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OECD Forest Seed and Plant Scheme in Canada

2020-2022 Updates from the Canadian Forest Service
June 23, 2022, Sidney, British Columbia

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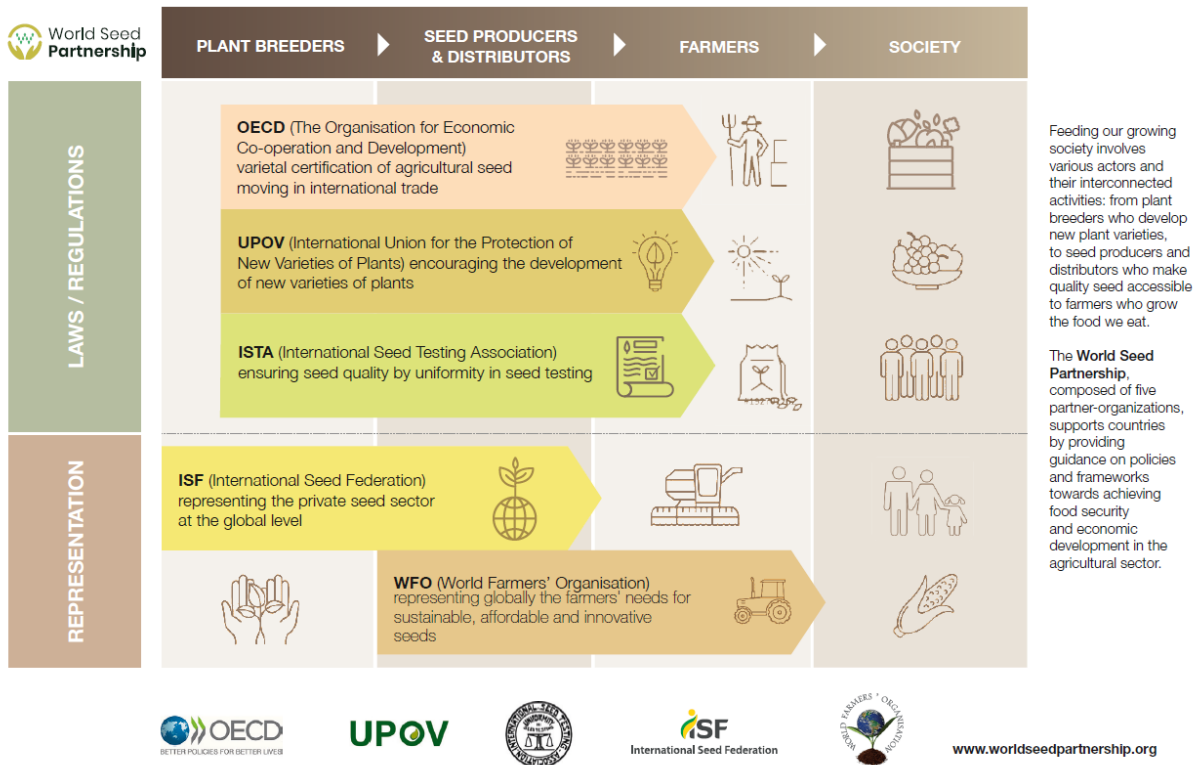


OECD Seed Schemes

Harmonised certification rules for seed moving in international trade:

1. Agricultural seed and varieties (est. 1958, supported by Canada's [Seeds Act \(1985\)](#))
2. Basic and improved forest seeds and plants (est. 1967, no federal forestry seeds act)

World Seed Partnership supports sustainable agriculture by enabling farmers to have access to new plant varieties and high quality seed



