

Meeting Minutes

9:00 am – 12:00 pm, Thursday, April 16, 2021

Participants

Forest Genetics Council of BC:

Annette van Niejenhuis, Bevin Wigmore, Bill Laing, Bob Johnson, Caitlin Harrison, Dan Mazerolle, Domenico Iannidinardo (Co-Chair), Gord Chipman, Jeff Mycock, Juergen Ehling, Katherine Spencer, Keith Thomas, Pat Martin (Co-Chair).

Guests:

Brian Barber (FGC Program Mgr), Henry Benskin (SelectSeed), Kevin Astridge (FIRM), Michael Postma (FIRM), Shane Berg (OCF), Stephen Joyce (FIRM) and Tia Wagner (VSOC).

Proceedings

This meeting was held via GoTo video meeting. Attachments were posted in advance on [FGC's Secure Access](#) website. There being adequate notice and quorum present, Domenico called the meeting to order and reviewed the draft agenda.

Summary of Motions

Motion: The minutes of the FGC meeting held Dec 10, 2020 are hereby approved. Bevin/Annette. Carried

Motion: SelectSeed is requested to enter into another 3-year MoU with the Ministry to provide funding in support of a tree breeding position, subject to available funds. Annette/Juergen. Carried.

Motion: SelectSeed's Business Plan for the period 2021/22 is hereby approved. Bob/Bill. Carried.

Motion: The LBIS budget for tree improvement and forest genetics research, as presented and recommended by the Ministry, is hereby supported by FGC. Annette/Bevin. Carried.

Summary of Action Items

Person(s)	Actions	When
Brian	Finalize 2021-2025 Strategic Plan and provide file to Pat for printing and distribution.	ASAP
Co-Chairs	FGC to add climate change and other funding opportunities to a future agenda.	TBD
Co-Chairs	FGC to discuss the laws and principles respecting orchard seed pricing at an upcoming meeting.	TBD
Co-Chairs	FGC to review and identify priorities for 2021/22 at an upcoming meeting	TBD

1. Welcome, Intro & Agenda

There being adequate notice served and a quorum of members present, the Co-chairs called the meeting to order, confirmed participants and guests, and review the agenda.

Agenda

#	Time	Min		Topic	Presenters
1	8:30	3		Welcome, Intros and Agenda	Pat/Domenico
2	8:33	2	A	Minutes and Actions from Dec 10, 2020	Brian
3	8:35	5		Safety Updates	All
4	8:40	5	B	FGC Dashboard	Brian
5	8:45	10	C	Cone Processing Challenges	Michael/Tia
6	8:55	10		2020 Seedling Requests	Michael
7	9:05	10		CBST Update	Kevin
8	9:15	15		Species Plan Project Update	Brian/Kevin
9	9:30	15	D	FGC Strategic Plan 2021-25	Pat/Dom/Brian
10	9:45	10	E	New Orchards - including Pli Comandra-resistant	Pat
11	9:55	5		FGC Strategic Guidance to SelectSeed	Pat
12	10:00	5		SelectSeed – Update on Orchard Planning	Henry/Brian
	10:05	20		<i>Break</i>	
13	10:25	10	F	SelectSeed – Ministry MoU	Pat
14	10:35	20	G	SelectSeed Business Plan 2021/22	Henry/Brian
15	10:45	15		TAC Chair Reports	Juergen/Kat/ Annette
16	11:00	15	H	LBIS 2021/22 Tree Improvement Annual Plan	Pat/Keith
17	11:15	15		FGC Priorities for 2021/22	Pat/Dom
18	11:30	10		News and Announcements	All
19	11:40	5		Next Meeting	Brian
20	11:45	15		In Camera Session	Pat/Domenico

Motion: The Agenda for this meeting is hereby approved. Pat/Kat. Carried

2. Minutes and Action items from December 10, 2020.

The draft minutes of the Dec 10 meeting were provided as Attachment A.

