

**TWO NEW SEVERE LEAF SPOT DISEASE ON FOREST TREES OF JALGAON (MAHARASTRA) INDIA**

S. A. FIRDOUSI

Department of Botany,  
H. J. Thim College of Arts and Science,  
Mehrun, JALGAON (MAHARASTRA) INDIA  
Email : shakeel.talk@gmail.com

**Received :** 18.08.2017; **Revised :** 13.09.2017; **Accepted :** 12.10.2017

**ABSTRACT**

During the survey of the forest fungal disease, of Jalgaon district, two severe leaf spot diseases on *Lannea coromandelica* and (*Ougenia dalbergioides* (Papilionaceae) were observed in Jalgaon, forest during July to September 2016-17. The casual organism was identified as *Stigmina lanneae* and *Phomopsis* sp. respectively<sup>1-4,7</sup>. These are first report from Jalgaon and Maharashtra state.

Figures : 02

References : 08

Table : 00

KEY WORDS : Banana, Foliar spray, Grand Naine, Micro-nutrients, Quality parameters.

**Introduction**

The forest of Jalgaon is a tropical dry deciduous types. The vegetation varies with changes in altitudes, topography and rainfall. There are various subtype of forest in this area. There are many parasitic fungi causing various types of foliage diseases in the forest of this area.

The geographical area of Jalgaon is 11765sq kms and the total forest area is 1991sqkms. The most of the forest of Jalgaon lies on the Satpuda range in the Jalgaon district.

The fungi play important role in various disease and responsible for great loss. Many diseases like leaf spot, leaf blight, leaf rust, shot hole, and marginal infection. They cause yearly leaf fall. Most of the fungi are follicolous belong to Cero-spore allied complex and coelomycetes.

*Lannea coromandelica* (Anacardiaceae) is small to large tree found commonly in the mixed deciduous forest and used in the various ways. Its wood is used for agriculture and domestic implements. A severe leaf spot diseases was found in the forest of Jalgaon. The causal organism was

identified as *Stigmina lanneae*.

*Ougenia dalbergioides*, (Papilionaceae) is a small to medium sized deciduous tree growing commonly in the forest. The plant has straight to crooked trunk and produces sucker in forest and regenerate. The tree is famous for hard wood which is used in cart and building material. It is also for agriculture implement, The leaves are used for fodder.

**Materials and Method**

A frequent, extensive and intensive survey was made to collect the phytopathogenic fungi infecting the leaves in the different forest site of Jalgaon forest. The symptomology and other information such as place of the collection, locality, local name of the plants their families, date of collection were noted in the field diary. The sample were kept in the polythene bags and carried to the laboratories for identification. The pathogen were identified with the help of various monographs, review, books and research papers. Monograph of *Cercospora*<sup>2</sup> and dematiaceous hyphomycetes<sup>3,4</sup>.

**ACKNOWLEDGEMENTS :** Author is grateful to Principal for providing laboratory facilities and HOD, Prof. A. N. Rai Deptt of Botany, Dr.H.S.Gour university for identification and confirmation of the fungi.

