



HORT MATTERS

OMAFRA Specialists in Horticulture and Specialty Crops.

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Fall Orchard Cleanup Leslie Huffman, Apple Specialist



What a harvest season we've had this fall! Sunshine, warm temperatures, adequate soil moisture - and most orchards have lots of actively growing weeds. Once harvest is done, and juice apples picked up, it's time to think about getting the orchards mowed and managing those weeds.

Basically two types of herbicides can be quite effective now:

- **Systemic herbicides** (eg. glyphosate, or Amitrol) will be very effective at this time of year for perennial weeds. Perennials have been building strong root reserves and systemic herbicides applied now will move to the roots. Even after a few frosts, these products can be quite effective, especially on quackgrass (limit is around -4°C). However, be very cautious around fruit trees and other valuable perennials like grape - severe injury can result at this time if herbicides are moved to tree roots.
- **Hormonal herbicides** (eg. 2,4-D Amine, or Lontrel) are also most effective on actively growing weeds, and fall is actually the best timing for excellent control. In orchard trials, we applied 2,4-D as late as Nov. 12 and achieved excellent control of dandelions. Wait for good weather conditions to avoid drift when applying this orchard clean-up.

However it is way too early for Casoron herbicide, which requires cool, moist soil. Wait until the end of November in the east, and as late as Christmas in the southwest (depends on the weather, of course!). Casoron is a good choice where many perennial weeds are a problem, and when the spring workload does not allow adequate time to get herbicides applied in early May.

So take advantage of the continued warm weather to mow orchard sods, clean up weed problems and start out on the right foot for next year.

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- Organic Agriculture Symposium



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

COMING EVENTS

October 22 - **Export Market Access Seminar**, Holiday Inn Oshawa Whitby Conference Centre - Export Market Access is an initiative of the Ontario Chamber of Commerce (OCC), with support and funding from the Government of Ontario. For more info visit: <http://www.exportaccess.ca>

October 23 - **Canadian Business Leadership Forum 2008** - Toronto. For more information go to <http://site.canadianbusiness.com/leadershipforum/>

October 20 – 24 - **“Good to Great” Manufacturing Excellence Conference**, Toronto. Go to <http://www.ameconference.org/> for details and registration.

October 26 & 27 - **Grocery Innovations Trade Show**, Toronto Congress Centre, Dixon Road, Toronto. More details can be found at <http://www.groceryinnovations.com/index.html>

November 4 - **Workshop on “Manufacturing Optimization”**, University of Toronto. More information can be found at <http://www.manutechnet.com>.

November 6, **Ontario Pest Management Conference**, Victoria Park East Golf Course, Guelph. See agenda and more info on page 11.

November 6-8, **2008 Southeast Strawberry Expo**, Hilton Charlotte University Place, Charlotte, NC. For more info www.ncstrawberry.com

More coming events on page 3.....

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To receive a fax version of Hort Matters, send your fax number to: OMAFRA, Vineland Resource Centre, Box 8000, 4890 Victoria Avenue N, Vineland Station, ON L0R 2E0 or fax to 905-562-5933.

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Suggestions?

We'd like to hear from you

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November 13, **Outlook Conference** at the 2008 Royal Winter Fair, Direct Energy Centre, Exhibition Place, Toronto. Info and registration details at: www.outlook2008.ca

November 18 & 19, **Essex County Associated Growers 58th Annual Bounty of the County Convention & Trade Show**, Sherk Complex, Leamington. Cooking demonstrations, newest agricultural technology and equipment, informative seminars. For more information contact Lynda Baird at 519-326-4481 or by email at ecag@bellnet.ca

November 20 & 21 - **Ontario Food Protection Association (OFPA) Annual Fall Conference**, Mississauga Convention Centre. More details can be found at <http://www.ofpa.on.ca/>

November 21-23, **Great Lakes Community Shared Agriculture Conference, Seeding the Future – Growing Together!**, Geneva Park Conference Centre, Orillia. For more info visit: <http://www.csaconference2008.ca/>

January 22 – 25, 2009, **Annual Organic Conference**, U. of Guelph, Univ. Centre (workshops, training, seminars) Theme – “O” is for Opportunity. Workshops and large trade show. This conference is annually attended by 1,500 to 2,000 people from all segments of the organic food value chain. For further details, visit <http://www.guelphorganicconf.ca/>

February 18, 19, **Ontario Fruit & Vegetable Convention**, Brock University, St. Catharines. Watch for more info at <http://www.ofvc.ca/>

New OMAFRA Factsheets and Publications

Options for Farmers Dealing with Financial Difficulties, Factsheet Order No 08-033—Even the best-managed business can experience financial difficulties when market prices decline, part of the farm business fails to generate the expected profits, or financing arrangements are inadequate. This Factsheet is aimed at helping farm business owners make decisions about the future direction of their business. It outlines some options farm businesses experiencing financial difficulties can choose as well as what farm business advisory services are available.

