

# Temperate Agroforester

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## A note to AFTA Members

Hello fellow agroforesters! Welcome to the November, 2013 edition of the *Temperate Agroforester*. As incoming editor, I welcome input or feedback about anything that you read in *Temperate Agroforester*. Thanks to Diomy Zamora for his past work as editor and best wishes for success in his new challenge as AFTA President.

A happy Christmas holiday to all AFTA members! In preparation for the next issue in 2014, please remember that, as always, the *Temperate Agroforester* welcomes contributions about agroforestry research, activities or developments that you would like to share with the AFTA membership.

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## Agroforestry People

News about people in the North American agroforestry community

### The AFTA Board of Directors

The AFTA board underwent a major renewal at the General Meeting on Wednesday, June 19<sup>th</sup>, 2013 in Charlottetown, Prince Edward Island. It is indeed exciting to see and we look forward to the new ideas, initiatives that will result from it.

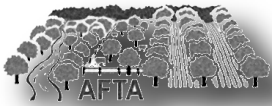
Welcome to new AFTA board members who took their places on the board following the General Meeting. The new board members are: David Smith, Maren Oelbermann, John Munsell, Rich Straight, Tyler Carlson, Ranjith Udawatta, Badege Bishaw and Raju Soolanayakanahally. The board is also happy to have the participation of Dr. Dirk Freese of Germany as an *ex officio* member, representing the European Agroforestry Federation (EURAF).

Congratulations to Diomy Zamora, who has agreed to serve as the new AFTA president. Thanks go to Mike Jacobson, who will continue to serve on the board as Past President.

Thanks and farewell to AFTA board members who recently stepped down from the board after years of service – Larry Godsey, Ina Cernusca, John Kort, Steve Sharrow, Charlie Feldhake and Mike Demchik

The current Board of Directors

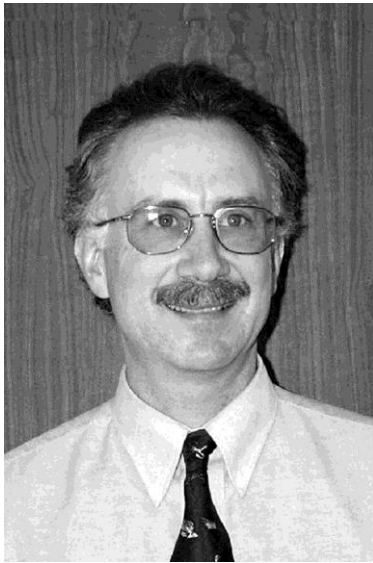
Diomy Zamora – President  
Mike Jacobson – Past President  
Maren Oelbermann – Secretary  
Gary Wyatt  
David Smith  
Raju Soolanayakanahally  
Deborah Hill  
Tyler Carlson  
Dean Current  
Ranjith Udawatta  
Lisa Zabek  
Rich Straight - Treasurer (*ex officio* – representing USDA National Agroforestry Center)  
Dirk Freese (*ex officio* - representing the European Agroforestry Federation)



## Comings and goings

At the USDA, Bruce Wight retired in 2013, after many years of service, including his recent years as the NRCS National Forester. Bruce has retired to his hometown of Ames, Iowa and hopes to continue his involvement in agroforestry in years to come.

Andy Mason will be retiring soon, having served for years with great enthusiasm as the Director of the National Agroforestry Center (NAC). It is hoped that Andy's position will be filled expeditiously. Information about the position can be seen on the AFTA website ([www.aftaweb.org](http://www.aftaweb.org)).



**Andy Mason**

Kate MacFarland is the new Assistant Agroforester at the National Agroforestry Center in Lincoln, Nebraska. She began at NAC in mid-August and will focus on technology transfer, working with Rich Straight to provide agroforestry technical assistance. Previously, Kate worked for the US Forest Service in Washington D.C. as a Natural Resource Specialist focused on woody biomass utilization. Kate has previously worked in Eugene, Oregon as a research assistant with the Ecosystem Workforce Program and then a project manager for the Community Service Center, as well as in agriculture and natural resource management in New York, Alaska, Massachusetts and Senegal. Kate has a B.S. in Natural Resources from Cornell University and a Master's degree in Community and Regional Planning from the University of Oregon.



**Kate MacFarland**



## Coming Events

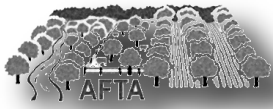
February 10-14, 2014. 3<sup>rd</sup> World Congress of Agroforestry. Delhi, India – website: [www.wca2014.org](http://www.wca2014.org). This conference follows the first WCA in Orlando, FL in 2004 and the second one in 2009 in Nairobi, Kenya. At the 3<sup>rd</sup> World Congress, there will be special sessions on Temperate Agroforestry.

