

THE MAIN DISEASES OF FLOWERS CULTURES FROM THE GREENHOUSES OF ADP PITEȘTI

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Abstract. *Greenhouse conditions that favor plant growth also favor the rapid build-up and spread of insects and diseases. Potential disease problems include root rots, powdery mildew, fungal leaf spots.*

Rezumat. *Condițiile existente în sere favorizează creșterea plantelor, dar creează și un mediu optim pentru propagarea dăunătorilor și patogenilor. Principalele aspecte patologice includ putrezirea rădăcinilor, făinări, man, pătări ale frunzelor.*

The ornamental plants be favorite hosts for a series of pathogens and pests, in conditions in which, in greenhouses Pitești gathered favourably conditions for growth and reproduction of these. Common insect pests include thrips, aphids and white flies. Prevention and careful monitoring are the keys to insect and disease control. Weed control in and around the greenhouse will also help reduce insect pests and disease problems.

Our presents study explores the incident to appearances the main disease which affected the flowers cultures from the greenhouses ADP Pitești.

MATERIALS AND METHODS

The studies were conducted at the greenhouses of APD Pitești. The biological material was collected in different the vegetation periods of ornamental plants.

The observations and determination of the fungi was realized by the optic microscope.

RESULTS AND DISCUSSIONS

Trialeurodes vaporariorum West.

Adult is very pale yellow, about 1 mm long. The wings held relatively flat when in repose, coated with pure white waxy bloom. Egg has a conical shape, pedicellate, 0,25 mm long, yellowish-white when laid, it becomes purplish-grey after two days. Eggs are laid in a circle on smooth leaves. The pupa is whitish, shaped like a small, oval box, with short marginal wax processes and long waxen dorsal tubes, sometimes absent on certain host. This whitefly is responsible for very severe damage: production of honeydew and the consequent formation of sooty moulds (fig. 4).

Tetranychus urticae Kokh

Direct damage is due to feeding punctures: the leaves become spotty, and then dry out (fig. 2). If attacks are heavy, the plant may die. Spider mites are extremely small, barely visible with the naked eye as reddish or greenish spots on leaves and stem; the adults measure about 0,5 mm. The females is about 0,4 mm in length with an elliptical body that bears 12 pairs of dorsal setae. The male is elliptical with the caudal end tapering and smaller than the female.

Taeniothrips sp. is a common pest of greenhouse grown plants. Unlike many thrips species, the greenhouse thrips openly feeds on the lower surface of leaves first, rather than on blossoms, buds, or growing shoots. Thrips scrape the surface of the leaves and petals, and suck the sap, leaving a white mottled appearance on leaves.

Mycosphaerella dianthi (Burt.) Jorst.

The fungus is common and widespread on leaves and sometimes inflorescences. Conidial state is *Cladosporium* with colonies effuse, olivaceous grey, conidiophores brown, up to 200 x 8-10 μ , conidia pale or mid pale brown or olivaceous brown, mostly 2- to 4-septate, 25-50 x 10-15 μ . Plants are sometimes completely destroyed.

Stagonospora curtisii (Berk.) Sacc.

The *Stagonospora* fungi over-winter as pycnidia embedded in dead leaf. *Stagonospora* leaf spots are often confused with those produced by species of the fungus *Septoria* (fig. 1). The fungal spores must be examined microscopically to distinguish between the two pathogens. Both leaves and flower stalks attacked by the fungus. Initial symptoms are small red spots which enlarge, elongate, and become sunken. In later stages, the gray mycelium of the fungus develops in the center of the lesions while the border remains red. Pycnidia is amphigenous, immersed, up to 0,2 mm. Conidia is hyaline, 1-3-septate, 11-19 x 5-6 μ .

Pestalotiopsis sp.

Disease development can be restricted to only the leaf blade (leaflets or leaf segments) or/and only the petiole and rachis. Spots will begin as very small yellow, brown or black spots. Often, the spots turn a grayish color that are outlined in black. The same type of lesions occurs on the petiole or rachis of the palm. Conidiomata is acervular, epidermal. Conidia is 4-septate, 11-12 x 5 μ , basal and apical cells are hyaline, with 2-3 appendages, median cells are brown.

Puccinia horiana P. Henn.

Chrysanthemum white rust is caused by the microcyclic rust fungus. The rust infectious appear initially as small light green to yellow spots on the upper leaf surfaces. The pustules become white over time, followed by necrosis and abscission of diseased tissue. Telia are hypophyllous, rarely epiphyllous, compact, yellowish to gray, 2-4 mm diameter. Teliospores are oblong, 30-52 x 11-18 μ , two celled but occasionally 3- and 4-celled, slightly constricted at septum, cell wall pale yellow, smooth; pedicel hyaline, persistent, up to 45 μ long.

Uromyces caryophyllinus (Schr.) Winter

Carnation rust caused by *Uromyces caryophyllinus*. On leaves, buds and stem appear chocolate or cinnamon brown pustules, up to 2 cm long.

Botrytis cinerea Pers. ex Pers. caused leaf rot as one of the major disease of cyclamen and streptocarpus (fig. 3). The fungus is characterized by abundant hyaline conidia, 8-14 x 6-8 μ borne on grey, branching tree-like conidiophores.

Fusarium oxysporum f. sp. *dianthi* (Prill. et Delacr.) Snyd et Hans. External symptoms including yellowing or collapse of the older leaves, occur on plants more than 4 months old. Reddish to dark brown vascular discoloration occurs in the outer leaf sheaths, pseudostem, rhizome and fruit stalk.

The fungus produces three types of asexual spores: microconidia, macroconidia, and chlamydoconidia. Microconidia are one or two celled, and are the type of spore most abundantly and frequently produced by the fungus under all conditions. It is also the type of spore most frequently produced within the vessels of infected plants. Macroconidia are three to five celled, gradually pointed and curved toward the ends. These spores are commonly found on the surface of plants killed by this pathogen as well as in sporodochialike groups.

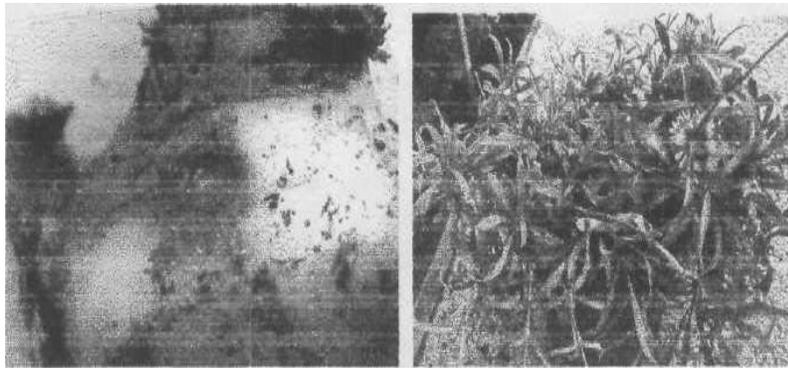


Fig. 1 - *Stagonospora curtisii*

Fig. 2 - *Tetranychus urticae*



Fig. 3 - *Botrytis cinerea*

Fig. 4 - *Trialeurodes vaporariorum*

CONCLUSIONS

The ornamental plants from greenhouses ADP Pitesti be favorite hosts for a series of pathogens of pest.

The values of the degree of attack oscillated depending on evolution climatic conditions.

The morphological and physiological modifications al to the level of the hosts pursuant the attack of pathogen have direct and indirect consequences about quality of plants material.

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