



## AGENDA

**9:00 am – 3:00 pm  
Wednesday, March 20, 2013**

**Location:**

Sheraton Airport Inn (used to be the Richmond Inn)  
7551 Westminster Highway, Richmond, BC  
(Jack's cell 250-715-6285)

Time	Length (min.)	#	Item	Presenter
9:00			<b>Coffee available</b>	
9:30	5	1	<b>Review of agenda</b>	
9:35	10	2	<b>Update on FGC membership</b>	Barrie
9:45	10	3	<b>Old business and action items from December 12, 2012</b>	Jack
9:55	5	4	<b>Approval of minutes from December 12, 2012</b>	
10:00	15	5	<b>SelectSeed Ltd. review – next steps</b>	Jack
10:15	35	6	<b>Technical presentation:</b> Assessment of Old Off-Site Tree Plantations in the Northwest Interior of British Columbia	Phil LePage
10:50	20	7	<b>Seed Planning Unit rankings and red alder</b>	Annette / Jack
11:10	10	8	<b>Forest Genetics 2013 conference – request for support</b>	Jack
11:20	40	9	<b>Subprogram budgets and business planning for 2012/13</b>	
			- LBIS expectations; business-planning process	Barrie / Jack
			- Tree Breeding	Barrie
			- OTIP	Jack for Lee Charleson
			- Genetic Conservation	Jack for Dave Kolotelo
<b>12:00</b>	<b>45</b>		<b>Lunch – to be provided</b>	
12:45	110	9	<b>Budgets - continued</b>	
			- SelectSeed Ltd.	Jack
			- Extension	Jack for Diane Douglas
			- Seed and Cone Pest Management	Jack for Jim Corrigan
			- Seed Transfer / Genecology	Jack for Lee Charleson
			- Genetic Resource Decision Support	Jack for Guy Burdikin
			- Applied Tree Improvement and Biotech	Jack
			- <b>Final budget allocation and recommendation</b>	Jack
2:35	15	10	<b>Request for FGC endorsement</b> of a statement of cooperation for the Fdc Ecosystem Conservation Partnership	Jack
2:50	10	11	<b>New business</b>	Kerry / Barrie
3:00			<b>Adjourn</b>	

Next meeting planned for June 13, 2012 – Conference call – FGC meeting plus BC Forest Genetics Society and SelectSeed AGMs

## Briefing information

### Agenda item 2 - Update on FGC membership - Barrie

- Barrie has temporarily replaced Brian as FGC MFLNRO Co-Chair
- Domenico Iannidinardo (V. P. Sustainability and Chief Forester, TimberWest Forests Ltd.) replaces John Mitchell as a Coastal Industry representative

### Agenda item 3 - Action items from Dec. 12, 2012 meeting

Responsibility	Action requested	Actions done
Jack	Distribute the amended minutes from September 19, 2012 to Council members.	Done
Jack	Include ranking of seed planning units for investment on the March 2013 meeting agenda.	Done – to be discussed March 20, 2013
Kerry	Ask Larry Gardner if he will join the SelectSeed Terms of Reference Review Committee.	Done
FGC members	Review the existing SelectSeed Terms of Reference document and comment to Brian by December 21, 2012.	Done
Jack	Canvas FGC and SelectSeed Board members to find a date for a joint meeting in early February, 2013.	Done – meeting subsequently postponed
Brian	Look into providing sponsorship funds to the Forest Genetics 2013 conference using current year LBIS Tree Improvement Program funds.	Done by Brian; not possible
Brian	Send information about a planned whitebark pine recovery-plan workshop to FGC members when is it announced.	Not done
Jack	Conduct a Doodle poll of FGC members to determine the best dates for FGC meetings in 2013.	Still to be done

### Agenda item 5 – Review of SelectSeed Ltd. – next steps

- Review proposed by the FGC in September 2012
- Overview of SelectSeed Ltd. role and structure provided at December FGC meeting
- Review terms of reference set up by a committee led by Brian Barber
- Meeting of FGC and the SelectSeed Board of Directors planned for February 13, 2013 and subsequently postponed when Brian was re-assigned.

