



Leaf blight of *Iris domestica*: A new report from Bahraich (U.P.)

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Abstract

Leopard Lily, *Iris domestica* (L.)DC is a species of Iris family Iridaceae. It is very popular and commonly used for the treatment of a variety of diseases, such as sore throat, tonsillitis, bronchitis, malaria, cough, asthma and acute hepatitis. Plants were found suffering from some foliar blight disease. Disease starts from tip of leaf and gradually increases to cover entire leaf. Later leaves appear burnt and turn brown and disintegrate. Isolation from diseased portion yielded *Fusarium oxysporium* (Schl.). Pathogenicity test was done to prove Koch's postulates. Search of available literature reveals that it is the first report from Bahraich (U.P.). The infected sample was submitted in Tropical Forest Research Institute, M.P. and the assign no. is TF3848 (Holotype), BRH-1610; NA.0104 (Isotype).

Keywords: Blight, Bahraich, Ethnomedicinal plant, Pathogenicity

Introduction

Iris domestica (L.) (English-Leopard lily; family-Iridaceae) is a potential perennial ethnomedicinal plant. It is also well known for its ornamental value and scented leaves. Plants possess sore throat, tonsillitis, bronchitis, malaria, cough, asthma, mastitis, acute hepatitis curing properties.

In Ayurveda it is valued as a rejuvenator for the brain and nervous system and as a remedy for digestive disorders. The plant is grown in gardens, nurseries, parks etc as an ornamental. In July 2014 were found suffering from blight disease. Surveys of gardens of housing colonies, nurseries and parks were done and infected samples were collected for further studies.

Materials and Method

The collected specimens were pressed and dried following the techniques proposed by Jain & Rao (1978). The fresh infected leaves were collected, hand cut sections and scrap mount were prepared for infected parts in cotton blue and lactophenol as described by Sharma et al., (2003). For pathogenicity test, the isolated fungus was cultured on Potato Dextrose agar (PDA) medium and sporulating mass in aqueous solution was sprayed on healthy potted plants (MacCallum and TEkauz, 2002). The Holotype was submitted to Tropical Forest Research Institute, Jabalpur (M.P.) and Isotype is retained in the department for record.

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and future studies.

Results and Discussion

The infected plants showed typical blight symptoms. Blighting starts from the tip and gradually covers the entire leaf lamina which later on dries, becomes brown and finally droops down. The microscopic observation of prepared slides revealed that the casual organism of foliar blight is a fungus having micro conidia 2.8-6 micron and macro conidia 23-45 micron in size. Isolated fungus on PDA showed pale, whitish rosy color colony of fungus. The consultation of monographs showed identified fungus was *Fusarium oxysporium* (Schl.) Pathogenicity test by spray method was positive and first symptom appear after 7 days of spray which later covered entire leaf blade within 10-12 days. This symptoms does not extend to the inflorescence and remain confined to the leaf blades only. So, far, it is the first report from Bahraich (U.P.). There should be some effective strategies adopted for the conservation of this plant in the view of its importance in Herbal medicine World.

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