

Minutes of the FGC Pest Management Technical Advisory Committee
Wednesday, 31 October 2007: 9:30 AM – ~3:00 PM PST
Tree Seed Centre, Surrey BC

<p>Present: Robb Bennett (Chair), BC MoFR Dave Kolotelo, BC MoFR David Reid, BC MoFR Ward Strong, BC MoFR Jim Corrigan, BC MoFR Dan Gaudet, Vernon Seed Orchard Company Tim Crowder, Timberwest Forest Company Staffan Lindgren, UNBC Peter de Groot, CFS Sault Ste Marie Jack Woods, SelectSeed</p>	<p>Coast pest management Nursery and seed pest management Ministry orchards MoFR pest management research Interior pest management Interior industry orchards Coast industry orchards University pest management research CFS pest management research Forest Genetics Council</p>
<p>Guests: Dr. Gerhard Gries Keith Thomas Chris Walsh Diane Douglas Carolyn Lohr Lisa Meyer</p>	<p>Simon Fraser University BC MoFR / FGC (by phone) BC MoFR BC MoFR BC MoFR BC MoFR</p>

ACTIONS:

Corrigan, Strong, Kolotelo	<i>Fusarium</i> manuscript – copy-edit, science edit, & publication options
Bennett	Field guide – organize search for existing images, establish priorities spreadsheet, investigate existing reference libraries, organize production timeline (2008/09 and subsequent years)
Bennett, Corrigan, Crowder, Strong	Develop 2008-09 pesticides trials proposal
Strong	Compare <i>Dioryctria</i> trap catch data with day/degree accumulation
Strong	<i>Leptoglossus</i> mark/release/recapture study – 2006 report
Strong	Consider developing project for resuming <i>Contarinia</i> work
Strong	Lobby for full-time technical support
Bennett	Organize individual member reporting for Fall 2008 meeting
Bennett and PM TAC	Circulate business plan for review, discussion, and revision at next meeting
Bennett (assisted by Douglas)	Accumulate project reports and develop tracking system for them. Make reports available to members.
Strong, Bennett, Douglas, Corrigan	Resolve URMULE issues
Bennett	Install Walsh as Ministry orchards representative, replacing Reid

IMPORTANT DATES:

Final draft of 2008/09 budget request to be completed by **mid-February 2008** and then revised as required for presentation to FGC in **March 2008**.

CALL TO ORDER at 9:00 AM followed by a welcome from Heather Rooke to the Tree Seed Centre and a brief outline of the meeting agenda. Bennett then introduced Dr. Gerhard Gries, lead researcher from Simon Fraser University’s insect behaviour and chemical ecology group.

SPECIAL PRESENTATION (Gries):

Leptoglossus and other cone/seed insect research at SFU. Over a period of about an hour, Dr. Gries introduced the PM TAC to his lab's work with cone and seed insects starting with *Contarinia oregonensis* and *Mayetiola thujae* sex pheromone work (manuscripts published in *The Canadian Entomologist*) and vibrational communication in *Leptoglossus occidentalis* (manuscript in press in *TCE*). Main focus of the presentation was the use of infrared wavelengths by *L. occidentalis* as foraging cues (manuscript submitted this week to Science) and the potential for incorporating this into a management program for this insect. Powerpoint presentation will be circulated to PM TAC membership.

Main business meeting commenced about 11:00 AM after the departure of Dr. Gries.

BUSINESS ARISING FROM 12 FEBRUARY 2007 MINUTES.

- **TSC seed test funding letter (Kolotelo).** Tree Seed Centre has spent approximately \$11,000 from base funding on seed fungal assays in 2007/08 fiscal year. Letter will be revisited at a later date if seed test funding shortfall again becomes an issue.
- **Circulate project reports / website (Bennett).** No progress. Carry forward. See New Business" item below.
- **Circulate adelgid data (Corrigan).** Larch adelgid data for spring 2007 circulated to PM TAC members at this meeting. Data demonstrated that adelgid levels remained low throughout the season, presumably in response to heavy pressure from natural predators. Discussion ensued on effects of pesticides on natural enemies of adelgids and the nature of real versus perceived problems with pests.
- **Pesticides trials germination test needs (Bennett).** Arrangements made for Tree Seed Centre to handle 12 germination tests resulting from 2007 pesticide trials (4 tree species X 3 treatments). Cones have been collected and are awaiting seed extraction at Kalamalka Forestry Centre. See project report below.
- **2007/08 field guide work plan (Bennett).** Done, see project report below.
- ***Leptoglossus* IR work plan (Strong).** Done, see Special Presentation above and project report below.
- **Adelgid proposal details (Bennett).** Done, see project report below.
- ***Dioryctria* pheromones production & workplan / student support letter (Strong).** Both done; pheromone production worked out under contract with company in Costa Rica. A letter was drafted and sent to Maya Evenden (U Alberta) in support of graduate student working on *Dioryctria*.
- **Pesticides trials – safe handling procedures (Bennett).** Safe cone and seed handling procedures were developed in discussions with ArborJet personnel and subsequently communicated to the cone dissection contractor (Julie Brooks). Minimum protection is required – latex gloves for anyone concerned about handling the pesticide trials cones and seeds.

