

Maintaining forest gene resources in Bavaria

- Inventory of rare and endangered tree species (e.g. *Sorbus torminalis*, *Populus nigra*, various native fruit trees)
- Conservation programs for endangered species (e.g. establishing new populations of wild apple trees)
- Establishing seed collecting stands of valuable genetic material (e.g. *Douglas-fir*, *beech*)
- Identifying special stands for forest gene conservation
- Establishment and maintenance of gene conservation seed-orchards
- Long-term genetic monitoring of native tree species
- Long-term storage of seed from valuable gene resources in the Bavarian Forest-Genebank
- Maintaining a clone collection of numerous poplar varieties (with more than 350 clones it is currently the largest in Germany)

National and international Networks

- Representing Bavaria in national and international networks for the conservation of forest- genetic resources
- Participation in European and National projects
- Close cooperation with countries from southern and eastern Europe in the field of genetic analysis and provenance suitability in respect to climate change

Training, continuing education

- Training of civil service candidates for the Bavarian Forest Service in the field of forest reproductive material
- Continuing education for personnel of the Bavarian Forest Service
- Excursions and training for students of the Technical University of Munich and the Forestry College Weihenstephan/Triesdorf
- Supervision of theses and research papers (Bachelor, Master)
- Practical training of foreign forest personnel from collegiate institutions and for students and school children
- Participation in Arbor Day and Girl's Day

Historical development (milestones)

1964: The Bavarian Institute for Forest Seeding and Planting (Bayerische Landesanstalt für forstliche Saat- und Pflanzenzucht in Teisendorf) was founded in order to have a rapid transfer of scientific knowledge in the field of forest tree breeding and forest seed handling into applied forestry. At the same time the forest nurseries and seed extraction plants in Laufen and Bindlach were added to the institute.

1991: An isoenzyme laboratory and the forest Genebank were established

1997: A seed testing laboratory was transferred from Munich to Teisendorf

2002: The laboratory was expanded to include a DNA laboratory. The name was changed from „Landesanstalt“ (LASP) to „Amt“ (ASP) with the addition of the regulatory control function on forest laws an legislation

2005: In conjunction with the Bavarian forest reform, the two forest nurseries were transferred from the ASP to the „Bavarian State Forest Division“. At the same time the regulatory office on forest reproductive material was officially transferred to the ASP

2014: Opening of the new laboratory building

Here ist where you will find us!



IMPRESSUM:

Bayerisches Amt für forstliche Saat- und Pflanzenzucht
 Forstamtsplatz 1, 83317 Teisendorf, Germany
 phone: 0049 (0) 8666 9883-0, fax: 0049 (0) 8666 9883-30
 e-mail: poststelle@asp.bayern.de, Internet: [http:// www.asp.bayern.de](http://www.asp.bayern.de)

Photos: ASP
 Print: Gerald Habicht, Freilassing



CONTINUITY
AND CHANGE

BAYERISCHE
FORSTVERWALTUNG

IdeenReich.Wald



Pinus nigra near Salzach river



Training for forest students

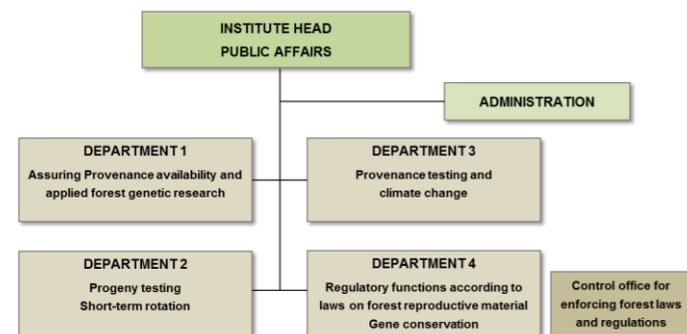
Tasks and Goals

The Bavarian Institute for forest seeding and planting (ASP) is responsible for all tasks related to forest reproductive material in Bavaria. This includes the securing of forest genetic resources and maintaining the genetic diversity in Bavarian forests. Governmental functions in regards to the laws and regulations on forest reproductive materials (FoVG), including the testing of provenances and progeny in the field and in the laboratory are further responsibilities of the ASP. Further important tasks include seed testing, forest genetic research and management of the forest "gene bank" and numerous seed orchards in Bavaria. Special importance is paid to applied research, where field trials are combined with laboratory investigations. The ASP is closely tied in with national and international research projects and networks.

A further service is extension forestry by supporting private initiative in all aspects related to maintaining high quality forest provenances. Another important task is training and continuing education for students, both foreign and domestic, foresters and forest owners. The ASP thus has an important function in helping maintain the stability and productivity of our forests.

Organisation

The ASP is one of four special departments of the Bavarian Forest Service and is under the responsibility of the Bavarian Ministry of Agriculture Forestry and Food Production. The Institute is divided into four departments and furthermore is in charge of the foresters controlling the regulations governing forest reproductive material. They are stationed at the forest offices in Karlstadt and Pfaffenhofen.



Since 2012 the ASP is in close collaboration with the Forest Research Institute in Freiburg. The responsibilities are delegated through a cooperative agreement between the states of Bavaria and Baden Wuerttemberg.

Applied Forest Genetic Research in the Laboratory

- Inventory of the genetic variation in tree species and the resulting recommendations for silviculture and gene conservation
- Investigations on the effects of silvicultural treatment on the genetic structure of the forest
- Identification and separation among species and subspecies
- Provenance identification for forest reproductive material
- Investigations on the dynamics of genetic variation in space and time
- Research on adaptive genetic markers (e.g. for drought tolerance)
- Genetic characterization of shrub species
- Genetic analysis of wildlife populations

Services carried out by the ASP

- Forest seed testing
- Genetic investigations (Isoenzymes, DNA) e.g. for provenance control, species identification and seed purity testing

Provenance trials and progeny testing

- Field trials to clarify the suitability of specific provenances of native and non-native species on various sites
- Transfer-trials to test the adaptability of native species in lieu of climate-change

Seed Orchards

- Selection of plus-trees and the establishment of seed orchards for the production of qualitative seed
- Progeny trials for the production of authorized tested forest reproductive material

Testing varieties of fast growing tree species

- Testing poplar varieties for short-rotation plantations (KUP)
- Testing poplar varieties for timber production

Responsibility for enforcing regulations governing the laws on forest reproductive material in Bavaria

- Registration of seed collecting stands for forest reproductive material
- Management of the seed-stand register in Bavaria
- Registration and control of forest seed collectors and forest nurseries in Bavaria
- Control of the production of, and trade with, forest reproductive material in Bavaria
- Provenance recommendations for forest reproductive material
- Consulting with forest owners and forest nurseries on the production and trade with forest reproductive material

Research nursery in Laufen

- Carrying out nursery trials (e.g. early testing)
- Production of seedlings for research
- Phenological studies and observations
- Maintaining the clonal collection for poplars and willows



The new genetic laboratory building

Seed orchard - *Larix decidua* Mill.

Seedlings - *Fagus sylvatica*

Approved seed stand