sci. Cong. Part III, 314 (abstr.)
3. Bhargava B, Bhargava KS and Joshi RD 1975, *Plant Dis. Repr.* 59 634
4. Jaganathan T and Ramakrishnan K 1971, *Madras Agric. J.* 58 331