Keen global interest in Nordic harvesting technique

In the Nordic countries, the cut-to-length method is predominant. When mechanisation started in forestry, the Nordic foresters chose to limb and buck the trees out in the stands and carry out the timber on wheeled forwarders. In the rest of the world, full-length methods, where stems or whole trees are dragged out to the roadside, are most common.

1 per cent per year increase

But today, there is an increasing interest in the cut-to-length method in several parts of the world, especially the USA, Canada and Europe. The market share for the cut-to-length method is believed to be increasing by 1 per cent per year globally right now. At first glance, this looks like a modest increase. But if one considers that the annual industrial cut world-wide is estimated to be some 1,500 million cubic metres, there is an enormous future market for the Nordic harvester technique.

Increasing environmental concern

The background to the interest in the Nordic technique is increasing environmental concern. You get much less damage to the ground if you carry out the timber on vehicles with rubber tires, instead of dragging it out using skidders with caterpillar treads.

... much less damage to the ground...

It is also easier to practice modern, flexible, environmentally-aware forestry with the cut-to-length-method. And, last but not least, the technique is more kind to the timber. When you drag the stems, you always get some damage and the timber is contaminated.

Source: Skogen No. 5 2000

... more kind to the timber

Harvesters

Photo: SODRA

Nordic representation in EU funded forest research

The first call for proposals linked to the EU-programme "Quality of life and management of living resources" attracted 137 research applications in its two forest-related topics, divided as follows:

- Multifunctional management of forests: 76 applications
- The forestry wood chain: 61 applications

30 of the forest research proposals have been approved so far. 18 of these have at least one Nordic participant.

The Nordic representation in proposed and approved projects is shown in the table:

	Proposals		Approved projects	
	Participant	Co-ordinator	Participant	Co-ordinator
Sweden	56	12	11	4
Finland	56	16	12	4
Norway	14	1	4	-
Denmark	24	2	5	1
Iceland	4	-	1	-

Limit summertime cuttings to poor sites

Finland: Environmentalists claim that cuttings in summertime cause unacceptable damage to breeding birds. A governmental working party has studied the topic, and recommends that cuttings in May and June should be limited to poor sites.

Source: SNS 2000

A pine stand on poor ground. A good candidate for final felling in summertime. Photo: SODRA

Network for wood research

Norway: A formal "information network" for wood research has been established in Norway. The network, named "Treforsk" (*Wood-research*), will co-ordinate R&D, extension and education in the chain from timber production to its industrial use in wood-processing industries. Treforsk has been jointly set up by

- Agricultural University
- Forest Research Institute
- Institute of Wood Technology
- Building Research Institute

In total, the co-operating institutions have some 150 persons working in the wood research field. All of them are located in the Oslo area.

"With Treforsk, we can utilise existing resources better", say the founders in a joint press-release. "We also have a platform for new inter-disciplinary projects. And we can improve both forest-related education and extension of knowledge to industry".

Source: Press release

A new market for wood? A modern multistorey wooden house. Photo: SODRA (Sweden)

Web-links to major forest research bodies in the Nordic countries

Denmark

- The Danish Forest & Landscape Research Institute *www.fsl.dk*
- The Royal Veterinary and Agricultural University *www.kvl.dk*
- Danish Centre for Forest, Landscape and Planning *www.countryside.dk*

Finland

- The Finnish Forest Research Institute (METLA) *www.metla.fi*
- The Faculty of Agriculture and Forestry of the University of Helsinki *http://honeybee.helsinki.fi*
- Faculty of Forestry, Joensuu University *gis.joensuu.fi*
- VTT, Technical Research Centre in Finland *www.vtt.fi*
- The Finnish Environmental Institute *www.vyh.fi/eng*
- The Finnish Pulp and Paper Research Institute *www.kcl.fi*
- Metsäteho Oy *www.metsateho.fi*
- The European Forest Institute *www.efi.fi*

Iceland

- The Icelandic Forest Research Station (IFRS) *www.simnet.is/rsr/en-rsr1.htm*

Norway

- Norwegian Forest Research Institute (NISK) *www.nisk.no*
- Norwegian Institute of Land and Inventory (NIJOS) *www.nijos.no*
- Agricultural University of Norway, Department of Forest Science *www.nlh.no/isf*
- Norwegian Institute of Wood Technology *www.treteknisk.no/*
- Norwegian Pulp and Paper Institute *www.pfi.no*
- Foundation for Nature Research and Cultural Heritage *www.ninaniku.no*

Sweden

- The Forest Research Institute of Sweden (SkogForsk) *www.skogforsk.se*
- Swedish University of Agricultural Sciences (SLU), Faculty of Forestry *www.sfak.slu.se*
- Swedish Pulp & Paper Research Institute *www.stfi.se*
- Swedish Institute for Wood Technology Research *www.tratek.se*
- Högskolan Dalarna *www.du.se/index-e.html*
- Växjö Universitet *www.vxu.se*
- University of Linköping. Division of Wood Technology *www.ikp.liu.se/wood/en/index.html*

The News & Views-section of Scandinavian Journal of Forestry Research is also available on the Internet. You can download the pdf-file from www.sjfr.se/SNS.