Motion: The minutes of the FGC meeting held Dec 10, 2020 are hereby approved. Bevin/Annette. Carried

Action Items from December 10, 2020:

Person(s)	Actions	Status
Annette, Kat, Brian	Discuss sharing of safety-related information in advance of TAC meetings – January	TAC reports
Pat	Provide draft 1-pager on process for obtaining a new orchard with new material by January.	Completed See Item 10

Pat	Draft a terms of reference for a cone processing 'task team 'and circulate to FGC Members for input, and to nominate/identify a chair and team members.	Completed See item 5
Members	Comments on the Draft 2021-2025 FGC Strategic Plan to Brian by Dec 31, 2020.	Completed See item 9
Pat	Send out notice to orchard managers re OTIP Call for Proposals	Completed
Pat	Provide further instructions for 2021/22 business planning to TACs in advance of their respective meetings.	Completed
Brian	Work with Co-Chairs to provide FGC's budget recommendations to the Chief Forester and select Ministry Executive.	In progress See item 16
Members	Send news and announcements for next FGC Xmas eNewsletter to Brian.	Completed Sent Jan 7

3. Safety First

Members discussed Covid-19 safety-related initiatives. No Covid infections or other safety incidents were reported. Shane Berg said the Ministry implemented check-in procedures with staff working remotely at start and end of each workday, for the safety of those working alone.

4. FGC Dashboard

The FGC dashboard, which tracks progress of key FGC and SelectSeed performance measures and projects was reviewed. The FGC 2020 goals for 100% CSBT sowing requests and 75% of all sowing requests using select seed were not met. The FGC biennial report and 2020/21 business plan were also not completed. Other goals and tasks require attention or are on-target.

5. Cone Processing Challenges

Michael Postma and Tia Wagner co-chaired a committee to review cone processing challenges in 2020. Their committee's report was provided as attachment C. Tia summarized the issues identified by the committee.

1. Length of cone storage at sites (+8 weeks).
2. Difficulty in tracking seedlots after shipping through extraction and processing.
3. Inaccurate crop estimates during large crop years.
4. Timely extraction with increased production expected in the future.

The committee made recommendations for each area of concern. They also recognized things that are worked well: fair and reasonable completion of priority processing by Dec 31; cone shipment coordination; and satisfactory responses to processing and germination questions.

Michael provided the Tree Seed Centre's response and confirmed the actions it will undertake to address the issues. The respectful discussion and cooperation of all parties was acknowledged. Pat and Shane also thanked the committee and those who brought these issues to the Ministry's attention.

6. 2021 Seedling Requests

Michael summarized the 2021 sowing requests statistics. Over 285 million seedlings were requested for sowing in 2021, compared to 296M last year. Over 3100 kg of seed was ordered through 2370 separate requests. Approx. 69% of the seed requested was Select (A & B+) seed. As of this date, over 45% of the 2021 requests had been shipped to nurseries.

Seedling request summary reports are available at the following Ministry [website](#).

7. CBST Update

Kevin provided an update on Climate-based seed transfer (CBST) project accomplishments 2020/21 and plans for 2021/22. Of the 286M seedlings requested for sowing in 2021, 57% were requested using the CBST tool in SPAR, which is the same as the previous year. Reasons for the delayed uptake of using CBST during the transition period are not well understood and will be explored. Several alternatives to the CBST standards were received and assessed using the CBST genetic suitability matrix. The scientific committee was also reconstituted.

In the coming year, a decision on the CBST transition period will be sought from the Chief Forester. Those using tree seed for reclamation work (e.g. oil and gas industry) will be engaged. GIS analysis and tool development will continue, and seedlot registration functions in SPAR and the Ministry's internal seed management system, CONSEP, will be modernized.

Leslie McAuley, Decision Support Officer, retired on April 16 after a 32-year career with the Ministry. Leslie was involved in tree seed policy and planning for the majority of her career, and made significant contributions to provincial seed use regulations and standards, including climate-based seed transfer (CBST). Brian thanked Leslie with a gift on behalf of FGC at a small outdoor retirement party earlier in the week.

8. Species Plan Project Update

This project is co-lead by Brian and Kevin, with Forsite Consulting under contract via SelectSeed. Brian summarized progress with developing the new CBST-based species plan dashboard.

