

Summer Meeting

Wild Blueberry Field Day

Blueberry Hill Farm, Jonesboro, ME
 Wednesday July 15, 2009

*Compiled by David E. Yarborough
 Blueberry Specialist, University of Maine Cooperative Extension*

2009 Wild Blueberry Summer Field Day Agenda

Blueberry Hill Farm Wild Blueberry Research Facility

10:30 – 11:00 A.M.	Crop Discussion (Light Blue Metal Building) Crop Insurance Video - Pat Maher, Crop Insurance Education Program
11:00 – 11:55 A.M.	Wild Blueberry Health Speak - Susan B. Davis, MS, RD, Nutrition Advisor, WBANA Wild Blueberry Association of North America Marketing Update - John Sauve, Swardlick Marketing Group Wild Blueberry Commission Update - Dave Bell, Wild Blueberry Commission of Maine
11:55 – 12:00 P.M.	30 Year Service Award Presentation - John Rebar, Director, University of Maine Cooperative Extension
12:00 – 1:30 P.M.	Cookout
1:30 – 3:30 P.M.	Research Demonstrations: Gypsum Evaluations - James Santiago, UMaine Mummyberry Disease Forecasting Method - Seanna Annis, UMaine Research Into New Management for Blueberry Maggot Fly - Frank Drummond, UMaine Ant Research Update - Beth Choate, UMaine Management of Blueberry Flea Beetle - Judy Collins, UMaine Research at The University of Maine on Honey Bee Colony Collapse Disorder (Ccd) - Jennifer Lund, UMaine Research on Bumble Bee Biology and Ecology - Sara Bushmann, UMaine Mulching Effects on Wild Blueberry Water Demand - Jim Hunt, USDA ARS Weed Management Research - Dave Yarborough, UMaine Demonstration of Smucker Wiper Equipment - Dave Yarborough, UMaine Two Recertification Credits

WILD BLUEBERRY CROP PROSPECTS

Maine - The crop in Maine could be an above average one this year. We had a wet fall and a mild winter with good snow cover, so very little winter injury has been seen. The dry weather during early pollination increased the potential crop in most areas except for the Downeast coast which had extended rain during bloom. Despite continued concerns on the bee decline, honeybees were available at a higher price. We had 66,000 bee hives brought into the state for pollination, and the weather was conducive for good pollination except at the end when it turned wet and cold. We have had light insect pressure but there were plenty of infection

times for mummy berry disease and those who did not protect the plants had significant injury from this disease. For precipitation at Blueberry Hill Farm in April we had 6.6 inches, in May we had 4.75 inches and in June we had a near record rainfall at 8.65 inches. So far in July we have already had 3.04 inches, which exceeds the 1 inch per week needed. The extended cool temperatures and lack of sun have delayed fruit development. When we get some sun, and if we continue to get adequate moisture, I expect a better than average crop of 90 plus million pounds.

Nova Scotia – Weather has been overcast and misty. It is difficult to tell what this weather will do for the crop. The hope is that an average crop of 40 million pounds will be possible

Quebec – Quebec expects to have a good crop - perhaps up to 75 millions pounds. The spring was cooler than normal but during polination they had sun and warm weather, so they had good polination. Recent weather has been cool and with some precipitation.

New Brunswick – In the northeast part of New Brunswick they had poor weather conditions during bloom - it was cold and wet. For these reasons they are expecting only an average crop of 25 million pounds.

Prince Edward Island – The crop in PEI is looking good so far. They did start out in May with lots of Monilinia blight conditions which were conducive to infections, and this has proven to give lots of symptoms showing up in fields in the western part of PEI where typically Monilinia has not been a problem. There are also spots in the east as well. Pollination weather was variable. When the weather was good it was really good, but when it was bad, it was quite bad with lots of rain and wind. However, fruit set looks very good overall. They had had some outbreaks of leaf-tier and spanworm during pollination, but these seem to be OK. The weather has been cool and cloudy during late June/early July. They expect yield to be some where near the 10 million lb. mark once again.

Newfoundland – No report available, but expect an average crop of 0.5 million pounds.

Wild Blueberries (total wild crop is estimated at about 240 million pounds).

