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Welcome to ON Organic

Evan Elford, New Crop Development Specialist, OMAF & MRA

As we head into the field season, learning a few new tips on effective organic weed management may be helpful in reducing time and costs spent in the field. This past winter, Purdue University hosted a webinar series on organic weed management. The webinars and slides are free and available on the Organic Thinking website: <http://www.ydae.purdue.edu/oarei/webinars.html>

We want to hear from you! Are there livestock or crop management issues you are facing or would like to learn more about? Please let us know so we can address it for you (and others) in an upcoming newsletter!

As always we welcome your comments and any suggestions for topics in the newsletter.

Thank you once again to our contributing authors and to EFAO, OCO and others who pass along our newsletter on a regular basis.

Subscription to this newsletter is easy and free. For details go to the webpage:

<http://www.omafra.gov.on.ca/english/subscribe/index.html#organic>

The newsletter is also posted on the OMAF and MRA website at:

<http://www.omafra.gov.on.ca/english/crops/organic/news/news-organic.html>

The French version of these newsletters is available at:

<http://www.omafra.gov.on.ca/french/crops/organic/news/news-organic.html>

The OMAF and MRA Organic pages are linked from:

<http://www.ontario.ca/organic> and <http://www.ontario.ca/biologique>

The ON Organic Team

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Jacquie De Fields – OMAF and MRA, Client Service Representative

Julie Gamache – OMAF and MRA, Client Service Representative

The Importance of Fertility

Brian Pogue, Beef Cattle Lead, OMAF and MRA

The beef market is seeing prices that are unprecedented! The demand is very strong for a limited supply. For a cow calf operation, calving rate has always been critical but with these prices it is emphasized. The goal is to have 100% weaned calves for every cow that is exposed for breeding. In addition, to have these calves born with a 60 day calving season, a realistic goal is 90%.

There are a number of contributing factors to herd fertility – the overall health of the cowherd, the condition of the cowherd and the overall management of the cow herd. There are times when things with the cows are perfect but an issue with the bull has caused a conception problem. It is important to monitor the bull(s) for health, condition and activity. Bulls that are lame, injured or undernourished will have difficulty settling cows.



Figure 1: Mature bull tested and ready to go to work.

It was a cold hard winter. Herdbulls should be checked for frostbite affecting their scrotum.

It is a good practice to have your veterinarian conduct a complete breeding soundness evaluation (BSE) on your bull(s) before the breeding season. This will include a physical examination of the external and internal reproductive organs.

A BSE also provides an assessment of semen quality and quantity. Semen testing will assess the motility, morphology and volume.

Results for mature bulls are generally pass or fail. Young bulls (less than 15 months) may get a questionable result, and if so should be tested again in a few weeks as they become sexually mature. Keep in mind that 60 days are necessary for the development of sperm, so sudden changes should not be made at least 60 days before the breeding season.

Although the bull sales season has passed, there are always some good bulls available. Take advantage of an expert in the selection of a new bull to ensure he meets the goals of your operation.

With the purchase of a new bull come some extra management procedures. Generally, bulls will lose weight during the breeding season. Ideally, time should be allocated for adjustments to your operation including the ration. Muscle tone is important for the breeding season, so prior to the breeding season bulls should be kept in an area where there is enough room for exercise. A general rule of thumb for young bulls is exposing them to one cow for every month of age.

Watch the bull closely and keep track of which cows are being bred and look for any repeats. Some extra time monitoring the herd should eliminate any surprises at preg check time.

Organic Raspberry Production Under High Tunnels

Guest Author: Eric Hanson, Department of Horticulture, Michigan State University

We started a project in 2009 to develop production recommendations for organic raspberry and sweet cherry production under high tunnels. The cherry work is headed by Greg Lang. Others involved in the project are John Biernbaum, Dan Brainard and Adam Montri (Horticulture), Rufus Isaacs and Matt Grieshop (Entomology), Annemiek Schilder (Plant, Soil and Microbial Science) and Vicki Morrone (Community Sustainability).