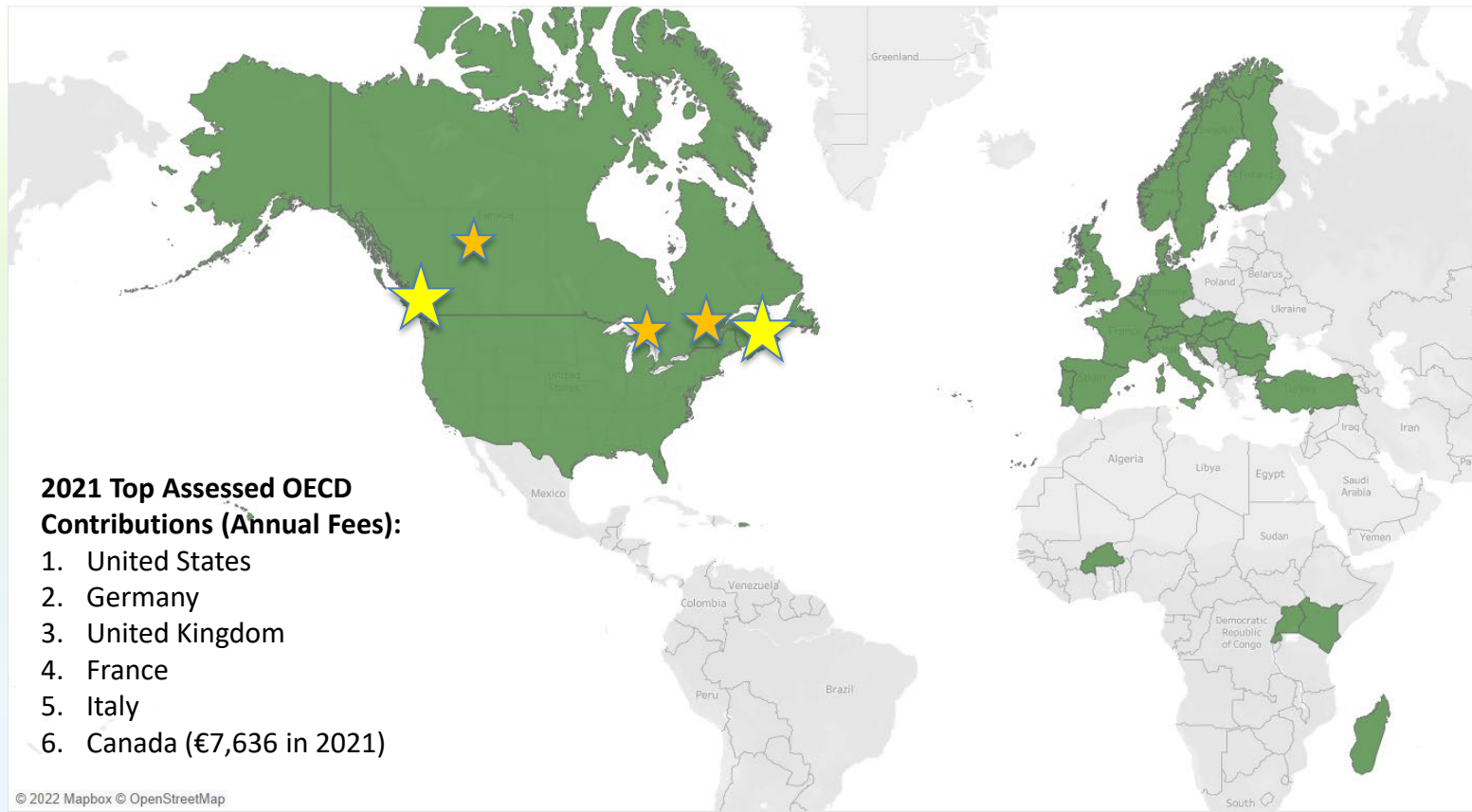
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2021 Top Assessed OECD Contributions (Annual Fees):

1. United States
2. Germany
3. United Kingdom
4. France
5. Italy
6. Canada (€7,636 in 2021)

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Updates since 2017

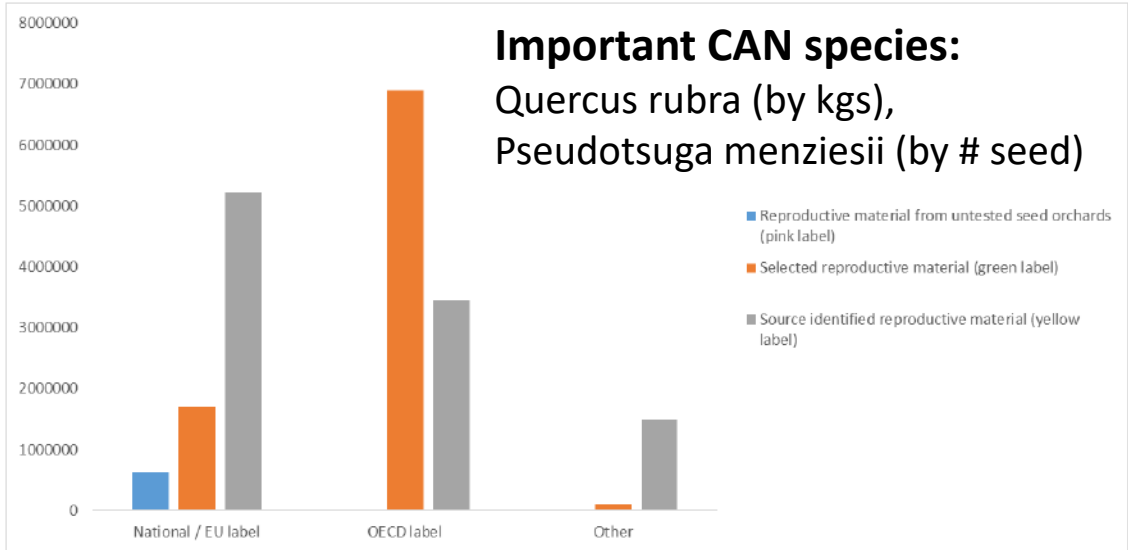
- **2 Meetings per Year:** Melissa attended virtually 2020-2021
- **New members:** United Kingdom, Bulgaria and Slovenia (ISO codes updated except SVN)
- **Clarifying rules and definitions** on provenance for registrations of source-identified, selected and advanced categories
- Adjusted table of seed coefficients for seeds/kg



