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Welcome to “ON Organic”

Hugh Martin, Organic Crop Production Program Lead, OMAFRA

Welcome to the May 2009 issue of ON Organic. Your plans for the season have been developed and now you are on the land. A lot of your success this spring will depend on your ability to be able to manage your time, to prioritize and to get things done on time. It is also a stressful time – work safely. No one expects a farm accident but they do happen and consequences can be severe.

Thanks to Ecological Farmers Association of Ontario (EFAO) and Organic Council of Ontario (OCO) for forwarding this on to their email lists, and I encourage you to share it with other colleagues who may find it useful. A special thank you to those who answered our survey to give us comments and suggestions on the newsletter. As always we welcome your comments.

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>

The French version of these newsletters is available at: <http://www.omafra.gov.on.ca/french/crops/organic/news/news-organic.html>

The OMAFRA Organic pages are linked from <http://www.ontario.ca/organic> and <http://www.ontario.ca/biologique>

The ON Organic Team

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Growing Forward

Growing Forward is a five-year commitment by Canada's [federal](#), provincial and territorial governments to support the development of a profitable, innovative agri-food sector that is adept at managing risk and responsive to market demands.

Growing Forward builds on the Agricultural Policy Framework, which it replaces, but provides new opportunities to strengthen competitiveness. Watch for details on Growing Forward programs.

For more information go to www.ontario.ca/growingforward

5th Annual Conference on Organic Dairying and Dairy Research

By Mario Mongeon, Livestock Specialist (Bilingual), OMAFRA

The Fifth Annual Conference on Organic Dairying and Dairy research was held on April 2nd and 3rd, 2009 at University of Guelph-Alfred Campus. This conference is a fully bilingual event with simultaneous translation. This year's edition was a little bit different from previous years in the sense that the second day was exclusively devoted to farm visits. A number of exhibitors were present to provide information and answer questions about their products and services. The food was great and the networking opportunities abound.

About 80 people attended the event. Eight speakers made presentation on topics such as: parasite and fly control; behavioural changes around calving time; milk quality; grazing research; on farm cheese production and, economic aspect of transition to organic.

The second day was devoted to farm visits in Prescott County in Eastern Ontario. The first farm visited was Pinehedge Farm in St-Eugène, owned by the Heinzl Family. The bio digester for the production of methane used on the farm as a source of energy was one of the highlights of this visit as well as the Organic kefir and yogurts produced.

The second farm visited was Dameya Holstein in Glen Robertson, owned by the Schneider Family. This certified organic farm is home to a high producing, top genetic purebred Holstein herd. The quality of the animals was outstanding and obviously, these conscientious breeders pay

attention to detail. A lunch was offered to the people visiting while the owners were more than happy to share their knowledge and discuss various aspects of their operation with visitors.

Several take home messages could be drawn for this event, here are a few:

- The ability to identify the first signs of problems in a dairy herd could lead to prompt intervention and consequently disease prevention. Monitoring feeding behaviours and dry matter intake, particularly during the week before calving, can help identify cows at risk for post partum metritis.
- If flies are a problem in the barn, think clean and dry. Wood shavings used as bedding reduces the number of flies when compared to straw. Adequate ventilation and air movement help tremendously as well. Some essential oils seem to offer some potential as natural repellents, but more research is required.
- When you combine a top notch environment with quality genetics, and sound nutrition, this sets the stage for impressive milk production levels and the general well-being of cows.
- Prevention is the key in organic farming, particularly when it comes to animals.
- Parasitic infection prevention includes many aspects, depending on where the infection takes place.
 - ◊ In the barn, cleanliness is the key. Avoid overcrowding animals and group animals according to age. It is also important to keep cows away from cat or dog excrement.
 - ◊ On pasture, rotating pasture or using band grazing and moving animals weekly can greatly reduce the chance of infection. Animals should not return to previously grazed fields before 4 to 6 weeks in order to let the parasitic population decline. The faster the cow dung disappears from the pasture the better. Good soil life and adequate organic matter level will promote rapid degradation of dung and makes them unsuitable for parasitic survival.

This conference was a success and is a 'must attend' event if you are interested in organic dairy production, and research associated with this sector.

Proceedings are available online at these addresses:

In English at <http://www.alfredc.uoguelph.ca/recherche/index-en.php?id=69>

In French at <http://www.alfredc.uoguelph.ca/recherche/index.php?id=69>

Plan now for Annual Forage Pasture

By Jack Kyle, Grazier Specialist, OMAFRA

Spring is the time to plan for the annual forages that you might incorporate into this year's pasture program. Waiting until mid summer does not give enough time for the annuals to develop sufficient growth for productive pasture.

