

Biodiversity of Powdery Mildew Fungi in Cultivated Area of Phetchaburi and Prachuap Khiri Khan Province of Thailand

Sararat Monkhumg¹⁾, Panida Duangkaew²⁾

¹⁾Crop Production Technology Program, Faculty of Animal Science and Agricultural Technology, Silpakorn University, Thailand

²⁾Bioscience for Sustainable Agriculture Program, Faculty of Animal Science and Agricultural Technology, Silpakorn University, Thailand

Collection of powdery mildew samples in Phetchaburi and Prachuap Khiri Khan Provinces were conducted. In this study, 129 samples of powdery mildews on 26 plant species were described and identified based on host plants and morphological characteristics. The symptoms of plants infected by these fungi showed mycelia with a whitish, dusty appearance. For the morphological studies, the powdery mildew fungi were classified into 3 genera including, *Oidium*, *Ovulariopsis* and *Oidiopsis*. The 22 plant species classified from 99 samples were infected by *Oidium* that found on *Ocimum sanctum*, *Scoparia dulcis*, *Euphorbia hirta*, *Abutilon persicum*, *Cardiospermum halicacabum*, *Heliotropium indicum*, *Coccinia grandis*, *Coriandrum sativum*, *Ipomoea obscura*, *Cleome rutidosperma*, *Tamarindus indica*, *Carica papaya*, *Mangifera indica*, *Sesbania grandiflora*, *Macroptilium lathyroides*, *Ocimum gratissimum*, *Zinnia violacea*, *Vernonia cinerea*, *Aeschynomene americana*, *Eupatorium odoratum*, *Phyllanthus amarus*, *Vitis vinifera*. Three plant species classified from 21 samples were infected by *Ovulariopsis* that found on *Cassia fistula*, *Euphorbia heterophylla*, and *Morus alba*. In addition, *Oidiopsis* was found in one plant species classified from 9 samples that found on *Capsicum frutescens*. Furthermore, this study revealed that the powdery mildews in asexual state were mostly found in this study. However, the powdery mildew infected on *Cassia fistula* was found both of sexual state and asexual state.