Available online at <http://www.omafra.gov.on.ca/english/busdev/facts/08-033.htm>

BMP 20, Managing Crop Nutrients— This Best Management Practices book (2008) is a general but detailed primer on meeting the nutrient demands of your crops without wasting resources or risking loss to ground and surface water. This is a resource for nutrient management planning:

- explains what crop nutrients are
- where they come from
- and how they move through soil, plants, water and air
- shows why and how to test soil and manure as the best means to determine what nutrients your crops need
- provides BMPs for nutrient application, to ensure you apply the right rate at the right time in the right place.

You can order at http://www.omafra.gov.on.ca/english/environment/bmp/crop_nut.htm

Publication 370, Production Recommendations for Greenhouse Floriculture (revised) - To order go to <http://www.omafra.gov.on.ca/english/crops/pub370/p370order.htm> (\$20 each)

“ON Organic” - OMAFRA Newsletter

ON Organic is intended to be a newsletter to keep you up to date on numerous issues, sources of information, programs, and events to assist you with your organic production and marketing needs.

Subscription to this newsletter is easy and no cost, for details go to the webpage: <http://www.omafra.gov.on.ca/english/subscribe/index.html#organic>

The newsletter is also posted on the OMAFRA website at: <http://www.omafra.gov.on.ca/english/crops/organic/news/news-organic.html>

What Happened To My Garlic? Dealing With the Microscopic Culprit

Kristy Grigg, Vegetable Crop Specialist

I have received numerous calls and samples from garlic growers this season, all asking the above question. And after laboratory analysis, the answer for most: stem and bulb nematode.

Unfortunately, these microscopic worm-like organisms can feed in or on the bulbs of garlic, resulting in significant yield reduction. Many growers who contacted me didn't realize they had a problem with this pest until the end of the season when they started harvesting their bulbs. Traditionally, it is recommended to scout for stunted young plants or any signs of chlorosis or swelling. Since these symptoms can sometimes be overlooked, it's best that growers take a preventative approach to nematode management by carrying out soil and bulb testing.

This is a great time of the year to have your soil tested for the presence of this pest. In general, nematode populations tend to peak in May-June and September-October. The tools are simple: a soil core probe or a narrow bladed shovel and a bucket. If you've got these, you are ready to begin!

The following are some basic soil sampling recommendations:

- Sample from a number of locations within your field according to the chart below

Number of soil core samples/area required to estimate nematode populations

Area	No. of soil cores/sample
<500m ²	8 - 10
500m ² - 0.5ha	25 - 35
0.5ha - 2.5ha	50 - 60

- From each site, go down at least 8" deep, knocking off the first 2" and mixing the remaining 6" in your bucket
- Take a subsample (about one or two cups) of this mixture and place it in a sealable container, such as a plastic bag or dish
- Send this sample labelled with all appropriate information to a diagnostics lab for analysis

Bulb analysis can be submitted in one of two ways. You can submit samples from actively growing plants or samples that have already been harvested. If possible, try to pick out some healthy bulbs, as well, to compare with the non-healthy samples. Like the soil samples, place samples in a sealable container and send them off to lab for analysis.

If you are looking for a diagnostic laboratory, here in Ontario, the Pest Diagnostic Clinic, part of Laboratory Services at the University of Guelph is qualified to extract and identify nematode species. To learn more about their services, to get a submission form or to check out their fee schedule, call 519-767-6256 or visit their website at <http://www.labservices.uoguelph.ca/units/pdc>

Remember, the best tool of defence to keeping your stock pest-free is to test your field in the fall after harvest or in the spring before cultivation. If your submitted samples have already indicated the presence of nematode, not to fret. You can now work on controlling and eliminating the pest from your field with management practices, such as working with clean seed, proper field and water sanitation and a 2-3 year crop rotation with a non-host crop.

For more information on bulb and stem nematode and proper soil sampling techniques, check out OMAFRA Factsheets 06-099, titled "*Sampling Soil and Roots for Plant Parasitic Nematodes*" by Michael Celetti and John Potter.

New OMAFRA Application Technology Specialist

Jason Deveau recently joined the ministry as the Horticulture Technology Unit's **Application Technology Specialist**.