2019-2020 Seed Trade Data

- 21 / 30 countries reported
- **Total of 3.732 million kg** of seed produced, certified or traded by Members
- **18,740 kg imported**
- **2,271 kg exported**
- High National/EU % scheme
- Conversion by species to # of germinable seed accounts for heavy weight of acorns, nuts

Figure 2. Imports of forest seed 2019/20 (Number)



Source: OECD Forest seed and plant scheme statistics 2021

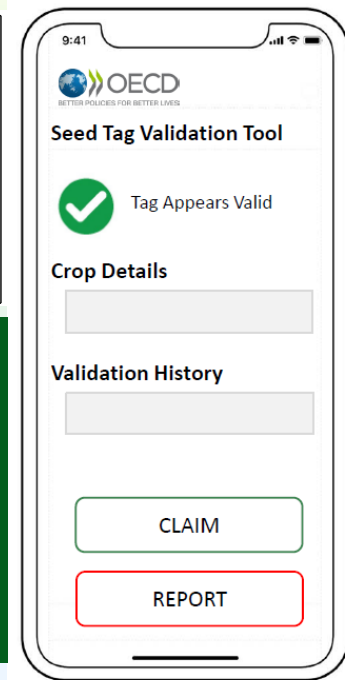
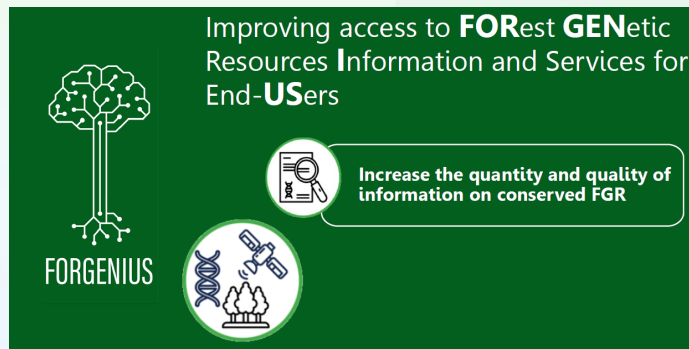
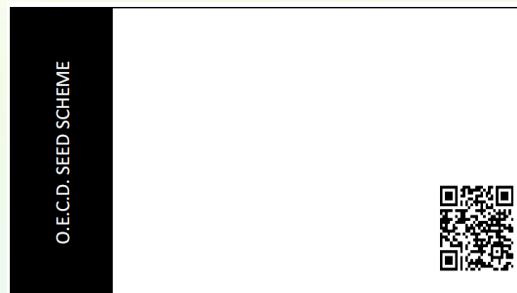
Updates and Proposals 2021-2022

Selected OECD proposals

- Digital traceability system, scannable tags
- Traceability of origin of clones/orchards vs location vs place of production
- Recognition of biochemical / molecular techniques in certification of provenance
- New communications strategy
- Mixing of Seedlots Guidelines

Joint Activities

- ISTA-OECD Handbook update (online)
- OECD-FOREMATIS database
- OECD-EURFORGEN strategy



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Learning from Members

Presentations by Germany (May 2022):

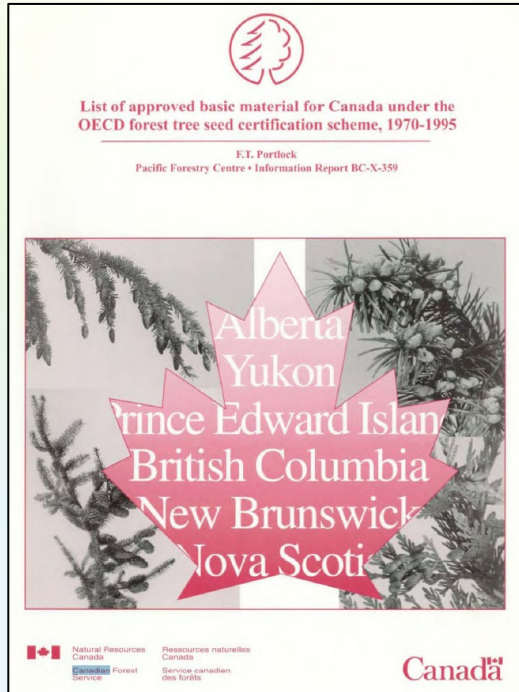
- Overview of national FGRM practices, conservation, laws
- New national legislation 2002
- As of Jan 2013, only using **Selected**, **Qualified** and **Tested** FRM for indigenous species planted in Germany; **Source-identified** non-indigenous seedlots can still be traded
- ~ 500 FfV seedlots per year / 100 seed producers and nurseries as customers; <https://ffv-zertifikat.com/>

