

Short on the project EuroFiber

- a project for the better utilization of spruce fibers in Europe

Objectives

The EuroFiber project was formed to investigate the possibilities to benefit from the better use of the wood resources. The objectives are:

Improved paper quality and greater production efficiency, through a more selective utilization of the European wood resources.

Norway spruce and virgin pulp fibers for products based on mechanical pulp are emphasized, but Sitka spruce has also been studied. More technical goals are:

- increased data on the variability in wood and fiber properties within and among different European regions
- better models for the prediction of these properties in trees and stands
- new knowledge on the production of TMP from different wood raw materials
- new classes of industrial wood raw materials defined, with an increased potential for achieving product quality and uniformity

The project is funded by the 5th Framework Program of the European Commission and a consortium of companies. The project has a budget of Euro 2,3 million and is coordinated by STFI. The project was formed in 1999 and will end during 2003.

Partners

The project partners are three research institutes: STFI, Skogforsk and AFOCEL, the process supplier Andritz and a group of paper companies: Norske Skog, Norske Skog Golbey, StoraEnso Corbehem, Holmen Paper and Iggesund Paperboard. Five mills in four countries are engaged, producing various types of products in different process equipment and with different raw material situations.

One ambition of the project is to generate general knowledge regarding the potentials of various wood raw materials from different European regions for use in the production of paper from mechanical pulp. Another ambition is that the participating companies and mills will, at the end of the project, have established a base for deciding whether and how they can make better use of their available wood resources. Efficient methods will then be available for similar investigations of new possibilities for other mills with different needs and situations.

Methods

In order to obtain this new knowledge about European wood resources and their efficient use, four types of investigations have been performed in a coordinated way within the project:

- characterization and modeling of wood and fiber property variations in five countries
- laboratory refining studies
- pilot-scale refining trials
- commercial-scale mill studies

Conclusions

Conclusions are:

- There are large variations in wood and fiber properties in the forest and the variations may be described with models.
- The use of chips from pulpwood, especially from thinning, may improve the optical properties of the products.
- The use of sawmill chips, especially from large-diameter timber, may improve strength properties.
- The specific energy consumption is lower for sawmill chips than for chips from pulpwood.
- The potential to benefit from a more selective wood and fiber utilization and the manner in which it should be implemented differ among mills. Practices have to be designed according to the specific demands and possibilities of the mills and companies.
- Knowledge and tools are needed for the efficient analysis of such specific demands and possibilities and for the development of dedicated applications.

These observations have been confirmed in all the studies performed: laboratory refining, pilot-plant refining trials and full-scale trials in four mills, with consistent results.

Seminar

So far, the results of the EuroFiber project have been available only for the consortium companies. A series of project internal workshops have been arranged. On this seminar, the first public presentations of results will be made.

You are most welcome

Sven-Olof Lundqvist

Project coordinator