Effect of weather parameters on the initiation and progression of sheath blight of rice

RINI PAL*¹, DIPANKAR MANDAL¹ MOHAN KUMAR BISWAS² and BIRENDRA NATH PANJA³

¹Regional Research and Technology Transfer Station, O.U.A.T, Chiplima-768025, Sambalpur, Odisha
²Department of Plant Protection, Institute of Agriculture, Visva-Bharati-731236, W.B.
³Department of Plant Pathology, B.C.K.V, Mohanpur-741252, Nadia, W.B.

*Email: rinipatho@gmail.com

ABSTRACT

Sheath blight disease is one of the major fungal diseases of rice. Studies on the role of different weather parameters in the initiation and progression of the disease was carried out taking seven weather parameters as independent variables and cumulative and periodical increment in percent disease index as dependent variables. The main aim was to find out the most critical and contributory weather parameter(s) towards development of the disease in west central table land zone of Odisha. The study revealed that a heavy rainfall was conducive for initiation of the disease followed by low and intermittent rainfall of 13 to 38 mm, which was found favourable for progression of the disease. A maximum temperature range of 31°C to 34°C, minimum temperature range of 17°C to 23°C with 70 to 83 per cent evening relative humidity were found favourable for disease development and spread.

Key Words: Rice, sheath blight, weather parameters