

## Studies on epidemic development of Leaf blight disease of Pipul (*Piper longum* L.) caused by *Fusarium* sp. and Leaf blight disease of Antamul [*Tylophora indica* (Burm.f.)Merrill] caused by *Sclerotium rolfsii*

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Received : 13.11.2017

Accepted : 15.11.2017

Published : 29.01.2018

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Fixed plot survey was conducted at monthly interval during 2014-15 and 2015-16 to study the influence of different weather factors on the development of leaf blight disease of Pipul (*Piper longum* L.) caused by *Fusarium* sp. and Leaf blight disease of Antamul [*Tylophora indica* (Burm.f.)Merrill] caused by *Sclerotium rolfsii*. To study the relation, correlation of coefficients and multiple regression analysis (MRA) between percent disease incidences of about diseases with different weather parameters were done to find out the role of weather parameters on the development of above diseases. The result showed that the partitioning of correlation of coefficients into direct and indirect effect of above diseases were negatively correlated to different weather parameters. While deriving MRA of two years pooled data of leaf blight disease of Pipul it was revealed that with increase in minT and sunshine hours there was significant increase in percent disease incidence whereas with decrease in RHevening, RHmorning, maxT, wind speed and rainfall there was increase in percent disease incidence which was confirmed by high R<sup>2</sup> value (0.893). While deriving MRA of two years pooled data of leaf blight disease of Antamul it was revealed that with increase in RHevening, RHmorning and sunshine hours there was significant increase in percent disease incidence whereas with decrease in minT, maxT, wind speed and rainfall there was significant increase in percent disease incidence which was confirmed by high R<sup>2</sup> value (0.776).

**Key words:** *Piper longum*, *Tylophora indica*, *Fusarium* sp., *Sclerotium rolfsii*, multiple regression analysis

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