The work is being conducted on the MSU campus in a 1.1 acre range of nine 26 x 200 foot interconnected tunnels (Haygrove Tunnels Ltd.) on a Spinks sandy loam soil. Three bays each are devoted to raspberries, sweet cherries, and mixed plantings of raspberries and sweet cherries. The raspberry bays were planted in 2010, each with a row of the varieties Himbo Top, Joan J, and Polka. Tunnels are covered each year with Luminence THB poly from May through October.

Organic Raspberry Production Under High Tunnels

Cont'd

Guest Author: Eric Hanson, Department of Horticulture, Michigan State University

Initial efforts in raspberries targeted fertility management approaches. We compared early spring applications of dairy manure based compost and McGeary Organics 8-1-1 fertilizer, each applied at two rates. Products were incorporated in the row before planting in 2010, and applied to the surface in 2011 and 2012. Incorporated compost caused some salt damage to the raspberries. However, soil salt levels had declined to background levels by the following spring, indicating that tunnel soils can be easily leached by off-season precipitation when tunnels are uncovered during the winter. Both compost and fertilizer appeared to supply adequate nitrogen early in the season, but leaf levels were marginally deficient later in the season. Once the tunnel plastic is installed in May, the soil profile begins drying out except under the trickle irrigation line. Nutrient materials on the soil surface dry out and contribute little available N late in the season. Potassium and sulfur levels were also deficient after three years. In 2013, we began supplementing solid nutrient sources by fertigating weekly during the growing season with liquid fish (2-2-0). This worked well and did not result in emitter plugging.

Berry yields in 2011 and 2012 were unaffected by fertilization treatments, but varieties differed in 2011 and 2012 (Table 1). 'Joan J' was the highest yielding in 2011, and 'Himbo Top' was the most productive in 2012. Varieties produced statistically similar yields in 2013. Overall yields have been lower than typical for conventional raspberries under tunnels, which can exceed 18,000 lb per acre. Several factors likely limited yields. Nutrient deficiencies and insect pests likely reduced yields to some degree. The 2012 season was very hot and yields may have been reduced by heat stress. The 2013 season was cooler. Plants began fruiting in early August, but volumes diminished by mid-September even though temperatures appeared ideal.

Table 1. Organic raspberry yields (lb/acre) in high tunnels, east Lansing, MI.

Variety	2011	2012	2013
Himbo Top	9,000b	7,500a	7,200
Joan J	11,500a	6,800b	6,700
Polka	9,500b	6,600b	6,200

The most important insect pests have been spotted winged drosophila (SWD) and spider mites. Fruit infestation from SWD began in early September, 2011 and early August, 2012 and 2013. We applied alternating sprays of Entrust and Pyganic in 2011 and 2012. These treatments suppressed populations but timely harvest has

also been critical. All fruit need to be harvested as they ripen and fruit that are over-ripe and drop must also be collected and discarded. Overripe or dropped fruit serve as breeding sites. These treatments suppressed populations. Spider mites were a severe problem in 2012, due in part to our SWD spray program (which likely reduced predatory mite populations) and the hot and dry season. Predatory mites were introduced in 2010 and 2013, but their efficacy is not known.

Costs and potential returns have been compiled in a spreadsheet (hansone@msu.edu) to request a copy). Capital investments to establish one acre of raspberries under tunnels were paid off in the second year. Annual net profit after year 1 was estimated to be about \$12,000. The primary drawback to this system, and the reason it cannot be recommended currently is the uncertainty regarding SWD management.



Figure 1: Organic raspberry production under high tunnels in Michigan, USA.