Jason holds a B.Sc. (Hon) in Biology & Psychology from Mount Allison University in New Brunswick, a M.Sc. in plant cell physiology & metabolism from York University in Toronto and a Ph.D. in plant cell electrophysiology from the University of Guelph. Jason has held four elected student government positions, has chaired many administrative and academic committees, and was elected to U of G's Board of Governors.

A long-standing member of the Canadian Society of Plant Physiologists, he has received numerous academic and industrial awards, holds a U.S. patent on a new method / device for constructing microelectrodes and is published in several peer-reviewed journals. For the last four years Jason was a senior consultant with a Toronto firm providing strategic and functional planning for academic institutions in Canada, the United States and the Middle East.

Jason is pleased to return to agriculture and will be working out of the OMAFRA Simcoe Resource Centre.

Manganese Mischief Managed

Christoph Kessel, Horticulture Crop Nutrition – Program Lead, OMAFRA
Laura Van Eerd, Dept. Land Resource Science, Ridgetown Campus, University of Guelph

This past season, manganese (Mn) toxicity was suspected in some cabbage plots at University of Guelph, Ridgetown Campus. Leaves and soil were sampled and submitted for analysis. The results were:

Leaf analysis	Soil analysis
671 and 830 ppm	pH: 4.9 soil test Mn: 17 ppm Mn Index: 62 <i>The Mn Index evaluates the soil's pH affect on manganese availability. Generally a Mn Index > 30 is adequate.</i>
Adequate range: 20-40 ppm ¹	
Excessive range: > 300 ppm ²	

¹ OMAFRA *Vegetable Production Recommendations 2008-2009*

² *Micronutrients in Agriculture*



Figure 1: Mn toxicity symptoms begin in older leaves



Figure 2: Leaf margins curl inwards

Symptoms: Symptoms often begin on lower, older leaves. Brown necrotic spots or chlorotic mottling develop near leaf tips and along margins (Figure 1). These necrotic areas can provide opportunities for disease infection. Leaves curl inwards (Figure 2). The margins become ragged, giving a “crinkle leaf” appearance. Lower leaves eventually die.

Causes: Manganese toxicity may be a problem for sensitive plants growing in extremely acid soils (< pH 5.0). It may also occur if excessive soil and/or foliar applications are used.

Diagnostic tools: Leaf and soil analysis can be used to confirm suspected Mn toxicity. Cabbage leaf Mn levels are usually considered adequate between 20-40 ppm. Adequate ranges of 25-200 ppm are also reported. Levels greater than 300 ppm are considered excessive. A soil pH less than 5.0 may indicate possible Mn toxicity, especially for sensitive plants. Besides cabbage, other sensitive plants include cauliflower, dry edible beans, potatoes, sugar beets and tomatoes.

Molybdenum deficiency: Cabbage, like some other cole crops, is susceptible to both a Mn toxicity and molybdenum (Mo) deficiency at a low soil pH. The leaves were not analysed for Mo. Plants did not show the typical whiptail symptom often associated with Mo deficiency in cole crops. But the marginal chlorosis and margin curling or cupping seen with excessive Mn can also be observed with a Mo deficiency. Unlike other micronutrient deficiency symptoms, older leaves can express Mo deficiency symptoms.

Management: Lime soils to the desired pH range, as determined by the soil test. This will prevent any excessive manganese levels and correct molybdenum deficiencies.

Soil Testing Myths

Keith Reid, Soil Fertility Specialist, OMAFRA

There are a number of misconceptions floating around out there that keep us from getting the best value from soil testing. In some cases, they mean that samples don't get collected at all. This is a total waste of valuable information you could use to improve your bottom line.

Myth - My farm is unique, so a soil test can't be relevant.

Fact - While it is true that there are differences from farm to farm in how effectively nutrients are used, the soil test is the only reliable way to get information about the concentration of nutrients in your soil. You can manage your unique situation better if you have this information.

Myth - You have to grid sample to get good information.

Fact - We are more aware of within-field variability today, but the value of quantifying this variability is limited. The first step should always be a good field scale sample (maximum 25 acres).

Myth - I grow good crops, so I don't need soil tests.

Fact - Good for you! This probably indicates that nutrient deficiencies are not a problem, but that there may be opportunities to save money with lower fertilizer rates on some fields.

Myth - Water is the best extract, because it shows what is immediately available to the crop roots.

Fact - This is one of those attractive theories that just doesn't work in reality. The water extract, despite the claims, is not at all the same as the concentration in the soil solution.

This is because it involves shaking a soil sample in a soil/water slurry, that is a much higher amount of water than a root could ever grow in. It also ignores the contribution of exchangeable and slightly soluble nutrients from the soil, which account for most of the plant uptake during the growing season.

