Research Article

Effect of Organic Amendments, Biofertilizer Consortia and Microbial Antagonists on Soil Health and Incidence of Sheath Rot Disease

Budha Bora[1] and Bikram Borkotoki[2]

[1]Department of Plant Pathology, [2]Department of Soil Science, Biswanath College of Agriculture, Assam Agricultural University Biswanath Chariali, Assam-784 176, India; Email: budha.bora@aau.ac.in

Abstract

Sheath rot disease caused by *Sarocladium oryzae* (Sawada) Gams and Hawksworth has emerged as one of the major diseases of rice inflicting severe yield losses all over the world. Soil nutrients have a direct influence on plant growth as well as on plant pathogens. Organic amendments, biofertilizer consortia and microbial antagonist were assessed to test their effect on soil fertility status, plant health, incidence and severity of sheath rot disease in rice. Dhaincha (*Sesbania aculeata*) along with biofertilizer consortia and *Pseudomonas fluorescens* (*Pf*) bioformulation were found to be very effective in improving the soil fertility status by enhancing the availability of nutrients and improving the organic carbon (OC) and microbial biomass carbon (MBC) to the tune of 23.88 and 12.86 per cent over control, respectively resulting healthy plants and caused the maximum reduction (69.94 and 60.95 per cent) of DI and PDI, respectively over control.

Key words: Biofertilizer consortia, organic amendments, organic carbon, sheath rot disease

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