Himbo Top

Joan J

Polka

Figure 2: L-R raspberry cultivars Himbo Top, Joan J, and Polka which were grown in the organic high tunnel trial from 2010-2013

IPM Scout Training Workshops for 2014

Here are the updated IPM scout workshops available for those who will be scouting horticultural crops this year. To register contact: Agricultural Information Contact Centre at 1-877-424-1300

<u>Workshop</u>	<u>Date & Time</u>	<u>Location</u>	<u>Workshop Leader</u>	<u>Materials needed</u>	<u>Follow-up field training</u>
Cucurbit Crops	May 20 9:30 to Noon	Ridgetown Campus, Rudy Brown RDC Room 102	Elaine Roddy	Lunch on your own	
Asparagus	TBA		Elaine Roddy		
Sweet corn, Peas and Beans	May 20 1:00 to 3:30 pm	Ridgetown Campus, Rudy Brown RDC Room 102	Elaine Roddy		
Potatoes	May 30 10:00 a.m. to 3:00 p.m.	Boardroom #3 1 Stone Rd., Guelph	Eugenia Banks	<i>Potato Scouting Manual Provided Recommended:</i> OMAFRA publication #823; <i>Potato Field Guide</i> Lunch on your own Have to pay for parking	Field training dates TBA

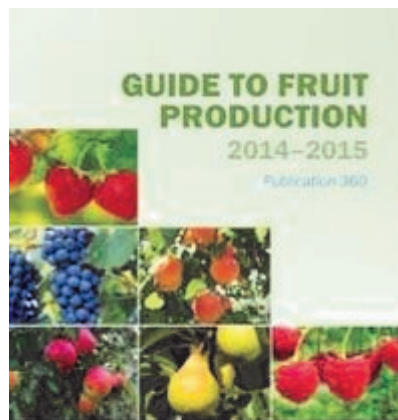
For more information please contact:

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New: Publication 360 Guide to Fruit Production

Publication 360 Guide to Fruit Production

This publication provides recommendations for the commercial production of fruit crops including apples, pears, tender fruit, berries and tree nuts. This publication includes a comprehensive section on thinning tree fruits. Pest management guidelines are presented in a calendar format. Technical information on products is easy to look up in the many tables in this publication. Chapters on resistance management, reduced risk products and biopesticides, and spray application technology have been extensively updated. This publication also provides crop by crop information on fertilizer rates, tables for interpreting soil and tissue analysis and information on micronutrients.



How to order Publication 360, Guide to Fruit Production

Service Ontario #109045, Price \$20.00*

To order copies of this publication:

Visit ServiceOntario Publications website at www.ServiceOntario.ca/publications

Or contact the ServiceOntario Publications Contact Centre
at: 1.800.668.9938 or TTY 1.800.268.7095

[Downloadable PDF available coming soon](#)

“Think Before You Eat” Campaign

The Canada Organic Trade Association (COTA) has organized a new consumer awareness program called “Think Before You Eat, Think Canada Organic”.



The campaign is designed to increase consumer awareness around organically produced foods and provide more information on the ‘Who, What, Where, Why and How’ of organic food. For more information about the campaign, please visit the website at www.ThinkCanadaOrganic.ca.

Learning Opportunities

FARMSTART Workshops

1. Buying A Farm: Planning Ahead for Farm Ownership

Date: Saturday June 7, 1pm - 5pm

Instructor: Tarrah Young

Location: Guelph Chamber of Commerce

Cost: \$65 (+HST) per person or \$110 (+HST) for two

Do you have the dream of buying a farm? If so, the earlier you begin to research and plan for it, the better! How should you begin your search? How do you find financing? How do you make an offer? These questions and lots more will be the focus of this workshop, geared towards first time buyers.

Topics to be covered will include:

- Setting priorities on what to look for in a farm, and where to look
- Financing: the process of getting approved for a mortgage, the role of a mortgage broker and the difference between a residential and agricultural mortgage

- The process of making an offer and learning the lingo (ex: signbacks, amendments, chattels)
- Who you need on your team (ex: mortgage broker, real estate agent, lawyer, home inspector)

This workshop will help demystify the process of purchasing a farm, and help you decide if this is the right choice for you.

