

POTATO VIRUS Y (PVY) SURVEYING AND ITS ECONOMIC IMPORTANCE ON POTATO CROP

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ABSTRACT

This study was conducted to estimate disease incidence of potato virus Y (PVY) and to investigate its effects on the growth and morphology of potato plant and its productivity. High rates of occurrence of viral symptoms in the surveyed field were recorded. The mainly included symptoms were mild to severe yellowing, mottling, necrosis, stunting and malformation of potato plants. The effect of the virus on potato crop was studied using Vegetative growth and yield characters of healthy, current season and seed born PVY infected plants. There is differentiation between the growth of the current season, seed born PVY-infected and the virus free potato plant. Results showed that infection by PVY leads to reduce many physiological functions of above and under ground parts of host plant like size of leaf area, total chlorophyll content, number of tubers, tuber weight and total yield of a plant. Depending on the results, because of reducing physiological functions of above ground part of potato plant (leaf area and total chlorophyll content), the number and the weight of tuber decreased, so the productivity of the plant decreased.

KEYWORDS: Date of Infection, Potato, PVY