June 4-6, 2014. 2<sup>nd</sup> European Agroforestry Conference. Cottbus, Germany – website: [www.agroforestry.eu](http://www.agroforestry.eu). The recently formed European Agroforestry Federation (EURAF) intends to follow AFTA's model of biennial conferences, holding them on even years, while AFTA's North American Agroforestry Conferences are on odd years. EURAF will welcome North American participation next June.

## Website Links of Interest

[midamericanagroforestry.net](http://midamericanagroforestry.net) - The Mid-American Agroforestry Working Group (MAAWG) was created as a public-private partnership to further agroforestry in the central United States. Partners include USDA's National Agroforestry Center, university partners (Minnesota, Missouri, Iowa State, Wisconsin) and others.

[www.forestry.oregonstate.edu/PNW-Agroforestry-WG](http://www.forestry.oregonstate.edu/PNW-Agroforestry-WG) - The Pacific Northwest Agroforestry Working Group was created in 2013 with a one-day workshop on May 14. The workshop included participants from Oregon, Washington, Northern California and Alaska and included 30 federal, state, university and NGO participants.



## The 13<sup>th</sup> NAAC– say “PEI”

The organizing committee sincerely hopes that all who came to the 13<sup>th</sup> NAAC had a great time! Below are a couple of articles and pictures of the conference. Although the conference itself had great participation and many interesting oral presentations and posters, most registrants will have fond memories of the Kitchen Party - the excellent music of Cynthia MacLeod (fiddle) and Jon Matthews (guitar), the lobster dinner and a chance to relax with new-found friends after an excellent and informative Field Tour. Some registrants said that, although they knew where Prince Edward Island was on the map, they had no idea of the beauty and character of Canada’s smallest province. But all went home, having added the word “PEI” to their vocabularies. Stay tuned for information concerning the venue for the 14<sup>th</sup> NAAC in 2015.

Authors at the conference who deemed their agroforestry research to be publishable were invited to submit manuscripts for a Special Issue of the journal *Agroforestry Systems*. The development of this Special Issue is still underway, but it is expected to be finalized in the first half of 2014.

## The Charlottetown Agroforestry Conference

By: John Morrison<sup>1</sup> and Laura Poppy<sup>2</sup>

<sup>1</sup>AAFC Regional Communication Officer,  
Charlottetown, PEI

<sup>2</sup>AAFC Agroforestry Development Centre,  
Indian Head, SK

Over 100 scientists, land managers, producers and others took in the 13<sup>th</sup> North American Agroforestry Conference (NAAC), June 19-21, 2013, at the University of Prince Edward Island in Charlottetown, Prince Edward Island. Delegates came from all over Canada and the US, with a special welcome for participants from Europe and Morocco. Some people were quite unfamiliar with Prince Edward Island at first but went home with the letters “PEI” rolling effortlessly off their tongues and with a new-found appreciation of the charm of Charlottetown and the beauty of PEI’s countryside and coastline.

Agriculture and Agri-Food Canada’s Science and Technology Branch was a partner in presenting

this 13<sup>th</sup> biennial conference of the Association for Temperate Agroforestry (AFTA). The first one dates back to 1989, when it was hosted by the University of Guelph in Guelph, Ontario.

John MacQuarrie, Deputy Minister of Prince Edward Island Department of Agriculture and Forestry, and Christiane Deslauriers, Agriculture and Agri-Food Canada’s Coastal Ecozone Director-General, welcomed delegates and explained the role of agroforestry in their respective mandates.

For delegates, the conference’s field tour was a great opportunity to see the diversity of agroforestry projects in PEI and to enjoy the beauty of PEI. “Agroforestry takes different forms in different parts of Canada,” said John Kort, an AAFC Senior Agroforestry Researcher at Indian Head in Saskatchewan. “During our bus tours, we got a chance to see how trees are integrated into the agricultural landscape in Prince Edward Island.”





**Raju Soolanayakanahally and Brian Murray discuss the riparian willow site while conference co-chair Chris Pharo looks on.**

Poplars, willows and other tree and shrub species have been successful in protecting biodiversity and water quality in an agricultural setting, as windbreaks and riparian buffers.

Delegates also heard how trees in an agricultural landscape are a source of wood, fruit, nuts, syrup, biochemical and woody biomass for bioenergy and bioproducts, contributing environmental and economic benefits simultaneously.

“The conference was a great venue to exchange ideas,” said Chris Pharo, Regional Sustainable Agri-systems Manager with Agriculture and Agri-Food Canada in Kentville. “People are very interested in what we are doing and some were surprised at the variety of outreach projects we have underway in the Atlantic.”

Scientific posters explained how trees and shrubs are being integrated into the agricultural

landscape all over the world and providing many environmental benefits.

The conference included several European speakers who discussed agroforestry in a European context.

In his presentation, Dr. Jacques Baudry, senior scientist with the National Institute for Agronomic Research (INRA) in France, who is based in Rennes, showed how the role of trees in the ecology of the agricultural landscapes of Brittany and Normandy in France had evolved.