2. The Dirt on Soil

Date: June 21, 2014 12:30 -4:30 pm

Location: Ebenezer Chapel & McVean Farm, Brampton

Instructor: Ian McCormick

Cost: \$55 (+HST) per person or \$110 (+HST) for two

The root of all life, including human life, is in the soil. In this workshop, learn the basics of soil science in an accessible and hands-on way. Rather than relying on inputs for fertility, get ready for ideas on how to optimize your soil's health, and ultimately the health of your crops, by using the biological community to unleash the tremendous potential in your soil! Come prepared to spend time outdoors with boots, warm clothing and rain gear.

Learning Opportunities

Organic Seed Workshops, 2014 – Presented by Everdale

As part of their work for The Bauta Family Initiative on Canadian Seed Security, Everdale is offering a special series of organic seed production workshops in 2014 across Ontario.

Saturday, May 24	Black Creek Community Farm Seed Exchange	Black Creek Community Farm
Thursday, May 29	Integrating Seed Production into Market Gardens	Fare Well Farm
Wednesday, August 6	Rogueing, Selection, and Disease Management	Hawthorn Farm
Wednesday, August 27	Integrating Seed Production into Market Gardens	Matchbox Garden & Seed Co.
Wednesday, August 27	Build Your Own Small Seed Winnowing Equipment	Farms at Work and The Cottage Gardener
TBA	Growing and Selecting Seeds for World Crops	TBA
Wednesday, September 10	Rogueing and Selection (CRAFT Interns Only)	Whole Circle Farm
Thursday, September 11	Integrating Seed Production into Market Gardens	Fare Well Farm
TBA	Diversified Heritage Grain Production	Paul Spence
Wednesday, September 17	Integrating Seed Production into Market Gardens	Saugeen River CSA
Wednesday, September 17	Harvesting, Cleaning, and Processing Wet and Dry Seed	Hawthorn Farm
Wednesday, September 24	Fundamentals of Seed Production	Guelph Centre for Urban Organic Farming
Saturday, September 27	Seed Production Trials and Selection	Everdale
November 7-9	ECOSGN 2014: Seed Connections	Sainte-Anne-de Bellevue, Quebec

For more information on seed workshops near you, please visit the Everdale website at:
<http://everdale.org/workshops/organicseed/>

Conferences, Meetings and Tours

EFAO Organic Cash-Crop Tour

Date: July 21, 2014

Location: Three farms will be part of the Organic Cash -Crop Tour in 2014 including Daniel Konzelmann (Wyoming, Ontario); Ted Minten (Watford, Ontario); and Hank Veens (Arkona, Ontario).

EFAO Eastern Region Farm Tour Series

Multiple dates and locations:

