

# THE FUNGI OF *ROSA* SPP. FROM CITY PITEȘTI

## MICOZE ALE TRANDAFIRILOR ÎN CONDIȚIILE ORAȘULUI PITEȘTI

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**Abstract.** *The pathogenetic conspectus of the micotic nature to the plants taked under consideration figured in the protocol of thing the classic methods of take-off and remake material biologic. The pathogens were named by rule current of nomenclature and taxonomy recognized of the scientific international community.*

**Rezumat.** *Conspectul patogenilor de natură micotică la plantele luate în studiu au inclus în protocolul de lucru metodele clasice de prelevare și prelucrare a materialului biologic. Patogenii au fost denumiți conform regulilor actuale de nomenclură și taxonomie recunoscute de comunitatea științifică internațională.*

Roses are subject to several disease. The most serious is rose rust (*Phragmidium mucronatum*), a species of rust fungus, which can defoliate the plant. More common, though less debilitating, are rose black spot, caused by the fungus *Diplocarpon rosae*, which makes circular black spots on the leaves in summer, and powdery mildew, caused by *Sphaerotheca pannosa*. Fungal diseases are best solved by a preventative fungicidal spray program rather than by trying to cure an infection after it is visible. After the disease is visible, its spread can be minimized through pruning and use of fungicides although actual infection cannot be reversed. Some rose varieties are considerably less susceptible than others to fungal disease. Other fungal problems are cankers, dead areas on the stem that can enlarge and eventually kill stem or even the entire plant, caused by *Phomopsis incarcerationata*. Fungicides are not very effective.

### MATERIALS AND METHODS

The studies were conducted at the garden of 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

*Sphaerotheca pannosa* var. *rosae* (Wallr. ex Fr.) Lév.

Mycelium epiphyllous, whitish. In the *Oidium* state, hyaline, uninucleate, barrel-shaped conidia, 22-24 x 11-13 μ, with fibrosin bodies, formed in long chain on erect conidiophores. Clestothecia not observed. On leaves, young shoots, flowers and fruit of *Rosa* spp (fig. 1).

*Diplocarpon rosae* Wolf. (anamorph *Marssonina rosae* (Lib.) Died.)

Mycelium immersed, hyaline to pale brown, branched, septate. Conidiomata acervular, subcuticular, dark brown, separate, rarely confluent, dehiscent irregular, 56,5-156 x 14,5-45,5  $\mu$ . Conidiophores hyaline, branched irregularly, septate. Conidia hyaline, 1-septate, unequal cells, smooth, guttulate, base truncate, constricted at the septum, 15-18 x 5-7  $\mu$ , slightly curved, apex obtuse. On leaves of *Rosa* spp. (fig. 3).

*Diaporthe incarceration* (Berk. & Br.) Nitschke (anamorph *Phomopsis incarceration* (Sacc.) Höhn.)

Conidiomata pycnidial, immersed, unilocular, multilocular or convoluted, *textura angularis*. Conidiophores branched and 1-2-septate, hyaline, filiform, formed from the inner cells of the walls.  $\alpha$ -conidia hyaline, fusiform, straight, usually one guttule at each end, aseptate, 6-8 x 2  $\mu$  (7-8 x 2  $\mu$ , Mititiuc, 1997).  $\beta$ -conidia hyaline, filiform, aseptate, hamate, 16-21 x 1  $\mu$ . On branched of *Rosa* spp. (fig. 4).

*Camarosporium rosae* Grove

Pycnidia black, separate, immersed, subperidermal, globose, unilocular, over 0,1 mm diameter. Conidiophores absent. Conidia brown, mostly with 3 transverse septa, some with 1 longitudinal septum, base truncate, apex obtuse, continuous at the septa, 12-15 x 5-6  $\mu$ . On dead stem *Rosa* spp.

*Cytospora rosarum* Grev.

Conidiomata eustromatic, multilocular and convoluted, subperidermal, dark brown, *textura angularis*. Conidiophores hyaline, septate, branched irregularly at the base and above, 20-47 x 1,5-2  $\mu$ , smooth. Conidia hyaline, aseptate, thin-walled, eguttulate, smooth, allantoid, 5-7 x 1  $\mu$ . On dead branched of *Rosa* spp.

*Coniella* sp.

Conidiomata pycnidial, semi-immersed, unilocular, separate, globose, ostiolate. Conidiophores absent. Conidia olivaceous, aseptate, base truncate, apex obtuse, smooth, eguttulate, 9-13,5 x 3  $\mu$ . On fruit of *Rosa* spp.

*Hainesia lythri* (Desm.) Höhn.

Conidiomata semi-immersed, finally superficial, separate, very pale brown, initially globose, later cupulate. Conidiophores hyaline, branched at the base and above, septate, filiform, long, 40 x 1-2  $\mu$ . Conidia hyaline, aseptate, allantoid, acropleurogenous, acute at each end,  $\pm$  guttulate, 5-8 x 1-2  $\mu$ . On dead leaves of *Rosa* spp.

*Seimatosporium lichenicola* (Cda) Shöemaker & Müller

Conidiomata acervular, separate, immersed, brown, *textura angularis*, 200  $\mu$  diameter. Conidiophores cylindrical, septate, branched, hyaline, filiform, formed from the upper cells of the conidiomata, 15-20 x 1-1,5  $\mu$  (17 x 1,5-2,5  $\mu$ , Sutton, 1980). Conidia fusiform, 3-septate, septa equidistant, eguttulate, lacking appendages, median two or upper three cells darker than the basal one, 13-15 x 5  $\mu$  (13-15 x 5,5-6,5  $\mu$ , Sutton, 1980; 13-15 x 5-6,5  $\mu$ , Ellis, 1985). On branches of *Rosa* spp.

*Phragmidium mucronatum* (Pers.) Schl.

Uredinia hypophyllous, small, pale orange, with curved paraphyses. Spores finely echinulate, with small pores, 20-28 x 16-21  $\mu$ . Telia black, spores mostly 5- to 7-septate, 65-110 x 28-40  $\mu$ . On leaves of *Rosa* spp. (fig. 3).

*Phragmidium tuberculatum* J. Müller.

Uredinia small, pale yellow, with curved paraphyses; spores coarsely echinulate, with large pores, 18-28 x 16-22  $\mu$ . Telia black, spores mostly 4- to 5-septate, 70-90 x 30  $\mu$ . On leaves of *Rosa* spp.



Fig. 1 - *Sphaerotheca pannosa*



Fig. 2 - *Phragmidium mucronatum*

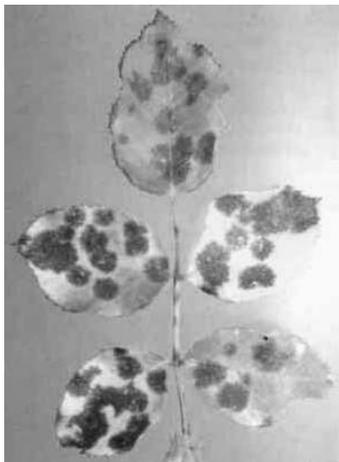


Fig. 3 - *Diplocarpon rosae*



Fig. 4 - *Phomopsis incarcerationata*

## CONCLUSIONS

1. *Rosa* sp. gets many diseases
2. In most growing areas, black spot is the most common fungal leaf disease on roses.
3. Other fungal problems are cankers and rust.
4. The most big weight from the fungi recognize on *Rosa* spp. belongs to the division *Deuteromycota*.

## REFERENCES

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