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POWDARY MILDEW DISEASES OF MEDICINAL PLANTS OBSERVED IN OSMANABAD DISTRICT OF MAHARASHTRA.

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ABSTRACT

The fungal diseases cause great loss to the host plant. Various types of diseases caused by fungi were observed on the medicinal plants. The powdery mildew diseases observed during present investigation are described as follows with respect to the names of the host plants and pathogens along with the symptoms produced by them. .During the study leaf spot diseases of medicinal plants observed in Osmanabad district was recorded. In all 03 powdery mildew diseases were observed on 03 plants. These diseases were caused by different species of fungi.

KEYWORDS :*medicinal plants , Powdary Mildew Diseases , host plants and pathogens .*

INTRODUCTION :

Ayurveda and Siddha are perhaps the oldest, continuous healing traditions in the world. Besides these established systems, India possesses a vast array of folk practices among the tribal people. All of these systems make profound use of medicinal plants. Traditional medicine is widely used in India, especially in rural areas where lives 70 % of Indian population (Handa et al., 2006).

Medicinal plants thus form a large group of economically important plants, which provide basic raw material for medicines, perfumes, flavors and cosmetics. These plants and their products serve as valuable source of income for small land holders Medicinal and aromatic plants are facing great trouble by various pathogens, which are natural enemy of the plants. In Marathawada region several medicinal plants were observed, which suffer from various fungal, Bacterial and mycoplasma diseases (Papdiwal et.al.2004). Medicinal plants like other plants have special diseases. Data in this survey show that various fungi disease appears on medicinal plants and infected aerial, foliage and underground parts of plants. Powdery mildews are airborne disease. The survey of powdery mildew diseases of medicinal plants in Osmanabad district was under taken .During this survey 03 Powdery mildew diseases were observed on plants. This disease appeared on leaves and fresh stems on the late of the season and then covered entire surface of growing parts of plants.

OBSERVATIONS:

1) *Abrus precatorius* L.

Pathogen:- *Acrosporium* sp. Nees. Ex Gray

The pathogen grows epiphytically on the host surface firstly. The symptoms are evident as off coloured diffused specks. Later the disease spread and larger leaf area are covered with white, powdery spact. Powdery area comprise of mycelial growth and conidia borne on conidiophores. The disease develops during winter season.

Calotropis procera (Ait.)R.Br

Pathogen:- Uncinula sp.

The fungal attack was observed on all the green part of the plant during winter season. Pathogen produces white spots on the affected plant part. Later the spots increase in size and whitish patches are observed all over the affected plant parts. These patches coalesce and cover large area . The disease was observed during winter season.

Santalum album L.

Pathogen:- Odium sp. Link. Ex.fr

Initially this disease appears as white fine powder on upper side of the leaves. The infection occurs on old leaves than young ones. The white powdery mass appears as minute, tiny, white- yellow spots. In severe cases, white powdery mass turns yellow- pink in colour and mycelium progresses towards the lower side of the leaves. As the disease progresses, these powdery patches grow in size and finally cover the entire leaf surface from upper side; While lower surface shows reddish- brown or purplish irregular blotches on it. Badly infected leaves may scorch and dropped. This disease was observed during winter season.

RESULT:

Study show that powdery mildews are the most common diseases on medicinal plants. Powdery mildews were characterized by the appearance of patches of a white, powdery, mildew growth on plant parts and then entire leaves were completely covered by the white powdery mass.

During present study 3 powdery mildews diseases were observed. On Abrus precatorius powdery mildew disease caused by *Acrosporium sp*. was observed during present study. This disease has been recorded earlier by Patwardhan (1966) from Mahabaleshwar in Maharashtra. The leaf spot disease caused by *Cercospora* sp. recorded during present study appears to be a new disease on the host. However, the rust disease observed by earlier researchers (Ramkrishnan & Ramkrishnan, 1948; Tyagi & Prasad, 1972) has not been observed during the period of present study in the district.On *Calotropis procera*, several fungal diseases have been reported in literature in India (Mukerji & Bhasin, 1986). However, powdery mildew disease has not been reported on this host, which was observed during present survey of fungal diseases of medicinal plants. This disease was observed to be caused by *Uncinula* sp. Therefore this is also appears to be a first record of Powdery mildew on *Calotropis procera.*

Powdery mildew disease was observed on the leaves of *Santalum album.* The disease was found to be caused by *Odium* sp. Earlier this disease has been reported from Maharashtra by Patel et al., (1949) from Utter Pradesh by Salem and Rao (1958), and from Aurangabad district by Todawat (2011).

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