

Biotic Agents that Damage Black Locust in Hungary

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Black locust (*Robinia pseudoacacia*) plays an important role in Hungarian forestry and represents 21.6% of the total forested area (370 thousand hectares); approximately 19.2% of the area in Hungary is forested. Black locust forests have increased by more than one percent over the last 5 years demonstrating that it is a preferred tree species particularly among the owners of private forests (45% of Hungarian forests are privately owned). Consequently, there is a lot of concern about the health of locust stands throughout the country. In order to monitor the trend in locust stands, we established a network of 20 sample plots containing 2,400 individually marked trees. These trees are assessed in detail twice each year. In addition, we obtain data on tree health from the reports of the Forest Health Monitoring Network

There are relatively few pest species known to feed on black locust, however in the last few decades, new pest species have been introduced accidentally to Europe from North America where black locust also occurs. In the past 100 years, 11 new species have been introduced accidentally to the Carpathian basin and have become pests; the majority of them originated from North America. In the last 20 years, two species of leaf miners (*Parectopa robiniella* and *Phyllonorycter robiniella*) have been established as pests of *R. pseudoacacia* thus destroying its reputation as a relatively “pest free” species.

Based on our present knowledge, the main groups of organisms that attack black locust are as follows:

Viruses: three species

Nematodes: seven species

Insects: 42 species

Fungi: 30 species

Vertebrates: nine species

Parasitic plants: one species