

# Wild Blueberry Commission of Maine



Activities, Issues, and News—Winter 2015



## Letter from the Wild Blueberry Commission's new Executive Director

### Special points of interest:

- \* Check out the BetterBlueberry at [www.wildblueberries.com](http://www.wildblueberries.com) pick taste! pick health! pick Wild!

### Inside this issue:

The Commission hires new Executive Director

Wild Blueberry Research and Development Pollinator Health and Safety 2

WBANA Asia Export program 5

Educating students about Agriculture 5

Hello and Happy New Year! My name is Nancy McBrady and I am thrilled to have joined the Wild Blueberry Commission of Maine in November 2014 as Executive Director.



I've been busy immersing myself in the Commission's functions and programs, and look forward to getting to know as many growers and processors as possible in 2015. A native Mainer, I was raised in Lewiston and have been fortunate to spend time in Hancock County since my youth. Some of my earliest memories are of stopping to pick and eat wild blueberries while climbing Cadillac Mountain in Acadia.


My path to joining the Commission covered diverse terrain. I began my career as a management consultant, based in Chicago and New York, before returning to Maine to attend law school at the University of Maine School of Law. Upon graduation, I joined one of the state's largest law firms and practiced environmental, land use, and municipal law. For over seven years, I represented private businesses and individuals in

the regulated community on issues ranging from permitting energy facilities to Superfund site cleanups, and frequently appeared before the Maine Board of Environmental Protection, the Department of Environmental Protection, and municipal boards. I am familiar with many of the state and local requirements that you may face in your businesses, such as vernal pool, water quality, wetland, and setback issues.

My environmental, regulatory, and policy experiences are great assistance as I transition into my new role at the Commission. I would like to thank the Commissioners for being so welcoming and helpful, as well as David Bell, who has been an incredible resource and advisor as I get up to speed. Patricia Kontur and Nancy England at the Commission are a fantastic team and great support. However, there is still much for me to learn. I look forward to building relationships and gaining additional knowledge from all of you going forward, as well as to working with the talented researchers and extension specialists at the University of Maine.

My personal priority is to help support and promote the economic growth and

prosperity of the Wild Blueberry business in Maine. This unique crop has been cultivated in Maine for over 150 years, and has innovated and adapted over time to become a critical element of Maine's economic climate. In particular, the remarkable success of the Wild Blueberry crop over the past 30 years has been a product of the hard work by the growers and producers as well as from vital support and investments in the university's research and development programs. This growth can and must continue. I will work to secure state, federal and other funding to build upon the important research to date at the university regarding IPM, ICM, and food safety. I will also be a strong advocate for Maine's Wild Blueberry business at the Maine legislature and in Washington D.C., and I will continue to advance marketing and promotion opportunities for Wild Blueberries regionally, nationally, and internationally.

I am looking forward to meeting many of you at upcoming events in 2015! In the meantime, feel free to give me a call as well – I can be reached at 207-581-1475 and at [nancy.mcbrady@maine.edu](mailto:nancy.mcbrady@maine.edu). 

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**There are 2.6 million bee colonies in the U.S. and 1.6 million of these colonies are needed to pollinate the almond crop. In total \$18 billion dollars' worth of U.S. crops rely on bees for pollination," said David Epstein, USDA Office of Pest Management Policy.**

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## Wild Blueberry Agriculture is About the Bees

University of Maine's Cooperative Extension and the Maine Department of Agriculture, Conservation & Forestry sponsored a Pollinator Health and Safety Conference in South Portland that took place November 20, 2014. The conference was very well attended, with 255 registered attendees ranging from commercial beekeepers, pesticide applicators, growers, producers, state and federal regulators, and backyard bee enthusiasts.

Speakers during the conference addressed the possible reasons for bee mortality or "colony collapse disorder" in the U.S. and Maine, the status and potential benefit of native Maine pollinators, and the risk that pesticides and their use have to pollinators. Best management practices for pollinator safety in the U.S. and ongoing EPA efforts for

pollinator protection were also discussed.

