



## ONTARIO BIOMASS PRODUCERS CO-OPERATIVE INC.

*for a cleaner tomorrow*

by Jamie Fisher

### President's Report

#### OBPC's Vision

"Profitable biomass markets for Ontario farmers"

As I reflect on 2015 and the accomplishments of OBPC I can see measurable progress towards our vision. While it is disappointing that we have not, as yet, entered into a large scale commercial contract for agricultural biomass, markets are emerging.

We have established a solid presence in the livestock bedding and some inroads into livestock feed markets. The research completed and in-progress has been very positive and the farmer feedback excellent.

While the large scale CHP contract bid was unsuccessful in 2015 work continues to be done to better position OBPC for the future. The credibility of supply remains an issue. To address this OBPC will be implementing some form of central desk selling in 2016 (Come to the AGM to discuss further) and is exploring partnerships that might address this issue.

The mushroom compost market has been challenging in terms of returns for farmers but both the research and feedback is that agricultural biomass will work in this industry. Given the US/Canadian dollar spread we have been talking to some US mushroom farms.

The Anaerobic Digester (AD) use of agricultural biomass is also challenged financially and dependent on FIT pricing. While additional research would need to be done, the preliminary results for including agricultural biomass in an

AD system look positive compared with other agricultural crops. Hopefully renewable natural gas contracts are an option in the future.

OBPC is also working with a company developing a new technology to separate biomass into its component parts (lignin, cellulose and sugar) and further develop these components for markets. The details are restricted under a NDA. Hopefully we will have further announcements later in 2016 or early 2017.

OBPC has participated in mulch trials for nursery applications. With the right pre-treatment this has market potential.

The use of switchgrass for frost protection for the building industry is being investigated in conjunction with new recycling options. We will know more later this year.

In addition to the above OBPC is involved with additional research projects and industry promotion. Growers Guides, workshops, exploring additional crops and agronomic research and development for existing crops have all been extensively worked on in 2015. More details are included elsewhere in this newsletter and on our website.

All of the above and so much more has been accomplished by a volunteer Board of Directors and Advisors who have dedicated significant time and effort towards OBPC's vision. My thanks and appreciation.

James Fisher

OBPC President

For more information about our organization, please visit the OBPC website, where you will find information of virtually all aspects of Ag biomass. We make an effort and inform our followers with Upcoming Events, highlight the most relevant News of the biomass industry and provide updates of our OBPC projects.

Digital versions of our [newsletter](#) can also be accessed directly on our website.

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## Ag Biomass Markets Project Update

The Agricultural Biomass Markets (ABM) Project continues to proceed, gathering technical information and making it available to farmers. The project is funded by the University of Guelph / Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) Knowledge Translation and Transfer (KTT) Program and a series of sponsors (listed at end of article).

The KTT Program provides money for researchers to take technical information from research and from practical experiences and make it available to end users like farmers. For this project our research lead is Dr. Bill Deen from the University of Guelph Plant Agriculture Department.

The ABM Project has four outcomes.

The first is a series of guidebooks, all of which are in digital format: two agronomic guides, for switchgrass and miscanthus production; and a livestock bedding and feed guide. These books will be fairly detailed practical documents that explain to farmers how to grow and use biomass crops. The switchgrass and miscanthus are in final editing at the time of publication of this article, and the livestock book is still in development. Our writers, Roger Samson from REAP-Canada, and Dr. Kate Withers a recent Ph.D. grad from the University of Guelph bring strong skills to the material development.

A second component of the ABM Project is workshops. While initially we thought we'd deliver stand-alone workshops (and next year we plan to do that), this year we've piggy-backed onto existing events that have their own advertising, regular attendees and momentum. Through additional OMAFRA funding we've

brought Roger Samson from REAP-Canada to deliver information sessions at the Grey-Bruce Farmer's Week, the Guelph Organic Conference, and the upcoming Central Ontario Agricultural Conference in Barrie. We are focusing on events in the class 3-4 land areas this year as the near-term opportunities for quick uptake are probably in the switchgrass field. As miscanthus production systems really hit the ground in the next couple years we'll focus on a much broader geography.

We've also developed videos that outline the content and stories from the agronomic guidebooks, and which share the experience of Ontario producers. Two of these videos, produced by [Biotalk.ca](http://Biotalk.ca), were profiled at the OBPC booth at Canada's Outdoor Farm Show in Woodstock. And the livestock video will roll out with the livestock guidebook.

Lastly, once the content and presentation materials have been finalized and focused, we will create webinars of the technical content so that a producer who can't make the workshop can get the detailed presentation material. These will be made available through the OBPC website.

The project has two years of funding available, so as we roll out the content, we have the opportunity to tweak and update it, so that at the end we have some solid products that stand the test of time. With our "digital only" publication strategy we freed up valuable funds and can make an effort to emphasize up-to-date information instead of glossy appearance.