2007/08 PROJECTS UPDATES

- ***Fusarium* manuscript (Kolotelo).** A draft was completed by Mike Peterson in August 2007. Second draft is now ready for review. **Draft will be circulated to PM TAC members shortly after this meeting. Review comments to be completed within two weeks. Corrigan to be responsible for copy-editing; Strong for scientific content; others are welcome to provide comments as well. Kolotelo will explore format and**

publication options with FGC and Extension TAC as required. Publication decision deadline – end of December 2007

- **Field Guide (Bennett).** Contractors (Manastyrski – images; Brooks – information synthesis) have been slowly making progress. Work with cedar and Douglas-fir midges has largely been completed. Some progress with other insects made. Concerns were voiced about the slow rate of progress and the lack of a well organized workplan. Bennett accepted responsibility for the problems. Field guide information needs to be made publicly available as quickly as possible. **Bennett will work with Brooks to develop a list of publication-quality images in collections of Strong and others, assign work priorities to needed images, determine literature gaps that can be filled by articles in reference libraries of de Groot, Jean Turgeon and others, and establish a realistic timeline.** Douglas will help with organizing and tracking available images and priorities as required as well as provide advice and assistance with publication issues.
- **Pesticides trials (Bennett).** Corrigan, Strong, and Bennett established the pesticide trials as planned. Low insect population levels resulted in no significant effects on mid-season cones and seeds (but timing of injections and equipment malfunctions were also an issue). Mature cones have been harvested and await seed extraction at KFC. Germination tests will be carried out by TSC staff. **Trials subcommittee (Corrigan, Crowder, Strong, & Bennett) will work on development of 2008/09 proposal.**
- ***Dioryctria* studies (Strong).** Attachment to be forwarded. Strong presented and discussed 2007 coastal & interior *Dioryctria* trap catch data, 2006 & 2007 larval head capsule measurements data, and the results of a 2007 lure longevity trial. A suggestion was made to compare trap catch data with day/degree accumulation over the flight period. **Strong will investigate day/degree and catch data comparison.**
- ***Synanthedon* review & research (Strong).** Attachment to be forwarded. Strong presented and discussed 2007 *Synanthedon* trap catch data as well as the first year of results from a planned 5-year clonal-pairs study investigating effects of carbaryl sprays and mechanical removal of larvae. Concerns remain about economic effects of *Synanthedon*, particularly at Vernon Seed Orchard Company.
- ***Leptoglossus* mark/release/recapture study and infrared foraging cues (Strong).** Report on 2006 mark/release/recapture work was apparently never received. Work has continued in-house this year (attachment to be forwarded). See Special Presentation above regarding infrared foraging cues and related work. **Strong will look into obtaining a final report for 2006 m/r/r work.**
- ***Contarinia oregonensis* in interior Douglas-fir (Strong).** Attachment to be forwarded. Strong presented and discussed 2007 *Contarinia oregonensis* interior orchards trap catch data. There is no current management research on this insect but it is an issue of growing concern for Douglas-fir seed production. Long assumed to be “only” a problem for coastal Douglas-fir seed production, interior Douglas-fir seed production now also appears to be at risk to impacts from *C. oregonensis*. **Strong will consider developing a project proposal to resume *Contarinia* research concluded in 2001 (see Special Presentation above).**
- **Adelgid species composition study (Strong).** See attached PDF file. Strong outlined Babita Bains’ work to date on spruce gall initiation (control of overwintering females is important), data on adelgid flights between orchards of spruce and other species, examining a possible link with *Pissodes strobi* resistance (nothing significant so far), and the collection of adelgid gall and progeny images for an illustrated guide. Strong also

outlined the potential for a publication with Joe Shorthouse on adelgid gall morphological development.

- **Technical support & lab operations (Strong).** Lab is functioning well except for the lack of full-time technical support. Reliance upon periodic help from lab tech contractor hampers lab productivity. **Strong will continue to lobby for full-time support.**

NEW BUSINESS.

- **2008/09 business planning format & timelines (Bennett, Thomas).** Final draft of proposals and budget request should be prepared by mid-February 2008 for final revision and presentation to FGC by mid-March 2008. Expected level of funding will be around \$250,000 (exclusive of salaries for Bennett & Strong).
- **Projects planning (all).** Initial general plans for most 2008/09 projects were discussed during projects reporting above. A general round table discussion ensued at this point. Projects need to be designed with idea of helping orchard managers produce conifer seed. Problems with communications were discussed:
 - PM TAC members need to be made aware of orchard issues regardless of priority status. Low priority issues can often be dealt with quickly and efficiently but only if they are brought to the table. **All PM TAC members will be asked to provide an annual report outlining relevant issues within their jurisdiction. This will be done starting with the first Fall 2008 business meeting.**
 - PM TAC membership has changed somewhat and some members are unfamiliar with the PM TAC business plan (provides the basis for assigning priority to research topics). Business plan has not been revised since 2003. **Bennett will circulate current version of business plan to all members. Members will review and bring revision comments to table for discussion at next business meeting.**
 - Accessible file of project reports has been an action item since Oct 2006 meeting but no progress has been made (in part because of computer hard-drive problems and consequent loss of some files). **Bennett will start trolling for copies of project reports. Diane Douglas will assist with developing a report tracking scheme.**

OTHER BUSINESS

- **Next meeting (Bennett).** Next meeting will be a teleconference to be held in late November. Main agenda items will be
 - updating of the existing PM TAC business plan and
 - discussion and development of research proposals and budgets for 2008/09 fiscal year.
- **URMULE issues (Strong).** Many treatments with a variety of pesticides in current usage in seed orchards are unregistered and technically illegal. This could be rectified through a "User Requested Minor Use Label Expansion" application. **Strong, Bennett, Douglas, and Corrigan will look into this through contacts with provincial URMULE committee, PMRA, Michael Irvine, and others as necessary.**
- **Replacement for David Reid.** David Reid indicated he wishes to step down from the PM TAC and proposed Chris Walsh as the new representative for Ministry seed orchard pest management issues. Unanimous support was expressed for this change.

ADJOURN. Business meeting was adjourned at approximately 3:00 PM PST. Kolotelo then led PM TAC members on an interesting and informative tour of the Tree Seed Centre.

Minutes compiled by R. Bennett, 6 November 2007.
Revised 15 November 2007.