A common theme acknowledged by presenters is how complex the issue of bee health is and that colony health is affected by many factors not the least is common and invasive diseases. Presenters routinely stressed that not one particular pesticide or practice is responsible for bee decline either in Maine or the rest of the country. Overall, the message from experts is that improving pollinator health will take additional time, money, research and collaboration between all constituencies, public and private.

One of many interesting Maine facts is that beekeeper numbers have doubled since the 1990's to around 1,000 with a total of 125,000 beekeepers in the U.S. Also, over the last couple of decades the increase in wild blueberry production has coincided with

an increase in hives leased in Maine for pollination. An estimated 80,000 hives were brought to Maine to pollinate wild blueberries in 2014.

Maine conference speakers included: Tony Jadczyk, Maine State Apiarist; Dr. Frank Drummond, UMaine School of Biology and Ecology; and Henry Jennings, Director Maine Board of Pesticides Control. Government experts David Epstein, USDA Office of Pest Management Policy; and Robert Koethe, Biologist, EPA Region 1 Office – Boston, MA presented important pollinator information to the participants. University specialists John Skinner, Professor and Apiculture Specialist, University of Tennessee and Dr. Nancy Ostiguy, Pennsylvania State University, Department of Entomology presented their latest research findings about bees. 🐝

## Maine Specialty Crop Block Grants awarded to Commission for UMaine in Orono research

The Wild Blueberry Commission of Maine collaborated with University of Maine in Orono research faculty to submit Wild Blueberry Integrated Pest Management (IPM) and Food Safety research proposals for the 2014 Specialty Crop Block Grant program. The Department of Agriculture, Conservation and Forestry (DACF) coordinates this competitive grant program on behalf of the U.S. Department of Agriculture – Agriculture Marketing Service. Commissioner Walt Whitcomb of the DACF

outlined specific priority areas for Maine grants including; "enhancing food safety research and education, primarily in relation to new FDA rules regarding improved handling and processing of specialty crops."

In the spring of 2014, the Wild Blueberry Commission staff worked closely with UMaine microbiologist, Dr. Vivian Wu, to submit a grant to study post-harvest food safety processing. The food safety block grant award of \$57,000 addresses two USDA objectives, "enhancing food safety" and "developing Good

Manufacturing Practices" for small farmers, packers, and processors.

Drs. David Yarborough, Seanna Annis and Frank Drummond of the Wild Blueberry Research and Extension team at the University of Maine also submitted a Wild Blueberry IPM proposal in partnership with the Wild Blueberry Commission for researching weed, pest and disease control. These IPM areas are the most important crop production management issues facing growers today.

*continued on page 3*

### *Specialty Crop Block Grants, from page 2*

Drs. David Yarborough, Seanna Annis and Frank Drummond will collaborate on this 2015-16 project that will provide over \$110,000 for University Wild Blueberry research and Extension programs.

The Wild Blueberry IPM proposal is to conduct research with the following objectives; First: Evaluate herbicides with different modes of action to effectively control resistant weeds; Develop effective weed resistance strategies and educate growers on weed resistance management.

Second: Use weather station network data and applied research to provide growers with disease forecasts to reduce crop loss and fungicide use; develop new IPM disease and insect management enhancements including models on emergence of Spotted Wing Drosophila and Blueberry Maggot fly; Conduct a fungicide evaluation study to provide data on mummy berry and Botrytis blossom blight and leaf spot diseases and reduce fungicide resistance; Third: Develop an IPM program for blueberry tip midge and determine the impact of wild blueberry damage from sap feeding insects resulting from

current fertility and disease management practice.

Over the last few years the Advisory Committee and Commission have been working with UMaine Wild Blueberry researchers to continue to pursue competitive grants; however, many of these grants are only a couple of years in duration and often 4-6 years of IPM research is necessary to prove a practice works consistently. The Commission will continue to work with the UMaine wild blueberry research and Extension team on conducting much needed research and seeking additional avenues for funding. 🍷

### **Spotted Wing Drosophila Update by Dr. Frank Drummond**

We have now survived our third year of the Spotted Wing Drosophila (SWD) invasion. What have we learned in the three years? Well, it appears that Maine is a very marginal winter habitat for this critter. This fly pest does overwinter successfully, but at very low levels. This means that the population, which builds up to phenomenally high levels by November is knocked down to such low numbers by the spring that it does not buildup to detectable levels again until late July or early August. This has been the case for three years in a row now. This is a boon to wild blueberry since it means that many of our fields can be harvested before it becomes a problem and starts laying eggs in the berries.