A project like this requires a big team of supporters, and partner sponsors. This project received matching funding from the Ontario Agri Food Technologies, the Livestock Research Innovation Corporation, and the Ontario Biomass Producers Co-op. Thank you to all the OBPC members, OMAFRA staff and University of Guelph technical folks who have and continue to contribute to the success of this project.

### We are currently exploring:

- Marketing opportunities
- Production of purpose grown biomass crops
- Harvesting of crop byproducts
- Transportation and storage issues
- Generating or co-generating electricity form biomass
- Structure and financing options for a biomass production co-operative
- Densifying of biomass (ie: pelleting, briquetting)
- Biomass heat energy
- Biomass as a feedstock for the productions of fuels
- Biomass for the production of composite fibre boards
- Biomass for the production of plastic products
- Animal Bedding (dairy, pet market etc)
- Biomass as a substrate for mushroom farming
- Quality mulch for landscaping and vegetable farming

### Who we are

The Ontario Biomass Producers is a group of Ontario farmers exploring the sustainable production and marketing of biomass crops. Non-farmers who are engaged in the biomass industry can participate at OBPC with an associate membership.

For information, please email

[memberships@ontariobiomass.com](mailto:memberships@ontariobiomass.com)

by Urs Eggimann

## Crowd Funding for improved REAP-Canada switchgrass seeds

REAP-Canada have been Canada's leading researchers and breeders of tall grasses, like switchgrass and big bluestem. Their approach of achieving an annual cycle with perennial crops is very unique and incredibly efficient.

The most relevant characteristics of REAP's new cultivars include higher yield, lower seed dormancy, improved germination vigor and improved plant structure.

For switchgrass and big bluestem producers of our group these improvements are of vital importance. It is very much in the interest of OBPC to contribute to the continuity of REAP's research effort.

At our Ag Biomass Day in Clinton, in 2014, we could witness the very beginning of seed production with 2 switchgrass cultivars from REAP, RC-Hiawatha and RC-Tecumseh.

Last year Nott Farms could harvest seeds of the new RC varieties for the first time. These seeds will get planted at Nott Farms this spring for further multiplication.

You can access a presentation of REAP-Canada's research program on the [OBPC website](#).

To assure continuity of the REAP-Canada research program, OBPC is conducting a crowd-funding project. Nott Farms will initially produce RC seeds exclusively for OBPC members. The crowd-funding sale is based on 4,000 lbs. of RC switchgrass seeds. Nott Farms expects to be able to produce 600 lbs. for the 2017 growing season and the remaining 3,400 lbs. for 2018. The cost of the new seeds is \$15.00 / lb. and producers, who will participate in field research efforts, will get a discount of \$5.00 / lb., resulting in a net price of \$10.00 / lb.

A grant of Ontario Agri-Food Technologies is a significant component of our crowd-funding project. OAFAT has been a great partner of OBPC and with joint forces we managed to make significant progress in the bio-economy.

Grey Ag Services will handle the administrative part of the seed sale. Members will be contacted directly by Grey Ag.



Seed Breeding nursery of REAP-Canada on McGill site in Sainte-Anne-de-Bellevue, QC.

The left plot is the RC Hiawatha, centre is Forestburg and behind Olivier is the RC Tecumseh. No lodging on the RC selections and note the height of the RC Hiawatha. The RC Hiawatha is amazing on this site. It is about 5 days later than cave-in-rock. This is the same parent material at Don Nott's both the RC Hiawatha and RC Tecumseh. The RC Tecumseh looked great as well; it's about 7-10 days earlier than Cave-in-Rock.

### [Join Us](#)

We offer Producer Memberships (Co-op shareholders with voting rights), Start-up Producer Memberships and Individual or Business Associate Memberships. All types of OBPC members can access privileged information in the Members Only area of [our website](#).

If you have any questions please contact us [via email](#) for further information.

[Business Associate Membership Form](#)

[Individual Associate Membership Form](#)

[Producers Membership Form](#)

[Start-up Producers Membership Form](#)



by Urs Eggimann

## KTJ Project related Road Shows

A major part of our 2-year *Biomass Knowledge Translation and Transfer* project is to bring the information to the farming community in various formats.

In the 1<sup>st</sup> year we have been trying to get our message out at public events, like [Grey-Bruce Farmers' Week](#) in Elmwood, [Organic Conference](#) in Guelph and [Central Ontario Ag Conference](#) in Barrie.

On Dairy Day of the Grey-Bruce Framers' Week, Roger Samson of [REAP-Canada](#) addressed an audience of 150 people of the agricultural sector of Grey-Bruce and surrounding counties. Roger's presentation [SWITCHGRASS: a dual-purpose crop providing high quality bedding and improving rumen function](#) was well received by a captive audience. Fortunately we no longer need lengthy *What is Switchgrass* introductions for farmers.

During the morning segment Dr. Gosia Zobel emphasized the importance of animal comfort. She sees great value in observing animal behavior to get valuable feedback resulting in good choices with animal bedding and feed.

Even though we had no knowledge of the detailed content of previous sessions, Roger's presentation at the end of the day was an excellent match. Switchgrass makes premium bedding and animal comfort is one of its major characteristics.

On the feed side there is still a fair bit of reluctance out there. During the Q&A a local animal nutritionist emphasized, that he sees a need to get facts from a respected source. We have to allocate a high priority to this gap and work with OMAFRA and UofG to document switchgrass nutrition feed facts, which should result in industry acceptance.

Our 2<sup>nd</sup> stop was at the Organic Conference where we staged a Meet & Greet session. Roger Samson's [SWITCHGRASS : A premium livestock bedding and horticultural mulch](#) presentation was well received by a very diverse group of biomass enthusiasts and experts. The presentation format gave everyone a chance to get actively involved and share the latest wisdom. The group forum resulted in an amazing collection of the latest discoveries and experiences in the "switchgrass world".

Roger brought a collection of his latest switchgrass and big bluestem cultivars from his seed-breeding nursery, which look like tall grasses on steroids. Two of his eight new varieties will be part of OBPC's crowd-funding initiative and will eventually become part of Ontario's switchgrass landscape in 3-4 years from now.

With [Rudy Zubler](#) we had a very experienced organic dairy farmer among us, who has been using switchgrass as bedding material for several seasons. Rudy is sold on

switchgrass bedding and planted a new plot of Cave-in-Rock last summer on his farm in Ridgetown.

Dan Arnett, manager of [Ernst Biomass](#) (Ernst Seeds, Meadville, PA) shared his extensive knowledge and informed us of what's hot in the biomass sector south of the border. Dan will publish a research paper in the very near future that will put an end to theories that switchgrass could be harmful to horses.

[Don Nott](#) showed us a sample of his short switchgrass bedding material, which was produced directly in the field with a Krone rotary chopper / baler combination. This material is considerably less dusty than regular switchgrass and is suitable for most bedding applications. To meet the most demanding bedding applications, like for horses, we will look into additional straw de-dusting options. It was incredible how fast the 3-hour session flew by.

The Organic Conference was loaded with sessions and a good number of people unfortunately could not make it to our Meet & Greet.

A big thank-you goes to Lawrence Andres, owner of [Harmony Organic Dairy Products](#), who donated a case of delicious chocolate milk to the group.

Our next stop will be at the [Central Ontario Ag Conference](#) in Barrie on Friday, March 4, 2016.

[Jake DeBruyn](#), [Roger Samson](#) and [Urs Eggimann](#) will conduct a Switchgrass Panel, covering switchgrass production, bedding & feed.

Central Ontario has great potential for switchgrass production and we hope to make major inroads and convince farmers of this region to "abandon the fence line" and hop on the Ag biomass train. We encourage all readers, who have an opportunity to join us in Barrie, to do so.



From left to right: Rudy Zubler, Don Nott and Roger Samson

by Urs Eggimann

## Field Scale Switchgrass Research

The good news first: we managed to complete the project on time and within budget. The last progress report and the final research document were submitted to the Agricultural Adaption Council (AAC) by end of December 2015.

The major objective of this project was to deliver applicable practices and advice to switchgrass producers. Considering the relatively small grant amount, this was an extremely ambitious project. We identified the most significant gaps in the agronomy and logistics of switchgrass, which needed to be researched, followed by documented solutions and recommendations.



Re-seeding with a no till drill



Switchgrass field 2 months after re-seeding

The project was a really fine team effort of the 3 co-operators, the project manager, the 2 co-authors of the research document and the Admin-Support of Grey Ag Services. A remarkable achievement was the 97% allocation of our budget to OBPC and associated personnel (OBPC Advisor, OBPC Admin-support).

During the entire project we made an effort to share gained research results with existing and new growers.

At our Ag Biomass Day 2015 we had an audience of 100 people, the majority of which were farmers. Our presentations related to our project were received very favorably and resulted in media coverage, including published videos of our presentations. The Canadian Outdoor Farm Show in Woodstock was another milestone, where we had an opportunity to talk to numerous farmers and share our research results and conclusions.



Picture taken on August 13, 2014, of dense and weed free switchgrass field, which was sprayed with glyphosate in May 2014.

OBPC members can access the final research document on the OBPC website Members Only section.

At a later stage we will make our research paper public and release it to the entire farming community in Ontario.

I would like to take this opportunity to express our gratitude to the Ontario Forage Council for accommodating our group to use some of their allocated research funds. Another thank-you goes to Carolyn Kosak, the AAC program coordinator of our project. And last but not least thank you to all my colleagues who played an active role in this project and helped pave the road to reduce switchgrass production complexity for existing and new growers.