Myth - Other provinces/states use "better" extractants.

Fact - Soil test extraction is a complicated dance between the chemistry of the soil and the extractant, in an attempt to mimic the availability of nutrients to the crop over the growing season. The extractants chosen for Ontario work well with our soil types. Others are better suited to the conditions in their particular areas.

Myth - Fertilizer recommendations from soil tests are only for average crops.

Fact - Soil fertility is only one small part of growing high yielding crops, and crops with a high yield potential will have large root systems that are very efficient at absorbing nutrients from the soil. Fertilizing using soil test recommendations will not limit crop yields.

Myth - The soil test reports are too hard to understand.

Fact - Soil test labs are trying to add more value to the soil test by including more interpretations of the results on each report. Unfortunately, this does sometimes have the effect of making the important information harder to find. School yourself to concentrate on a few key numbers (soil pH, extractable P, K & Mg), and interpreting the test results becomes much simpler.

Weather - September CHU and Precipitation Summary

Location	CHUs May 1 - Sept 30		Precipitation (mm) May 1 - Sept 30	
	2008	30-yr normal	2008	30-yr normal
Windsor	3741.0	3581.9	466.0	428.3
London	3152.2	3105.6	357.8	434.9
Waterloo	2867.7	2935.5	503.1	423.5
Hamilton	3037.8	3149.2	537.9	408.7
Barrie	2644.1	2948.6	460.8	427.5
Ottawa	3101.7	3169.3	415.8	427.0

The Steps to Organic Certification

Hugh Martin, Organic Crop Production Program Lead

If you decide to become an “organic” food producer the next step is to decide to become “certified organic”. After June 30, 2009 all organic food producers in Canada will have to be certified if they are selling organic products outside the country (export) or outside of their province (inter-provincial). Currently there are no “intra-provincial” regulations for producers within Ontario who are selling to customers within Ontario, however many stores, processors and food buyers will request products be “certified organic” for the benefits of their business.

The main reason to become certified is to assure your customers and buyers that your operation has been inspected and that your products meet the requirements of the Canadian organic regulations and the related standards. Being certified will cost farmers approximately \$500-\$1000 per year depending on the size and complexity of their farm. The fees for food processors tend to be higher depending on size and complexity of the operation. The other cost of certification is the paperwork for the application and to satisfy the certification body (CB) and inspectors that you are managing your business in a way that can verify that you are in compliance with the standards and can document the audit trail on products to show their traceability and your ability to maintain the organic integrity of the product.

Steps to Organic Certification:

1. Contact certification bodies –CBs operating in Ontario are listed at “**Organic Food and Farming Certification**” – <http://www.omafra.gov.on.ca/english/crops/organic/certification.htm>
You should:
 - Identify certification costs, appropriate details of the standards,
 - Inquire about accreditations needed for the sale of your products,
 - All accredited CBs will be using the Canadian Organic Standards, request a copy of the standards;
2. Read and understand the standards and the requirements of being certified organic;
3. Research various organic production practices - compare to your farm situation and to certification and standards details;
4. Begin the transition of your farm and/or facilities to organic. In most cases you can transition the property in stages assuming you can maintain the organic integrity of the products you are producing. Develop necessary paperwork and audit trail to document your products, inputs, and various procedures for traceability and organic integrity;

5. Understand the time period required to operate as organic before you can become certified (for crops - 36 months prior to the sale of the organic products). Understand at what stage you need to apply for transitional inspection (for crop producers this is in the year prior to becoming organic);
6. Compare CBs and select the CB you want to work with - get necessary application forms and other details and updates;
7. Apply for inspection for transition (fee payment) - the operator must be registered with a CB at least 12 months before the harvest of the organic crops;
8. Application is reviewed by the CB;
9. CB appoints organic inspector to attend the farm and to do inspection while the product is being produced - prior to the inspection the producer needs to make sure they have all of their paperwork in order for the inspection;
10. Inspector’s report is reviewed by CB;
11. CB notifies applicant of decision;
12. In the following year the producer applies to become certified organic, inspector is appointed by the CB, inspects the farm or production facility, CB reviews report and notifies applicant of decision on their certification status;
13. Annual certification application (fees payment), inspection, certification status review. For most farms applications are made in early spring;
14. Sell your certified organic products;
15. Regularly (at least annually) review any changes to certification requirements and other production practices to improve your food production business.