However, not ALL of our crop can escape infestation and so monitoring for this pest is critical. In fact, several growers currently are experiencing damage from SWD, but do not

realize it because of a lack of monitoring. Baited traps are our only means of monitoring flies. Improvement of our trapping system is a work in progress. Currently, we feel that a red Solo® cup trap with 1/8 inch holes drilled around the top edge, and with a yellow sticky card suspended inside above the liquid bait, is the most effective option. So far, it has been observed that a fermenting sugar syrup bait has been far superior to all others tested, even apple cider vinegar, although the vinegar is much easier to use. The recipe for the fermenting sugar syrup can be found on the wild blueberry website – wildblueberries.maine.edu. Traps should be checked twice a week if possible, or weekly at least.

Research in the last several years in non-sprayed fields has shown us that more often than not, detectable maggot infestation is not detected until after captures of male

SWD occur and on average not until an average of 11 cumulative males have been captured / trap. We need more research to determine if a male SWD threshold will be consistent from year to year. One recommendation for the 2015 growing season is NOT to apply insecticides as soon as the first SWD fly is captured in a trap, but upon the capture of the FIRST male SWD, to start taking weekly fruit infestation measures. Estimation of fruit infestation is fairly easy. It involves collection of 300-400 fruit throughout the field. Then the fruit is placed in a salt-water solution in a gallon Ziploc® or similar brand bag (methods on the wild blueberry website) and gently crushed. The crushed fruit is allowed to soak in the solution for 15-30 minute then strained and maggots are counted. Even though several maggots can be found in a single fruit, dividing

*continued on page 6*

## 2014 Agricultural Council of Maine Legislative Tour showcases Wild Blueberry growers

The Agricultural Council of Maine (AGCOM) is state-wide group comprised of grower groups and those entities that support farmers. There are about 22 groups on the AGCOM Board, as well as representatives from the Maine Department of Agriculture, the University of Maine Cooperative Extension, and the University of Maine, Maine Agricultural and Forest Experiment Station (MAFES). Quite often representatives

from the United States Department of Agriculture and from our Congressional Delegation will attend AGCOM meetings and report on national issues relevant to the group.

AGCOM hosts a legislative tour every other year in various regions of the state. The tour is conducted to educate and inform legislators and candidates about the strength and diversity of Maine's agriculture and

aquaculture sectors. In 2014, the Wild Blueberry Commission supported the tour with sponsorship and the Commission Director of Programs, Patricia Kontur, and Paul Sweetland of Coastal Blueberry, spoke to the legislators at Seven Tree View Farm in the mid-coast growing area. Paul talked to the legislators about the beneficial information provided by the University of Maine Cooperative

*continued on page 6*

## Eastern States Exposition Wrap Up – The Big E 2014

With the overall good weather occurring over the course of the 17 day Big E in September 2014, attendance was excellent! Maine Day at the Fair on the last Saturday was well attended and the Wild Blueberry Queen, Elly Maria Beaubonis of Union, selected at the Union Fair and State of Maine Wild Blueberry Festival in August, came to the Maine building on Maine Day in regalia. The Wild Blueberry Queen and Crown Princess Rebecca Hilt stayed for photos with fairgoers who came to "Maine" to enjoy entertainment and Maine foods and crafts. Early on, Maine Day staff from all over the fairgrounds came to visit "Maine" and enjoyed their fill of wild blueberry crisp and the Maine sponsored breakfast. If you are interested in a giant, Big E sized event, check out the vast entertainment offerings and exhibits at the Fair at the website at [www.thebigE.com](http://www.thebigE.com)