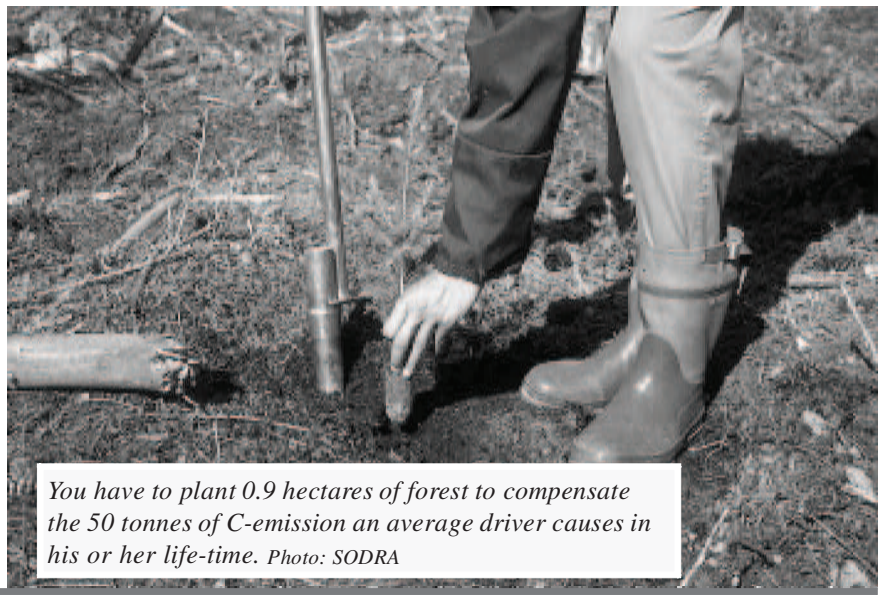
In the pdf-version, all links on this page are directly accessible with a single click.

Question: How many trees must I plant to compensate for my car use?

Answer:

- Suppose you drive for 16,000 km per year for 40 years.
- At a fuel efficiency of 11 km/litre of gasoline, and a C emission of 0.86 kg C/litre, you would need to fix 50 tonnes C, or 1.25 tonnes C per year to compensate.
- If we assume a net sequestration of 1.4 tonnes C/ha year (average stem wood increment 3–4 m^3/ha per year), you would have to plant 0.9 hectares of forest, assuming that carbon is stored at that rate and not released.

Source: EFI News number 1, June 2000. In the newsletter you can find answers to nine other interesting C-related questions. Photo: Areca.



You have to plant 0.9 hectares of forest to compensate the 50 tonnes of C-emission an average driver causes in his or her life-time. Photo: SODRA

New Red List in Sweden

The Swedish Threatened Species Unit, a section within the Swedish University for Agricultural sciences, has presented a new official Red List for Sweden.

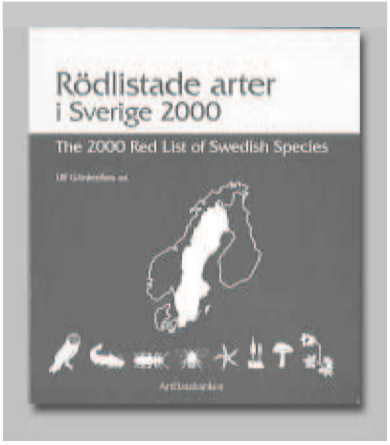
The revised list is based on the "IUCN Red List criteria".

Among a total of 20,000 examined species in Sweden, 1,953 are classified as threatened and more than 4,000 species are "redlisted".

The most numerous categories on the list are macrofungi, beetles, lichens and butterflies.

Source: Notiser från SLU, June 2000
More info: www.dha.slu.se/redlis

The newly published red-list is bilingual – Swedish and English.



Less groundwater from forests

Forests are good for groundwater quality, for at least three reasons:

- Less chemicals are used in forestry than in agriculture
- In the forest the ground is covered with vegetation all year round
- In the forest, the soil is not cultivated annually as in farming land.

But less groundwater is released in a forest than in open land. In Danish studies, the difference was found to be up to 250 mm per year. In a forest, a substantial part of the rainwater remains in the canopy and evaporates into the air after the rain.
This effect is more pronounced in coniferous forests than in hardwoods.

In areas with groundwater deficits, there could be a conflict between water supply and land-use.

Source: Skov & Landskap No. 2 June 2000.

A substantial proportion of the precipitation stays in the canopy.

Government support for forest regeneration after the hurricane

Denmark: In December 1999, the Danish forests were seriously damaged by a hurricane. The Danish parliament has now decided to give financial support for re-planting private forest land. Approx. 10,000 hectares is expected to be planted, and the estimated total cost to the government amounts to some 320 million Danish crowns (•43 million).

Source: SNS. May 2000

More than 3.7 million m³ were thrown down in Denmark by the December hurricane. Photo: Areca.

Not more than a kilometre away from forest!