Note that you should not start the transition to becoming organic until you understand the details of the standards and requirements of the certification body. During the transition period your operation will have to operate to the requirements of the organic system but since it is not considered organic there is not usually a price premium. This can create financial hardship and must be managed. A staged transition to organic is often preferable depending on your farm situation. With food processing and new building structures transition details should be discussed with the CB for specifics on your particular situation. Livestock generally has to be fed 100% organic feed for one year prior to being certified (which may lengthen the transition period) but this will vary with the species, again discuss your particular details with the CB.

The road to “certified organic” will be interesting and you can expect some “potholes” but most producers will find that it rewards you with a better business and more opportunities.

Agronomic Considerations for Dealing with Unharvested Sugarbeets

Janice LeBoeuf - Vegetable Crop Specialist

Anne Verhallen - Soil Management Specialist - Horticulture

Destroying Unharvested Sugarbeets

- Sugarbeets can survive the winter, under certain conditions, in the Michigan/Ontario growing area.
- Suggestions to minimize the risk of "weed sugarbeets" in 2009 include:
 - * Choose a tillage method that will chop up the beet.
 - * If feasible, leave conventional beets (rather than Roundup-Ready beets) unharvested to improve spring herbicide options if there is regrowth.
 - * Defoliating is an added expense, but will expose the crown to freezing temperatures sooner. Any fall regrowth of shoots would deplete root reserves, while intact tops could add to root reserves if extended mild fall weather occurs.

Cropping Considerations After Unharvested Sugarbeets

Soybeans:

- This appears to be the best choice following unharvested sugarbeets. It does not appear that any special management practices would be required, based on research results.
- In Ontario, soybeans grown after waste beet spreading in 2005 did not exhibit adverse effects as long as the beets had been spread in mid-April or earlier. Unharvested sugarbeets will have an even longer time period for breaking down before soybean seeding.

Corn:

- Corn growers may have experienced the "corn after beets syndrome" (stunting, purpling, reduced vigour). This would be expected to be more severe after unharvested beets.
- If you are planning to plant corn in this situation, a generous starter fertilizer program that includes some nitrogen to account for any early temporary nitrogen tie-up by the decomposing beet residue and some phosphorus to help address the "corn after beets syndrome" would be advisable.
- Most importantly, plan to do a pre-sidedress nitrogen test (PSNT) to determine nitrogen sidedress needs.

Seed Corn:

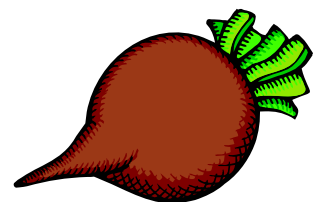
- This crop would not be advised after unharvested sugarbeets.

Spring Grains:

- Although these are good choices following unharvested sugarbeets, they are not commonly grown in significant acreages in the Ontario sugarbeet growing area.

General:

- The more the sugarbeets are cut up and exposed to the soil and winter conditions, the less the effect on the following crop, based on experiences in other growing areas.
- By leaving the 2008 crop in the field, normal crop removal of phosphorus and potassium is not occurring. These may be the fields where you can avoid additional P and K fertilizer expense in 2009. Look at recent soil tests for these fields. Fall 2008 or spring 2009 soil tests, however, will not accurately show the nutrient content that is still tied up in the relatively fresh sugarbeet residue.
- There may be a temporary early-spring tie-up of nitrogen as rapid root decomposition occurs with the first warm temperatures.
- In Ontario research with waste beet spreading in 2005, beets that were spread in January and exposed to winter soil conditions were in a more advanced state of breakdown by spring than fields that had beets applied in May.
- Beets cut up and mixed by fall tillage can be expected to experience significant dessication and breakdown over an open winter with many freeze/thaw cycles; possibly less so if significant snow cover persists. This earlier breakdown should result in less nitrogen tie-up and earlier nitrogen release than would have been experienced with spring application of waste beets (or than would be experienced by a more frozen Minnesota/North Dakota winter).
- In Ontario conditions, nitrogen released in the fall or through mild winter periods can be lost to leaching.
- In Ontario greenhouse experiments in 2005, emergence of corn, soybean, and winter wheat was poor where concentrated sugarbeet residue had been applied. Potential problems could be minimized by tillage that produces smaller pieces and mixes the residue well with the soil.



Allegro 500F Fungicide label expanded via Minor Use Program to include white mold control on edible podded Legumes (succulent beans)

The Pest Management Regulatory Agency (PMRA) recently announced the approval of an URMULE registration for **ALLEGRO 500F** Fungicide for control of white mold (*Sclerotinia sclerotiorum*) on edible podded Legumes (except peas) in Canada. Allegro was already labeled for late blight on potatoes, clubroot on Brassicas and several diseases on bushberries in Canada. This is the 3rd minor use label expansion registration for this product in Canada and has been in the system since 2003 as a joint project between Agriculture & Agri-Food Canada, Pest Management Centre (AAFC-PMC) and the US IR-4 program.