The draft dashboard currently contains seed demand and supply information for Pli, Fd and Sx. Next steps include adding other species and updating the seed production forecasts for all seed orchards. The latter is being compiled by Jack Woods in collaboration with seed orchard managers. The seed production forecast files will subsequently be transferred to FIRM who will assume responsibility for the data and future updates.

A beta version of the dashboard will be released in August Aug 2021 to assist seed users with seed planning and sowing requests. FGC members were provided a link to the draft dashboard.

9. Draft FGC Strategic Plan 2021-2025

A draft strategic plan was presented. It was compiled by Julie Melano, Caorda Web Solutions, under contract with SelectSeed. The draft was previously reviewed by the FGC committee in March and approved by Diane Nicholls, Chief Forester. Brian recommended adding some

additional photos to the back of the plan to complete the document. An updated tree improvement cycle diagram will be completed separately.

Pat thanked the committee and Brian for completing the plan. Attention can now be directed to the pursuing the updated objectives and performance measures.

Motion: The FGC Strategic Plan for the period 2021-25 is hereby approved. Annette/Keith.
Carried

Action: Brian to finalize 2021-2025 Strategic Plan and provide file to Pat for printing and distribution.

10. New Seed Orchards

In March 2021, the Ministry invited SelectSeed, VSOC and FIRM's seed orchard section to submit an Expression of Interest (EOI) for a 3000-5000 ramet Pli comandra-resistant seed orchard(s). SelectSeed's invitation was provided as an example. The invitation included the requested information including proposed location, layout and resources available.

EOIs are due on May 1 and will be reviewed by ITAC for their technical merit – consistent with the [Chief Forester's Seed Orchard Principles](#). Final decisions on allocation will be made in the fall. Ramets will be provided to the successful proponents, at no cost, in Spring 2023.

Pat indicated this could be the process the Ministry uses to allocate and release new orchard materials going forward – interior and coast. He acknowledged the possibility that EOIs from existing orchard companies could be rejected, and that EOI invitations be open tendered to attract new players.

Council asked about the potential to access federal funding through [Growing Canada's Forests](#), and other programs to invest in seed orchards and tree breeding. Growing 2 Billion trees will require lots of seed. It was also noted that private firms are investing in forest carbon sequestration projects.

Action: FGC to add climate change and other funding opportunities to a future agenda.

11. FGC Strategic Guidance to SelectSeed

Pat reminded members of FGC's purpose to share information and coordinate activities. Its other mandate is to provide strategic direction to SelectSeed, which is owned by FGC through the BC Forest Genetics Society (see [Governance](#) documents). Pat said the Chief Forester looks to FGC to remain engaged with the Company's orchard replacement strategy.

12. SelectSeed Orchard Strategy

Henry provided a verbal update on its orchard replacement strategy. As previously noted, the realities for replacement are subject to

1. Projected future seed needs. These define the opportunities for existing and new orchards. The new CSBT species plans will help inform these opportunities.
2. Availability of new materials. The timing and process for release of new orchard materials remain uncertain, and therefore makes it difficult to plan. For example, the

projected release of next generation Fdi and Sx is projected to occur after SelectSeed's Fdi and Sx expire.

3. Access to new materials. SelectSeed does not have successor rights – a guarantee it will be provided new orchards materials, if and when they do become available, to replace its existing compliment of orchards.

Consequently, SelectSeed cannot develop a comprehensive replace plan. An incremental approach will therefore be taken to assess the seed needs and cost/benefits of contract extensions, and to take advantage of new opportunities as they arise (e.g. recent invitation to submit an EOI for a new Pli comandra-resistant orchard).

An evaluation matrix has been developed to help guide our assessment and decisions respecting the existing orchards. SelectSeed will not commit to any contract extensions without seeking FGC's input in advance, as per its previous direction.

Annette pointed out other private seed orchards also face similar planning challenges. WFP recently completed a 25-year orchard plan, which assumed the company will be able to maintain its existing seed supply market share in the Coastal BEC variants.