FRM Production Process



23

Catalogues of Approved Basic Materials



Forest Reproductive Material Information System

Search criteria | Show less

Open Street Map EU version

SEARCH CRITERIA

Regulatory framework

EU level

Country/Organisation

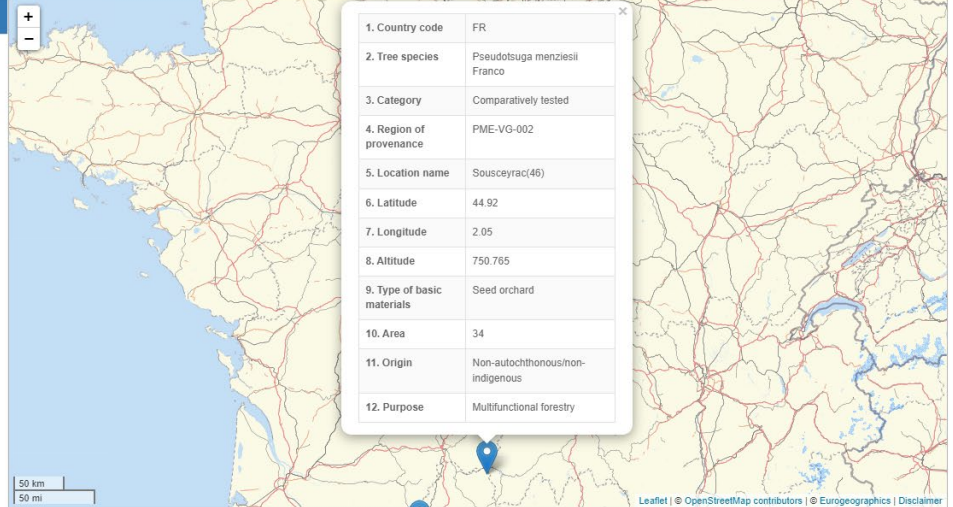
Tree species

pse

- ☐ Acer pseudoplatanus L.
- ☒ Pseudotsuga menziesii Franco
- ☐ Robinia pseudoacacia L.

Categories

- ☒ Comparatively tested
- ☐ Genetically evaluated tested
- ☐ Provisionally tested
- ☐ Qualified
- ☐ Selected
- ☐ Source-identified



Results found: 8

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Certificates & Labels

- Numbered fields align with current Rules / Appendixes
- Majority of fields are already utilized by existing Canadian seed registration systems
- Labels: 1 inside, 1 outside
- Paperwork accompanies CFIA export and phytosanitary paperwork if >500 grams.

OECD templates 2016

OECD Forest Seed and Plant Scheme	
1. Name of the Designated Authority:	Canadian Forest Service, Natural Resources Canada
Address of the Designated Authority:	Atlantic Forestry CEntre 1350 Regent Street, Fredericton, New Brunswick E3B 5P7
2. Botanical name:	<i>Pinus contorta</i> var. <i>latifolia</i>
3. Purpose(s):	Reforestation
4. Category:	Source-identified
5. Type of Basic Material:	Seed source
6. Number of the Certificate of Provenance:	CAN-YT-0451-08
7. Reference identity of basic material in National Register:	YT-B.26b-60a38'-134a54'
8. Provenance or Region of Provenance:	Swan Lake, British Columbia
9. Origin of the basic material (if known):	Indigenous
10. Additional information:	Example filled out with old data. Add purity, 1000 seed weight, germination % if available. Note that this is the updated required label provided by OECD as of 2017 - see also 2017 Certificate of Provenance template



