

**Cees van Oosten – Chair PWG**  
**2010 Report of the Pesticide Working Group (PWG)**  
***Poplar Council of Canada***

## **Introduction**

The Pesticide Working Group (PWG) consists of a ‘partnership’ between the Poplar Council of Canada and several corporate and individual Poplar Council members who have been actively involved in providing both financial and in-kind resources to accomplish PWG goals.

The PWG has been pursuing labelling of useful pesticides for the management of fast-growing poplar as agronomic crops for various end uses since 2001, and more recently added fast-growing willow crops to its mandate. These fast-growing crops are referred to as ‘*short-rotation-intensive-culture*’ woody crops, or simply ‘*SRIC poplar and willow*’ or ‘*SRIC*’. SRIC has been recognized as an agronomic crop type by the Pest Management Regulatory Agency (PMRA) of Health Canada in Ottawa due to its crop management requirements when grown on farmland.

## **URMULE process**

The PMRA reviews applications to have certain pesticides labelled in Canada for minor uses (such as ours). This often requires field trials, analyses and reports that may take 2 to 3 years from initiation to labelling for each ‘new’ product. The process is referred to as ‘*user-requested minor use label expansion*’ or simply *URMULE*. To qualify for the URMULE process, active ingredients used in these products are already approved and registered in Canada for use in various (major) crops. Although most URMULEs require field trials, which are typically carried out by PWG partners, the process can be expedited through the use of existing published data from external sources.

For a more complete listing of the products labelled for use in SRIC poplar and willow, and of products currently in the regulatory pipeline, a detailed report will be posted on the PCC website<sup>1</sup> by the end of November 2010.

## **Pesticide re-evaluation process**

The PMRA is periodically conducting a pesticide re-evaluation process, which can lead to serious delays or even cancellations of the URMULE process for the product under application. For instance, in 2009 Lorox L (active ingredient or a.i.: linuron) was targeted for such a re-evaluation, which is still continuing through 2010. The delay is due to the excess workload at the PMRA. Our Lorox L URMULE, which was submitted early 2009, was entirely based on use of existing published data from the Agri-Environment Services Branch of Agriculture and Agri-Food Canada (AAFC), the old Shelterbelt Centre, and other external sources, which supported use of this product as a pre-emergent herbicide for both SRIC poplar and willow. Prior to the re-evaluation, PMRA had already determined that no additional field data were needed. The herbicide

---

<sup>1</sup> <http://www.poplar.ca/science.htm> (Poplar Council Working Groups)

is currently only approved for use as a post-emergent herbicide in SRIC poplar in western Canada.

## Prairie Pesticide Minor Use Consortium (PPMUC)

In late 2004 the PWG joined the Prairie Pesticide Minor Use Consortium<sup>2</sup> (PPMUC) as a new member. The Consortium is located in Brooks (AB) and has several agricultural crop growers as members (e.g. Agricore United, Beans and Special Crops, Saskatchewan Alfalfa Seed Producers Development Commission, Potato Growers of Alberta etc.).

Membership in the PPMUC was renewed for 2010 at the Gold level. The Consortium provides administrative, technical and analytical services through the Minor Use Procurement Officer (Rudy Esau), who deals with all the chemical companies (the product 'Registrants'), obtains their agreement to support the labelling of their products for our (minor) uses, and handles all the business dealings with the Pest Management Regulatory Agency (PMRA) of Health Canada. Almost all PWG work dealing with pesticide registration runs through the PPMUC.

The total PPMUC membership fee for 2010 was \$5,000 (plus GST) and was paid for by 11 partners, each contributing \$600, which included approximately \$108 to cover travel expenses for Cees van Oosten (the chair of the PWG) to attend the 2010 PPMUC annual meeting in Taber (AB). Any surplus from 2010 will be retained as a credit towards 2011 partnership costs. The 2010 partnership included representation from Quebec and the three western Provinces.

PPMUC Partnership by Organization in 2010	Contact
Agri-Environment Services Branch – Agriculture and Agri-Food Canada	Bruce Hesselink
Ainsworth Engineered Canada LP	Fred Radersma
Alberta-Pacific Forest Industries Inc.	Michelle Sulz
Canadian Wood Fibre Centre – Canadian Forest Service	Richard Krygier
Kruger Products LP	Dan Carson
Ministère des Ressources naturelles du Québec (MRNF)/Ministry of Natural Resources	Roger Touchette
Pacific Regeneration Technologies Inc.	Grant Harrison
Poplar Council of Canada	Cees van Oosten
Saskatchewan Research Council	Shannon Poppy
University of Saskatchewan	Ken Van Rees
Weyerhaeuser Company Ltd. - Forestlands	Tim Gylander

Note: Daishowa-Marubeni International Ltd. opted not to renew its partnership for 2009 and 2010, but may return at a later date.

