Rhizoctonia spp. in forest nurseries of western Poland

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Abstract

In 2004-2010 seven forest nurseries in the Wielkopolska region (central-western Poland) were examined for *Rhizoctonia* spp. in soil. In general 277 isolates of *Rhizoctonia* spp. were obtained. Multinucleate isolates (*R. solani*) were the most numerous while binucleate ones – less numerous. This may mean that binucleate *Rhizoctonia* which is not very common affects health status of tree seedlings to a smaller extent than *R. solani*.

Binucleate isolates grew slower than the multinucleate ones *in vitro*. They were also less pathogenic to Scots pine (*Pinus sylvestris* L.) seedlings in infection experiments.

Rhizoctonia spp. from the soil of forest nurseries in question represented following anastomosis groups: AG1-IB, AG1-IC, AG2-1, AG2-2, AG2-3, AG4-HGII and AG-5. Additionally, multinucleate isolates of *R. zeae* and binucleate isolates of *R. muneratii* were found. *Rhizoctonia zeae* was found for the first time in a forest nursery in Poland.

The biggest diversity of anastomosis groups was found in Garncarskibród forest nursery (Forest District Oborniki): AG1-IB, AG1-IC, AG2-1, AG2-2, AG2-3, AG4-HG2. Also *R. zeae* and *R. muneratii* were found there. There were no representatives of AG-5, common in the majority of other nurseries considered.

The population of *Rhizoctonia* complex, severe seedling damping-off pathogens, seems very diversified in the soils of forest nurseries in western Poland.