June 5: Lamb, Sheep, Woll: the Complete Circle at Aubin Farm

June 22: Heirloom Tomoato Production at Vicki's Veggies

July 14: Producing for Restaurants & Value Added at Mariposa Farm

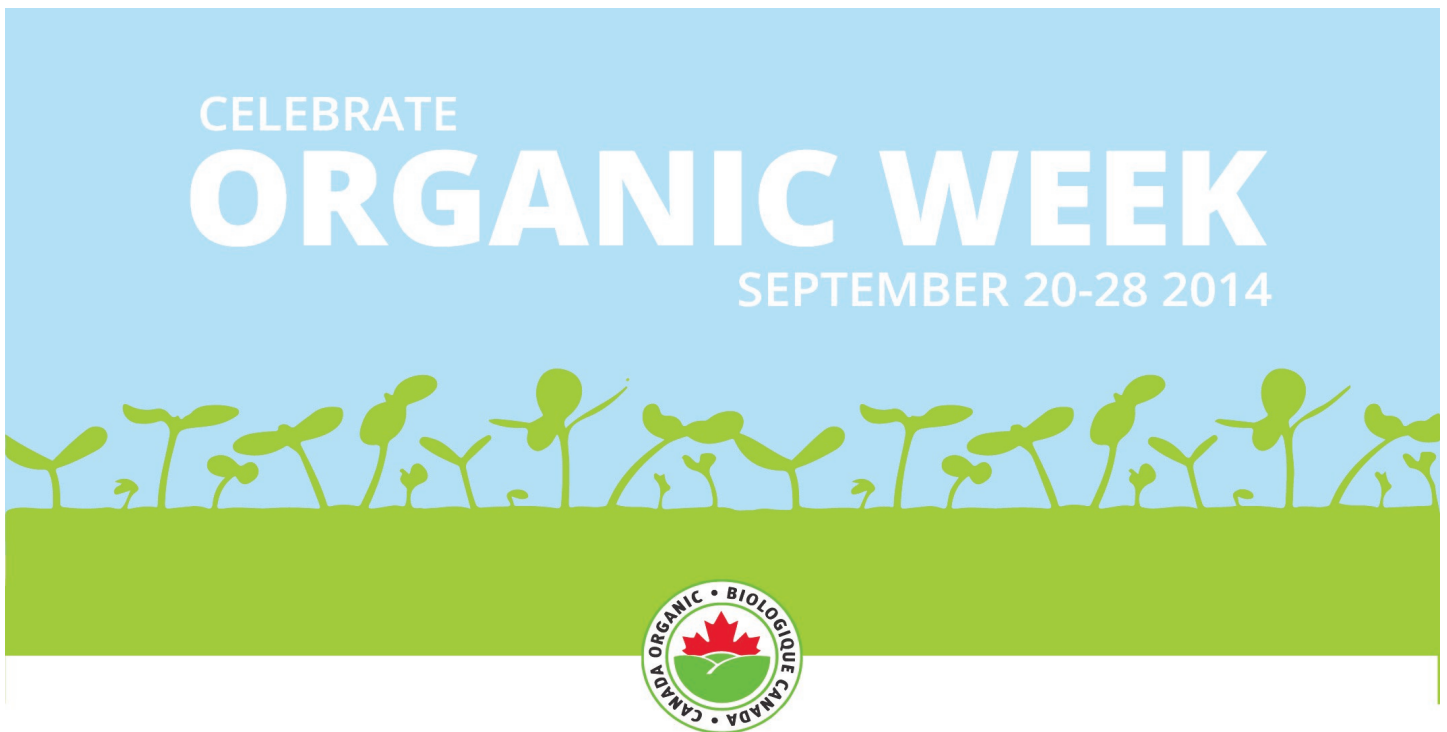
July 24: Crop Rotation & Cover Crops at Patchwork Gardens

August 14: Integrating Livestock into Your Farm at Wise Acres

August 21: The Multi-Generational CSA at Covenant Farm

For more information on these and other EFAO tours, please visit the website at www.efao.ca/upcoming-events/.

Organic Week, 2014



For more information about Organic Week 2014, please visit the website at www.organicweek.ca.

Links to ON Organic Information & Staff Contacts

OMAF and MRA Horticulture Staff

Horticulture Technology

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Hannah Fraser	Entomologist, Hort Crops Prgm Lead	905-562-1674
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Vacant	Organic Crop Production	519-826-4587
Denise Beaton	Crop Protection Program Lead	519-826-6594
Jason Deveau	Application Technology Specialist	519-426-8934

Horticulture Crops

Marg Appleby	IPM Systems Specialist	613-475-5850
Eugenia Banks	Potato Specialist	519-826-3678
Wendy McFadden-Smith	Tender Fruit & Grape IPM Spec.	905-562-3833
Jennifer DeEll	Fresh Market Quality	519-426-1408
Pam Fisher	Berry Crop Specialist	519-426-2238
Janice LeBoeuf	Vegetable Crop Specialist	519-674-1699
Elaine Roddy	Vegetable Crop Specialist	519-674-1616
Kathryn Carter	Tender Fruit & Grape Specialist	905-562-1639
Leslie Huffman	Apple Specialist	519-738-1256
Kristy Grigg-McGuffin	Pome Fruit IPM Specialist	519-426-4322
Marion Paibomesai	Vegetable Crop Specialist	519-826-4963