### Agenda item 6 – Assessment of Old Off-Site Tree Plantations in the Northwest Interior of British Columbia – Phil LePage, MFLNRO Scientist, Smithers

Phil will present data from an FGC-supported study that looked at older plantations of Douglas-fir and western larch that were planted outside the range of these species in the Smithers area. This study takes advantage of old “guerilla” plantings that may offer information as we develop climate-based seed transfer guidelines. Similar studies are being solicited in other parts of the province.

## **Agenda item 7 – Seed planning unit rankings and red alder – Annette, Jack**

An overview of the system used for ranking seed planning unit investments was presented to Council in September. This presentation will provide and an update on the ranking status of red alder.

## **Agenda item 8 – Contribution to the Forest Genetics 2013 conference**

This item was discussed at the December 2012 FGC meeting.

BC is hosting a large forest genetics and tree improvement conference in July, 2013. This conference will bring together 4 groups:

- Canadian Forest Genetics Association
- Western Forest Genetics Association
- IUFRO Population, Ecological and Conservation Genetics (Working Group 2.04.01)
- IUFRO Breeding and Genetic Resources of PNW Conifers (Working Group 2.02.05)

Brian was going to try to arrange a donation from LBIS funds not used for other projects. This could not be done due to spending limitations. A donation through the MFLNRO or SelectSeed is still possible. Organizers are suggesting \$5,000.

## **Agenda item 9 – Budgets**

A total allocation of \$3 million is anticipated for the Land Base Investment Strategy, Tree Improvement Program. Budgets are shown below by subprogram, with a summary of all subprograms on page 9.

**Budgets shown here are subject to change as this document was prepared before the FGC Budget Review Committee was able to meet. Changes will be highlighted at the meeting.**

## Breeding

Breeding Subprogram budgets for 2013/14 were presented to the CTAC and ITAC by MFLNRO breeders responsible for each species. The following budgets are recommended by the CTAC and ITAC.

### Breeding budget recommendation for 2013/14 (\$ x 1,000)

Species	Budget recommended by TACs	"B" budget
<b>Coast</b>		
Coastal D-fir	\$ 113	\$ 113
Redcedar	\$ 221	\$ 211 <sup>▼</sup>
Yellow cedar	\$ 42	\$ 36 <sup>▼</sup>
Western hemlock	\$ 59	\$ 43 <sup>▼</sup>
Sitka spruce	\$ 47	\$ 47
White pine - coast	\$ 83	\$ 83
Alder	\$ 30	\$ 30
Amabilis fir	\$ -	\$ -
Grand fir	\$ -	\$ -
Clonebanks	\$ -	\$ -
<b>TOTAL COAST</b>	<b>\$ 595</b>	<b>\$ 563</b>
<b>Interior</b>		
Lodgepole pine	\$ 237	\$ 237
White pine	\$ 29	\$ 29
Interior spruce	\$ 281	\$ 281
Interior D-fir	\$ 55	\$ 55
Western larch	\$ 68	\$ 68
Broadleaves		
<b>TOTAL INTERIOR</b>	<b>\$ 670</b>	<b>\$ 670</b>
Risk managed		
<b>Coast + interior</b>	<b>\$ 1,265</b>	<b>\$ 1,233</b>

## Operational Tree Improvement Program (OTIP)

### Process:

The OTIP call for proposals process was unchanged from previous years. This included Species Committee and TAC recommendations, a Request for Proposals, submission of projects, review of proposals by committees, and presentation of a recommended list of projects to the FGC. The budgets listed below are recommended by OTIP Review Committees.

### OITP proposed budget options for 2013/14:

Cost area	# of projects supported / proposed	Total requested	Total recommend by review committees	Approved amounts by score cut-off level		
				>60	>70	>75
Interior	46 / 51	\$572,646	\$401,141	\$395,719	\$393,813	\$387,568
Coast	16 / 18	\$145,088	\$123,309	\$123,309	\$123,309	\$111,601
<b>Total cost</b>	<b>62 / 69</b>	<b>\$572,646</b>	<b>\$524,449</b>	<b>\$519,028</b>	<b>\$517,122</b>	<b>\$499,169</b>

## Genetic Conservation

### Process:

Genetic conservation work is directed by a plan approved by the FGC in January, 2012. Activities are discussed by the GCTAC, and projects developed by the MFLNRO (led by Charlie Cartwright), the UBC Centre for Forest Conservation Genetics (led by Sally Aitken), and the Tree Seed Centre (led by Dave Kolotelo). Unsolicited proposals submissions are also considered; one was received for 2013/14.