CROP SITUATIONS IN OTHER AREAS

Cultivated Blueberries - Total cultivated production not yet available but about 70% will be sold fresh and 30% processed – an effort is being made to market more of the crop as fresh .

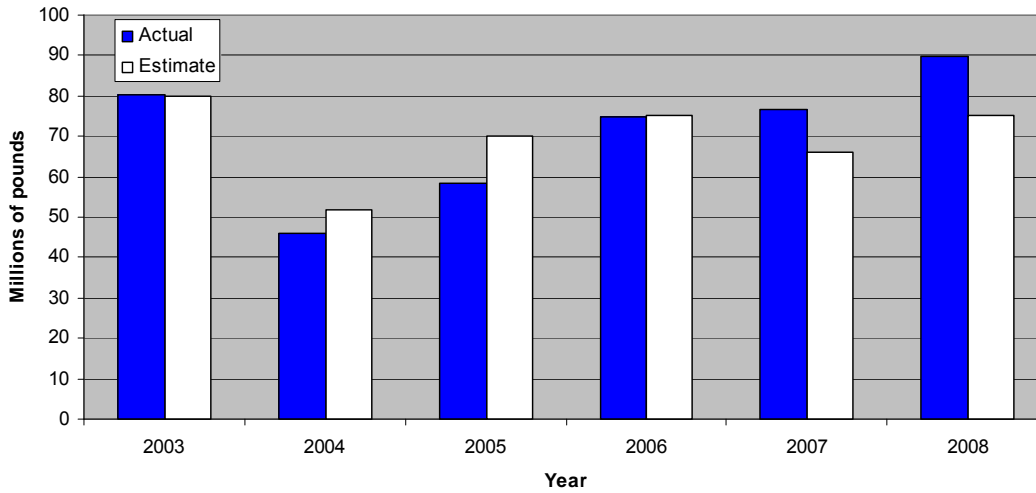
Michigan/Indiana - Excessive cold temperatures of -26°F caused winter kill and a wet fall. Ample snow and a wet spring has reduced the potential crop to more of an average, so crop estimate is 88 million pounds for MI and 2.5 for IN.

New Jersey, NY, ON - Estimate a crop of about 50 million pounds with 45 million fresh and 5 million processed.

Pacific Northwest (WA,OR,BC,CA) - Estimate a good crop with OR about 10% higher at 50 million pounds and BC is estimating a bumper crop of 90 million pounds with about 40% being sold as fresh.

Southern States (NC,GA,AR,FL,MS,AL) - A number of freezes (14 to 16) took place from January through March which reduced the FL crop by 10-20% and the highbush crop by 50%. An increase in the rabbiteye crop for fresh is expected. No berries from the southern states other than North Carolina go to be processed.

Maine Wild Blueberry Crop NASS Estimate vs Actual 2003-2008



Blueberry Crop 2004-2008

CULTIVATED HIGHBUSH						
REGION	2004	2005	2006	2007	2008	5-YR AVG
Midwest						
Michigan, IL, IN, other	81.5	77.3	86.4	94.6	113.8	90.72
Northeast						
New Jersey	34	46	52	54	59	49
NY	3.5	1.0	2.2	2.5	2.5	2.34
West						
British Columbia	63	65	63	70	70	66.2
OR, WA, CA	57	51	64.6	91.9	89.1	70.72
South						
North Carolina	22.9	26	25.5	14.5	28.5	23.48
AR,FL,GA,AL,MS	34.1	32.7	45.4	26.7	56	38.98
Total Cultivated	296	299	339.1	354.2	418.9	341.44
WILD LOWBUSH						
REGION	2004	2005	2006	2007	2008	5-YR AVG
Maine	46	58.4	74.6	76.5	89.95	69.09
Quebec	45	44.4	69.2	44	72	54.92
Maritime Provinces						
Nova Scotia	41.2	31.5	30.6	26.4	40	33.94
New Brunswick	18.5	19.7	20.4	26.1	33.6	23.66
Newfoundland	1	1.5	1	0.5	0.6	0.92
Prince Edward Island	8.5	8	8.4	8.3	9.8	8.6
Total Wild	160.2	163.5	204.2	181.8	245.95	191.13
TOTAL COMBINED PRODUCTION						
Cultivated & Wild	456.2	462.5	543.3	536	664.9	532.57

