

SCOTS PINE BREEDING AND GENETICS

Scots Pine Breeding and Genetics. Jacek Oleksyn *et al.* (eds.), Lithuanian Forest Research Institute, Kaunas / Girionys, Lithuania, 1998, 199 p.

The IUFRO S.02.18 Symposium on Genetics and Breeding of Scots pine, held on September 13–17, 1994 in Girionys, Lithuania, was attended by scientists from 14 countries, who presented 35 papers. Proceedings appeared unfortunately with a delay of almost five years. Nevertheless, they bring much interesting information on this widely distributed tree species.

The proceedings consist in general of two large blocks of papers. The first one, entitled Population Genetics and Provenance Tests, contains 11 papers dealing mostly with provenance research and progeny testing. Four presentations were devoted to the evaluation of the IUFRO 1982 provenance experiment. Although all the analysed experimental plots are situated in two neighbouring countries – Germany and Poland, the results provide a broad insight into the geographical variation of yield characteristics, and morphological and resistance traits of Scots pine. In contrast to this range-wide evaluation, further papers describe the variation on smaller scales – phenological variation of provenances from the southwestern part of the distribution range, geographical trends in Danish provenance experiments, or ecological plasticity of Lithuanian pine populations.

It is very satisfying that the proceedings contain contributions of Russian authors, evaluating the variation of Scots pine on the territory of the former USSR. In fact, more than a half of the distribution range of this species is located in the

former Soviet Union, but provenances from European Russia, Siberia, or Far East, are rather scarcely represented in European provenance experiments. Three papers covering this part of range help to fulfill this information gap. Two further presentations were devoted to cytological aspects and the description of patterns of genetic diversity and differentiation based on isozyme genetic markers.

The second block of papers is entitled Breeding: Theory and Methods. Three papers deal with various aspects of seed orchard management – sexual asymmetry of clones, development of abundance of female flowers, and efficiency of seed orchards. Other contributions are devoted to clone and progeny testing, evaluation of breeding values of particular pine provenances, and determining the factors influencing self-fertility of pine. Four review papers describe breeding programs of Scots pine in Baltic countries and Ukraine.

Four presentations were published in *Silva Fennica*, so that only abstracts are included in the proceedings.

In general, proceedings cover a broad variety of problems and topics concerning genetics and breeding of Scots pine. Despite some formal and terminological shortcomings, it can be highly recommended to breeders and geneticists dealing with this species.

Dušan Gömöry (Zvolen, Slovakia)