FOREST HEALTH - A CORNER STONE OF SUCCESSFUL FOREST-BASED INDUSTRY

HealGenCAR Conference: Challenges in tree resistance breeding
Punkaharju, 7 June 2016
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Finnish Forest Industries Federation

THE FINNISH FOREST INDUSTRIES FEDERATION ACTS AS A COMMON VOICE FOR ALMOST 80 MEMBER COMPANIES IN THE FOREST INDUSTRIES

Lobbying organisation for companies engaged in forest industry and associated activities in Finland

Pulp production
Paper production and processing
Paperboard production
Sawmilling
Panelboard industry
Furniture and Joinery industry and other wood products industry
Bioenergy production

We do lobbying at national, EU and also global level
FOREST INDUSTRY IS IMPORTANT IN THE COUNTRYSIDE

- Forest industry is important to over 50 local communities
  - 48 pulp and paper mills
  - over 200 industrial sawmills, panel factories or other wood products companies
- The forest industry directly and indirectly employs approximately 160,000 Finns (altogether 5.5 M Finns)

FINLAND’S TOP EXPORT PRODUCTS

1. Paper and paperboard 7.0 bill. EUR
2. Diesel fuel 3.4 bill. EUR
3. Stainless steel 2.5 bill. EUR
4. Wood pulp 1.8 bill. EUR
5. Motor vehicles for personal transport 1.7 bill. EUR
6. Softwood sawnwood 1.6 bill. EUR
7. Electric generators and motors 1.3 bill. EUR
8. Special machinery 1.0 bill. EUR
9. Earth movers and excavators and other similar machinery 1.0 bill. EUR
10. Electricity transformers and frequency changers 1.0 bill. EUR

At the same time forest-based industry produces 2/3 of renewable energy in Finland
RESOURCES EFFICIENT USE OF WOOD FROM VITAL AND SUSTAINABLE SOURCES

- Packaging
- Bio-chemicals
- Buildings and interior design
- Wood and other materials together
- Energy and biofuels
- Biopolymers and bio plastics
- Medicine and wellness
- Pulp and paper

FOREST-BASED INDUSTRY IS WILLING TO STAY IN FINLAND ALSO IN THE FUTURE - INVESTMENTS HAVE BEEN INCREASING

SOURCE: Statistics Finland, forecast Confederation of Finnish Industries, FFIF
MAINTENANCE OF FOREST RESOURCES IN A LONG TERM IS ESSENTIAL TO DEVELOPMENT OF WOOD-BASED BIO-ECONOMY

Forest-based industry is dependent on three domestic tree species – a great possibility but also a challenge

INCREASED USE OF WOOD – DECREASING AREA FOR FORESTRY?

Heterobasidion and other existing diseases
Production of ecosystem services
- Wood production and other services against each services?
Possible new forest pests and diseases

Green infrastructure
- Forest networks to protect ecosystem services

Area for commercial forestry

No-Net-Loss
- Sectors causing loss of biodiversity
- Possible compensation by using e.g. habitat banks

How to ensure increased and cost-efficient wood procurement from commercial forest area that is probably decreasing?
FOREST TREE BREEDING PLAYS IMPORTANT ROLE

- Large climatic adaptation
- Climate hardiness
- Volume
  - We still can increase it, but how much without decreasing quality
  - We do not win the game with plantations with rotation of less than 10 years
- Quality
  - Nordic boreal forest tree species have specific characters
- Pest and disease resistance
  - *Heterobasidion, Cronartium*
  - Moose
  - *Anoplophora*, Pine wood nematode
  - New possible threats?

HOW MUCH TECHNOLOGY DEVELOPMENT CAN HELP US?

- Vegetative propagation?
  - Norway spruce
  - Scots pine

- Gene technology?
  - Genome sequencing and marker genes to help existing breeding methods
  - New engineering techniques
    - Role of EU versus third countries in GM technology
    - Deregulated new techniques?

Acceptance?
AT THE SAME TIME WE ARE LOOSING BENEFITS OF BRED MATERIAL BECAUSE FORESTS ARE NOT TIMELY MANAGED

Collaboration between private forest owners is crucial

Private forest owners own more 60% of forest land in Finland

630,000 private forest owners

67% of the wood used comes from private forests – more than 100,000 contracts /a

How to get private forest owners to see the importance of forest management and forest tree breeding in their forests in the future
USE OF BRED REPRODUCTIVE MATERIAL AND SUSTAINABLE MANAGEMENT DO NOT RESTRICT PRODUCTION OF DIFFERENT ECOSYSTEM SERVICES

All ecosystem services can be produced at the same time over generations

FREE GLOBAL TRADE

How can we find a balance between free global trade and protection of plant health?