These minor use projects were initiated in 2003 by AAFC-PMC as a result of minor use priorities established by growers and extension personnel in Canada and the USA. The minor use label expansion for Allegro 500 F Fungicide is a significant step towards developing a more robust and sustainable pest management toolkit for this disease in both countries.

The following is provided as a general outline only. Users should consult the complete label before using Allegro 500F Fungicide.

Allegro 500F Fungicide can be used for control of white mold on succulent beans at a rate of 1.0 L product per hectare in 300 to 1000 L water per hectare as a foliar spray. A maximum of two (2) applications per season can be made at an interval of 7 to 10 days. Begin applications when plants are at first bloom to 10% bloom. Make a 2nd application 7 to 10 days later, but no later than when 50% of the plants have at least one open bloom. Do not apply within 14 days of harvest for succulent beans.

Allegro 500F Fungicide should be used in an integrated pest management program and in rotation with other management strategies to adequately manage resistance.

Follow all other directions for use on the Allegro 500F Fungicide label carefully.

The minor use project for succulent beans was sponsored by AAFC-PMC and trials were conducted jointly with the US IR-4 program as a result of minor use priorities established by producers in Canada and the USA. We also wish to thank the personnel of **ISK Biosciences** Corporation and Syngenta Crop Protection Canada Inc. for their support of this registration and the personnel of the **Pest Management Regula-**

tory Agency for evaluating and approving this important pest management tool.

For copies of the new minor use label contact Jim Chaput, OMAFRA, Guelph (519) 826-3539, Elaine Roddy, OMAFRA vegetable crops specialist at Ridgetown (519) 674-1616 or visit the Syngenta Canada website at www.syngenta.ca/en/

Minor use label expansion granted for Milstop Foliar Fungicide for suppression of powdery mildew on outdoor bedding plants

The Pest Management Regulatory Agency (PMRA) recently announced the approval of a minor use label expansion for **Milstop Foliar Fungicide** for suppression of powdery mildew on outdoor bedding plants including but not limited to flowering dogwood, bee balm, hydrangea, phlox and roses in Canada. MILSTOP FOLIAR FUNGICIDE, a unique bio-pesticide, was already labeled in Canada for management of powdery mildew on greenhouse vegetables and ornamentals, field peppers, stone fruit and grapes.

This will provide outdoor bedding plant producers with a useful disease management tool to manage one of their common disease problems.

Milstop Foliar Fungicide can be applied as a foliar spray at the first sign of disease at a rate of 2.8 to 5.6 kgs per hectare in a minimum of 1000 L water per ha. For best protection, repeat at one to two week intervals until conditions are no longer favourable to disease development. Shorten the interval during rainy weather or periods of high humidity. Complete coverage of foliage and stems is essential. **The preharvest** interval is 0 days.

Milstop Foliar Fungicide should be used in an integrated pest management program and in rotation with other management strategies. Follow all other precautions and directions for use on the Milstop fungicide label.

The original minor use label expansion requested 'all outdoor ornamentals' and was sponsored by the provincial minor use office of the Ontario Ministry of Agriculture, Food and Rural Affairs in response to minor use priorities established by ornamental plant producers, extension personnel and researchers.

Furthermore, we also wish to thank the personnel of **Bio-works Inc.** for their support of this registration and the personnel of the Pest Management Regulatory Agency for evalu-

ating and approving this important pest management tool.

For copies of the new minor use label contact Jim Chaput, OMAFRA, Guelph (519) 826-3539, Graeme Murphy, OMAFRA, Vineland (905) 562-4141 ext. 106 or visit www.bioworksinc.com or <http://www.koppertonline.ca>

Surround WP Crop Protectant expanded for use against leafhoppers on dry beans, potatoes, carrots, strawberries, raspberries and leafy vegetables (crop group 4) in Canada

The Pest Management Regulatory Agency (PMRA) recently announced the approval of a minor use label expansion for **Surround WP Crop** Protectant (kaolin) for reduction in damage from leafhoppers on dry beans, potatoes, carrots, strawberries, raspberries and leafy vegetables (crop group 4, including celery, lettuce, parsley and spinach) in Canada.

Surround WP Crop Protectant, a novel, barrier film, pest management tool, was already labeled in Canada for reduction in damage from insect pests of pome fruits and tree nuts, leafhoppers on grapes and cucumber beetles on cucurbit vegetables and has been a welcome addition to the IPM toolkit for both organic and conventional producers.

