Fungal Diseases of Plants from Ambadi Forest Nursery, Kannad, Dist Aurangabad. (M.S.), India

S. M. Pawar

UG.PG & Research Centre in Botany, Shivaji College, Kanand. Dist. Aurangabad 431103, India

Abstract: Ambadi Nursery is reach with forest plants, maintained by forest department, Kannad, Dist. Aurangabad, Maharashtra. 16 forest plants were found to be infected with different fungal organisms, in rainy and winter season due to low temp and high humidity. Powdery mildew and leaf spot disease was dominant in seedlings in Ambadi nursery.

Keywords: Nursery Disease, Fungal Pathogen, Seedlings

1. Introduction

In Kannad taluka of Aurangabad district, Ambadi nursery is one of best of nursery maintained by forest department under Maharsahtra Government. Tectona grandis, Abadirachta indica, Emblica oficinalis, Dalbergia sissoo, Tamarindus indica, Terminalia arjuna, Butea monesperma, ficus religiosa, Santalum album, Annona squamosa, Tamarindus indica, Abadirachta indica, Emblica officinalis, Dalbergia sissoo, Tamarindus indica, Terminalia arjuna, Butea monesperma, ficus religiosa, Santalum album, Annona squamosa were most dominant plants in nursery bed.

The seedings developed by nursery are supplied to the Forest, Schools, non government organisation for plantation. Due to low temp and high humidity. These seedings were affected, and reduces their vigour. In this study it is observed that seedings are most susceptible for fungal disuses in Ambadi Nursery.

2. Material and Methods

The infected disased leaves and stems of seedlings were collected. In laboratory for identification of fungi, transfer section, blotter test, culture on media method was used. With the help of available literature pathogens (Causal organism) are identified and preserved in laboratory for further study. The herberium of disased plants of nursery were maintained.

3. Result and Discussion

A total of 16 plant species were found to be associated with different fungi in Ambadi Nursery located at Andhaner, Kannad taluka of Aurangabad district in Maharshaltra, India.

In the present study Powdery Mildew and leaf spot diseses was found to be most dominanat seedlings. Diseases was reported on leaves, stem, but not roots. It was observed that mostly leaves were susceptible to fungal attack due to favourable environment (Low temp and high humidity) in the month of October, November and December.

It is observed that necessary that nursery forest plant species should be protect from fungal diseases. Due to such attack of fungi on nursery plants causes huge loss to nursery plants.

This present study may help nursery officer to understand about diseases occurance, infecting organisms and host plant of fungal pathogens. This knowledge of given fungi and seedlings can be useful in reducing the fungal diseases in Ambadi Nursery Kanand, Dist. Aurangabad, Maharashtra.

Table 1: Diseases reported on Nursery Plants, Fungal Pathogens, parts infected and period of appearance in Ambadi Nursery, Kannad

<table>
<thead>
<tr>
<th>Sr</th>
<th>Name of Plants</th>
<th>Disease</th>
<th>Pathogen</th>
<th>Parts infected</th>
<th>Period of appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Leaves Stem Root</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Abrus precatorius</td>
<td>Powdery Mildew</td>
<td>Oidium abri.</td>
<td>+ + -</td>
<td>November</td>
</tr>
<tr>
<td>2</td>
<td>Annona Squamosa</td>
<td>leaf spot</td>
<td>Cercospora Sp.</td>
<td>+ - -</td>
<td>November</td>
</tr>
<tr>
<td>3</td>
<td>Azadirachta indica</td>
<td>Powdery Mildew</td>
<td>Oidium azadirachae</td>
<td>+ - -</td>
<td>October</td>
</tr>
<tr>
<td>4</td>
<td>Butea monperma</td>
<td>Leaf spot</td>
<td>Phoma Sp.</td>
<td>+ - -</td>
<td>November</td>
</tr>
<tr>
<td>5</td>
<td>Cassia fistula</td>
<td>Leaf spot</td>
<td>Colletotrichum sp.</td>
<td>+ - -</td>
<td>November</td>
</tr>
<tr>
<td>6</td>
<td>Dalbergia sissoo</td>
<td>Powdery Mildew</td>
<td>Phyllactinia dalbergae</td>
<td>+ - -</td>
<td>September</td>
</tr>
<tr>
<td>7</td>
<td>Emblica officianlics</td>
<td>Leaf spot</td>
<td>Macrophomina phaseolina</td>
<td>+ - +</td>
<td>October</td>
</tr>
<tr>
<td>8</td>
<td>Ficus racemosa</td>
<td>Leaf spot</td>
<td>Collectotrichum sp.</td>
<td>+ - -</td>
<td>October</td>
</tr>
<tr>
<td>9</td>
<td>Ficus religiosa</td>
<td>Leaf spot</td>
<td>Collectotrichum gleosporioides</td>
<td>+ - -</td>
<td>October</td>
</tr>
<tr>
<td>10</td>
<td>Isora pavetta</td>
<td>Powdery Mildew</td>
<td>Erysiphe</td>
<td>+ - -</td>
<td>November</td>
</tr>
<tr>
<td>11</td>
<td>Mangifera indica</td>
<td>Powdery Mildew</td>
<td>Oidium mangiferae</td>
<td>+ - -</td>
<td>December</td>
</tr>
<tr>
<td>12</td>
<td>Pongamia pennata</td>
<td>leaf spot</td>
<td>Macrophomina phaseolina</td>
<td>+ - -</td>
<td>December</td>
</tr>
<tr>
<td>13</td>
<td>Santalum album</td>
<td>Powdery Mildew</td>
<td>Oidium santalacearum</td>
<td>+ - -</td>
<td>October</td>
</tr>
<tr>
<td>14</td>
<td>Tamarindus indica</td>
<td>Powdery mildew</td>
<td>Oidium tamarindiae</td>
<td>+ - -</td>
<td>October</td>
</tr>
<tr>
<td>15</td>
<td>Tectona grandis</td>
<td>Powdery mildew</td>
<td>Uncinulla tectoneae</td>
<td>+ - -</td>
<td>November</td>
</tr>
<tr>
<td>16</td>
<td>Terminalia arjuna</td>
<td>Leaf spot</td>
<td>Collectotrichum sp.</td>
<td>+ - -</td>
<td>November</td>
</tr>
</tbody>
</table>
References