A majority of Swedes like to live in the neighbourhood of a forest - preferably within walking-distance, and not more than one kilometre away. Almost 50 per cent of respondents would like to live closer to a forest than they do today. These are some of the results of a survey carried out by Peter Fredman, Department of Economics, Swedish University for Agricultural Sciences, Sweden.

Source: Notiser från SLU, June 2000

A walk in the forest is popular in Sweden and Swedes wants to live in the neighbourhood of a forest. Photo: Areca.

R&D fee in Norway

In Norway, a new system for financing forest R&D has recently been launched. A mandatory fee of Nkr0.50 (•0.06) per harvested cubic metre is to be paid to a collective fund in a five-year test period. The level of the fee is to be adjusted annually.

Source: SNS May 2000

For every cubic metre cut, the Norwegian foresters have to pay a "50-øre-coin" to a mandatory R&D-fund.

Siberian larch-wood not resistant to rot

Heartwood of Siberian larch, grown in Siberia, has generally been regarded as "quite resistant to rot". But new trials, carried out by the Dept. of Wood Science, SLU, Sweden, give a different perspective: the resistance of larch to brown rot is the same whether it is grown in Siberia or Sweden.

Regardless of the growing place, the larch-wood is less durable than wood that has been impregnated with creosote under pressure.

Source: SLU Notiser May 2000.

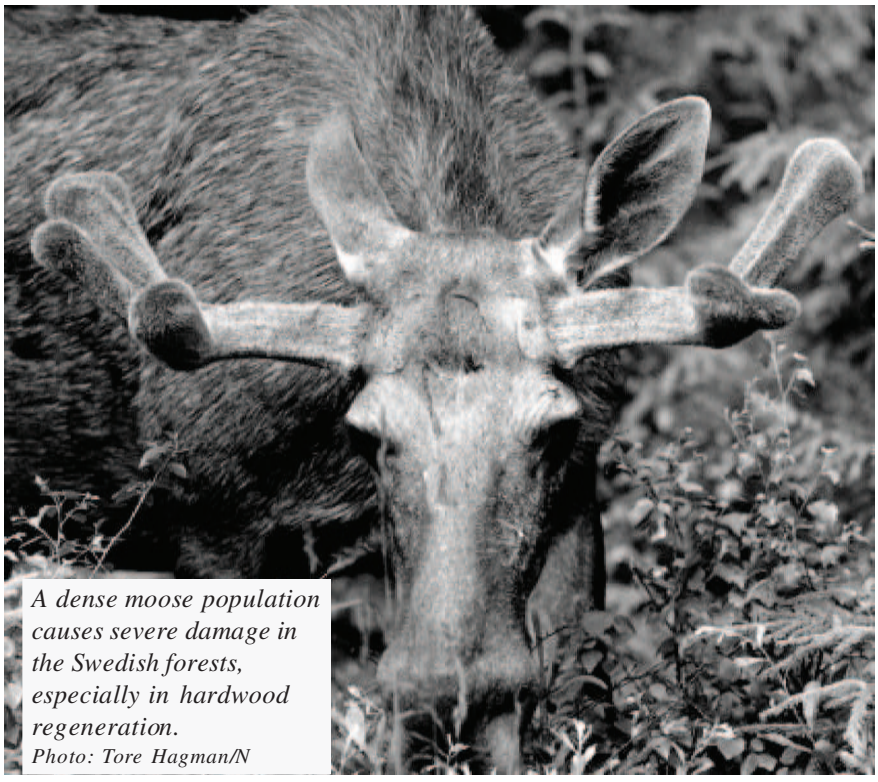
Durable or not? A foot-bridge made of larch-wood. *Photo: Areca.*

Browsing deer threatens hardwood regeneration

In southern Sweden, the populations of moose and roe deer are so dense that hardwood planting is practically pointless without fencing. In one study, seven different hardwood species were planted, together with Norway spruce for comparison, on a number of experimental sites. After one winter, more than 50 per cent of the hardwood seedlings had been damaged by browsing. Oak was the most frequently damaged species: 85 per cent of the oak seedlings had been browsed. The Norway spruce seedlings were less frequently attacked, since "only" 21 per cent of them had been damaged.

Most of the damaged seedlings had lost their leading shoots, and a third of their original height, on average.

Source: SLU Notiser April 2000
Contact: Ylva.Kullberg@ess.slu.se



A dense moose population causes severe damage in the Swedish forests, especially in hardwood regeneration.
Photo: Tore Hagman/N

Letters to the editors

Send your letter to
SNS, secretariat
SJFR.
P.O. Box 6488
SE-113 82 STOCKHOLM. SWEDEN
sns@sjfr.se

We strongly encourage our readers to contribute to a lively and interesting journal. Letters to the News & Views section will be published if they are:

- short
- relevant to the Journal
- interesting for the readers.

Examples: comments on papers published in the Journal, views on ongoing research, trends in research policy, opinion about forestry practice etc.

News & Views is edited by Areca Information AB. **Contact:** Carl Henrik Palmér. chp@areca.se