The Wild Blueberry Commission of Maine wrapped up another successful Big E



*Crown Princess Rebecca Hilt (left) and Queen Elly Beaubonis with family (left to right): Sherwood and Jeff Hilt, Wendy Reinemann and Mary Heckman.*

on the Avenue of States. We worked with new foodservice managers who are retired caterers from nearby Wilbraham, MA. Betsy and Stuart Johnsen plan to return for 2015 and provide fairgoers with the best customer service and quality Wild Blueberry products in the Maine building. Fifteen volunteer growers and their friends and family staffed the Public Education information booth at the Fair. As always we appreciate growers taking time out to

come to the Fair, and talk to people about the special Maine wild blueberry. In 2014 we upgraded the booths with new logo promotional materials. The designs present a colorful professional exhibit in the Maine Building and were well received by volunteers and fairgoers. We thank those who made 2014 such a successful year! We invite veteran and new volunteers to join us at the Big E in the Fall of 2015. An invitation will be distributed this spring! 🍷

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**Check out Agriculture Education and Events!**

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## Read ME Agriculture program in Maine Schools - Wild Blueberry Reading Book and Activity Book

In 2014-15 the Wild Blueberry Commission is working in partnership with Maine Agriculture in the Classroom (MAITC) to distribute the Wild Blueberry reading book called **Wild Blueberries for ME** and the accompanying **Activity Planning Book** for Pre-Kindergarten to 4th grade teachers, students and classrooms. These books are part of a series being developed by MAITC in partnership with grower groups that teach students about specific Maine crops and livestock as well as farming in Maine. Volunteers

who are interested in helping students learn about Wild Blueberry agriculture can sign up to read the **Wild Blueberries for ME** book in Maine classrooms this coming spring by going to the MAITC website at <http://www.agclassroom.org/ME/programs/readme.htm> or emailing [maitca@maine.gov](mailto:maitca@maine.gov) for the Read ME agriculture program from March 23-27. The book and Activity Planning book are used for agriculture in the classroom lesson planning. If you want to read at your local school, you may want to ask local teachers to sign

up with MAITC. The themes of the **Wild Blueberries for ME** reading book are Wild Blueberry history and geography; the life cycle of the crop by season including pollination, simplified concepts of Integrated Pest Management, and harvesting; the processing, storage and shipping of Wild Blueberries; and the nutritional benefits of the fruit and how Wild Blueberries are used in products and consumer recipes. For more information about MAITC and the **Wild Blueberries for ME** reading book please visit their website listed above. 🌱

## WBANA Promoting Maine Wild Blueberries in China, and S. Korea

Patricia Kontur, as representative for the Wild Blueberry Association of North America – U.S. (WBANA) export program, traveled to Shanghai, China and Seoul, S. Korea in October 2014 to promote Maine Wild Blueberries. At Patricia's first stop, she worked with Food Export in market representatives to coordinate the Wild Blueberry promotion and present information to Chinese media to kick off a bakery menu promotion. The media representatives came from lifestyle magazines and newspapers to pass the word about the special qualities of Maine Wild Blueberries. Valerie Brown, the Director of the USDA Agricultural Trade Office in Shanghai, was also on hand to speak about U.S. Wild Blueberries. About 25 media representatives attended the kick off event where 7 wild

blueberry products including *Wild Blueberry Mousse, Cheese cake, Madeleine, Muffins, Pie, Pudding and Tarts* were showcased at a Puxi neighborhood outlet in Shanghai. Marco Polo is a popular Shanghai based retail bakery outlet that offered the Wild Blueberry products from November 17th to December 17th. The promotion sold \$300,000 worth of Wild Blueberry products at Marco Polo outlets.

Patricia's second stop was in Seoul, S. Korea to work with Food Export in market representatives to conduct a retail promotion of IQF wild blueberries in the Korean market. Lotte Mart has been a customer of U.S. wild blueberry suppliers for a number of years. Patricia met with the Lotte buyers of U.S. wild blueberries and they are interested in further promotion and PR for

IQF wild blueberries in their Seoul retail stores for 2015.

