

**Minutes of the FGC Pest Management Technical Advisory Committee**

**Tuesday, 31 October 2006: 8:30 AM – ~4:00 PM**

**Vernon Seed Orchard Company (business agenda)**

**Great Outdoors & Kalamalka Seed Orchards (field agenda)**

<p><b>Present:</b> Robb Bennett (Chair), BC MoFR                  Dave Kolotelo, BC MoFR                  Jack Woods, SelectSeed                  Tim Crowder, Timberwest Forest Company                  Dan Gaudet, Vernon Seed Orchard Company                  Staffan Lindgren, UNBC                  Peter de Groot, CFS Sault Ste Marie                  Ward Strong, BC MoFR                  Jim Corrigan, BC MoFR                  Roger Painter, BC MoFR                  Diane Douglas, BC MoFR                  Tia Wagner, Vernon Seed Orchard Company</p> <p><b>Regrets:</b> Dave Reid, BC MoFR</p>	Coast pest management Nursery and seed pest management Forest Genetics Council Coast industry orchards Interior industry orchards University pest management research Canadian Forest Service MoF pest management research Interior pest management FGC (guest) Guest Guest Ministry orchards
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**ACTIONS:**

<b>Bennett, Kolotelo</b>	<b>Organize <i>Fusarium</i> manuscript for FGC Extension Note.</b>
<b>Kolotelo, Painter, Bennett</b>	<b>Prepare letter regarding Tree Seed Centre seed testing funding.</b>
<b>Painter, Bennett</b>	<b>Improve organization of budget reporting structure.</b>
<b>Bennett</b>	<b>Circulate project annual reports.</b>
<b>Douglas, Bennett</b>	<b>Limited access website for document posting/storage.</b>
<b>Bennett, Strong</b>	<b>Project extension notes.</b>
<b>Strong, De Groot, Lindgren</b>	<b><i>Leptoglossus</i> pop'n studies.</b>
<b>Strong <i>et al.</i></b>	<b>Initial 2006/07 proposals development.</b>

**NEXT MEETING:** Mid to late November.

**CALL TO ORDER** at 8:35 AM. Informal introductions made and thanks extended to Gaudet for hosting meeting. Meeting agenda and minutes of previous meetings (8 Feb & 14 March 2006) approved with no changes.

**BUSINESS ARISING FROM 8 FEB MINUTES.**

- **Extension topics ideas (Bennett)**  
 A short introduction to Corrigan was published in Canadian Tree Improvement Association NewsBulletin #43 (June 2006). Corrigan *et al.* have prepared a manuscript describing the mountain pine beetle situation at Kalamalka Forestry Centre – to be published in upcoming issue of TicTalk. No other extension articles have been prepared.
- **Interior pest management hiring (Bennett)**  
 Done. Corrigan started work in late May 2006.
- **Mountain pine beetle – PGTIS project update (Lindgren)**  
 Ongoing. See status of PGTIS orchards and “incremental” projects update below.
- **Status of PGTIS orchards OP 201 & Smithers 204 (Bennett)**  
 These were the first Pli orchards to be attacked. Initial observations of clonal attack patterns led to interest in allowing attacks to proceed for research purposes. As these orchards are “low gain”, no beetle management was pursued and data collection has proceeded. See “incremental” projects update below.

- **Larch adelgid – seed extractability project (Bennett)**  
Project put on hold because of relatively low adelgid levels in larch cones this year.
- **Adelgid proposal (Strong)**  
Done. Work has commenced in collaboration with UBC. See “regular” projects update below
- **Pesticides trial 2005/06 progress report (Bennett)**  
Progress report received from contractor.
- ***Fusarium* proposal – contractor assurances and 2005/06 progress report (Bennett)**  
“Quality control” assurances and progress report received from contractor.  
**Discussion** – It is time to follow up on 2001 work published in Seed Handling Guidebook and publish an overview of current *Fusarium* knowledge from nursery and seed perspectives. Should be written up as a Forest Genetics Council Extension Note.  
**Bennett will contact Mike Peterson to see if he can produce a manuscript in current fiscal year. If yes, Kolotelo will work out contractual details with Peterson. Input on manuscript development from Woods, Painter, and Douglas as necessary.** A sideline discussion developed regarding apparently chronic shortage of funds for adequate operational fungal assays of seedlots at the Tree Seed Centre. Some of this issue could possibly be solved through invoicing seedlot owners but this would not serve seedlot data consistency issues. General interest expressed by PM TAC members that seedlot fungal assay data consistency is important. **With input from Painter, Kolotelo will draft a letter for Bennett’s signature addressed to TSC manager outlining PM TAC’s concerns over funding.**
- ***Leptoglossus* 2005/06 progress report (Bennett)**  
Progress report received from contractor.
- **Research proposals development (Strong)**  
Done. See “regular” projects update below.
- **Research lab establishment (Painter)**  
Current research lab and office space in Kalamalka Forestry Centre building is working out well for Strong’s purposes. Current pest management space in Kalamalka Seed Orchards building will be expanded in current fiscal year.
- **Draft, revise & present 2006/07 budget request (Bennett, Woods)**  
Done. Budget request approved at March 2006 FGC meeting.