CERTIFICATE OF PROVENANCE FOR REPRODUCTIVE MATERIAL DERIVED FROM SEED SOURCES OR FROM STANDS			
Issued in accordance with the OECD Forest Seed and Plant Scheme			
Country: Canada		Certificate No: 	
It is certified that the forest reproductive material described below has been produced in accordance with the OECD Scheme for the Certification of Forest Reproductive Material Moving in International Trade.			
1. Botanical name: 			
Common name: 			
2. Nature of reproductive material:	3. Category of reproductive material:	4. Type of basic material:	
<input type="checkbox"/> Seeds <input type="checkbox"/> Parts of plants <input type="checkbox"/> Plants	<input type="checkbox"/> Source-identified <input type="checkbox"/> Selected <input type="checkbox"/> Tested	<input type="checkbox"/> Seed source <input type="checkbox"/> Stand	
5. Stated purpose: 			
6. Reference identity of basic material in National Register: 			
7. <input type="checkbox"/> Autochthonous/indigenous <input type="checkbox"/> Non-autochthonous/non-indigenous <input type="checkbox"/> Unknown			
8. Origin of basic material (for non-autochthonous/non-indigenous material, if known): 			
9. Region of Provenance of basic material:			
Country: 			
Region of Provenance: 			
Provenance (short title): 			
Location coordinates: 			
10. Number of harvested trees (best estimate): 		11. Quantity: 	
12. Is the material covered by this certificate the result of subdivision of a larger lot covered by a previous OECD certificate? <input type="checkbox"/> Yes <input type="checkbox"/> No Previous certificate number: Total quantity of seed/part of plants/plant in initial lot: 			
13. Length of time in nursery: 		14. Year(s) in which seed ripened: 	
15. Altitude of site of basic material: In the case of subsequent vegetative propagation of material derived from seed: 			
16. Method of propagation: 		17. Number cycles of propagation: 	
18. Number and nature of packages: 			
19. Other relevant information (e.g. Master Certificate number): 			
20. Name and address of supplier: 		Name and responsible officer and signature: 	
Name and address of Designated Authority: 		Stamp of Designated Authority: 	
Place: 		Date: 	
Date: 		Date: 	

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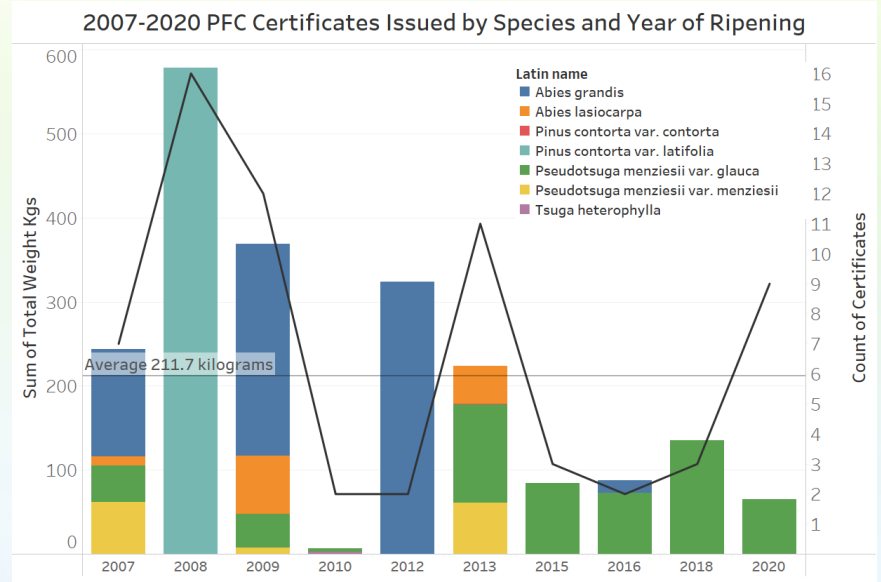
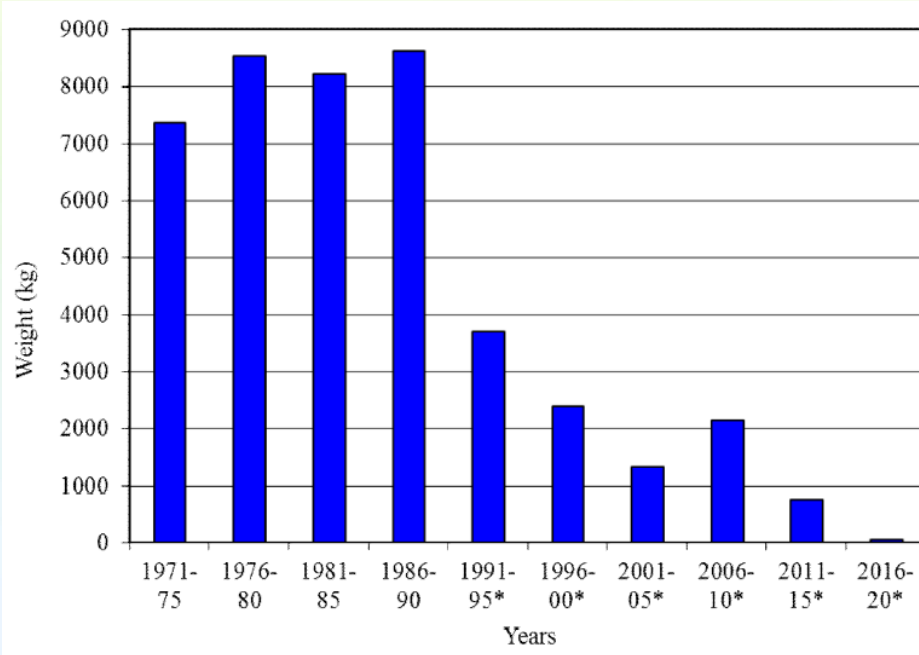