Wild Blueberry Advisory Committee
Research & Extension Projects for 2009 (*principle investigator*)

FOOD SCIENCE AND BIOSYSTEMS ENGINEERING

1. Mechanisms Through Which Wild Blueberries Affect Structural and Functional Characteristics of the Arterial Wall Related to Endothelial Dysfunction in Spontaneously Hypertensive Rats (Klimis-Zacas)
2. Microbial Control for Wild Blueberries and Their Natural Antimicrobial Properties (Wu)

ENTOMOLOGY - INSECT PEST MANAGEMENT (*Drummond*)

1. Insect Work and Control Tactics for Blueberry Insect Pests & Program Base
2. Insect Pest Management Strategies
3. Biology and Ecology of Blueberry Pest Insects and Beneficial Insects (including Bees and Pollination)

DISEASE MANAGEMENT (*Annis*)

1. Research on Fungal Diseases Wild Blueberry 2009 to 2010

PLANT NUTRITION (*Smagula*)

1. Effect of Soil pH on Nutrient Uptake
2. Evaluation of the Effects of Different Rates Gypsum (CaSO₄) Nutrient Uptake by Wild Blueberry
3. Comparison of Timing of Gypsum Application on Soil Nutrients and Leaf Nutrient Uptake of Wild Blueberry
4. Survey of Blueberry Soils and Reaction to Gypsum

WEED MANAGEMENT (*Yarborough*)

1. Evaluation of Fall Treatments of Chateau for Weed Control in Wild Blueberries
2. Evaluation of Tribenuron Methyl Timing for Bunchberry Control in Wild Blueberries
3. Evaluation of Tank Mix of Callisto and Select for Post Emergence Weed Control in Wild Blueberries
4. Evaluation of Spot Treatments of Nicosulfuron to Control Black Bulrush
5. Comparison of Large-Scale Herbicide Applications on Broadleaf Weeds and Grasses When Applied Using a Mechanized Sponge Wiper

IRRIGATION (*Yarborough, Hunt*)

1. Effect of Mulch on Water Use in Lowbush Wild Blueberry Production

EXTENSION (*Yarborough*)

1. Wild Blueberry Extension Education Program Base
2. Wild Turkey Habitat Use and Foraging Behavior in Wild Blueberry Fields

Maine Wild Blueberry Research and Extension Priorities

Wild Blueberry Advisory Committee
April 2009

Integrated Crop Management (ICM)

- Determine the optimum nutrient levels for plant and soil health properties and yield.
- Determine if plant nutrients use can be optimized by the addition of gypsum.
- Track and determine the changing range of weeds in managed wild blueberry fields.
- Evaluate weed management options.
- Determine what weed management practices are needed to restore fields after land leveling.
- Analyze and quantify in field native and commercial bee foraging habits.
- Expand the knowledge of the biology and ecology of known and potential wild blueberry pathogens.
- Determine if foliar applications of nutrients suppress foliar diseases.
- Test the efficacy of organic and synthetic potential disease control materials.
- Refine and field validate Maine based mummy berry prediction models.
- Determine the biology and ecology of beneficial insects and insect pests.
- Evaluate the effectiveness of cultural, biological and synthetic insect control options with reduced risk materials being the priority in context of an ICM system.
- Evaluate the impact of wild turkey foraging and waste on managed wild blueberry lands.
- Determine wild blueberry plant water use requirements across the 2 year crop cycle.

Processing and Food Safety

- Investigate new options to maintain and improve the food safety margin for frozen wild blueberries.
- Offer food safety training for fresh pack operators to comply with Good Agricultural Practices (GAP).

Health Benefits

- Research the effect of wild blueberry consumption on the vascular system in animal models.
- Determine the antibacterial properties of wild blueberries in the digestive system.

Education

- Provide recommendations from research results through the website, wild blueberry schools, and ICM field days.
- Assist wild blueberry growers in determining site specific ICM practices.

WILD BLUEBERRY COMMISSION OF MAINE & WILD BLUEBERRY ADVISORY COMMITTEE

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One Seat Vacant