



**Tree Seed Working Group**

Canadian Forest Genetics Association  
L'Association canadienne de génétique forestière



**Forest Genetics 2023**  
Discovery & Innovation in Changing Climates

## TSWG Workshop - July 10, 2023, 8 AM to 4 PM



*Photo from a June 27, 2022 water activity demonstration at the BC Tree Seed Centre, part of the "Challenges to our Future Tree Seed Supply" event.*

The CFGA's Tree Seed Working Group (TSWG) has been active since 1983. Members are from Canada, United States, Europe and several other countries. The TSWG hosts workshops in conjunction with CFGA conferences and publishes [News Bulletins](#).

Our July 10th workshop will feature sessions and demonstrations on:

1. Reproductive Biology and Seed Orchard Practices
2. Seed Testing and Use
3. Genetic Conservation and Restoration
4. Low Tech Tools and Techniques

**Cost:** \$75 per person, lunch included. There is an option to register for Monday only, as well as in addition to the main CFGA conference ticket. All are welcome - register by June 30th: <https://forestgenetics2023.ca/registration/>

**Location:** Ballroom A, Prestige Vernon Lodge and Conference Centre, 3914 - 32nd Street, Vernon, BC V1T 5P1, <https://goo.gl/maps/U3oMcJ41ttsovBAn7>



## Single-Day Registration Option

**Registration:** An option to attend ONLY July 10<sup>th</sup> is available at Check Out Step 2 anytime til June 30<sup>th</sup> : <https://forestgenetics2023.ca/registration/>

✓ Step 1 Step 2 Step 3 Step 4 Step 5 Step 6

\*Indicates a required field.

**Registration Categories\***

Please select your registration category below.  
**NB:** Students will have to provide a student number as proof of status.

Delegate - \$650.00

Student - \$350.00

CFGA Seed Tree Working Group ONLY - \$75.00

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Forest Genetics 2023 | UBC Conference



# Organizer Contact Information

- Dave Kolotelo: [Dave.Kolotelo@gov.bc.ca](mailto:Dave.Kolotelo@gov.bc.ca), office 778-609-2001; cell 604-790-3712
- Melissa Spearing: [Melissa.spearing@nrcan-rncan.gc.ca](mailto:Melissa.spearing@nrcan-rncan.gc.ca), cell 416-909-9755

## Organizer and Speaker: Dave Kolotelo, Cone and Seed Improvement Officer, BC Tree Seed Centre

Dave has been working at the provincial Tree Seed Centre for the past 30 years conducting research and extension, assisting with tree seed problem solving, operational efficiency improvements and successfully avoiding management. Dave obtained a BScF from the University of New Brunswick in 1997 and a MScF at the University of British Columbia in 1991 specializing in forest genetics and tree physiology. I was fortunate to get this position at the BC Tree Seed Centre in 1992 after working on contract for the Douglas-fir breeding program. It's been a great ride and I greatly enjoy the diversity of people I deal with involved in the reforestation system, cone collectors; seed orchardists, geneticists, seed researchers, processing facilities and nurseries. I am interested in tree seed science and technology, but feeling more like an advocate these days for investments in research, education and infrastructure to maintain these essential services at the global level. That's where the drive came from to organize this meeting and bring these groups together. In my spare time I enjoy gardening, travelling, bicycling, hiking and beach volleyball.



## Organizer and Speaker: Melissa Spearing, Seed Biologist, National Tree Seed Centre

Melissa is a budding seed biologist employed at the National Tree Seed Centre in Fredericton while working towards a Master of Forest Science degree at the University of New Brunswick. Melissa's prior experience includes nursery production and seed orchard management in Southern Ontario, supporting Species at Risk recovery programs, training at the Millennium Seed Bank in England, and a diploma from the Niagara Parks School of Horticulture. She is currently a Director with the [Canadian Forest Genetics Association](#), Editor of the [Tree Seed Working Group News Bulletin](#), and member of the [Canadian Institute of Forestry](#). In her spare time, she enjoys gardening, cooking, hiking, botanizing, camping, food preservation, and restoring old farmhouses.



