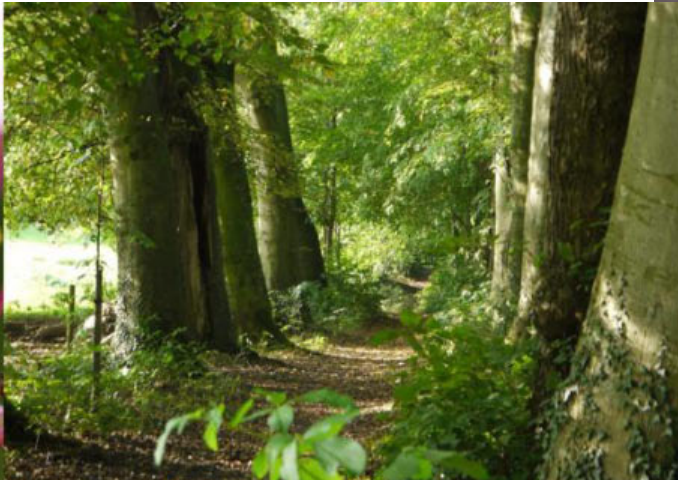




NordGen

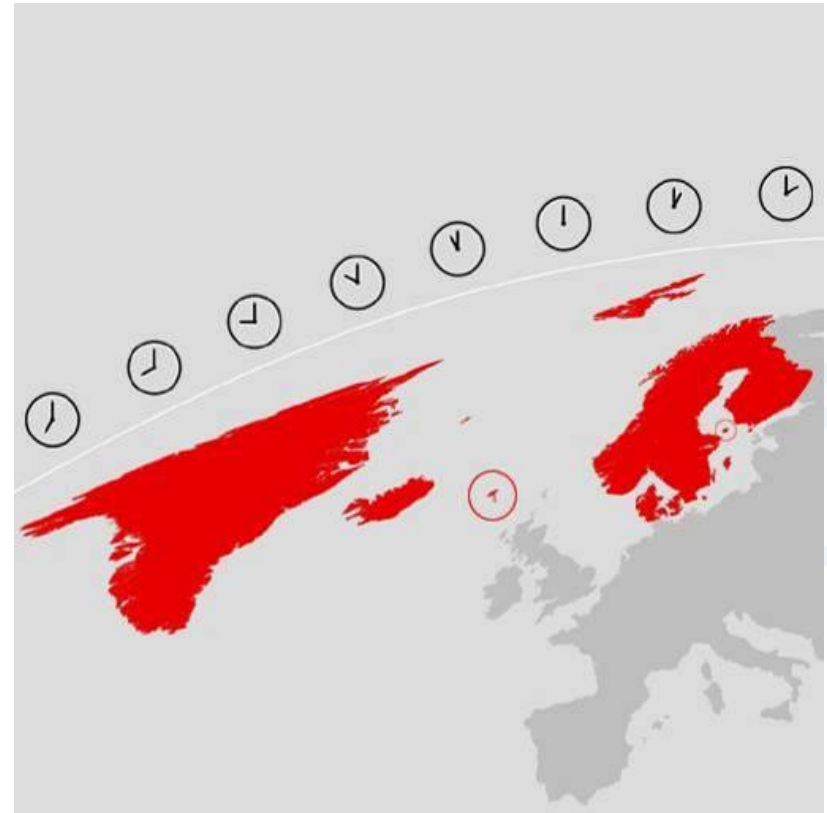
Nordic Genetic Resource Center



Norden

the countries

- The Nordic Region consists of Denmark, Faroe Islands, Finland, Greenland, Iceland, Norway, Sweden and Åland.
- 26 million people and eight official languages.



Co-operation



- The Nordic Council has just celebrated its 60th anniversary
 - *the inter-parliamentary forum*
- The Nordic Council of Ministers turned 40 recently
 - *the inter-governmental body*

Activities and offices

- Nordic co-operation (NCM) funds 15 institutions and 20 other bodies spread throughout the Region.
- NordGen - Nordic Genetic Resource Center is one of the institutions
- The Nordic countries have been co-operating for more than 36 years on conservation of genetic resources.



NordGen

2008

A merge of :

- Nordic Gene Bank Plants (1979)
- Nordic Gene Bank Farm Animals (1984)
- Nordic Council for Forest Reproductive Material (1970)
- Nordic Generesource Council (2001)

NordGen Forest

Serves as a Nordic meeting place

promotes and improves the forest seed and plant production and works for conservation and sustainable use of GR

- Conferences and thematic days (in local language)