13. SelectSeed – Ministry MoU

Since 2015, SelectSeed has provided funding to the Ministry to support a tree breeding position. The latest 3-year MoU expired on March 31, 2021. Pat provided a summary of accomplishments achieved by this position and thanked SelectSeed for its support. He also requested FGCs support for SelectSeed to continue to provide funding for another 3-years.

Henry appreciated the acknowledgment of SelectSeed's contributions over the past 6 years to the provincial forest genetics program. The Board anticipated the request for another term, and incorporated this into its budget and business plan for fiscal 2021/22. The Board requests SelectSeed continue to be acknowledged in publications and presentation arising from the positions research.

Concerns were expressed about the Ministry not being able to adequately fund its base research positions. It was also noted tree breeding costs and genetic gain are not reflected in seed prices. It was also pointed out seed producers are not allowed to price fix as per the federal [Competition Act](#).

Motion: SelectSeed is requested to enter into another 3-year MoU with the Ministry to provide funding in support of a tree breeding position, subject to available funds. Annette/Juergen. Carried.

Action: Discuss the laws and principles respecting orchard seed pricing at an upcoming meeting.

14. SelectSeed Annual Business Plan 2021/22

Henry and Brian presented the Company's draft annual business plan for 2021/22. In accordance with the Multi-year agreement between the Ministry and SelectSeed, FGC must approve the company's annual business plan, including budget. Key activities include:

Seed Orchard Operations:

- **Orchards:** Manage 13 partnership seed orchards to produce 277 kg of seed valued at \$1.9M (SelectSeed's share only).
- **Seed Sales:** Generate approximately \$1.6M in seed sales revenues.
- **Safety:** Maintain worker health and safety, and environmental plans
- **Special Projects:** Advance seed orchard replacement strategy, continue establishment of new Pli seed orchard at Quesnel; and prepare an Expression of Interest for new Pli comandra-resistant orchard.

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- **Planning:** Complete and implement 5-year strategic plan for 2020-2025; assist with business planning for 2021/22, and complete new CBST-based species plans
- **Reports and Data Management:** Complete annuals report for fiscal years 2018/19 thru 2020/21 (combined in one report) and maintain key FGC data sets, workflows and analyses.
- **Governance:** Update FGC Bylaws and a Shareholder Agreement between the Society and SelectSeed.
- **Extension:** Maintain FGC website, share news and information, and co-host the CFGA/WFGA 2021 Forest Genetics student and postdoc symposium May 19-20, 2021.

Management and Administration

- **Management and Staffing:** Develop corporate records maintenance plan; retain additional administrative assistance.
- **Records and Accounts:** Maintain and improve the company's financial records.
- **Reporting:** Produce an annual report for last fiscal year and a business plan for next fiscal year for SelectSeed.

The budget, as presented, also included funding for the 3-year MoU between SelectSeed and the Ministry approved under item 13.

Motion: SelectSeed's Business Plan for the period 2021/22 is hereby approved. Bob/Bill. Carried.

15. TAC Chair Reports

Juergen: A CGTAC meeting was held via video on March 5. The morning consisted of an extension meeting open to all interested persons. A business meeting was held in the afternoon, during which project and budgets for 2021/22. Fortunately, separate funding for Dr. Tongli Wang's conservation-related work has been identified. Funding recommended supports on-going projects, such as ex situ seed collections and whitebark pine, plus a new landscape-level genetic diversity project led by Dr. Sally Aitken.

Kat: ITAC held an extension meeting via video conference on January 20. Each interior tree breeder presented their accomplishments from the last fiscal and proposed plans for next fiscal. The event was well-attended, participants engaged. A business meeting was held in the

afternoon the following day. FIRM’s proposed LBIS budget allocations for its interior breeding and resilience programs were reviewed and approved. Updates on CBST species plans and FGC’s Strategic Plan. No safety issues were reported by TAC members. ITAC is scheduled to review the submitted EOIs for the Pli comandra-resistant orchard EOIs on May 4.