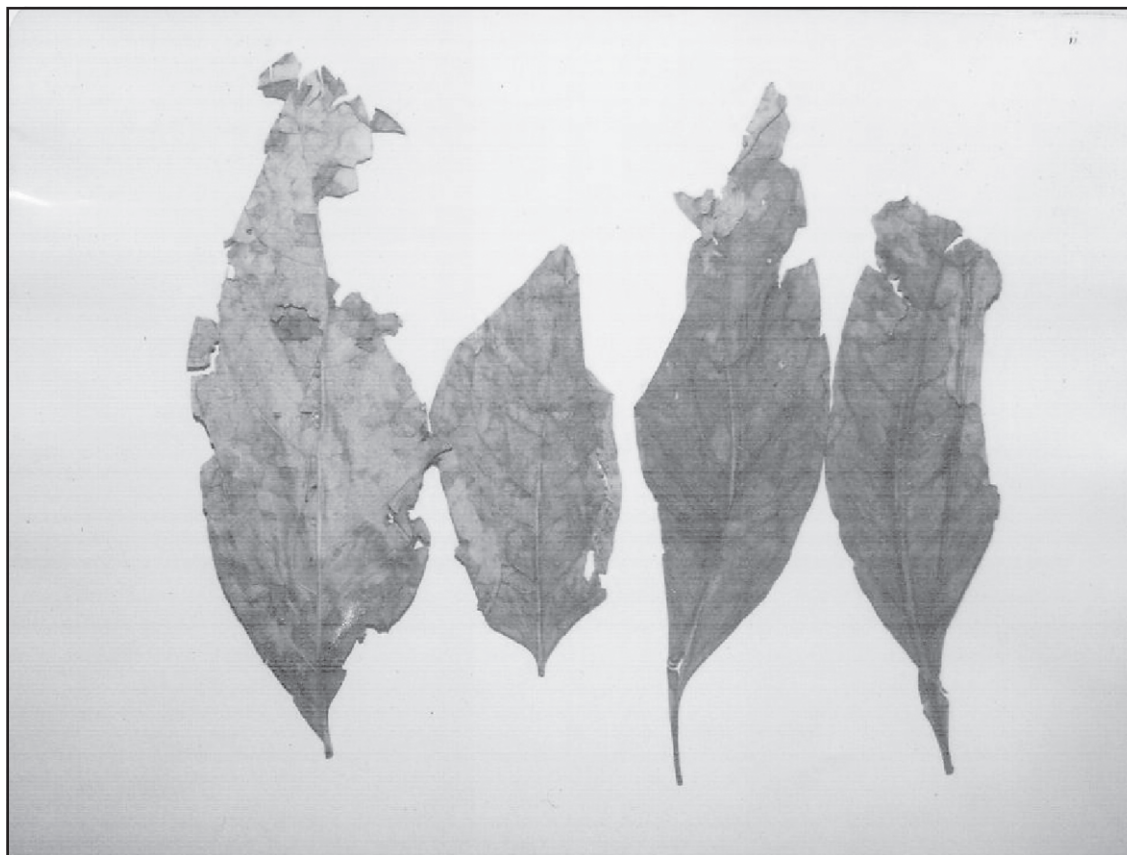


Fig. 1 : Leaf spot of *Lannea coromandelica* caused by *Stigmina lanneae*.

### Result and Discussion

#### Leaf spot of *Lannea coromandelica* caused by *Stigmina lanneae*

The infection first appear as a small necrotic spot on the lower surface of the leaf in August and spot coalesce gradually. Spot are mostly irregular and colonies are hypophyllous.

Infection spot amphigenous, small to large. brown, mostly vein limited colonies, hypophyllous, punctiformis, mycelium immersed, narrow, septate and branched, stoma well developed, partly erumpent, pseudoparenchymatous, mid olivaceous, 20-80 mm conidiophore caespitose, densely packed, sporodochia, macronematous, short to stumpy, erect to sub erect straight to flexuous, mostly, septate, unbranched, smooth walled light olivaceous, cylindrical straight, light olivaceous, 3-60x2-8 mm conidigenous, intergraded, terminal

monoblastic, cylindric, conidia, simple solitary, dry, acrogenous, light olivaceous, cylindrical, straight to curve., smooth walled, 15-88x2-6 mm septate, acute, base truncate, hila unthickened. This is first record of leaf spot disease not only from Jalgaon but Maharashtra.

#### Leaf spot of *Ougenia dalbergioides* caused by *Phomopsis* sp

The early symptom starts on the young shoot and the plant in July with the start of rainy season. The young shoot buds and leaves are affected and become black. Stem also become black and rotten giving a necked appearance. Interestingly small young plant 3 to 4 feet tall were mostly affected in the September. Plants show die back appear:

Infection spot amphigenous, small, almost, reddish brown, coalescing, pycnidia, almost globose, immersed to erumpent, 30-100 mm in



**Fig. 2 : Leaf spot of *Eugenia dalbergioides* caused by *Phomopsis* sp.**

diameter conidiophores, simple, short, hyaline, one, celled, ovoid, 2-3 x 5-2 mm, coibia hyaline, filiform curved or with bent sterospore 3-6 x 0.5 mm.

Leaf and stem rot disease on this host has not been described earlier. Hence this disease is quite typical, new and severe on this host<sup>5,6,8</sup>.

### References

1. BAKSHI, B.K. (1976) Forest Pathology Principles and Practice I Forestry, Controller of Publication Delhi.
2. CHUPP, C. (1953) A Monograph of the fungus genus *Cercospora*, Ithaca, New York.
3. ELLIS, M. B. (1971) Dematiaceous Hyphomycetes, CMI, Kew, England.
4. ELLIS, M. B. (1976) More Dematiaceous Hypomycetes CMI Kew England.
5. FIRDOUSI, S.A. (2014) New species of Stigmina from India, *Flora and Fauna*, **20** (1) : 28-30.
6. FIRDOUSI, S.A. AND KHAN T.A. (2015) Two new fungal diseases of trees of Manudeis forest of Jalgaon district. '*Flora and Fauna*', **21** (2) : 158-160.
7. HUNTER, H. L. AND B. B. HUNTER (2010) Illustrated genera of imperfecti Fungi, St Paul press, Minnesota.
8. JAMALUDDIN, RIZVI AND BILGRAMI (2008) Fungi of India host Index and Addenda, Bisen Pal Singh Publication, Dehradun.