The combination of the PWG partnership and annual membership in the PPMUC is a very cost-effective manner to obtain labelling for useful pesticides.

## Pest Management Centre (PMC)

Over the last several years the PWG was successful in obtaining full funding from Agriculture and Agri-Food Canada (AAFC) for the entire URMULE application process, including field trials, for three pre-emergent herbicides. These three URMULEs are managed through Dr. Shiyong Li of the Pest Management Centre (PMC) of AAFC. Several PWG partners had contracted with the PMC to conduct product trials, the last of

<sup>2</sup> [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/opp5982](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/opp5982)

which was completed in the spring of 2009. These URMULEs are still in the regulatory pipeline. One product URMULE (Goal 2XL – a.i. oxyfluorfen) was re-submitted to provide PMRA with additional information and a second product (Lorox L – a.i. linuron) is being held up in re-evaluation (see above); the third product (SureGuard – a.i. flumioxazin) is working its way through the regulatory maze.

## **Pesticide Working Group – 2010 highlights**

### **• *Lontrel 360 - herbicide***

In 2009 the PWG submitted an URMULE for the use of Lontrel 360 (a.i. clopyralid) as a post-emergent herbicide for use in SRIC willow crops and planting stock production. The basis for the submission was the availability of external data to support its use in willow. There are good reasons to believe that the PWG will be able to obtain a label without having to conduct field trials to test crop tolerance. Willow (acute willow) is already listed on the current label in a Shelterbelt setting and a rationale for its approval will be prepared based on this fact and evidence in the literature that willow is very tolerant to this herbicide. US (willow) colleagues have also tested this product on willow and report NIL crop injury; a trial report is hopefully forthcoming for our use. The product is already labelled for use in SRIC poplar crops (one of our early successes).

### **• *Folicur 432F - fungicide***

Kruger Products Ltd. (Dan Carson) obtained an Emergency Registration label for the fungicide Folicur 432F (a.i. tebuconazole) for the third year in a row, with the support of the 'Registrant' DuPont. The reason was to control potential serious outbreaks of *Melampsora* leaf rust in poplar stoolbeds, which could weaken plants and make them more susceptible to infection with *Septoria musiva* stem cankers<sup>3</sup> (*Septoria musiva* is a relatively new disease in southwestern B.C.).

Kruger Products Ltd. (Dan Carson), Ministère des Ressources naturelles du Québec (MRNF)/Ministry of Natural Resources (Roger Touchette), Agri-Environment Services Branch - AAFC (the old Shelterbelt Centre - Bruce Hesselink) and Pacific Regeneration Technologies Inc. (Grant Harrison) have been conducting trials with the fungicide Folicur 432F (a.i. tebuconazole) for the control of three poplar diseases and one willow disease. Our priority emphasis has been on *Melampsora* leaf rust species for both poplar and willow, for which there are currently no labelled fungicide products in Canada. The years 2008 and 2009 only provided good poplar treatment data from Quebec, but none from British Columbia and one Saskatchewan (Prince Albert) trial; the other Saskatchewan trial (Indian Head) provided weak data. No willow rust was observed in any of the trials.

The PWG decided to proceed with the URMULE based on the two years' worth of poplar data and analysis from Quebec, a written testimonial of observed efficacy in operational poplar stoolbeds in B.C. and a rationale why an approved label should include willow as well (same Genus of leaf rust). Data analysis clearly shows good efficacy of Folicur

---

<sup>3</sup> According to an FAO publication, leaf rusts can substantially weaken a poplar and make it therefore more susceptible to an infection by *Septoria musiva*.

432F; Roger Touchette wrote the final reports. The URMULE is scheduled to be submitted to PMRA in October 2010.

For insurance the Indian Head (SK) and B.C. trials were re-done in 2010 when poplar rust finally showed up; data are pending. The Prince Albert (SK) trial never saw rust either in 2010. The PWG wanted to obtain more data in case PMRA would reject the submitted URMULE that is only based on results from one trial.

The other two (poplar) diseases (*Septoria* leaf spot spp. and *Marssonina* leaf spot spp.) have not made a sufficient appearance in 2008 through 2010 and no data were generated for these two diseases. Currently there is one active ingredient available in three labelled products (Senator) to control these two diseases in poplar.