#### **BUSINESS ARISING FROM 14 MAR MINUTES.**

- **Pursue new project ideas (incremental funding) (Bennett)**  
Progress made on some of the incremental funding project ideas. Some alternative projects developed during the course of the field season. See “incremental” projects update below.
- **Revision of decision support tool (DeGroot)**  
See “incremental” projects update below.

#### **PROJECT UPDATES**

- **Overview of expenditures (Bennett).** 2006/07 project current expenditures and commitments outlined (see attached spreadsheet). New project opportunities (mountain pine beetle data collection, new avenue of *Leptoglossus* research) funded through “risk management” of current budget (diverting funds from projects that have failed to start or are coming in under budget). Reporting structure has been a bit confusing because money is being administered by Tree Improvement Branch and Research Branch. **Bennett and Painter will organize single reporting structure**

**through Tree Improvement Branch.** Some discussion ensued regarding access to project annual reports. **Bennett will circulate annual reports by e-mail. Douglas and Bennett will investigate feasibility of establishing limited access website for long-term deposition of annual reports and other relevant documents.** The need to improve focus on fundamental goal of improving orchard seed supply was noted. **Bennett and Strong will look at production of extension notes for projects that have progressed far enough to justify such work.**

- **Overview of “incremental” projects (Bennett)**

**New pesticides (4057M10).** Little accomplished to date. Attempts to set up emamectin benzoate trials in 2006 field season with Leo Rankin (BC Forest Service) and Don Grossman (Texas Forest Service) failed. Bennett is continuing to pursue with Rankin and is hopeful something will be set up for 2007 field season.

**Midge management (4057M11).** No progress on setting up projects centred on utilization of redcedar cone midge and Douglas-fir cone gall midge sex pheromones. Discussions are ongoing with SFU lab – main problem is finding the right person for the job.

**Leptoglossus population studies (4057M12).** No progress to date. Strong was not involved in the discussion that led to the proposal for this “incremental” work. Some of the work is being addressed through existing *Leptoglossus* projects (see below). **Lindgren, De Groot, and Strong will discuss further development.**

**Mountain pine beetle data collection (4057M09).** Significant attack by mountain pine beetle in Kalamalka Seed Orchards lodgepole pine led to an interest in unifying the data collection efforts at Kalamalka and Prince George Tree Improvement Station. Kalamalka technician had nearly finished the PGTIS data collection at time of this meeting and was expected to return shortly to do the Kal work.

**Field guide preparation (4057M08).** A contract has been signed with Julie Brooks to provide initial drafts and formatting of text for various cone and seed insects. A contract is being negotiated with Dion Manastyrski to provide new digital images of cone and seed insects in natural and lab settings.

**Decision support tool revision (4057M13).** Discussion deferred to later in the agenda.

- **Overview of “regular” projects (Strong)**

**Fusarium (4057M01).** See discussion in Business arising from 8 Feb minutes above.

**Pesticides trials (4057M02).** 10 treatments plus controls done at various coastal and interior sites in spring. Initial assessments (1/2 cone counts) completed, seed extraction and testing will occur in 4<sup>th</sup> quarter. Initial results are disappointing – no significant differences noted. 2007/08 trials workplan will likely undergo major transformation. Bennett and Strong have had initial discussion regarding how to proceed with future work.

**Adelgids (4057M05).** Work is well underway with UBC lab based on material collected in 1996. Bennett, Strong, and Corrigan met with UBC collaborators earlier in October to discuss progress and future work. Species composition and flight data from 1996 material has been compiled. Corrigan discussed related work with operational monitoring of larch/spruce adelgid cycling and effects on larch cone crops.