# 2023 TSWG Workshop Agenda

**Location:** Ballroom A at the Prestige Vernon Lodge and Conference Centre, 3914 - 32nd Street, Vernon, BC V1T 5P1, <https://goo.gl/maps/U3oMcJ41ttsovBAN7>

Time	Title	Speaker / Lead By
<b>Ballroom Open at 8AM: Introduction and Overviews</b>		
8:20 AM	Welcome & Introductions	Dave Kolotelo, BC Tree Seed Centre
8:40 AM	TSWG Membership Needs & EU/OECD Demand	Melissa Spearing, National Tree Seed Centre
<b>Session Theme: Reproductive Biology and Seed Orchard Practices</b>		
9:00 AM	Reproduction in Balsam Fir (recorded presentation)	Dr. Graham Powell, University of New Brunswick
9:20 AM	Gametic Selection During Reproduction: Whatever Could Go Wrong?	Dr. Patrick von Aderkas, University of Victoria
9:40 AM	Lodgepole Pine Seed Yields from Two Orchard Soil Types	Robert Taylor, Skimikin Seed Orchard, BC Ministry of Forests
<b>10:00 AM Break (20 minutes)</b>		
10:20 AM	Controlled Mass Pollination (CMP) in the Southeastern United States	Stephen Goodfellow, PRT Growing Services & IFCO Seedlings, Alabama
10:40 AM	JDI's Controlled Mass Pollination with White Spruce	Courtney McDonald, Parkindale Seed Orchard, JD Irving, New Brunswick
<b>Session Theme: Seed Testing and Use</b>		
11:00 AM	Testing, Testing 1, 2, 3!	Victoria Lei, BC Tree Seed Centre
11:20 AM	Seed Research Interpretations & Pitfalls	Dave Kolotelo, BC Tree Seed Centre
11:40 PM	Dealing with Exceptional Species at the Atlantic Forestry Centre	Melissa Spearing and Martin Williams, Atlantic Forestry Centre
<b>Lunch (1 hour)</b>		

Time	Title	Speaker / Lead By
<b>Session: Genetic Conservation and Restoration</b>		
1:00 PM	Update on Genetic Conservation of Trees in BC	Dr. Tongli Wang, University of British Columbia
1:20 PM	Whitebark Pine: Initiatives to Restore an Endangered Species	Francis Iredale, BC Ministry of Land, Water and Resource Stewardship, and Stephen Joyce, Whitebark Pine Ecosystem Foundation of Canada
1:40 PM	Genetic Conservation Projects in Southern Ontario: Challenges and Opportunities	Kristen Sandvall, Forest Gene Conservation Association of Ontario
2:00 PM	Towards an Ontario Tree Seed Genetics Archive	Dr. Lahcen Benomar, Ontario Ministry of Natural Resources & Forestry
<b>2:20 Break (20 minutes)</b>		
<b>Session: Low Tech Tools and Techniques</b>		
2:40 PM	Seed Orchard Monitoring: Hot Tips & New Tricks	Geoff Bradley, Kalamalka Research Station, BC Ministry of Forests
3:10 PM	<b>Low-Tech Tools &amp; Demonstrations</b> <ul style="list-style-type: none"> <li>• Controlled Mass Pollination Tools</li> <li>• Protecting Seeds &amp; Seedlings - Cages, Guards, Deterrents and More</li> <li>• Digital Moisture Monitoring Tools + Mini Seed Banks</li> <li>• Good Microscopes &amp; Quick Dissection Tools</li> <li>• Germination Dishes &amp; Media</li> </ul>	
3:50 PM	Closing Remarks	Dave Kolotelo
<b>4:00 PM CFGA/WFGA Conference Registration and Reception Opens</b>		

# Workshop Feedback: Seed Supply Solutions

**Instructions for those in-person:** write down your thoughts and resources under each question. Please submit to the workshop organizers before you depart for your final destination.

**Instructions for those online:** Submit your thoughts here: <https://forms.gle/YxZqNZ3u1upTYjK4A>

**What is your highest tree seed research priority?**

**What is your biggest concern with tree seeds?**

**What is your biggest tree seed extension/information need?**

**What is your most critical infrastructure need to secure your required tree seed supply?**

**What tree seed information is critical to have in professional or post-secondary courses dealing with trees/forestry?**

**Notes:**