

Study of airborne fungal diseases of ornamental plants in Iran

M.Mirabolfathy

Plant Pests and Diseases Research Institute

During conducting this research surveys were made to study airborne phytopathogenic fungi causing leaf spot, blight, canker, dieback and decline of ornamental plants in landscapes, parks, afforestations and greenhouses.

The losses of the outbroken diseases were studied. The infected leaves, flowers twigs were collected. The infected tissues plated on artificial media, The causal agents were isolated and identified based on morphological and some physiological characteristics and found to be pathogenic by inoculation on the leaves and detached twigs of their hosts. The following diseases and their causal agents were the most important ones caused severe damages. *Peronospora sparsa* the causal agent of Rose downy mildew. *Botrytis cinerea* the causal agent of Rose cutting rot. Flower spot of *Strelitzia* caused by *Botrytis cinerea* *Uromyces dianthi* and *Ustilago violaceae* the causal agents of rust and smut of *Dianthus caryophyllus* respectively. *Glomerella cincta* the causal agent of anthracnose of *Aglonema*, *Philodendron*, *figus*, orchids. *Hedera* and *Dieffen bachia*. *Phylosticta concentrica* the causal agent of *Hedera helix* leaf spot. *Fusarium moniliforme* the causal agent of *Pandanus* and *Dracaena* leaf spot. Dieback, canker and decline of *Platanus* and *Cupressus* trees caused by *cytophora platani* and *cytophora kunzei* respectively. The canker of *Cupessus*. Locust, *Platanus*, *Morus* trees caused by *scytalidium sp.* The powdery mildew of *Cercis siliquastrum* caused by *Ovularia cercidie*. Widespread distribution of dutch elm disease caused by *Ophiostoma ulmi* in parks and landscapes of Tehran.

Mahalat caused by *P. capsici*, *Fusarium oxysporum* and *F. equisetii*. General yellowing, decline, stem and root rot of Rose hybride Tea shrubs caused by *P. citrophthora*, *P. nicotianae* in Karadj and Tehran. Dieback, stem and root rot of *Cersis siliquastrum* shrubs caused by *P. palmivora* in landscapes of Tehran. Incidence of wilting, stem, crown and root rot of *Cordylyne terminalis*, *Peperomia*, *Lylium*, *Dieffenbachia*, *Alsteromeria* caused by *P. nicotianae* in Tehran, Karadj, Mahalat, Damavand, Varamin, Guilan, Mazandaran. Root and stem rot of *callistephus chinensis* caused by *P. cryptogea* in Mahalat.