

***Gremmeniella abietina* (Lagerb.) Morelet: Distribution in Serbia and Montenegro, Significance and Control**

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Abstract – In Serbia and Monte Negro, the study of the most important diseases of Austrian pine and Scots pine has become very relevant, having in the mind the importance of these species which is constantly growing, as new plantations have been established in accordance with the long-time programme of bare land afforestation. In Austrian pine plantations, the greatest damage has been caused by the fungi *Mycosphaerella pini*, *Sphaeropsis sapinea*, *Lophodermium* spp. (*seditiosum*, *conigenum*, *pinastris*), *Cenangium ferruginosum* and in the mountains regions *Gremmeniella abietina*. In Scots pine plantations the main causes for the premature needle casting are *Lophodermium* species and in the mountains regions *Phacidium infestans* and *Lophodermella sulcigena*.

Fungus *G. abietina* is one of the most dangerous pathogenic fungi inhabiting conifer plantations and especially endangered species are the pines. Among the pines, the most susceptible species are Austrian pine and Scots pine, and endangered plantations are aged between 8 and 25 years. The fungus was detected in the plantation of Austrian pine in region of National Park "Durmitor" for the first time at the end of 1979. Already in 1988 this fungus was identified in the plantation of Scots pine on Mt. Kopaonik, and in 1992 in the regions of Vlasina and Goč. During 1998, the fungus occurred in epiphytotic proportions in Scots pine plantations in the region of Bukovica (Mt. Ivica). During 2006.y. *G. abietina* was detected second time in the plantations of Scots pine on Mt. Kopaonik (location "Samohovska River"). In Serbia and Monte Negro the fungus was identified on Austrian pine (*Pinus nigra* Arnold), Scots pine (*Pinus sylvestris* L.) and spruce (*Picea abies* (L.) Karsten). In its development *G. abietina* form both stages. Its picnidial stage is far more significant for the infection process, and mainly all infections are carried by conidia. Infection of trees is possible throughout the year, but the critical period of infection is May-June. Conidia are transmitted by raindrops, and the infection is spread through the buds and bark of young shoots. Incubation period lasts for 9 months. The symptoms of infection are visible at the base of buds, on the needles (orange discolouration at the base of the needles) and on the bark of young shoots. Soon after the symptoms, the fruiting bodies (i.e. pycnidia) appear on the necrotic tissues of the host. Apothecia formed on the bark pine two years after tree dying. In the severely infested plantations, all dead trees should be felled and removed, and remaining trees should be treated with copper fungicides. Previous preliminary investigations (in plantations of Scots pine on Mt. Ivica) showed that the copper fungicides (for example copper oxychloride) have given the best results and protection. The protection is satisfactory of the treatment is carried out twice a year, during the critical period of infection. As this is a quarantine disease, care must be taken to prevent the spread of the disease to the new uninfected region. This measure is imposed by the legal regulations on quarantine disease.

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