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Volumes Certified (1971-2020)



Visualization generated from recent certificates issued by PFC, standardized by NTSC June 2022

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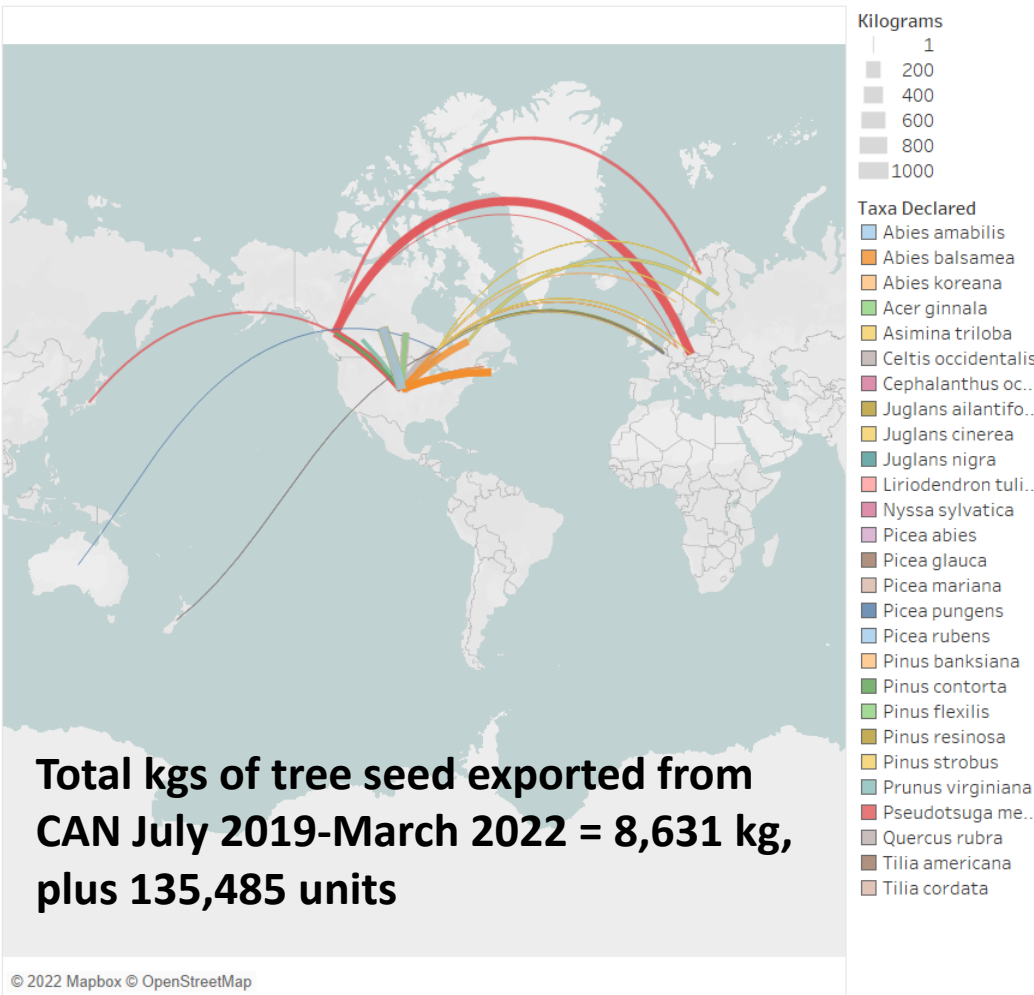
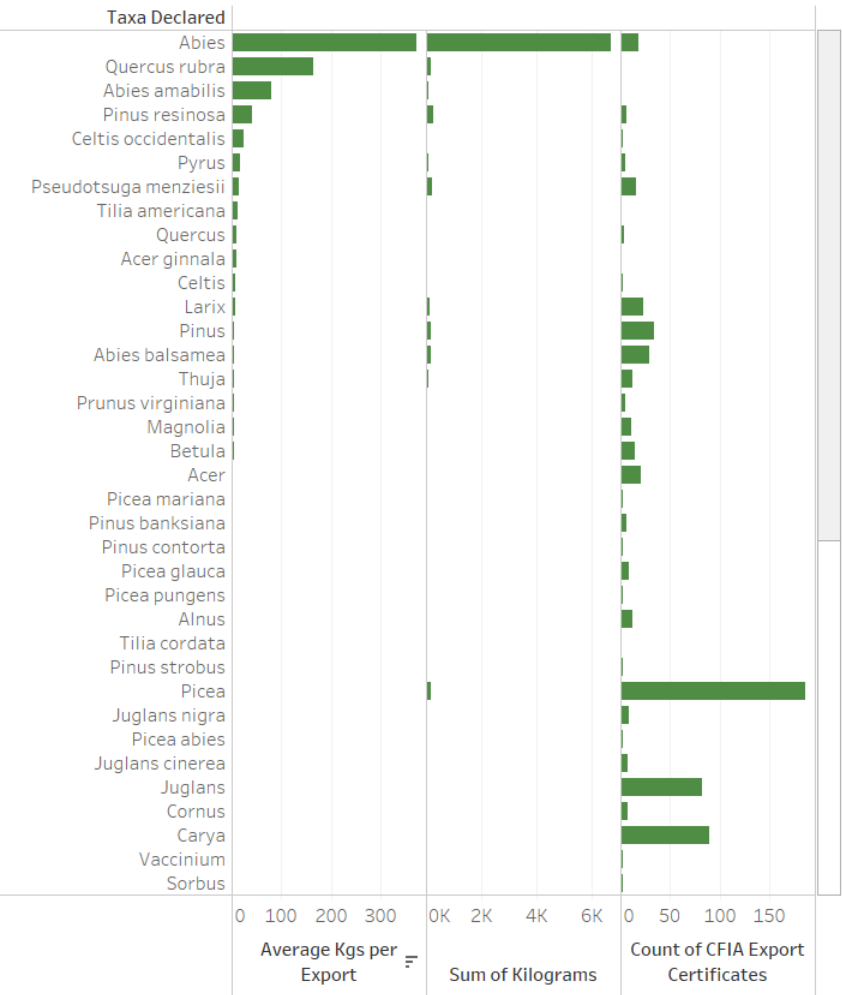