**Keynote Speaker Jacques Baudry addresses the plenary session**

Agriculture and Agri-Food Canada soil scientist Dr. Marie Boehm talked about agricultural greenhouse gases and how trees can help to reduce their emissions.

Dr. Shibu Jose Director of the Center for Agroforestry at the University of Missouri, outlined the state of agroforestry in North America.



## Poplar Council of Canada joins 13<sup>th</sup> NAAC

By: Jim Richardson

Technical Director, Poplar Council of Canada



### The Confederation Bridge joins PEI to New Brunswick

The sun shone, the food was in abundance, and poplar and willow science, technology and practice were in the air as participants gathered for the 13<sup>th</sup> North American Agroforestry Conference in PEI in June, 2013. The annual business meeting of the Poplar Council of Canada took place in conjunction with the conference.

The technical sessions included 64 invited and volunteer oral presentations were given and 25 posters, all under the general theme of ‘Agroforestry – innovations in agriculture’. While not all the presentations were directly concerned with poplars or willows, all were relevant to the interests of Poplar Council members. Several presentations were given by PCC members.

During the conference, a full day was devoted to field visits to agroforestry sites in PEI. One of the highlights of the field day was a visit to a riparian buffer and willow biomass variety trial hosted by Agriculture and Agri-Food Canada scientist Dr. Raju Soolanayakanahally. Raju is a PCC Director and also on the AFTA Board of Directors. The

buffer plantation is designed to mitigate high nitrate leaching into water bodies from adjacent heavily-fertilized fields growing primarily potatoes. The willows were able to benefit greatly from the run-off, achieving the highest recorded willow yield in Canada of 3.2 kg/ha/year (measured on an individual tree basis). Though this particular buffer plantation, established in 2006, could not be fully harvested due to PEI’s provincial regulations applying to a zone within 15 m of water, other trial plots are testing willow varieties for biomass production for energy. Harvested on a 3- or 4-year coppice rotation, yields of up to 60 t dry matter / ha are possible. The primary market for the biomass is seen as farm use, displacing high-priced fossil fuels.



### Dr. Raju Soolanayakanahally shows the riparian willow research site.

A one-day pre-conference tour started in Fredericton, New Brunswick and at the end of the day brought the 20 participants to the conference site in Charlottetown. In Fredericton, the Canadian Bioenergy Centre, part of the Wood



Science and Technology Centre of the University of New Brunswick, was visited. The Centre develops and tests equipment and technology related to use of wood for energy, particularly in the form of pellets, and includes a lab accredited for testing pellets against North American and

European standards.

The Poplar Council annual business meeting included discussion about the possibility of changing the name of the Council to give explicit recognition of willows was discussed. The 2014 annual meeting will be held in Vancouver in conjunction with the 6th International Poplar Symposium on July 20-23, 2014.

The format, facilities and scale of the 13<sup>th</sup> NAAC provided ample opportunities in a relaxed atmosphere for informal networking amongst the participants, while the scientific and technical content of the conference was stimulating and wide-ranging. Traditional Maritime hospitality was offered by the hosts and greatly appreciated by the participants. The highlight for many was an evening ‘kitchen party’ featuring fresh lobsters, mussels and oysters, and associated trimmings, followed by live entertainment with fiddle and guitar music, singer and dancers.



**A multi-species natural shelterbelt separates low-bush blueberry fields, providing habitat for native pollinators.**



## Climate Change, Windbreaks and Potatoes in the Canadian Sub-Arctic

By: Christine Barbeau  
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This project is funded by the Canadian Institute for Health Research (CIHR) under the supervision of L. Tsuji, Ph.D. and M. Oelbermann at the University of Waterloo

A loss of traditional lifestyles combined with exorbitant food prices has led a large majority of First Nations people residing in Canada's North to be unable to acquire nutritious and affordable food. This has resulted in an increase in the rates of health-related problems such as diabetes and obesity. Combined with global warming, many people living in remote regions of the Canadian sub-arctic are facing additional challenges in their daily lives. However, these warming temperatures also offer an opportunity to help promote food security and increased adaptability. One of the few places in the world, the Canadian sub-arctic is expected to experience favorable changes in growing conditions for food production due to warmer and longer growing periods. Not only does food production offer

the benefit of healthier food options but it also offers the opportunity for many people to re-affirm their connection to the land.

Working with First Nation community members in a remote fly-in community along the coast of James Bay, intercrops of bush beans and potatoes were planted within an alley of willows as a windbreak and an open non-treed site to compare the food production potential in each site.

Preliminary results after an initial field season show great potential for food crops to be grown successfully in the sub-arctic with the greatest potato yield coming from the willow-lined treed sites. Not only was the overall potato yield very successful but the project generated great excitement from the community which led to a community-wide potato harvest day. A second field season is currently in progress with the goal that the community will begin to take over control of the sites and hopefully benefit from healthier food options and connecting with their land.



**Potatoes were grown in unsheltered and sheltered fields. The result? Tree shelter > fresh potatoes!!**