Greenhouse, Agroforestry & Specialty Crops

Jim Todd	Transition Crops Specialist	519-426-3823
Melanie Filotas	Specialty Crops IPM Specialist	519-426-4434
Sean Westerveld	Ginseng & Medicinal Herbs Spec.	519-426-4323
Evan Elford	New Crop Development Specialist	519-426-4509
Wayne Brown	Greenhouse Floriculture Specialist	905-562-4141, x179
Graeme Murphy	Greenhouse Floriculture IPM Spec.	905-562-4141, x106
Shalin Khosla	Greenhouse Vegetable Specialist	519-738-1257
Gillian Ferguson	Greenhouse Vegetable IPM Spec.	519-738-1258
Pam Charbonneau	Turfgrass Specialist	519-824-4120, x52597
Jennifer Llewellyn	Nursery Crops Specialist	519-824-4120, x52671
Todd Leuty	Agroforestry Specialist	519-826-3215
Mahendra Thimmanagari	Crop Bioproducts Specialist	519-826-4593

OMAF and MRA Field Crop & Livestock Staff

Field Crops

Horst Bohner	Soybean Specialist	519-271-5858
Ian McDonald	Applied Research Coordinator	519-482-5129
Peter Johnson	Cereals Specialist	519-271-8180
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Scott Banks	Emerging Crops Specialist	613-258-8359
Gilles Quesnel	IPM Field Crop Program Lead (Bil)	613-258-8250
Bonnie Ball	Soil Fertility Specialist	519-271-9269
Adam Hayes	Soil Management Specialist	519-674-1621
Greg Stewart	Corn Industry Program Lead	519-824-4120 x54865
Michael Cowbrough	Weed Mgmt Field Crps Prgm Lead	519-824-4120 x52580
Joel Bagg	Forage Specialist	705-324-5856
Christine Brown	Nutrient Mgt Field Crops Prgm Lead	519-537-8305
Brian Hall	Canola & Edible Bean Specialist	519-271-0083

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Tom Wright	Dairy Cattle Nutritionist	519-824-4120 x56281
Jaydee Smith	Swine Prod Systems Program Lead	519-674-1542
Mario Mongeon	Livestock Specialist (Bil)	613-679-0937
Albert Dam	Poultry Specialist	519-824-4120 x54326
Brian Lang	Dairy Cattle Prod Systems	519-537-8786
Doug Richards	Swine Grower-Finisher Specialist	519-482-3133
Ron Lackey	Feed Ingredient & By-product Specialist	519-271-7407
Vacant	Sheep & Goat Specialist	613-258-8299
Brian Tapscott	Alternative Livestock Specialist	519-846-3400
Chisptoph Wand	Beef Sheep & Goat Nutrition	519-824-4120 x53670
Brian Pogue	Beef Cattle Program Lead	519-826-5106
Nancy Noecker	Beef Cow/Calf Specialist	613-258-8476
Delma Kennedy	Sheep Specialist	519-846-3398
Steve Naylor	Aquaculture Specialist	519-826-3172
Tom Hamilton	Beef Cattle Production	705-647-2087
Jack Kyle	Grazier Specialist	705-324-5855

Links to Organic Agriculture Information

Organic Council of Ontario (OCO)

<http://www.organiccouncil.ca>

Canadian Organic Growers (COG)

<http://www.cog.ca>

OMAF and MRA Organic Agriculture

<http://www.ontario.ca/organic>

Ecological Farmers of Ontario (EFO)

<http://www.efao.ca>

Organic Agricultural Centre of Canada

<http://www.oacc.info>

FarmStart

www.farmstart.ca

Agricultural Information

Contact Centre:

1-877-424-1300

E-mail: ag.info.omafra@ontario.ca

Northern Ontario

Regional Office:

1-877-424-1300

www.ontario.ca/omafra