The following subprogram budget options are recommended by the GCTAC.

Project	Budget recommendations	
	Option 1	Option 2
UBC Center for Forest Conservation Genetics	\$147,701	\$132,581
Tree Improvement Branch - Forest Genetics Section projects	\$64,800	\$57,300
Tree Improvement Branch - Tree Seed Center project	\$7,000	\$3,500
University of Victoria project (Larix lyallii)	\$32,439	\$32,439
<b>Total</b>	<b>\$251,940</b>	<b>\$225,820</b>

## SelectSeed Ltd. Business Plan and budget

The SelectSeed Business Plan was sent as a separate document

### Process:

SelectSeed develops and manages orchards through contracts to meet objectives set by the FGC. SelectSeed also provides management services to Council. The SelectSeed Business Plan and the budget listed below will be reviewed by the SelectSeed Board on March 18, 2013. Any changes requested by the board will be highlighted on March 20<sup>th</sup>. Board members are Glen Dunsworth (Chair), Reid Carter, Russ Clinton, Jim Burbee, and Henry Benskin.

### Projects:

See pages 10 to 15 of the Business Plan for budget and financial projections. Work to be done includes:

- contract management of 14 seed orchards
- propagation (for mortality replacement and for a new Fdi Thompson Okanagan orchard)
- seed production
- seed sales
- management services for the FGC
- meeting business and financial obligations for SelectSeed Company, and for the BC Forest Genetics Society

### LBIS budget:

Seed sale revenues are expected to cover both SelectSeed operating costs and the costs of management services to the FGC in the 2013/14 fiscal year. No LBIS funds are requested.

**A resolution approving the Business Plan is required to meet the terms of the SelectSeed Multi-Year Agreement with the MFLNRO.**

## Extension

### Process:

The Extension Technical Advisory Committee (ETAC) developed project lists and budget recommendations. ETAC also oversees project delivery. Work is carried out primarily by Diane Douglas (TIB) and by contractors. The projects and budget shown below are recommended by the ETAC. Reduced options would be discussed with ETAC members and adjustments made as advised.

### 2013/14 Extension Subprogram projects and budget

Project - General	Project – Specific Options	Recommended budget
<b>Posters (multi-year)</b>	individual species overview (template)	\$3,000
	demonstration sites	
	Tree Improvement versus other silviculture investments	
	Climate Change (perhaps Dr Wang – check out what AdapTree has planned)	
<b>Publications</b>	Tree Improvement in BC – finalize wording and printing	\$3,000
	Seed Orchard Publication – overview of the SO industry in BC	
	Lodgepole Pine project – publication is generally ready – requires a bit more work	
	Collection of Crop Statistics for Interior Lodgepole Pine Orchards OTIP 0722 – final report	
	GCTAC	
<b>Demonstration sites (multi-year project)</b>	Pines on Vancouver Island (Don Pigott)	\$4,000
	Demonstrations/showcase on breeding programs including (crosses, etc.) – devise follow-up maintenance	
	Malcolm Knapp Research Forest	
	Alec Fraser Research Forest	
	Aleza Lake Research Forest	
<b>Extension events - workshops</b>	Silviculture groups – connections with existing groups	\$3,000
	PGTIS tour	
	Deer resistance session	
	Pest Management Workshop – every 2 years, March/April 2013	
<b>Administration and</b>		\$2,000
<b>Total</b>		<b>\$15,000</b>

## Seed and Cone Pest Management

Proposals submitted to the PMTAC have been evaluated by the Committee based on priorities outlined in its business plan. Proposals for work in 2013/14 were solicited from collaborators and developed by MFLNRO pest management staff in conjunction with PMTAC members. Proposals and associated budgets were reviewed by the PMTAC.

The budget presented here is subject to change, as the PMTAC is meeting on March 18<sup>th</sup> (after preparation of this document) to review and finalize a recommendation to the FGC.