This registration is a significant minor use label expansion for Surround WP Crop Protectant in Canada and was undertaken by the Pesticide Risk Reduction Program of Agriculture and Agri-Food Canada's Pest Management Centre (AAFC-PMC) to improve access to and adoption of reduced risk pest control products. This registration supports pesticide risk reduction strategies and addresses several minor use priorities for both organic and conventional specialty crop producers across Canada.

General use directions for Surround WP Crop Protectant on labeled crops:

Consult the 'mix instructions' on the main label to properly prepare the spray application for Surround WP. Apply to near drip. Do not apply to run-off to avoid poor coverage. The volume of water per hectare will increase throughout the season as the crop canopy increases. Maintain good film coverage to maximize the benefits of Surround WP crop protectant.

Specific pest use directions for Surround WP Crop Protectant:

For reduction in damage by **leafhoppers (including potato leafhopper)** on dry beans and potatoes apply Surround WP Crop Protectant at 6.25 to 12.5 kg Surround WP per 250 litres of water. Apply at 7 to 14 day intervals once initial infes-

tation is detected by local monitoring. For early applications, use 12.5 kg Surround WP per 250 litres of water; follow-up applications may only require 6.25 kg Surround WP per 250 litres of water.

For reduction in damage by **leafhoppers (including aster and potato leafhopper)** on carrots, strawberries, raspberries and leafy vegetables (lettuce, celery, parsley, spinach, etc.), apply Surround WP Crop Protectant at 12.5 to 25 kg Surround WP per 500 litres of water. Apply at 7 to 14 day intervals once initial infestation is detected by local monitoring. For early applications, use 25 kg Surround WP per 500 litres of water; follow-up applications may only require 12.5 kg Surround WP per 500 litres of water.

Surround WP Crop Protectant may alter harvest parameters and may delay maturity. Closely monitor harvest parameters to determine optimal time to harvest.

Surround WP Crop Protectant should be used in an integrated pest management program and in rotation with other management strategies. During periods of wet weather reapply Surround WP as soon as foliage is dry to re-establish coverage. Thorough, uniform and consistent coverage is essential throughout the infestation period. Do not tank mix Surround WP with other white mineral particulate products. Follow all other precautions and directions for use on the Surround WP Crop Protectant label.

This label expansion application was sponsored by AAFC-PMC as part of the activities of the Pesticide Risk Reduction Program to improve grower access to biopesticides. Additionally we wish to thank the provincial minor use coordinators, crop specialists, and AAFC researcher scientists for helpful guidance and support. Furthermore, we wish to thank the personnel of **Tessengerlo Kerley Inc, Phoenix, AZ, Carol Saunders & Associates**, Kelowna, BC and Engage Agro Corporation, Guelph, Ontario for their support of this registration and the personnel of the Pest Management Regulatory Agency for evaluating and approving this important pest management tool.

For copies of the new supplemental label contact Jim Chaput, OMAFRA, Guelph, 1-888-466-2372 ext. 63539, Leslie Cass, AAFC-PMC, Ottawa, 613-694-2438, or visit the Engage Agro website at www.engageagro.com



6th Annual Ontario Pest Management Conference

November 6, 2008

Victoria Park East Golf Course, 1096 Victoria Road South, Guelph

Website: www.opmconference.ca

8:30 – 9:00 am Registration and Coffee
Poster Set Up

MORNING SESSION

Session Chair: Mike Celetti, Ontario Ministry of Agriculture, Food and Rural Affairs

9:00 am Welcome: *Janisse Routledge, Chair, Ontario Pest Management Conference.*

Opening Remarks

9:15 am Endofine®: A Beneficial Inoculant for Seeds, Roots and Foliage of Crops—*John Sutton*

9:35 am Detecting Ascospores of *Sclerotinia sclerotiorum* in Carrot Crops in Ontario: Prelude to Regional Level Forecasting of Sclerotinia Rot of Carrot—*Monica Parker, M.R. McDonald and G. Boland. (Student Competition).*

9:50 am Sub-lethal Effects of Reduced Risk Pesticides Used in Greenhouse Vegetable Production on Bumble Bees [*Bombus impatiens* (Cresson)] — *Angela E Gradish, C. Scott-Dupree, L. Shipp, R. Harris, and G. Ferguson. (Student Competition).*

10:05 am Plenary Speakers: *John Klymko and Morgan Jackson, University of Guelph*
“What’s in a Name? How Insect Systematics Streamlines IPM Strategies“

10:35 – 11:05 am Coffee Break and Poster Viewing

Session Chair: Sean Westerveld, Ontario Ministry of Agriculture Food and Rural Affairs