Conferences and thematic days

- Riga sept. 2015: *Wise use of forest reproductive material (NordGen Skog and EFINORD-SNS Nordic Network of Forest Regeneration)*
- Tønsberg okt. 2015: *Bruk av lauv; fra frø til marked*
- Borgarnes mars 2015: *Tree breeding for increased forest productivity in marginal areas of the Nordic countries*
- Stockholm okt. 2014: *Skogsträdens genetiska variation – en skattkista att bevara och bruka*
- Son, sept 2014: *Need for seed – Nordic forests in coming decades*
- Jyväskylä januar 2014: *Metsätaimitarhapäivät (Forest nursery day)*
- Sabro august 2013: *Kulturkvalitet og øget træproduktion*
- Hallormsstadur, august 2013: *Northern forests in a changing climate*
- Gardemoen, mars 2013: *Foryngelseskvalitet i skog.*
- Hveragerði, nov 2012: *Tree seed sources and supplies for Iceland.*
- Hämeenlinna, sept 2012: *Option for Forest Regeneration.*
- Hamar, august 2012: *Epigenetics in forest trees and the effect on breeding and genetic resource management.*

NordGen Farm Animals

Coordinate and promote national commitments to secure and use farm animal genetic resources in a Nordic perspective

Information and knowledge center for conservation and sustainable use of farm animal genetic resources

Projects:

NordMilk, poultry, Faroe Island horse, Finnsheep, Nordic brown bee, Nordic dogbreeds,

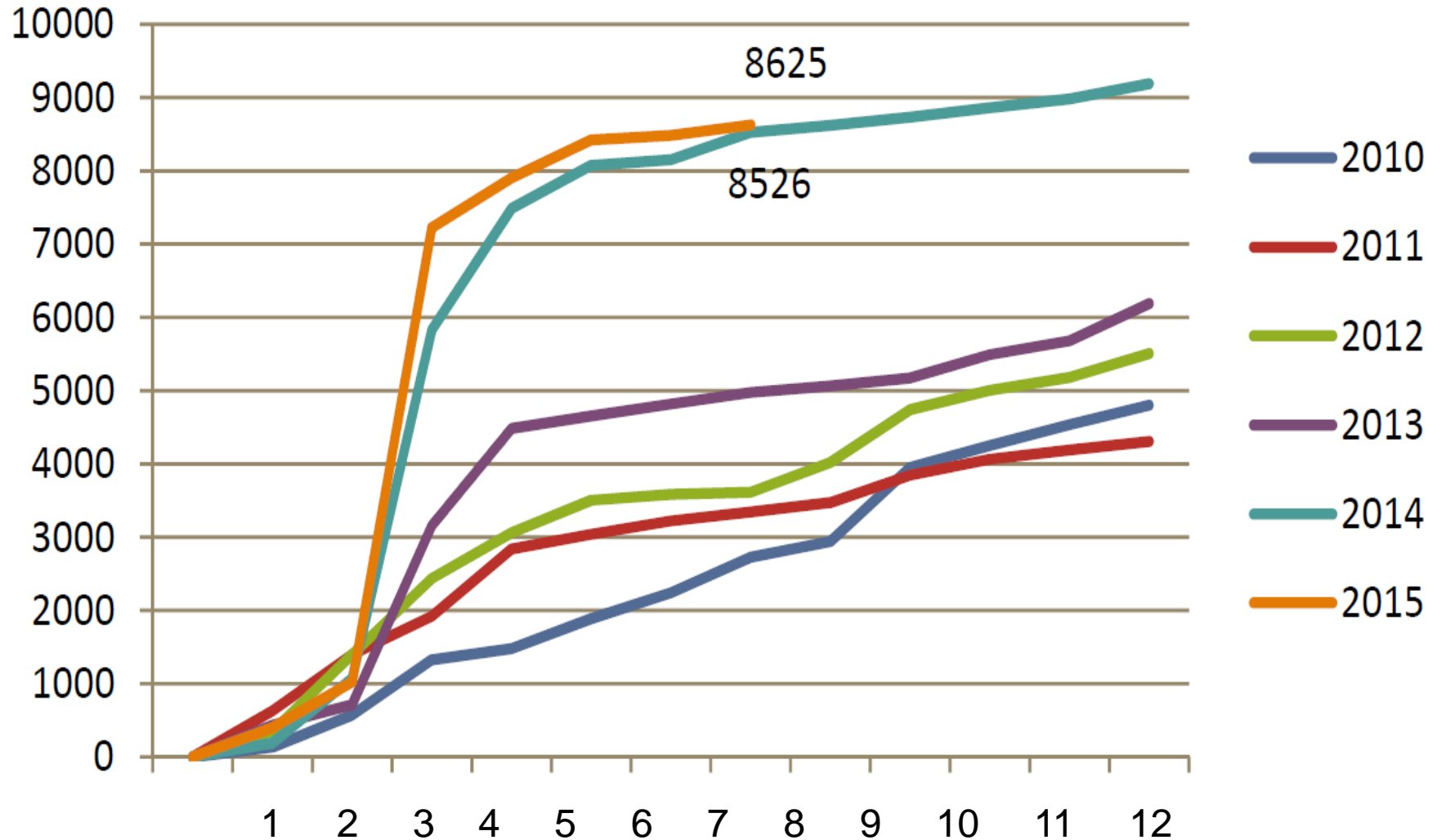


Plants

- Gene bank - the collection includes 513 species of cultivated crops and their wild relatives, with 32,000 registered accessions
- The material is of Nordic origin or relevance
- *NordGen is active in the ECPGR (The European Cooperative Programme for Plant Genetic Resources)*
- *AEGIS (A European Genebank Integrated System for plant genetic resources for food and agriculture)*