#### ▪ **Matador 120EC – insecticide**

In early 2010 the PWG helped Al-Pac obtain an Emergency Registration label for the insecticide Matador 120EC to protect SRIC poplar crops from grasshoppers in Alberta and Saskatchewan. The decision to proceed was based on severe damage experienced to several Al-Pac crops (Michelle Sulz). Despite forecasts of severe grasshopper threats in 2010 in Saskatchewan and Alberta, the hoppers stayed away due to unfavourable weather (very wet) during prime hatching season. Syngenta (the 'Registrant') provided the necessary letter of support to obtain PMRA approval.

This Emergency Registration process is only considered by PMRA if a follow-up URMULE is initiated to obtain a permanent labelling for the product for SRIC poplar and willow crops. Since more insects than just grasshoppers are listed on the current product label that affect both poplars and willows, the PWG obtained support from the Registrant to add four more insects of importance. The URMULE will be prepared and submitted in October or November 2010.

#### ▪ **Assure II - herbicide**

The PWG will also pursue one more grass herbicide Assure II (a.i. quizalofop P-ethyl) to counter the growing unavailability of Venture L (a.i. fluzifop-P-butyl) and possibly also Poast Ultra (a.i. sethoxydim). All products are 'over-the-top' herbicides and control grasses in an actively-growing crop. The PWG will ensure any new label will include both SRIC poplar and willow. Work will be undertaken in 2011.

#### ▪ **Sinbar – herbicide**

Three new crop tolerance trials with the herbicide Sinbar (a.i. terbacil) were initiated in 2010 at the Ministère des Ressources naturelles du Québec (MRNF)/Ministry of Natural Resources (Roger Touchette), Agri-Environment Services Branch - AAFC (the old Shelterbelt Centre - Bruce Hesselink), Alberta-Pacific Forest Industries Inc. – Al-Pac (Michelle Sulz) and the Conservation Learning Centre near Prince Albert (Larry White). Both poplar and willow are being tested in pre- and post-plant applications.

Although the initial results indicate crop intolerance issues at labelled rates (US labelled rates were adopted), there are some indications that substantially lower rates of Sinbar may have merit, especially as a possible tank mix partner for Lorox L (a.i. linuron).

These are based on preliminary tests done in Saskatchewan and operational use experience of Cees van Oosten in SRIC hybrid poplar crops in NW Washington State.

A decision will be made in October or November whether to re-do the trials in 2011.

### ▪ **Product screening**

The Canadian Wood Fibre Centre (Richard Krygier) initiated greenhouse screening trials for several herbicides. The list of candidate products was carefully compiled by Richard in cooperation with the University of Alberta (U of A); the U of A has been doing the screening. The emphasis was on products that could be applied 'over-the-top' of actively growing poplar and willow plants grown in a greenhouse. Several products showed promise in the greenhouse; however, under field conditions these results could not be replicated. Lack of funding has postponed a full field trial till 2011 or 2012.

The Saskatchewan Research Council (Shannon Poppy) initiated a project proposal for greenhouse screening of several fungicides in cooperation with the University of Saskatchewan. We received permission from various chemical companies (the Registrants) to use their products for this project. Greenhouse screening and subsequent in-field inoculation protocols are badly needed due to the unpredictable nature of diseases being expressed naturally in field trials (see the Folicur trials as reported above). Funding for these trials needs to be secured.

Alberta-Pacific Forest Industries Inc. (Michelle Sulz) initiated a field screening project testing several products for use in SRIC poplar (and by inference also useful in willow). Initial results looked promising and will provide the PWG with some ideas for future work. The work concentrated on Ally (a.i. metsulfuron methyl), Express (a.i. tribenuron methyl), Ally+Express, and PrePass A (a.i. florasulam), which were all applied in tank mixes with a glyphosate-based herbicide as a pre-plant (one day before planting) and post-plant (one day after planting over dormant stock) application. The product Ally showed the best results, but more tests need to be conducted to ensure sufficient crop tolerance. The PWG secured a letter of support from the Registrant (DuPont) to start work with this product. No decision has been made when trials will start, due to an already full workload.

### **Cost sharing**

All the projects described above are excellent examples of PWG partners providing the financial and in-kind resources to carry out various trials. Some partners are in a better position than others to carry out trials on their premises, while others cannot; however, they may be able to lend support through financial and in-kind contributions. This has occurred a few times in the past and the PWG hopes these types of cooperative efforts can be continued in the future where the burden of the required resources can be more evenly distributed. There will have to be more emphasis on this aspect for 2011.

Cees van Oosten  
Nanaimo, 4 September 2010