

**EVALUATION THE STATUS OF COMMERCIAL HYBRIDS MAIZE IN
RESPONSE TO TRANSMIT THE VIRUSES CAUSING MAIZE
LETHAL NECROSIS DISEASE (MLND)**

Md. Belal Hossain*

Executive Summary

Virus transmission through seed is common method in many annual crops including maize. Transmission of viruses causing maize lethal necrosis disease (MLND) through seed has been reported. An experiment was conducted in the laboratory and field condition under the Department of Plant Pathology of Sher-e-Bangla Agricultural University, Dhaka-1207 during 2022-2023. The lab experiment was carried out in a Completely Randomized Design (CRD) with four replications and the field experiment in a Randomized Complete Block Design (RCBD) with three applications. In total ten varieties/lines viz., GT722, HEERA-55, 10V20, Tain-927, APURBA-784, Kohinoor, Konok, SUPER-92, Super Shine-2760 and Sweet corn were selected for conducting the experiments. Among the tested maize varieties/lines, the lowest disease incidence and severity (at reproductive stage) of MLND was found in variety HEERA-55 and the highest in line GT-722 and variety SUPER-92. According to disease rating scale used in this study, all the tested varieties/lines showed highly susceptible while variety HEERA-55 showed susceptible reaction. From the findings of the study, it was revealed that out of ten tested varieties/lines, two varieties; Super Shine-2760 and SUPER-92 showed better performance in terms of morpho-physiological features as well as yield and yield contributing characters as compared to other tested varieties/lines against MLND. It was also revealed that chlorophyll content was higher in healthy leaves than diseased leaves due to MLND. From the findings on different parameters considered in the present study, it can be concluded that viruses caused maize lethal necrosis disease (MLND) in maize transmitted through the seeds.

*Professor, Dept. of Plant Pathology, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh