

### ONTARIO BIOMASS PRODUCERS CO-OPERATIVE INC.

for a cleaner tomorrow

### by Urs Eggimann Markets and Membership

Here we go again, another membership sermon from the OBPC Vice President! May be not quite, or at least this time it is connected to market realities.

The good news is that OBPC could welcome a few new members during 2013. In addition to Producer and Individual Associate memberships, we added a Business Associate membership, giving non-farming organizations an opportunity to connect with OBPC.

OBPC's finances are still not where we want them to be and there is only marginal room to afford professional help. Nevertheless, we have made some progress with securing funds by means of grants related to biomass projects. Since all of these projects include some administration overhead expenses, we no longer have to rely completely on our volunteer resources.

Even though it is still tough to find immediate markets for existing biomass production, our group has made significant strides with intermediate and long term market opportunities. Numerous biomass newsflashes are also a clear indication that the bio-economy is real and we see increasing efforts on various fronts to substitute crude oil with  $CO_2$  neutral feedstock.

Our chicken-and-egg issue is still very much alive. Immediate large-scale market opportunities are still at an infancy stage, which convinces most farmers to be observers rather than leaders, helping shape the industry. Since the industry now shows a much increased interest in using biomass as a feedstock, we really need to ramp up our production base. Considering that it takes 3 years to produce full yield with purpose grown biomass, sitting on the sideline has now a much greater risk of losing out on a promising business opportunity.

We live in an era of instant expectations and we really have to make sure that after all the hard work of raising awareness of purpose grown biomass, the industry does not have to look for competing alternatives. The industry wants to see a reliable feedstock partner and with all the promising bio-applications on the horizon, the need for large production quantities is highly likely. OBPC has earned the reputation as being **the** go-to group for purpose grown biomass, but our membership base needs to grow rapidly to live up to expectations.

In my view we have a real opportunity to be part of an incredible success story. With a lot more hard work and the necessary leadership and cooperation coming from the farming community, we can do it! ©

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The main objective of this event is to share existing experience among growers and to come to grips with the most critical aspects of a successful production of dedicated biomass crops. The group will make an effort to come up with a list of identified gaps, which will require further research and ultimately result in practical applications. Short presentations, covering various biomass aspects, will set the stage, before engaging all participants into a Q&A session.

In conjunction with the knowledge exchange OBPC will introduce switchgrass research activities, which are planned for the next  $1\frac{1}{2}$  years.

Biomass Knowledge Exchange		
-	<ul> <li>Tuesday, February 25, 2014 / 8:30 a.m. to 12:00 p.m.</li> <li>Mohawk Inn, Campbellville, ON</li> <li>OBPC with collaboration of OMAF, OSCIA, UofGuelph</li> <li>S: OBPC Members, Co-operators of OSCIA Biomass Field Trials, Current and Future Biomass Producers, Guests.</li> </ul>	
This forum identify exis	tive of Biomass Knowledge Exchange provides a unique opportunity to share gained biomass production experience and ting gaps and shortcomings. Based on the collected information, OBPC will address te the most promising action steps.	
Schedule: 8:30	Registration - Karen Jacobs	
9:00	Welcome / Introduction of Program - Heather Engbers, Jim Todd, Urs Eggimann	
9:05	OFA Biomass Project Report - Charles Lalonde	
9:20 9:35 9:45	OSCIA Biomass Report Summary - Heather Engbers Switchgrass Grower's Perspective - Don Nott Miscanthus Grower's Perspective - David Smith	
9:55	OFC Grant Project - Urs Eggimann	
10:10	Coffee Break and Networking - All	
10:30 10:35	Examining the potential for biofuel grasses to become invasive - Heather Hager Biogas from Perennial Grass Biomass: Survival Rates of Seeds Exposed to a Commercial-Scale Anaerobic Digester - Kurtis Baute	
10:40	Can biomass fields serve as breeding habitat for Bobolink and Eastern Meadowlark? - Nicole MacDonald	
10:45	Winning Strategies for Establishing Bioenergy Grass Stands - Kate Withers	
11:00	Biomass Knowledge Exchange Q&A	
ROLES/RESPONSIBILITIES		
Minutes: Ka	Dr. Jim Todd ren Jacobs art Points: Heather Engbers	

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You are cordially invited to join us at the Ontario Biomass Producers Co-operative's Annual General Meeting on February 25th, 2014. The meeting will be held at the Mohawk Inn and Conference Centre in Campbellville.

Our feature speaker, Alan Lyons from Honda of Canada Manufacturing, is not to be missed!

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SUCERS CO	for a cleaner tomorrow		
AGENDA			
ONTARIO BIOMASS PRODUCERS CO-OPERATIVE INC TUESDAY FEBRUARY 25, 2014 AT 1:00 PM			
MOHAWK INN AND CONFERENCE CENTRE, CAMPBELLVILLE ONTARIO			
12:45pm –	1:15pm		
Re	gistration and Networking		
1:15 pm – 1:30 pm			
	Welcome to Annual Meeting by James Fisher Recognition of the 2013 Board of Directors		
	1:30pm – 2:30 pm Approval of Agenda		
Ap	Approval of Minutes from January 23, 2013		
	Financial Report		
Ар	Appointment of Auditor for 2013		
	Update on OBPC		
WI	here we have been – What we have done – What we plan to do- Where we are going.		
2:30 pm – 2:45 pm			
	ection conducted by: Glen Young w Business		
2:45 pm – 3:00 pm			
Ne	tworking Break		
3:00 pm –	3:00 pm – 4:00 pm		
Gu	lest Speaker Alan Lyons, Engine Project/ ALDC-MC Quality Group – Honda of Canada Manufacturing		
4:00 pm	4:00 pm		
Me	eeting Adjourned		

#### by James Fisher

### A Report from the OBPC President

It was five years ago in early 2009 that we started down this biomass road. At that time, with Ontario Power Generation (OPG) pushing their agenda, we were not sure we could get organized in time to participate.

As it turned out we are organized but the market continues to be just beyond our reach. The good news is there are now several potential markets that OBPC is actively involved in developing. Please come out to our Biomass Knowledge Exchange and AGM on Feb 25<sup>th</sup> to find out details.

Many people have contributed to our progress. I would like to thank the OBPC Directors for their many contributions. OBPC is also blessed with a number of advisors who have provided valuable input and assistances.

I would like to acknowledge the significant contribution of Nancy Comber who has been the Board Secretary since the beginning. She put in many hours over and above what she was paid to do. Nancy was instrumental in securing a number of sources of funding for OBPC. Thanks Nancy, and good luck with your new endeavours.

We welcome Meghan Richardson as our new secretary.

The tragic death of Dean Tiessen was a shock to us all. Our condolences to his family and friends. Not only will his contributions to our Board be missed but he played such a pivotal role in the biomass economy that his passing will be felt throughout the industry. Please visit our <u>website</u> for information about a memorial fund for Dean.

Two of our inaugural directors are retiring this year. We thank David Lyons and Mike Faulkner for their contributions, input and friendship. While they are stepping down as Board members they remain shareholders and supportive of OBPC success.

As with all organizations OBPC depends on people to make things happen. The Board of Directors has room for additional members. While we have three nominations to date there is room for more. Please talk to myself or other directors if you would like to find out more. Any shareholder can nominate or be nominated to be a director.

We look forward to seeing you all at the AGM and Biomass Knowledge Exchange.  $\bigcirc$ 

### by Meaghan Richardson

### Meet the New Secretary

Hi, My name is Meaghan Richardson, and I am the new secretary for the OBPC. While I have met some of you already I hope to see more of our membership in the near future.

This is a very exciting time to be involved in purpose grown biomass, the entire biomass economy is in a general upswing in Ontario and has been gaining both academic and industry attention. At OPBC board meetings the conversation is enthusiastic and progressive. Your board has been meeting with several players in the industry and as you will hear at the AGM, will be involved in a few state of the art research projects. It is truly a very exciting time to be in Biomass!

I am privileged to provide support work to a co-operative that holds dedicated new biomass growers as well as many of the founding members of the purpose grown biomass markets that we do have already in Ontario. I would encourage those thinking about becoming a shareholder or supporting member for the OBPC to seriously look at doing so.

Again, I look forward to meeting all of you, as we progress purpose grown biomass into a viable market option for producers in Ontario.  $\bigcirc$ 

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#### by Urs Eggimann

# Gray Skies During Biomass Field Day in Grey County

Even though Mother Nature was not our strongest ally during our field day, we can look back to a successful event. Unfortunately quite a few people had to cancel due to the adverse weather conditions.

The goal of the event was to improve the awareness of the potential of biomass and encourage farmers to plant switchgrass. Since we wanted to reach as wide an audience as possible, we came up with the idea of a post event press release. Patricia Ellingwood of Grey Ag Services, Executive Assistant of the Ontario Forage Council, issued a comprehensive summary of our event to give everyone a chance to catch up on essentials of the field day. We also got some media coverage of our event by <u>Kirk Scott</u> <u>from Blackburn Media</u>.

### by Patricia Ellingwood

## **Biomass Field Day in Grey County**

Although the weather outside was gloomy on October 19th, conversation was lively inside the hilltop shed at Eggimann Farms. The Ontario Biomass Producers Co-operative, the Saugeen Valley Conservation Authority and the Ontario Forage Council blended resources to offer the "Biomass Field Day in Grey County". This event was a wealth of information regarding the opportunities of switchgrass production. Attendees were treated to an exciting panel of experts, including; Fred Brown, District Sales Manager, Quality Seeds, President, Ontario Forage Council, Ray Robertson, Manager, Ontario Forage Council, Bill Deen, Associate Prof., Dept. of Plant Agriculture, U of G, James Fisher, President OPBC, Don Nott, Switch Energy Corp., Director OBPC, Urs Eggimann, Eggimann Farms, Vice President OBPC, Ian McDonald, Applied Research Coordinator, Field Crops Unit, OMAF, and Jo-Anne Harbinson, Manager of Water Resources and Stewardship Services.

There were also a number of key participants in the audience that offered valuable input on the subject. These attendees included: Duncan McKinlay, Grey County Warden, Paul McQueen, Deputy Mayor of Grey Highlands, "The Bio-plastics Project Lead" for a major Ontario auto manufacturer, Don McCabe, Vice President OFA, Board of Directors AAC, and Kate Withers, PhD Candidate at University of Guelph, Board Advisor OBPC. All aspects of the biomass industry were well represented by the panelists who toured listeners through the entire biomass process and market opportunities.

Fred Brown welcomed attendees to the event and thanked everyone for braving the soggy weather. Fred explained that the biomass industry is generating new interest for the OFC, and as the voice for forages in Ontario, the organization welcomes the invitation to be involved. Later in the day, Ray Robertson shared that the OFC had recently applied for research funding on behalf of the OBPC to assist in further testing of switchgrass fertility. Shortly following the event, OFC received approval of the funding and is looking forward to providing information extension of the project results.

Audience members enjoyed learning from Bill Deen on his biomass research efforts at the University of Guelph which ultimately led to the OSCIA Biomass Field Trial, where he and some of his students played a very active role in research initiatives. Bill has been a significant presence during all major biomass events.

Jamie Fisher, representing the OPBC, explained that in a significant bio-economy, only a well-

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organized group can meet the needs of a demanding industry with a huge need for biomass feedstock. The role of OBPC is to open sustainable markets, some of which are available now to a limited extent, and some promising opportunities are still a few years in the future. The production of biomass is based on a 3-year start-up cycle, which means that there is a need for the necessary biomass acreage now to meet demands in 3 years.

Don Nott presented an update of current and future biomass market opportunities. Current markets for switchgrass include animal bedding (switchgrass is suitable for organic operations), fibre supplements for feed rations and increasingly more important switchgrass as a component for mushroom substrate. Some very promising applications with a longer time horizon include products with Ag fibre content, like bioplastics (e.g. automotive parts) and fibre boards for construction and furniture manufacturing. Based on lab tests, it is known that organic composite boards with switchgrass fibres can reach up to 4 times the structural strength of conventional strand boards. From an environmental stand point, it is an additional bonus that fibre boards can now be manufactured without any toxic substances or emissions. According to Don, the environmental benefits of growing switchgrass are very substantial and switchgrass farmers can make a significant contribution to our environment in many different ways. Don also emphasized the economic advantage switchgrass growers have in the Grey-Bruce region. The significantly lower rental rates of marginal farmland more than make up for higher yield expectations with more optimal land.

Ian McDonald explained OMAF and MRA's perspective. One of Ian's chief concerns is soil health. He sees a big advantage in growing perennial crops, like switchgrass, to maintain and even improve a healthy soil structure.

The dreary weather did not keep our guests inside. Although the tour was shortened from five to three fields, this was still a great opportunity to view switchgrass in different stages of development. The educational opportunity continued throughout the tour with information from Jo-Anne Harbinson on the environmental benefits of growing switchgrass. Grasslands not only provide a great buffer zone for marshes and waterways (while providing a natural filtration system), they also have significant appeal to those interested in creating sanctuary for ground nesting birds.

There were also a number of supportive and knowledgeable members of the audience whose presence was encouraging to those considering the industry. Their comments and questions to the panel sparked some truly dynamic interaction between the audience and the experts.

Paul McQueen listened closely as Don Nott reviewed current and future market opportunities then questioned the panel on the availability of those opportunities to Grey County producers. As Deputy Mayor of Grey Highlands, his main concern was *"Grey, continued on next page"* 



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the ability to present these opportunities to the local farming communities with the promise of local processing opportunities.

The panel members unanimously agreed that the opportunities were strong for the Grey County residents. The response to Paul McQueen's enquiry was energetic! It was at that point that "The Bioplastics Project Lead" for a major Ontario auto manufacturer joined the active exchange to stress the following points:

1. The biomass industry needs to be aware that there is a very large potential for biomass chemicals and plastics.

2. There is considerably more profit to be made from chemicals and composites than energy.

3. The auto industry uses massive amounts of plastic and we are constantly looking for ways to reduce weight and cost.

4. Realize that a mid-size car can contain 400+ lbs of plastic, and our testing shows that we can replace upwards of 30% of that material with biomass in time.

5. Auto manufacturers are constantly looking for ways to reduce dependence on oil based products while at the same time, reducing our environmental impact.

6. The use of biomass, in our studies, is proving to be a very effective way to accomplish those goals.

 Because of strict manufacturing parameters, we need close controls on product quality so the idea of purpose grown materials is very attractive.
 Moving forward, there will need to be a close relationship developed between producers, processors and end users.

9. The product development will take time as will the raw material growth, by working together, we can grow the industry at a rate that is manageable from both sides. Don McCabe became very active in the conversation as he urged farmers to get off the sideline and start playing an active role in the production of biomass. He explained that the key to developing any opportunities in the Grey County is to have producers delivering product in the area. The large acreage of marginal land in Grey County presents the possibility; the producers will create the opportunity.

Kate Withers responded post event with a summary of the valuable information she gained from the day. Thank you to Kate for providing the following feedback:

"What I learned:

Switchgrass Agronomy:

-Establishment is key. Establishing a field requires a lot of planning during the field season prior to planting. Know your weeds! You need a plan for controlling biennial and perennial weeds.

-Nitrogen Fertilizer- Rate will depend on your yield potential and soil type. Too much N could cause lodging (and be lost to the environment).

-P and K - have soils tested before establishment and monitor by testing at the same time each year (Use representative sampling)

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-Seeding rates - some dormancy remains in the seeds, seed on the higher side if possible.

### For Future Agronomic discussions:

Soil Ph and liming!

Switchgrass Markets/Economics:

There is great potential in the automotive and construction industry for switchgrass biomass."

The participation of both the experts and the audience resulted in an exciting exchange between the research, market development, and production areas of the biomass industry. The field day was successful in connecting key players capable of taking the biomass industry to the next level.

A very special thank you to Urs and Else Eggimann, who warmly welcomed participants to Eggimann Farms. As well as their very helpful neighbours, whose hospitality was greatly appreciated by all!

In conclusion to this successful day Urs had this to say:

"I was very pleased with the successful cooperation of our 3 organizations. As a team we accomplished way more than would have been possible on an individual basis. OFC, SVCA and OBPC complement each other very nicely and bring all valuable expertise and visions to the table of which all 3 groups can benefit and which leads us closer to a viable bio-economy.

My switchgrass research and production efforts are primarily focused on marginal farmland, which is plentiful in Grey-Bruce and surrounding counties.

Even though marginal farmland generates additional challenges, we have found effective ways to overcome many obstacles and opened the way for future producers. The OSCIA biomass program was very helpful to do this type of research effort. Without this program it would have been extremely difficult to achieve the same result. One of our greatest challenges leading to a successful bio-economy in our province is to break the deadlock of supply and demand. Farmers wait for guaranteed markets and the industry is looking for reliable supplies. Clearly, we need some leadership on both sides to break this chicken and egg syndrome. Thanks to early adopters who were willing to take some significant risks, we managed to achieve the current level of success and progress. It is an absolute must that this avant-guard group gets now the necessary support from new producers.

One of my fundamental questions and challenges is to find effective ways to create a viable local bio-economy. We have to find innovative ways to optimize our logistics and pre-process capacity of our biomass on a local or regional level with the ultimate goal to have satellite biomass production facilities in our region.

Dedicated biomass crops are very predictable and resilient, with limited fluctuations regardless of different growing conditions. It is in the interest of producers and the bio-industry to enter steady long term contracts. This approach protects both sides from undesirable market swings with reduced upand down-sides." ©

# Upcoming Events

February 25, 2014 in Campbellville <u>Biomass Knowledge Exchange</u>

February 25, 2014 in Campbellville OBPC Annual General Meeting

March 3rd - March 4th, 2014 in London, ON Growing Sustainable Bioeconomics - Making it Happen.

May 19th - May 24, 2014 in Guelph, ON 13th International Symposium on Bioplastics, Biocomposites & Biorefining.

#### by Urs Eggimann

### Validating Switchgrass Market Opportunities with OFIP-Funded Research

The OFIP STORY in the latest AAC newsletter is encouraging reading for current and future switchgrass producers.

A little bit of background: During a temporary wheat straw shortage some mushroom growers in Ontario started to pay attention to switchgrass and began adding a small percentage of switchgrass to wheat straw for their compost mix.

Even though not mentioned in the OFIP Story, OBPC has been playing a significant part in the switchgrass/mushroom research project. It all started with an invitation of Bill Stevens of Mushrooms Canada to one of our OBPC board meetings. It became apparent to both groups that it was very worthwhile conducting the necessary switchgrass research, which ultimately led to a successful OFIP grant application.

Don Nott and James Fisher have been working closely with Bill Stevens and Hank Vander Pol, of Rol-Land Farms in Blenheim, and have provided the required feedstock for the research program, 70 short tonnes of which was an in-kind contribution.

The goal is to prove the suitability and composition of switchgrass for mushroom compost, i.e. criteria, such as fall versus spring harvested switchgrass, length of switchgrass and optimal switchgrass percentage of the entire mix (15-45% target rate).

After a successful completion of this project, it will be in the interest of mushroom growers and switchgrass producers to enter long-term contracts and make business more predictable at both ends.



The following is a copy of the OFIP Story of the AAC newsletter/website:

**Switchgrass and Mushroom Production** February 4, 2013

Mushrooms Canada is leading this project, with an investment of up to \$66,302 under the Ontario Farm Innovation Program (OFIP), to determine the parameters of using switchgrass as a component of mushroom substrate.

Since wheat straw and hay have become scarce and expensive, finding a substitute for those inputs in mushroom substrate is a high priority for mushroom growers. The results of this project will not only provide guidance for the proportions of switchgrass in the substrate formula, but will also establish confidence for mushroom growers and switchgrass growers to enter into long-term supply contracts.

Field trials will be conducted on commercial mushroom farms. These trials will test both fall and spring harvested switchgrass, and determine the optimal straw length and proportion of switchgrass in substrate formula for maximum mushroom production.

Mushrooms Canada plans to develop a business model for long-term supply between mushrooms and switchgrass growers. Long-term contracts are important to both parties because it takes two to three years to establish productive switchgrass fields and mushroom growers require predictable prices for raw materials.

The OFIP is funded through Growing Forward 2, a federal-provincial-territorial initiative. The Agricultural Adaptation Council assists in the delivery of Growing Forward 2 in Ontario.  $\bigcirc$ 

For a cleaner tomorrow.

#### by Urs Eggimann

## **Ontario Forage Council Grant Research Project**

The Ontario Forage Council has been very generous by offering our group a part of their research "grant quota" for new biomass research projects. The two groups have many things in common and a closer co-operation can result in a real win-win situation. We are both enthusiastic being a significant contributor to a promising bio-economy in Ontario.

Under the OFC umbrella OBPC filed an Ontario Farm Innovation Program (OFIP) Application "Establishment Process and Optimize Switchgrass Harvest/Storage Logistics". Our application got approved in December and initial project activities are in full swing.

# The following are the major elements of our application:

The proposed research work addresses identified deficiencies in the current switchgrass production in Ontario. The most experienced producers of OBPC have prioritized the proposed subprojects. The OBPC and OFC executives have reviewed the proposed project outline.

Improved viability of the Ontario biomass industry will result from finding practical solutions to problems identified by current producers. A thriving biomass industry would generate significant benefits, both economic and environmental, in Ontario's rural communities. A major component of this project is to communicate our research results (improved growing and logistics procedures) to current and future biomass producers in form of field days, workshops/seminars, conferences and web accessible documents.

OBPC plans to conduct the proposed research projects on three sites: Nott Farms (Don Nott), Fidale Farms (James Fisher), Eggimann Farms (Urs Eggimann). Other sites can be added or substituted as required. This gives OBPC a base of experienced growers with sufficient acreage to carry out the proposed project. There is sufficient redundancy to reallocate the necessary sub-projects, if needed.

Switchgrass, being a warm season crop, is difficult to establish as a result of high weed pressure and the high dormancy rate of its seeds. Improved weed control, both chemical and mechanical methods, will be investigated in combination with compatible nurse crops. Plots will be replicated, as each site permits. Where possible, treatments will be duplicated at different cooperator sites.

Different harvesting and storage procedures will be tested with careful documentation of the time and costs, both fixed and variable, involved in each scenario.

Two of the identified cooperators participated in the OSCIA project as switchgrass producers. Four more OBPC members participated as switchgrass and/or miscanthus growers. Despite the significant participation level of OBPC members, we can assure that our proposed project includes no duplication of the OSCIA project. Solid progress has been achieved with production techniques of switchgrass. Members of OBPC have been instrumental in our province in reaching the current level of expertise and experience.

Our project addresses significant knowledge gaps that exist in order to achieve a competitive production level of switchgrass. There is no applicable research information available that would meet our requirements in Ontario.

The major reason for this project is to develop improved planting methods and procedures, which result in higher yields and consequently reduced biomass production costs. Practical nurse crop concepts will provide some income during the year of establishment and can be highly beneficial in *"OFC Project, continued on next page*"

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terms of weed control. The potential of an acceptable profit for producers can be eroded or even lost with current handling techniques of harvested biomass. There is a need to optimize the logistics of biomass by minimizing handling and developing suitable outdoor storage options without jeopardizing product quality.

