

International Conference

”Possible limitation of dieback phenomena in broadleaved stands through silvicultural and protective measures”, Puszczykowo, 14-15 November 2005

On 14th and 15th November 2005, the Forest Training Centre in Puszczykowo played host to an international conference on the possibilities for limiting the dieback phenomenon in broadleaved stands using silvicultural and protective methods. The organizers were the PROFOREST Centre of Excellence, the Polish Phytopathological Society, and the Directorate General of the State Forests.

The 21 foreign guests came from 10 European countries (Austria, Belarus, Finland, Germany, Lithuania, Russia, Slovakia, Switzerland, the UK, Ukraine). They were joined by 114 domestic participants. The representatives of two private consultancies involved in the use of new plant-protection technologies (Shelton Technologies, Great Britain and Tree Disease, Germany) also participated in the meeting.

The first part of the Conference dealt with the identification of the agents causing the damage associated with the decline observed now and in the past among broadleaved trees in many European countries. The latest scientific findings are suggesting an important role here for pathogens of the genus *Phytophthora*. This was also revealed during the field-based part of the Conference as the root systems of oaks were uncovered and it emerged that these were much damaged (especially in the finer parts), with outer roots either lacking or visible cankered (necrotic). Work being done in Switzerland, Finland and Poland has led to the description of two new *Phytophthora* species, as well as a new *Pythium* sp. This makes it clear just how great the diversity of these species in soil is, and makes it all the more likely that further species remain to be discovered. Oaks dying back was also reported from England and Germany, suggesting that the phenomenon is widespread across Europe.

Alders dying back was a further subject of many presentations, pointing to its rapid spread over the last decade, especially in Germany, Austria and Poland. The situation in Central Europe has been discussed in a report from Slovakia, followed by an overview of the decline of *Fraxinus excelsior* in the Baltic States and Sweden.

In contrast, the second group of papers were focused on biological and silvicultural methods capable of limiting development of the phenomenon.

Numerous speakers discussed possible means of damage limitation in European forests. Biocontrol of pests has been applied efficiently in forest stands in Belarus, for example, and natural regeneration has been evaluated in Ukraine.

Summary and concluding remarks were devised at the end of the Conference, making practical recommendation for practitioners. Foresters participated widely in the valuable discussions with the experts, suggesting the degree to which they are interested in such events. A future prospect deriving from the Conference is that research may become better oriented towards the testing of practical solutions such as the use of new *Phytophthora*-damaging chemicals, and solutions intended to cope with the presence of *Phytophthora* in soil and irrigation water (since these are said to be the main sources of contamination with *Phytophthora* spp.). Foresters were also interested in applying such proposals in feasibility studies which will inevitably lead to the development of efficient means to control these pathogens.

Posters illustrating the above aspects were presented by different participating scientists, and were an occasion to gain familiarity with cutting-edge information in this field and new potential solutions to limit forest dieback in Europe. The field trip was also a rich source of information, collected as visits were paid to different Forest Districts presenting dieback of forest trees. This was an occasion for foresters and scientists to exchange practical information about the dieback phenomenon. Presentations by foresters brought information on the state of forest health to scientists, who then proposed different ways by which the disease might be managed.

Participants at the Conference agreed on the necessity of a practical course in the lab being elaborated by scientists for students and practitioners, allowing them to become familiar with molecular-level work at diagnosing forest-damaging pests and theoretical approaches to environmental monitoring and modelling of forest diseases with a view to the parameters critical to forest health being studied and enumerated. Such a course is to be run in Poland, with the participation of private companies dealing with the problem and the international network already elaborated.

Such a Conference is one of a series organized in Poland, which is to prepare the next one (to take place at the European Forest Training Centre in Jedlnia from 3rd to 9th July 2006). This conference will be organized by a new subgroup of the IUFRO network of forest research organizations dealing with invasive species. Global warming and the tremendous amount of international trade in ornamentals and plants have raised this topic of invasive species, which can destroy local ecosystems once introduced in a new area. *Phytophthora ramorum*, *P. cinnamomi* and probably the most recent on the list, *P kernoviae*, offer nice illustrations of this concept.



Field session in dying back oak stands in Krotoszyn Forest District.



In room session.