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Research Paper

INCIDENCE, DISTRIBUTION AND MANAGEMENT OF ROOT ROT DISEASE OF MULBERRY IN SERICULTURE PRACTICING AREAS OF KASHMIR, INDIA

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ABSTRACT

Root rot is one of the major economically important diseases of mulberry which affects its leaf quality and quantity. The present study was taken up during 2016-17 to assess the incidence and distribution of the disease and to develop appropriate management measures against root rot pathogens in sericulture practicing areas of Kashmir, India. The disease incidence recorded in various systems, locations and varieties differed significantly from each other. Bush plantation exhibited the maximum (27.13 %) and tall plantation, the minimum (3.62 %) disease incidence. Maximum (19.99 %) disease incidence was recorded in the variety Chinese white at mulberry farm, Kupwara and minimum (6.23 %) in Gosheorami at mulberry farm, Central Sericultural Research and Training Institute (CSRTI), Pampore. The root rot causing fungi were isolated from infected plant parts and identified based on morphological and cultural characters as *Fusarium oxysporum* and *Rhizoctonia solani.* The efficacy of different biocontrol agents and fungicides against the root rot infected mulberry saplings varied significantly. The highest degree of survival of saplings was recorded with Navinya and Carbendazim which were significantly superior to other treatments. It is concluded from the present study that Navinya and Carbendazim can effectively be utilized as components of Integrated Disease Management (IDM) package against root rot disease of mulberry in Kashmir, India.

Key words: *Fusarium oxysporum*, mulberry, Navinya, *Rhizoctonia solani,* root rot.