**Dioryctria (4057M04).** Work in-house and with UNBC collaborators concentrated on monitoring methods, life history, and phenology. Diamond traps hung as high as possible in orchard trees capture the most moths but this may not be important for basic monitoring. Moths fly late at night and flight period covers most of the growing season – early May to late September. Extended flight period makes

coneworm control difficult.

**Leptoglossus (4057M03 & M06).** Work with SFU has investigated seed bug sound production and detection, aggregation pheromones, and olfactory and visual aspects of host finding behaviour. A manuscript is in preparation regarding the sound work but this area of research no longer looks like it will have serious implications for seed bug management. Pheromone work has not yet produced significant results. Host finding studies involving visual cues have made major advances. Details are currently confidential but will be released before the end of the calendar year once a manuscript has been prepared. Work with UBC-Okanagan has established procedures for marking and release/recapture of seed bugs. Initial data collection at Kalamalka has tracked dispersal of greater than 200 m for individual insects

- **Research program – the first 9 months (Strong).** Strong is pleased with how the research program is developing. Efforts continue to obtain some level of consistent technical help.

#### **NEW BUSINESS**

- **2007/08 business planning – format and timelines (Bennett, Woods, Painter).** OTIP call for proposals will be released on or about 1 December. PM TAC may elect to continue call for proposals approach in addition to current “in-house” proposal development. If so, this call should be timed to coincide with release of OTIP call. Next meeting of PM TAC will occur in second half of November – will highlight proposal development but will include discussion of what, if anything, should be targeted in a public call for proposals.
- **Projects planning. Strong will prepare an initial projects list for discussion at next meeting. All interested parties should provide input to Ward.**
- **Decision support tool revision (4057M13).** In the intense excitement of concluding the morning’s agenda, this item (deferred from earlier in the agenda) was not addressed. **To be addressed at next meeting.**

**ADJOURN.** Business meeting session was adjourned shortly before noon.

**FIELD SESSION.** After a group lunch, most participants travelled to a field site along Silver Star access road to examine mountain pine beetle attacks in a natural mixed stand. Interpretation and discussion led by Lindgren. De Groot provided input on bark beetles as obligate cone & seed insects (*Conophthorus* beetles attacking white pine cones). We then travelled to Kalamalka Seed Orchards site to compare natural stand attacks with what has been occurring in orchard scenario. Corrigan led interpretation/discussion with input from Lindgren and Strong. Session ended around 4 PM with a group photo (attached) prompted by Gaudet and then informal discussions about adelgids in spruces and their effects on alternate hosts. Networking continued in Kalamalka Seed Orchards lunch room until dispersal.

Minutes compiled by R. Bennett, 6 November 2006.

<b>Original projects</b>			
<b>Project ##</b>	<b>TIB</b>	<b>Research</b>	<b>Comments/Project titles</b>
4057M01	\$6,589.00		Fusarium study (Applied Forest Science)
4057M02	\$13,000.00	\$25,000.00	Pesticides trials (TIB - contract with CanFor, RB - trials operational expenses)
4057M03		\$10,388.00	Leptoglossus mark/recapture (UBC-Okanagan)
4057M04		\$5,830.00	Dioryctria study (UNBC)
4057M05		\$26,862.00	Adelgid study (UBC-Vancouver)
4057M06		\$29,808.00	Leptoglossus attraction (SFU)
4057M07		<u>\$35,117.00</u>	Research program operations (Materials/Supplies & Tech support)
<b>A</b>		\$152,594.00	
<b>"Incremental" Projects</b>			
4057M08		\$30,000.00	Field Guide - J Brooks contract
4057M09		\$11,250.00	MPB sal & exp-data collection PGTIS & Kal
4057M10		\$13,000.00	New Pesticides
4057M11		\$42,000.00	Midge management
4057M12		\$42,000.00	Leptoglossus pop.
4057M13		<u>\$10,000.00</u>	Cone crop monitoring
<b>B</b>		\$148,250.00	
	<b>A+B</b>	\$300,844.00	
	<b>Project funding</b>	<b>\$288,696.32</b>	



**Pest Management TAC meeting 31/x/2006 – field session  
Kalamalka Seed Orchards – Vernon, BC**

Tia Wagner, Jim Corrigan, Staffan Lindgren, Robb Bennett, Peter De Groot, Dave Kolotelo, Ward Strong, Tim Crowder, Dan Gaudet. Image – Diane Douglas.