

Short Communication

Assessment of Losses Due to Mosaic Virus in Mustard (*Brassica juncea*)

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During *rabi* 1990-91, mosaic type symptoms were observed in mustard (*Brassica juncea*) cv. 'Varuna' at Agricultural Research Station, Durgapura, Jaipur (Rajasthan). The incidence varied from 1 to 2%. When infected before flowering, the diseased plants showed stunted growth as compared to healthy ones. The affected leaves exhibited typical mosaic symptoms together with deformation of the leaf lamina. The siliquae were shortened in length and twisted in appearance. On the basis of the symptoms, the disease was tentatively identified as 'rai mosaic virus' (Sharma, 1973). To understand the economic importance of the disease, losses in seed yield and yield components in mustard were assessed and are reported here.

Twenty five, apparently healthy looking and equal number of typical mosaic affected mustard plants were selected randomly after 50 days of sowing at Agriculture Research Station, Durgapura. Plants of both the categories were harvested separately and observations on height of the plant, number of primary branches plant⁻¹, number of siliquae plant⁻¹, length of siliqua, num-

ber of seeds siliqua⁻¹, test weight of seeds and seed yield were recorded.

There was a marked reduction in seed yield and yield components of the infected plants in comparison to healthy ones (Table 1). The reduction in seed yield per plant was 78.4%. The reduction in siliquae per plant (32.8%), seeds siliqua⁻¹ (27.3%) and 1000 seeds weight (58%) as recorded in the present experiment may be responsible for the yield loss. Reduced siliqua length (40.7%) and height of the plant (25.4%) also had some adverse effect on yield. However, number of primary branches was not affected by the disease.

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Reference

Sharma, D.C. 1973. Rai mosaic virus. *Indian Phytopathology* 26: 346.

Table 1. Effect of mosaic virus on seed yield and yield components of mustard (*Brassica juncea*) cv. 'Varuna' during 1990-91

Category of plants	Seed yield plant ⁻¹ (g)	Siliquae plant ⁻¹ (g)	Seeds siliqua ⁻¹ (No.)	1000 seed weight (g)	Siliqua length (cm)	Plant height (cm)	Primary branches (No.)
Healthy plant	20.8	393	11	5.14	5.53	142	4 to 5
Diseased plant	4.5 (78.4%)*	264 (32.8%)	8 (27.3%)	2.16 (58%)	3.28 (40.7%)	106 (25.4)	4 to 5

*Figures in parentheses indicate per cent reduction over healthy plants.