11:05 am DNA Barcodes: A New Tool for Pest Identification—*Robert Hanner*

11:25 am Research Update: LEM 17 Fungicide—*Pam Livingston, E.I. du Pont Canada Co.*

11:35 am Metrafenone and Caramba – New Fungicides from BASF—*Stoyan Pirgozliev, BASF Canada*

11:45 am Relative Resistance of Blue Ash to Emerald Ash Borer; a Case Study at Point Pelee National Park—*Shelley Stewart, G. Otis and C. Anderson. (Student Competition)*

12:00 pm - 1:15 pm Lunch and Poster Viewing

AFTERNOON SESSION

Session Chair: Simon Lachance, Alfred College – University of Guelph

1:15 pm Plenary Speaker: *Jim Chaput, Provincial Minor Use Co-ordinator, OMAFRA*
“Minor Use Program: Provincial and National Perspective”

1:45 pm Predation by *Coccinella septempunctata* and *Harmonia axyridis* (Coleoptera: Coccinellidae) on *Aphis glycines* (Homoptera: Aphididae) - *Yingen Xue*

2:05 pm Cyazypyr™: New Dupont Cross Spectrum Insecticide—*Saghir Alam, E.I. du Pont Canada Co.*

2:15 pm Identifying Fields at High Risk of Developing Economic Populations of Soybean Aphid—*Christie Bahlai, S. Sikkema, J. Newman, R. Hallett and A. Schaafsma. (Student Competition)*

2:30 pm – 2:45 pm Coffee Break and Poster Viewing

Session Chair: Jason Deveau, Ontario Ministry of Agriculture, Food and Rural Affairs

2:45 pm Investigating the Potential of Novel Tomato Hybrids for Management of Colorado Potato Beetle in Solanaceous Crops—*Christian Krupke*

3:05 pm Flumioxazin – A New Tool for Preemergence Weed Control—*Beth Connor, Engage Agro Corp.*

3:15 pm Climate Change Uncertainty for Ontario Pests—*Jonathan Newman*

3:35 pm Presentation of Student Competition Award Winners

Closing Remarks and Adjourn

Organic Agriculture Symposium: Fundamentals for Professionals

Join us on October 28th at 1 Stone Rd Conference Centre. This is day one of a 2 day symposium hosted by the **Organic Agriculture Centre of Canada (OACC)**, entitled 'Organic Agriculture Symposium: Fundamentals for Professionals'. Registration is \$30 per day. CCA Credits are applied for.

The second day of this Symposium will be on December 2 which will concentrate more on Organic Production Systems – Soils, Hort, Grains, Livestock.

Agenda: Tuesday October 28, 2008 Part I: Introduction to Organic Agriculture

- 12:00 pm Introduction and opening remarks—*Andy Hammermeister, Manager, OACC*
- 12:20 pm Organic marketing: Trends in the marketplace and the challenges and opportunities in marketing organic products—*Gunta Vitins, VP Marketing, SunOpta*
Regional discussion period followed by a Q&A session with Gunta Vitins
- 1:20 pm Transitioning to organic agriculture—*Rupert Jannasch, Transition Specialist, ACORN*
- 1:40 pm Economics of Organic Grain Production—*Loic Dewavrin, Longpres Farm*
Economics of Organic Horticulture Production—*Wolfgang Pfenning, Pfenning's Organic Farm*
Regional discussion period followed by a Q&A session with Loic Dewavrin and Wolfgang Pfenning
- 2:40 pm Regional networking and discussion break with refreshments.
- 3:20 pm Organic products regulations, standards, permitted substances and the certification process—*Janine Gibson, Executive Secretary, Organic Federation of Canada and Director representing the Organic Food Council of Manitoba*
Regional discussion period followed by a Q&A session with Janine Gibson
- 4:30 pm Closing remarks—*Andy Hammermeister, Manager OACC*
- 4:35 pm Adjourn

How to participate

Regional symposium locations are being set up across the country. All conference presentations will also be broadcast live online in both French and English. Participants are encouraged to attend regional meetings for full participation. You will have the opportunity to network with other local agricultural specialists and regional organic experts will be available to answer your questions. Refreshments will be provided. If in-person attendance is not possible you may attend on the web via web conferencing. A computer with a Windows Operating System and a flash-enabled web browser, speakers or headset and either a dial-up or high speed internet connection is all that is needed.

Registration

You may register for the symposium online by visiting our website at:
<http://www.oacc.info/symposia/welcome.asp>

For more information about this event please contact:

Kristen Lowitt, Research Symposia Coordinator at 902-896-3481 or klowitt@nsac.ca