With the decline in tariffs paid by U.S. exporters due to the Korea Free Trade Agreement and import restrictions on U.S. cultivated blueberries, Wild Blueberries are seeing increasing demand. Chilean IQF and fresh cultivated blueberries are also available in Korea, and Oregon is the only state in the U.S. that has met Korea government certification requirements for imports. Patricia also met with a number of traders and importers during the one-on-one meetings at the trade mission event. Korean buyers have high interest in purchasing wild blueberries and carving out a niche in the Korean market for the nutritional superfruit. For more information about export of agricultural products, go to [foodexport.org](http://foodexport.org). 🌱

### *Spotted Wing Drosophila Update, from page 3*

the number of maggots by the number of fruit collected gives a liberal or maximal proportion of infestation. Based upon research in 2013 and 2014, it is anticipated that between one and several weeks may transpire between the first male SWD captured in traps and the first initial detection of maggots that are observed. This delay can be important. It may minimize insecticide applications or allow fields to be harvested without spraying.

Other research studies have determined the efficacy of many of our registered insecticides and the length of time that they will protect the crop from infestation. In addition, we have shown that SWD females are most active in the mornings and that fruits on the top sections of stems are more likely to be infested.

This is important because:

1. Applications can have greatest efficacy in the morning, especially with insecticides that have a short persistence;
2. That low volume fine droplet applications can provide good protection; and
3. That full canopy penetration of a spray may not be necessary.

Research on non-insecticidal controls are on-going, some showing promise such as netting and insect-killing microbial formulations, others not so promising such as mass trapping of flies. We have also found that SWD move into fields from the forest very quickly and at an alarming rate such that it is doubtful that perimeter sprays will be as effective as they are with blueberry maggot fly, but this tactic needs to be tested directly. The last discovery that was made last summer

is that some fields have quite an army of hungry predators in them that rip apart and eat SWD pupae after the larvae emerge from the fruit and drop to the ground. In 4 – 5 days the SWD pupal population can be diminished 60-80%...not enough to allow for effective control, but population reduction is a help. The predators appear to be both insects such as ground beetles and mice and birds.

The 2015 research season will continue to study action thresholds based upon male SWD captures, perimeter sprays, new insecticides, the spatial pattern of berry infestation in fields (greater infestation near field edges?), and other questions germane to this new pest's basic biology. If you have any ideas that I have not thought of please let me know...I have always found outside ideas very valuable, especially from those battling in the trenches. 🐞

### *Agricultural Council of Maine, from page 4*

Extension about IPM management and how the Wild Blueberry industry has grown as a result of following research recommendations. Patricia rode on the bus and addressed legislators as they travelled from farm to farm in Knox County. Patricia's remarks emphasized the positive economic impact of wild blueberry growing and processing in the state of Maine. Knox County has the third largest acreage and number of producers of wild blueberries after Down East, and statewide, the wild blueberry industry contributes

over \$250 million and provides approximately 2,500 jobs. 2012 USDA stats show that there are 75 farms with about 1900 acres in wild blueberries in Knox. We also stressed the importance of the relationship between Wild Blueberry Advisory Committee and the University of Maine (Land Grant University) and Blueberry Hill Farm (MAFES) that has existed for more than 40 years.

Donna Dolham is a grower who operates Seven Tree View Farm in Warren, Maine, and she was special host when she met with the Legislator group and shared her experience as a third generation wild blueberry grower and fresh pack processor at her family's

farm. Donna's family farm is owned by her mother Dorothy, and it is one of many in the coastal area of Maine that are threatened by real estate development pressure and the accompanying high taxes. Recently Dorothy Dolham applied to the Department of Agriculture, Conservation and Forestry's "Farmland Tax Law" program. The program changes real estate status and values Seven Tree View farm at its current use as agricultural land. The program reduces the amount of property taxes owed and allows seniors like Dorothy to stay in their family home - a farm owned across generations. 🐞

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**In July 2014, the AGCOM Legislative Tour covered farms in Knox and Lincoln counties**

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