Latvia

Since independence in 1991, the forest sector has grown to become one of the main contributors to the national economy of Latvia. Several factors have facilitated this development:

- the forest resources are of high quality and easily accessible
- there is a long tradition of forestry
- the forest sector has adapted well to the market economy
- agreements have been reached between various interest groups on the long-term goals for the development of the forest industry.

The national forest policy, approved in 1998, outlines a number of goals for Latvian forestry: to preserve and increase the area of forested land and its productivity; to ensure sustaina-

Forest science

Forest science in Latvia builds on German and Russian traditions. The foundation of the Baltic Foresters’ Society in 1867 is regarded as the start of Latvian forest research. The Latvian Forest Research Station was set up in 1928.

At present, forest-related research is concentrated in the forestry faculty at the Latvian University of Agriculture (LUA) and the Latvian State Forestry Research Institute (Silava).

Wood research is conducted at the Latvian State Institute of Wood Chemistry.

The training of forest specialists takes place at LUA and at two technical colleges in Ogre and Aizupe.

Latvian forest statistics

Forest land area: 2.9 million hectares (44.5% of the total area)
Growing stock: 585 million m³
Annual harvest: 11.3 million m³
Number of private forest holdings: 117.000
Average size of private forest holdings: 13.1 ha (2/3 less than 10 hectares)
Ownership:
- State: 1.46 million ha (51%)
- Private: 1.30 million ha (45%)
- Others: 0.12 million ha (4%)
Roundwood exports: 4.2 million m³
Source: Forest Sector in Latvia 2003, Ministry of Agriculture

Tree species by land area:

The proportion of conifers is much higher on state-owned forest land (pine + spruce 69%) than on private-owned land (pine + spruce 44%).

Genetic improvement of Scots pine is an important topic at Silava. Amis Gailis and Imants Baumanis from Silava in a seed orchard. Photo: Björn Hannrup.
Silava

The Latvian State Forestry Research Institute “Silava” is the leading forestry research centre in Latvia. It was founded in 1946 and is a member of both the IUFRO and the EFI (European Forest Institute).

The total number of research workers is currently (2004) 63, 23 of whom hold science doctorates. The headquarters of Silava is located in Salaspils, outside Riga. The major objectives of the institute are to research into forest ecosystems and their components and draw up recommendations for sustainable forest management and efficient utilisation of forest resources and forest products.

The institute carries out research in the following subject areas:

**Forest ecology and silviculture**

*Examples*
- Modelling the effects of stand management on hydrology from long-term hydrological observations at the forest ecology research station Vesetnieki
- The impact of climate change and environmental pollution on forest stand development.

**Forest tree breeding and genetics**

*Examples*
- In-vitro propagation methods for broadleaved trees
- Progeny testing of fast-growing aspen hybrids.

**Forest regeneration and establishment**

*Examples*
- Establishment of tree plantations with multiple-goals, including Christmas tree production, short-rotation bio-fuel crops, and wild cherry timber production
- Development and establishment of mycorrhizae in container stock
- Establishment of birch plantations on abandoned farmland.

**Forest protection**

*Examples*
- The risk of pests associated with logging residues
- Attracting hole-nesting birds to forests.

**Game management**

*Examples*
- Developing methods to balance animal populations and available food
- Use of repellents for protecting forest crops from browsing.

**Forest operations**

*Examples*
- Strip-road density and the impact of forest machines on stand and environment
- Planting equipment for bare-root and container stock.

**Processing of forest products**

*Example*
- Integrated research on the utilization of non-wood forest products (foliage, bark etc.). Twelve biologically active substances for use in agriculture, the food industry, cosmetics, pharmaceuticals and household products have been developed, registered and production has begun.

**Hydrothermal and chemical treatment of wood**

*Examples*
- Drying regimes for kilning sawnwood
- Low-toxicity wood preservatives and fire retardants.

**Forest economics and forest policy**

*Examples:*
- Management models for forest estates
- Models for forest valuation with respect to multiple uses.

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**Forest faculty at the Latvian University of Agriculture**

The predecessor of the Forest Faculty, the Department of Silviculture, was established in 1919 as a branch of the Faculty of Agronomy. It acquired its present name in 1991. Currently there are four departments in the faculty:
- Silviculture
- Forest utilization
- Wood processing
- Working environment

Undergraduate courses, leading to bachelor’s degrees in wood processing, wood processing technology, forest science, forest engineering and forestry, are available.

In addition to these four-year courses, it is possible to obtain a Master’s degree after an additional two years of study.

Doctoral studies, leading to a PhD, take a further three years.

The teaching staff consists of 37 teachers.

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