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19 July 2011

MINUTES DISEASE WORKING GROUP– 19 JULY 2011

Participants:

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› Michelle Sulz	PCC Disease Working Group	michelle.sulz@alpac.ca
› Philip Northover	Saskatchewan Agriculture	Philip.Northover@gov.sk.ca
› Raju Soolanayakanahally	AAFC-AESB Agroforestry	Raju.Soolanayakanahally@AGR.GC.CA
› Richard Hamelin	UBC-Forestry	richard.hamelin@ubc.ca
› Shannon Poppy	PCC Disease Working Group	Poppy@src.sk.ca
› Cees (*Case*) van Oosten (Chair)	PCC Disease Working Group	silviconsult@telus.net

Unable to attend:

› Brigitte Bigué	Réseau Ligniculture Québec	Brigitte.Bigue@sbf.ulaval.ca
› Jared LeBoldus	PCC Disease Working Group	leboldus.jared@gmail.com
› Larry White	PCC Disease Working Group	nlwhite@sasktel.net
› Louis Bernier	Université Laval	Louis.Bernier@sbf.ulaval.ca

Copies to Poplar Council of Canada (PCC) - Board of Directors:

Barb Thomas, John Doornbos, Jim Richardson, Annie DesRochers, Deb Brenton, Bill Schroeder, Jared LeBoldus, Pierre Périnet, Dan Carson, Grant Harrison, Ken Van Rees

NOTE:

The Disease Working Group is a sub-group of the Pesticide Working Group (**PWG**) of the Poplar Council of Canada (PCC). The PCC's mandate includes both *Populus* (poplar) and *Salix* (willow) species (www.poplar.ca).

This is the first meeting held with invited participants who have expertise in pathology of poplars and willows.

OBJECTIVE:

To establish a network of pathology labs across Canada able to provide disease identification services to the exact species level, using DNA technology where required. This service will be offered on a 'fee-for-service' basis to poplar and willow growers, breeders etc.

To ensure disease identification methodology for poplar and willow uses standardized protocols and results meet certain quality standards.

Original topics for discussion

1. To discuss this 'Centre for Disease Control' concept
2. To determine what could be accomplished and how to get it organized
3. How to get a consistent and standardized protocol in place (who to do?)
4. To see which labs could play a role as part of this network

Agenda items addressed:

1. **Centre for (plant) Disease Control in Canada**

   The CDC (for human health) in the US (HQ in Atlanta) provides protocols and test protocols for independent labs to use. Labs can be located anywhere as long as they use the issued protocols and can detect disease.

   Our concept is to have something similar for poplar and willow pathology in Canada, where a lab develops and issues protocols/essays for disease detection and identification that can be shared by a network of plant pathology labs. Apparently such a concept for plant diseases does not exist in Canada at this point. Our CDC for poplar and willow could therefore be considered a 'pilot' project that could eventually serve as a template and thus a 'springboard' for other such Canada-wide networks dealing with diseases in other plant species. Further discussion for this idea is needed in time.

   Our aim now is to set up a network of 3 pathology labs (minimum) to serve poplar and willow growers and breeders; one in B.C., one in the Prairie Region and one in Quebec. Other labs may eventually also join this poplar/willow network. Poplar and willow disease work for these labs will be incremental to their 'normal' workload.

   The expectation is that poplar/willow growers/breeders will be able to access these labs on a 'fee-for-service' basis.

2. **How to accomplish and organize the concept mentioned above**

   We did not address this topic in any detail, since we are still in the early stages of developing the concept.

3. **Consistent and standardized protocols**

   Who to do and what is involved?

   At the moment Richard Hamelin at UBC is setting up a lab as a result of Genome Canada funding for tree diseases, which was recently awarded. The idea is that his lab can develop protocols that can be shared with other labs as soon as these are developed and proved.

   Richard's UBC lab has already developed protocols for *Septoria populicola* and *Septoria musiva* under a contract with the B.C. Ministry of Forests after *Septoria musiva* was detected and positively identified for the first time in B.C. in 2006. Thousands of samples were processed, using DNA technology, to determine the extent of *S. musiva* incidence in B.C. These protocols can be shared now, but require DNA technology at participating labs. In the interim samples could be sent to the UBC lab for analysis on a 'fee-for-service' basis.

   Some work was already done on *Melampsora* rust species in poplar. In fact several Pesticide Working Group (PWG) partners involved in fungicide trials were already able to make use of the lab services offered by the UBC lab to identify the exact *Melampsora* species.

4. Labs in the network

At the moment we have plans to involve three labs in this network.

a. UBC Lab (Richard Hamelin). This would be the 'central' lab involved in developing protocols.

b. The Crop Protection Laboratory at the Saskatchewan Ministry of Agriculture (Philip Northover and Fay Dokken-Bouchard). This lab was involved in the original discussions a few years ago about the need to have a facility for the Prairie Region.

   The lab is being set up to include DNA technology by March 2012; timing-wise this is a perfect fit with the set up of the UBC lab.

c. One lab in Quebec. Since Louis Bernier and Brigitte Bigué were unable to participate in the meeting, no decision was made.

   Richard Hamelin will contact Louis Bernier and Brigitte Bigué to discuss some options for the Quebec lab participation; there may be a few unexplored options.

5. Miscellaneous

<u>Diseases, known and unknown</u>

a. At this point the focus will be on *Melampsora* leaf rust species in both poplar and willow and *Septoria* species in poplar. Of special concern will be the occurrence of the introduced *Melampsora larici-populina* in eastern Canada (and US?) and its potential for further spread.

b. Other diseases that require attention will be *Marssonina* species in poplar and *Hypoxylon* cankers (*H. mammatum*) in (hybrid) aspen.

c. In time other disease issues may also require attention. If dealing with an unknown disease organism, the UBC lab would be able to 'bar code' the disease and set up a 'library' for future reference and eventual identification.

<u>Other woody species</u>

Methodology, technology and organization developed for poplar and willow diseases at the network of labs could and should benefit disease detection and identification for other woody species, thus increasing the labs' market potential.

Next move

- Richard Hamelin will discuss this concept with Louis Bernier and Brigitte Bigué, and recommend which Quebec lab could be involved.
- Protocols already developed by UBC could be shared now by labs that have the DNA technology in place.
- We determine progress by March 2012, at which time the Crop Protection Laboratory in Saskatchewan has the DNA technology in place. Cees will initiate renewed contact by that time.
- These Minutes are presented to the Poplar Council of Canada – Board of Directors as the progress and annual report, with a request to present it at the AGM in September and to post it on our webpage.

Cees