# Short description of planned project activities:

**1. Improve establishment of switchgrass (improve yield / reduce costs):** Since switchgrass is a perennial crop the success level of establishment pays significant dividends over many years.

**1.1 Nurse crop concept:** Evaluate most suitable nurse cropping options with switchgrass to generate income in year of switchgrass establishment and to reduce weed pressure

**1.2 Re-seeding Options:** Partially failed switchgrass fields require some sort of re-seeding. Different situations call for different methods. The objective of this sub-project is to come up with the least costly and time-consuming methods to achieve a satisfactory establishment level.

### 1.3 Weed Control in Existing Stands:

There are only limited herbicide options available in Ontario for switchgrass production. Weed control is a vital component during the 1st and 2nd year, leading to a successful switchgrass production. Perennial and annual weeds call for different actions. The ob-

#### 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

jective of this sub-project is to come up with very practical methods and advice for future switchgrass producers.

2. Improve logistics of switchgrass production (reduce costs): Sub-optimal handling of switchgrass is very costly and time consuming.

Different biomass applications call for specific formats and quality standards. Producers need to get clear answers on how to harvest, bale if appropriate, store and transport the biomass. Currently it is very common that switchgrass bales are moved several times until they end up at their final destination. Instead of having to use an interim indoor storage facility, which includes one extra cycle of handling, farmers often prefer storing the biomass outdoors and transporting it to the final destination once the recipient is ready. The objective of this sub-project is to find ways to store bales in the most cost effective and practical way in an outdoor environment without jeopardizing the required quality.

"OFC Project, continued on next page"

### 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

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This project is very focused on achieving the needed progress for current and potential **switchgrass producers**. The emphasis is on increasing yield and reducing production costs. With OBPC's membership network, the OBPC website, regular OBPC events, active connections and ongoing interactions with OFC, OMAF, OSCIA, OFA, U of Guelph and REAP-Canada we have effective ways of communicating new discoveries and conducting a solid knowledge exchange.

A strong motivation for the grant application is to raise the necessary funds for OBPC events in form of **high quality field days and training events** for current and future switchgrass producers. Educating farmers about biomass practices and procedures is vital according to field trial studies conducted in the US; with increased experience we can achieve lower biomass production costs.

The documented results of this project will be posted on the OBPC and OFC websites. With the OBPC and OFC newsletters we have other effective channels to reach a wide audience. With OFC's Twitter platform we can inform our target audience about the latest events and publications. We also contemplate getting some coverage in the Ag media (e.g. Ontario Farmer, Rural Voice, Better Farming).

Clearly our goal is to make significant progress on a very practical basis, get some much needed answers and solutions and communicate the results to current and future biomass producers. After the completion of this project OBPC will continue to make efforts to achieve further progress based on the outcome of this project. Current OBPC Board members have made a long-term commitment to the establishment of a viable biomass industry in Ontario.

### **OBPC EXECUTIVE**

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### **Recent Blog Posts**

Switchgrass and mushroom production

by Urs Eggimann, February 6, 2014.

Gord Surgeoner inducted into the Ontario Agricultural Hall of Fame by Urs Eggimann, February 5, 2014.

Biomass field day demonstrates crop's potential

by Urs Eggimann, January 29, 2014.

Memorial Fund to honour ag-biomass pioneer

<u>Tiessen</u> by Urs Eggimann, January 29, 2014.

AGM of Ontario Biomass Producers Co-op

by Urs Eggimann, December 23, 2013.

Dean Tiessen, Book of Memories by Urs Eggimann, December 12, 2013. Biomass field day in Grey County - post event press release by Urs Eggimann, December 10, 2013 Dean Tiessen, President of NEF, tragically killed in Brazil by Urs Eggimann, December 8, 2013. Ecovative's mushroom materials by Urs Eggimann, November 22, 2013. OFA biomass: YouTube video "Purpose Grown Energy Crops" by Urs Eggimann, November 7, 2013.