Research Article

Field Diagnosis and Temporal Progress of *Potato Virus X* and *A* in Tarai Region of Uttarakhand

Mohammad Ansar* and R P Singh

*Department of Plant Pathology, G B Pant University of Agriculture and Technology, Pantnagar-263 145, Uttarakhand, India; *Department of Plant Pathology, Bihar Agricultural University, Sabour-813 210, Bhagalpur, Bihar. Email: ansar.pantversity@gmail.com*

Abstract

In a comprehensive study, the survillance of potato viral diseases in seed production plots was done using immuno-dipsticks detection technique at *Tarai* region of Uttarakhand. Assorted range of over laping symptoms incited by different viruses exhibited independently and/or in combination. The common symptoms observed were, fiant mottle, mild and super mild rugose mosaic pattern on young folige. Infected plants incited by more than one virus showed rigorous mosaic along with stunting and streaking of leaflets. Detection of *Potato Virus X* (*PVX*), *Potato Virus A* (*PVA*) and combined infection (*PVX* and *PVA*) at the field using immuno-dipsticks shown two linings (test and control) at the centre of dipstick for positive reaction. Further, survillance of diseases reveled a progressive increases in disease incidence upto maturity (digging stage). Both the viruses had maximum infection at Bajpur (16% for *PVX*, 12% for *PVA* and 6.6% for combined infection). At pantnagar least incidence of *PVX* was detected among three surveyed locations during the second week of February. The plots sown with splitted tubers expressed a progressive increase in the disease rather than sole planting. The information generated under this study suggested that potato seed growers could be facilitated to detect the virus by using immuno-dipstick for quick detection of virus, towards healthy seed tuber production.

Key words: Diagnosis, dipstick, mosaic. *PVA* and *PVX*

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