

SHORT COMMUNICATION

White rot of *Coreopsis drummondii* – a new record from West Bengal India

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Incident of White rot of *Coreopsis drummondii* caused by *Sclerotinia sclerotiorum* has been recorded first time from West Bengal, India during January, 2014. The pathogen infected stem, branch and flower stalk of the plant and the affected areas were covered with white mycelial growth. Sclerotia were formed on the surface of the infected stem and branch and also on the inner hollow of the stem.

Key words: White rot, *Coreopsis drummondii*, flower stalk, Stem.

INTRODUCTION

Coreopsis drummondii, (D. Don) Tor. and A Gray, is a flowering annual and it is commonly cultivated in homestead gardens in winter season. Incidence of white rot disease was recorded on *Coreopsis drummondii* in a homestead garden at Kalyani, West Bengal during January, 2014. Initially symptom appeared on flower stalk. Many flower stalk were dried and cottony growth of the pathogen was developed on such flower stalk (Fig. 1). Subsequently the branches and the main stem were affected. Part of the stem and the branches were covered with white mycelial growth (Fig. 2). Black sclerotia were formed on the hyphal growth and inside hollow space of the infected stem. In early stage of infection infected plants produced flowers but infected plants ultimately white and died.

The pathogen was successfully isolated in chloramphenicol amended potato dextrose agar (PDA) medium in Petridish by transferring white mycelium produced on disease plant or surface sterilized diseased tissue. The pathogen produced white mycelium with hyaline, branched and septate



Fig. 1 : Cottony growth of the pathogen on flower stalk

Fig. 2 : White mycelial growth on the infected stem and branch, sclerotia were formed on the infected area and inside the stem.

Fig. 3 : Growth of *Sclerotinia sclerotiorum* on PDA with sclerotia.

hyphae. Black sclerotia near spherical, oval to irregular in shape generally were formed within 4 days of incubation at 25°C in PDA. The sclerotia were silvery white in the initial stage of development but turned dark with increasing age of the culture (Fig. 3). The pathogen was identified as *Sclerotinia sclerotiorum* (Lib.) de Barry as the cultural characteristics were in conformity with the description of the large sclerotial forms of the fungus (Purdy, 1955, 1979).

For Pathogenecity test, a small incision was given (2.5 mm x 1.0 mm) with sterilized blade on the internode of large branch of *Coreopsis* plant and a mycelial strip from four days old culture on PDA was placed on the incision. The mycelial strip was wrapped with thin layer of moist cotton. Water was spread over the branch and the inoculated branch was covered with polythene bag to maintain moist condition. After three days polythene cover was removed. The work was done in the month of January. Seven days after inoculation water-soaked, reddish brown lesion appeared on the inoculated area. In next 3-7 days, portion of the branch above the point of inoculation broke or

wilted and dried. On isolation from this branch *Sclerotinia sclerotiorum* was recovered.

Incidence of diseases caused by *Sclerotinia sclerotiorum* (Lib.) de Bary has been reported on twenty one plants from West Bengal (Panja and Jana, 2001; Dutta *et al.*, 2009; Hansda *et al.*, 2014), but *Coreopsis drummondii* appears to be new host *Sclerotinia sclerotiorum* in India.

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