Annette: CTAC held its annual business meeting via video on March 26. Updates on the Ministry’s coastal breeding and climate change and adaptation research (CCAR) programs were provided. Dr. Aitken also provides an update on the CoAdapTree project. Brian provided an update on FGC. Keith presented the proposed LBIS budget, which was subsequently approved by CTAC members.

Pat extended his thanks and appreciation to the TAC chairs.

16. LBIS 2021/22 Tree Improvement Annual Plan

Pat summarized the efforts internal and external efforts to raise the profile and importance of maintaining funding for the Provincial tree improvement program. These efforts paid off as the Chief Forester was better able to defend its land-based investment strategy (LBIS) funding allocation before the Ministry’s Executive. Additional internal funds were also obtained to “top-up” the initial LBIS allocation of \$1.93M to \$2.25M!

Keith provided an overview of the Ministry’s forest genetics section, and acknowledged the contributions of its staff who carried on despite the challenges of Covid-19. He also acknowledged Drs. Michael Stoehr and Ward Strong who retired in fall 2020.

Keith summarized the expenditures from 2020/21 – which totaled \$2M, presented the following proposed LBIS Tree Improvement Business Plan and allocations 2021/22.

FGC Program/Category	FIRM Allocations (\$000s)
Genetic Conservation	\$ 148
Tree Breeding (Volume & Pest Resistance)	\$ 1,652
Climate change and adaptation research*	\$ 325
Operational Tree Improvement (OTIP)	\$ 60
Climate-based seed transfer (CBST) project	\$ 65
Total	\$ 2,250

*includes funding for the Centre for Forest Conservation Genetics, Faculty of Forestry, UBC.

Kat also explained that only technical projects were accepted under this year’s OTIP program due to limited funding. A small committee reviewed the four proposals submitted; three were recommended. Consideration will be given to including a CTAC representative(s) on the review committee next year.

Motion: The LBIS budget for tree improvement and forest genetics research, as presented and recommended by the Ministry, is hereby supported by FGC. Annette/Bevin. Carried.

17. FGC Priorities for 2021/22

In consideration of the approved Strategic Plan, on-going projects, and discussions, members were asked to identify FGC's priorities for 2021/22 to help inform the priorities of the FGC Program Manager. This item was deferred to a future meeting due to time constraints.

Action: FGC to review and identify priorities for 2021/22 at an upcoming meeting

18. News and Announcements

Brian and Nick Ukrainetz are co-hosting the [2021 Forest Genetics Symposium](#) on May 19-20. The conference will feature 80 students and postdocs in oral and video presentations. Agenda includes keynote speakers Drs. Nathalie Isabelle, CFS, and Patrick von Aderkas, UVic, a career panel and breakout sessions. Prizes will be awarded to the presenters. Thank you to the Canadian Wood Fibre Centre, BC Ministry of Forests, Mosaic, WFP, VSOC, Genome BC, UVic, SelectSeed, and several others who sponsored this event.

[BC Seed Orchard Association](#) will hold a virtual conference on June 16, 2021. See website for registration and agenda.

Shane Berg provided an overview of the federal government's 2 Billion Tree Program which aims to motivate and support new (supplementary) tree planting projects. Requests for information for potential projects are due by May 27.

Henry announced he will not be standing for reappointment as a Director of SelectSeed at the upcoming AGM. Henry joined the Board in 2009 and has served as President the past three years. His term as President ends on Aug. 31, 2021 (so will serve as AGM Chair one last time). Henry was thanked for his leadership and contributions, and offered best wishes in his "second retirement". FGC may wish to consider nominations to fill this pending vacancy on the Board at the SelectSeed AGM.

19. Next meeting

FGC's next meeting will be held in conjunction with the AGMs for the BC Forest Genetics Society and SelectSeed.

Action: Brian to issue a doodle poll to schedule the next FGC meeting, and AGM's of the Society and SelectSeed in early June.

20. In camera session

Motion: Move to meeting *in camera* for FGC members only. Keith/Kat. Carried.

Adjournment

Motion: To move the meeting of *in camera* and adjourn the meeting. Juergen/Kat. Carried.

Draft minutes by B. Barber.

Approved June 14, 2021