**2013/14 Pest Management Subprogram budget recommendation.**

Projects	"A" budget	"B" budget	Proponent	Affiliation
Operational Support for Ministry Cone & Seed Pest Biologist	\$ 20,000	\$ 14,200	Jim Corrigan	MFLNRO - TIB
Ten-lined June beetle control trial	\$ 20,000	\$ 20,000	Corrigan / Brown	MFLNRO - PRT
Support for Ministry Cone & Seed Pest Research Laboratory (Strong)	\$ 5,250	\$ 5,250	Ward Strong	MFLNRO - TIB
Pesticide Trials in support of finding new pesticides and obtaining pesticide registration	\$ 38,850	\$ 38,850	Ward Strong	MFLNRO - TIB
Attract-and-kill trials targeting Sequoia pitch moth	\$ 14,950	\$ 14,950	Corrigan / Wagner	MFLNRO - Tolko
Operational-scale trials comparing efficacy of potential new pesticides to control fir coneworm with Dimethoate applied at both standard and reduced rates	\$ 14,900	\$ 14,900	Ward Strong	MFLNRO - TIB
Detecting both direct and indirect feeding damage caused by <i>Leptoglossus occidentalis</i> on lodgepole pine seeds	\$ 11,000	\$ 11,000	Jim Corrigan	MFLNRO - TIB
<b>Total 2013/2014 Funding request</b>	<b>\$ 124,950</b>	<b>\$ 119,150</b>		

**Seed Transfer and Genecology**

There are two components to this subprogram; a proposal call and MFLNRO-TIB genecology project support. The call resulted in two proposals. They were reviewed by a committee and funding was recommended for both. One of these projects leverages substantial Genome Canada funds. A plan for genecology activities, including the Assisted Migration Adaptation Trial was developed by TIB Forest Genetics staff. Budget recommendations appear below.

**2013/14 Seed Transfer Subprogram budget recommendations.**

Project/species	Budget
Assessing the adaptive portfolio of reforestation stocks for future climates: Common garden experiments (UBC – Aitken); Genome Canada funding leverage of > \$1mm	\$47,393
Identifying critical soil moisture thresholds to support assisted migration practices and climate-based seed transfer in central British Columbia (College of New Caledonia – Griesbauer)	\$18,792
<b>Total Call for Proposals</b>	<b>\$66,185</b>
Assisted migration adaptation trial (AMAT)	\$105,600
<b>Genecology funding requests by species</b>	
Pli	0
Fdi	15,000
Cwr	5,000
Fdc	6,000
Sx	35,000
Hw	25,500
Bl	19,500
Lw	0
Cwi	21,500
Ba	12,500
Pw	10,000
Yc	0
Ss	4,000
Dr	10,000
Ep	0
Bg	1,000
At	0
Act	10,000
Py	0
Mb	25,000
Bn	150,000
<b>Total Tree Imp. Branch, Forest Genetics</b>	<b>\$320,600</b>
<b>Total all projects</b>	<b>\$386,785</b>

**Genetic Resource Decision Support – Susan Zedel**

The following projects were developed by Tree Improvement Branch staff, and reviewed and recommended by members of the Genetic Resource Decision Support steering committee. All projects would be delivered through the Tree Improvement Branch.

**2013/14 Genetic Resource Decision Support project recommendations.**

<b>Project</b>	<b>Estimate A</b>
Maintenance of seedlot area of use infrastructure, including final delivery to production application, database and BCGW.	\$20,000
Development of queries and reports using seedlot area of use and seedlot deployment using spatial data, development of PDF files from spatial data. i.e. including comparing area of use with actual planting area from RESULTS	\$20,000
Development of maps to show proposed future climate based seed transfer units, based on scientific work from the Climate Based Seed Transfer scientific working group.	\$10,000
Analysis of “guerilla trials”. In first year of 2 year project, compile and summarize various series of trials in BC where seed has been transferred well beyond transfer limits. Develop a plan for field assessments and analyses in a second year of the project.	\$15,000
<b>Total</b>	<b>\$65,000</b>

**Applied Tree Improvement and Biotechnology - Jack**

**Process:**

This subprogram provides funding to solicited and un-solicited proposals that support FGC objectives. The origin of the subprogram was to support research done by Dr. Yousry El-Kassaby (UBC). Subprogram funding was in addition to a \$55,000 annual grant in support of his NSERC Industrial Chair position. The \$55,000 is provided through SelectSeed Ltd. There has been discussion at the FGC level about expanding this subprogram to allow possible support for new research that could advance FGC objectives. However, the broad nature and limited funding available has restricted this opportunity.