Seed delivered



Material – Primary Collections:

• Cereals	17.532
• Vegetables	6.446
• Forage	5.067
• Oil crops	1.554
• Spices & medicinal	300
• Industrial crops	156
• Fruit & berry	153
• Potato	64
• Forest (seeds)	16

Documentation system SESTO

- “Seed Store”
- Open source – freely accessible
- Central on-line data portal
- Gives public access to Nordic plant genetic resources and information
- Tool for NordGen staff and partners
- Continuous development



Who is using the collections, and what are they used for?

- 30 % used for research, breeding, training/education, for development of food and agricultural products
- Private accounts for 70% of the use – hobby (directly or through NGO's)
- Users in the Nordic countries account for 80% of the orders

Seed storage

- ◆ Active collection - Alnarp, Sweden
 - Distribution, characterisation, regeneration, analyses of material

- ◆ Base collection - Årslev, Denmark
 - Base storage

- ◆ Safety deposit – Svalbard Global Seed Vault
 - Duplication of Base collection

Public, privat partnership for pre-breeding - (PPP)

- The purpose of the PPP is to support the development of Nordic plant breeding satisfying the long-term needs of the agricultural and horticultural industries regarding adaptation to climate change, targets for environmental policies and demands from consumers, markets, etc.
- PPP-projects: Barley-, raygrass- and apple-prebreeding and technological development (50% public and 50% private funding)
- Members in PPP are 12 out of 14 breeding entities:
 - Denmark: Sejet Plantbreeding, Nordic Seed, DLF-Trifolium, KU-Science, LKF Vandel.
 - Finland: Boral Plant Breeding and Natural Resources Institute (LUKE)
 - Iceland: Agricultural University (LBHI).
 - Norway: Graminor.
 - Sweden: Lantmännen, Syngenta, Findus and Swedish Agricultural University (SLU)
 - Associated is Jõgeva Plant breeding Institut in Estonia
 - Carlsberg Breeding and Secobra are not members

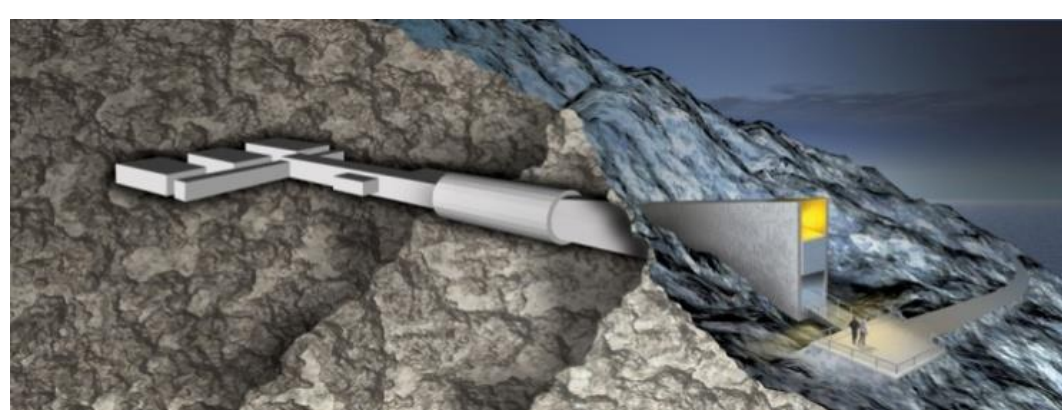
NordGen had its safety duplicate set in an abandoned coal mine at Svalbard in the middle of the 1980s



***Mine No 3
March 2012***

The Svalbard Global Seed Vault

- Objective of the Seed Vault is to provide a **safety net** for the international conservation system of plant genetic resources
- The SGSV was established and fully funded by the Norwegian government.
- The Ministry of Agriculture and Food coordinates daily operation with NordGen and the Global Crop Diversity Trust



26 February 2011

Key for vault'

By Mark Kin...
Environment rep...



The vault's remot

More than 20,0

750,000 samples in all. When I see this, says my brother, looking lovingly at his latest

Video

ilitants invade Iraqi refinery

6 gun battle

basefire

nce April

comeback'

ysis

ground beauty

otographer capturing the film metro

harvest

an family struggles to hold Bethlehem hill farm

the last drop of blood'

defiance on both sides of in Damascus

trous days

es risk of religious war, mpson writes

**90 % of ICARDA's collection
was in Svalbard Global
Seed Vault!**



***128 box, 38,073 seed samples have been sent
to Lebanon and Morocco !!!!***