Minor Use Update for Ontario Biomass Producers Co-operative  
J. Chaput, OMAFRA Provincial Minor Use Coordinator  
February, 2016

**Minor Use Label expansion registrations to date 2016 – switchgrass, miscanthus**

Aatrex (atrazine) on switchgrass – minor use sponsored by Quebec in 2014; has passed PMRA data review stage; final approved label expected late spring to early summer 2016.

Buctril M (bromoxynil + mcpa) on switchgrass – minor use sponsored by Canada's national minor use program in 2013; has passed PMRA data review stage; final approved label expected summer 2016.

**Active Label expansion projects underway:**

None currently

**Current Minor Use Priorities – switchgrass, miscanthus, big blue stem:**

- Weed management priorities put forward by Ontario include:
  - Dual Magnum, Buctril M, Integrity, Pursuit herbicides on big blue stem
  - Dual Magnum, Buctril M, Integrity herbicides on miscanthus
- Weed management priorities put forward by Ontario and Quebec include:
  - Dual Magnum, Option, Integrity, Pixxaro herbicides on switchgrass

The next national minor use priority-setting meeting will be held in Gatineau, Quebec in March 2016. It is uncertain at this stage if any of the switchgrass, miscanthus or big blue stem priorities will reach the top priorities for work in 2017, however they will be discussed both federally and provincially. A crop production profile for these crops would be very helpful to assisting what projects can move forward.

## OBPC EXECUTIVE

### President

James Fisher

[james.fisher@ontariobiomass.com](mailto:james.fisher@ontariobiomass.com)

### Vice President

Urs Eggimann

[urs.eggimann@ontariobiomass.com](mailto:urs.eggimann@ontariobiomass.com)

### Treasurer

Peter Lambrick

[peter.lambrick@ontariobiomass.com](mailto:peter.lambrick@ontariobiomass.com)

### Secretary

Grey Ag Services

[support@ontariobiomass.com](mailto:support@ontariobiomass.com)

### Directors

Scott Abercrombie

[scott.abercrombie@ontariobiomass.com](mailto:scott.abercrombie@ontariobiomass.com)

Larry Davis

[larry.davis@ontariobiomass.com](mailto:larry.davis@ontariobiomass.com)

Frank Hoftzyer

[frank.hoftzyer@ontariobiomass.com](mailto:frank.hoftzyer@ontariobiomass.com)

Don Nott

[don.nott@ontariobiomass.com](mailto:don.nott@ontariobiomass.com)

Norm Richardson

[norm.richardson@ontariobiomass.com](mailto:norm.richardson@ontariobiomass.com)

David Smith

[david.smith@ontariobiomass.com](mailto:david.smith@ontariobiomass.com)

Steve Timmermans

[steve.timmermans@ontariobiomass.com](mailto:steve.timmermans@ontariobiomass.com)

Glenn Young

[glenn.young@ontariobiomass.com](mailto:glenn.young@ontariobiomass.com)

## Recent Blog Posts on OntarioBiomass.com website

[Study: Increased switchgrass acreage could improve water quality](#)

06 Feb 2016 10:29 AM • [Urs Eggimann](#)

[Study: Second-generation biofuels can reduce emissions](#)

01 Feb 2016 9:48 AM • [Urs Eggimann](#)

[“We need to find a way to expand the production of second generation biofuel crops and maybe even displace corn ethanol”](#)

24 Jan 2016 10:22 AM • [Urs Eggimann](#)

[SWITCHGRASS: a dual-purpose crop providing high quality bedding and improving rumen function by Roger Samson](#)

19 Jan 2016 11:55 AM • [Urs Eggimann](#)

[Ontario funds bioproduct development](#)

25 Nov 2015 8:41 AM • [Urs Eggimann](#)

[Stems, Sticks Seen Driving Biofuel's Next Expansion After 2020](#)

29 Sep 2015 8:21 AM • [Urs Eggimann](#)

[Ontario Grown Switchgrass Tested as a Component of Animal Feed](#)

28 Jun 2015 12:08 PM • [Urs Eggimann](#)

[Livestock bedding offers markets for miscanthus, switchgrass growers](#)

30 May 2015 8:18 PM • [Urs Eggimann](#)

[Ontario farmers being pointed to wheat straw alternatives](#)

24 May 2015 5:36 PM • [Urs Eggimann](#)

**Your presence is requested...**

**Ontario Biomass Producers  
Cooperative Inc.**

**[Annual General Meeting](#)**

*Thursday February 25<sup>th</sup>, 2016*

*1:30 pm – 3:30 pm*

[Mohawk Inn  
and Conference Centre](#)

Escarpment Room  
9230 Guelph Line, Campbellville

Refreshments Provided