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Canadian Forest Seed Exports (July 2019-March 2022, CFIA Request #17316137, received by NTSC June 8 2022)



OECD.Stat for Seed Schemes

2019 Agricultural Seed for Canada = over 15 million kilograms of certified seed exported

ORGANISATION
FOR ECONOMIC
CO-OPERATION
AND DEVELOPMENT

 **OECD.Stat**

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Agricultural codes and schemes

☐ OECD Seed Schemes - Weight of seed certified

Demography and Population

Development

Economic Projections

Education and Training

Environment

Finance

Globalisation

Health

OECD Seed Schemes - Weight of seed certified

Customise

Export

My Queries

Year	2019		
Country	Canada		
Certification	1st certification		
Category	Pre-Basic	Basic	1st Generation
Measure	Kilogram		
Unit	Kilograms		
Species			
POACEAE	..	20 000	2 981 945
FABACEAE	188 945	233 984	4 642 773
BRASSICACEAE	943	2 526	..
OTHER SPECIES	10 000	17 425	1 148 081
CEREALS	..	9 418	..
MAIZE	189 888	283 353	6 361 107

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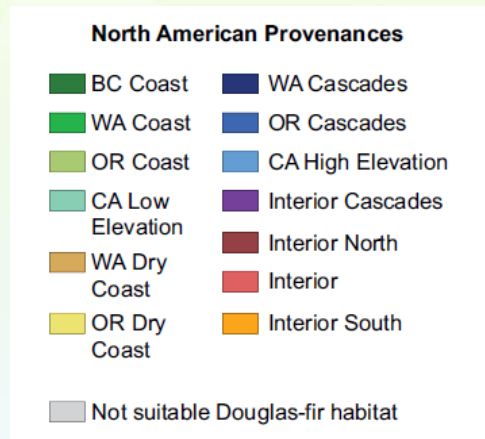
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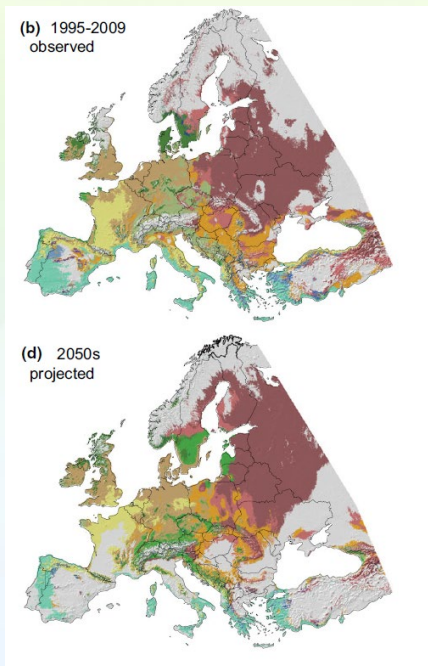
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Going Forward: Demand and Needs?