A steering committee reviews proposals submitted and makes budget recommendations to the FGC. A total of four proposals were received for FY 2013/14. These proposals were review by the steering committee and recommendations appear in the table below.

**2013/14 Applied Tree Improvement and Biotechnology budget recommendations.**

<b>Project title</b>	<b>Proponents</b>	<b>Budget request</b>	<b>Recom- mendation</b>
Estimating Female Cone Production of Pli in SE BC	von Aderkas and Berland	\$ 79,640	57,973
Seed shortfall in Pli and cone induction in Pli and Fdi - ongoing project	von Aderkas and Kong	\$ 124,200	124,200
Fdc contamination and selfing – ongoing project	El-Kassaby	\$ 43,200	0
The application of genomic selection in Fdc progeny trial	El-Kassaby	\$ 156,276	0
<b>TOTAL</b>		<b>\$403,316</b>	<b>\$182,173</b>



**Summary of 2013/14 LBIS – Tree Improvement Program budget recommendations**

The expected allocation from the Land Base Investment Fund to the Tree Improvement Program is \$3.0 million. The following table summarizes budget recommendations from FGC advisory committees. This table does not yet show recommendations from the FGC Budget Review Committee, as this committee had not met at the time this document was prepared. Budget Review Committee recommendations will be presented on March 20th.

<b>Subprogram</b>	<b>2012/13</b>	<b>2013/14 TAC recommendat ions</b>	<b>Option 2</b>	<b>Option 3</b>
Genetic Conservation	\$ 220,000	\$ 251,940	\$225,820	\$225,820
Tree Breeding	\$1,062,000	\$1,265,000	\$1,233,000	\$1,233,000
Operational Tree Imp. Prog.	\$584,000	\$524,449	\$519,028	\$517,122
SelectSeed Ltd.	\$540,000	\$0	\$0	\$0
Extension and Communication	\$28,000	\$15,000	\$15,000	\$15,000
Cone and Seed Pest Mgt.	\$112,500	\$124,950	\$119,950	\$119,950
Genecology and Seed Transfer	\$544,240	\$386,785	\$386,785	\$386,785
Decision Support	\$90,000	\$65,000	\$65,000	\$65,000
Tree Imp. Branch administration*	\$30,000	\$40,000	\$40,000	\$40,000
Applied Tree Impr. and Biotechnology	\$289,260	\$182,173	\$182,173	\$182,173
<b>Subtotal</b>	<b>\$3,500,000</b>	<b>\$ 2,855,297</b>	<b>\$2,786,756</b>	<b>\$2,784,850</b>
<b>TIB risk maangement</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>TOTAL</b>	<b>\$3,500,000</b>	<b>\$2,855,297</b>	<b>\$2,786,756</b>	<b>\$2,784,850</b>
<b>Unallocated</b>		<b>\$ 144,703</b>	<b>\$ 213,244</b>	<b>\$ 215,150</b>

**11. Coastal Douglas-fir and Associated Ecosystems Conservation Partnership (CDFCP) – request for participation**

The CDFCP is intended to be a forum for communication and collaboration regarding the maintenance and restoration of healthy Coastal Douglas-fir and Associated Ecosystems

The CDFCP will be an affiliation of a broad range of stakeholders who share a common focus on CDFAE conservation. It includes agencies and individuals that are interested in promoting and protecting healthy CDFAE into the future. Land trusts, government (federal, provincial, regional, local), environmental stewardship groups, resource industry professionals, First Nations, private landowners and academic institutions are encouraged to become CDFCP Participants or Supporters and are invited to participate in related working groups. Participants are affiliated with a government or organization whereas Supporters have no such affiliation.

A request has come to the FGC to sign a Statement of Cooperation in support of the CDFCP.

Terms of reference and a Statement of Cooperation were sent as separate files.