1. Will CAN OECD demand increase and for which categories?
2. How can CFS best help exporters or new business?
3. Is OECD useful or needed to support CAN climate-based seed transfer programs and research?

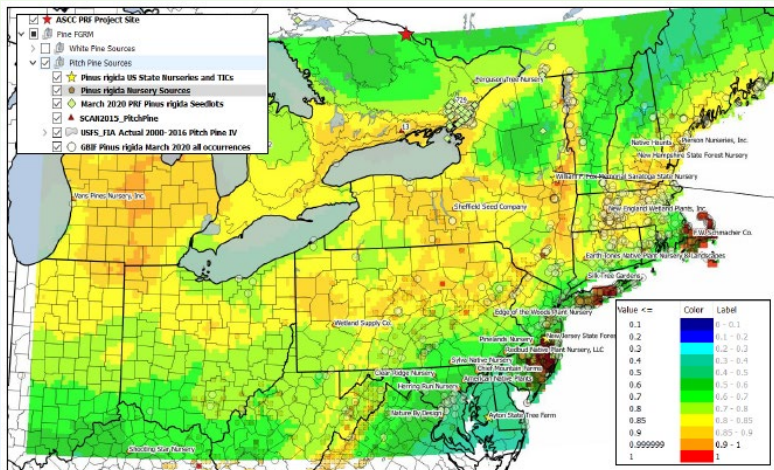


Isaac-Renton et al. 2014. doi:
10.1111/gcb.12604



Supporting New Research Trials

Adaptive Silviculture for Climate Change – Petawawa Research Forest (Chalk River, ON):
no management, business as usual, resistance, resilience and transitional treatments
including climate-based seed transfer and range expansion of southern species.



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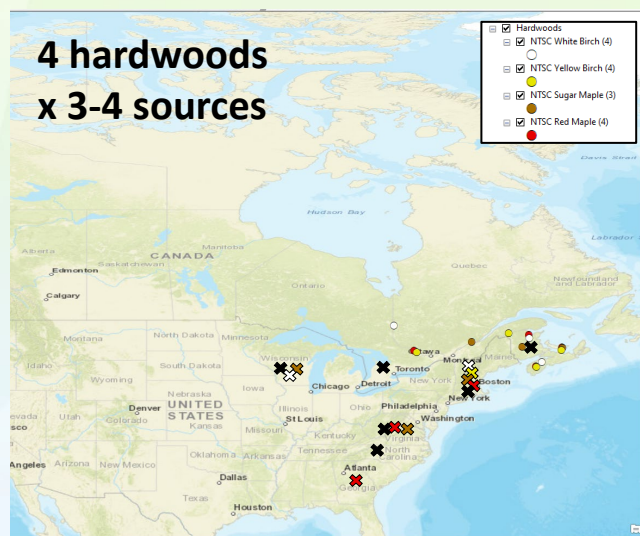
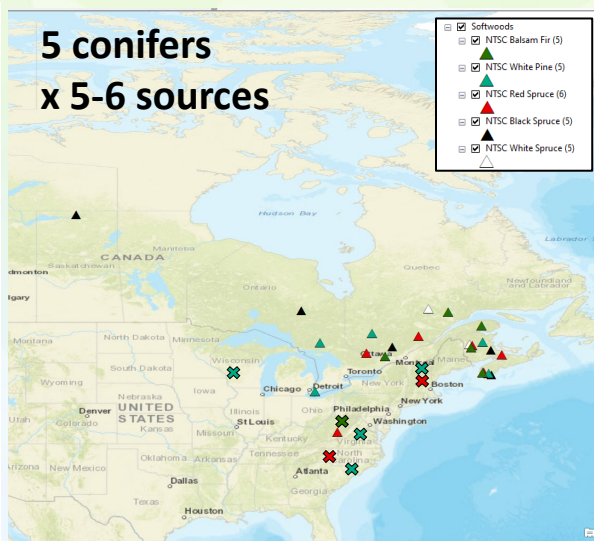
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<https://www.adaptivesilviculture.org/management-goals-and-treatments-PRF>

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Supporting New Research Trials

TransX: test natural and improved seed sources along Eastern US warming climate gradient



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Succession & Cooperation in Seed Quality



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Research Seed Lots Available

www.nationaltreeseedcentre.ca



Thank You!

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