There are a number of annuals to consider for late summer and fall pasture:

- Sorghum-sudan grass is a high yielding annual that is best managed as zero graze but can also be strip grazed. Sorghum-sudan should be planted in late May to early June. Grazing can start once there is 45 cm (18 in.) of top growth.
- Cereals + peas can be used as pasture or silage and can also be used as a nurse crop when seeding down perennial forages. If pasturing when under-seeded exercise caution that perennial forage seedlings are not damaged by the grazing livestock. Mid summer seeding of spring cereals can produce some good fall pasture. Oats are likely the preferred choice for this option. Seeded in early August oats can produce late season grazing starting about 6 weeks after emergence. The oats can be broadcast or drilled into wheat or spring grain stubble. If oats are broadcast, they should be disced in to provide soil coverage of the seed. The one advantage of an oat crop is that they do not over winter where as barley may and could be a problem in the following crop year.
- Pearl millet and Japanese millet are annual grasses that will produce a good volume of forage although they may best be harvested as hay. The millets should be seeded into warm soils after all danger of frost.
- Grazing corn is an option that will produce a large quantity of feed that can be utilized during late summer, early fall or stockpiled and utilized during late fall and early winter. Strip grazing is essential to prevent wastage.
- Brassicas including fodder-rape and turnips are a specialized grazing crop that can provide good late season forage. Turnips can be seeded in July or early August for fall grazing. The tops can be grazed, then the roots are grazed later.

There are several factsheets that give more extensive details on annual forages available in the crops section of the OMAFRA website www.ontario.ca/crops

By planning now and determining your seasonal forage needs you will be able to provide full season grazing for your livestock.

When Should You Control Weeds?

By Hugh Martin, Organic Crop Production Program Lead, OMAFRA

Successful weed management requires attention to detail such as growth stages of the weeds and crop and excellent time management. On many farms we tend to concentrate first on planting and then get around to the weed control later.

Weeds are easier to kill when they are small, don't wait too late. For a weeder harrow or rotary hoe we can get good control at the white thread stage (germinated but not emerged) but control is relatively poor after annual seedlings are more than 3 cm tall and their roots are established. Row cultivation works well but weeds in the row can get too big and escape if there is no management of the weeds between planting and cultivation.

Research has shown that each crop has a defined period when yield losses will be greatest due to weeds. This usually starts soon after emergence of the crop and continues throughout part or most of June for spring planted crops.

| Crop | Critical Period |
|----------------------|--|
| Corn | 3 rd to 8 th leaf |
| Soybeans | 1 st to 3 rd trifoliolate leaf |
| Field beans | 2 nd trifoliolate to 1 st flower |
| Beets | First 2-4 weeks after emergence |
| Cabbage (early) | First 3 weeks after emergence |
| Carrots | First 3-6 weeks after emergence |
| Cucumbers | First 4 weeks after emergence |
| Lettuce | First 3 weeks after emergence |
| Onions | Whole season |
| Potatoes | First 4 weeks after planting |
| Tomatoes | First 36 days after transplanting |
| Apples, new planting | During May to July |
| Apples, bearing | Budbreak until 30 days after bloom |
| Strawberries | During May and June |

Removing weeds from the crop after this critical stage will have a minor effect on the crop's yield but may be important to prevent weed seeds for next year or harvestability of the crop, depending on the crop. Mid-summer weeding should concentrate on weeds with those potential effects.

There are many reasons for this crop competition effect. Competition for light moisture and nutrients are part of it but research has also shown that the reflection of red and far – red light between weeds and crops also affects the crop's growth habit and yield development.

Bottom Line: Control weeds as early as possible.

Pesticide Risk Reduction in Soybeans by Comparing Conventional, Organic and Integrated Weed Management Systems and Soybean Cultivar Traits

Project Lead - Andrew Hammermeister, Organic Agriculture Centre of Canada <http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1186004329843&lang=eng>

The objective of this study was to compare the efficacy of conventional, integrated, and organic weed management strategies in soybean through on-farm demonstration trials. Farmers hesitate to transition towards adopting practices involving reduced use of pesticides, including organic production, due to challenges in weed management. With the continuous rise in adoption of reduced till practices, key weed management challenges for soybean farmers are the development of weed resistance to herbicides in zero-till systems and the lack of sustainable, integrated systems approaches to weed control that do not rely solely on herbicide use.

To address these issues, researchers from the University of Guelph and the Organic Agriculture Centre of Canada, in collaboration with the soybean industry in Ontario compared three weed management strategies in soybean production:

- i) conventional zero-till with standard herbicide use;
- ii) integrated weed management (IWM) with band-spraying herbicides in crop row and mechanical control between rows), and
- iii) organic transition with mechanical and manual weed control.

The study concludes that soybean is an economically challenging crop to grow during the phase of transitioning from conventional to moderate pesticide use (e.g. through integrated pest management) or to organic systems. With the exception of fields with low weed infestation, soybean production during the transition phase will likely require very high input costs due to weed control requirements which is mainly due to higher cost of hand and mechanical weed control. Hand weeding is typically used only on smaller acreages, or for spot removal of particularly problematic weeds.

Soybean is not typically grown as an early transitional crop going into organic production due to its poor competitiveness with weeds. During transition, farmers will instead use more competitive crops, adjust tillage systems and

adopt cultural control methods (e.g. increase seeding rate, seedbed preparation, cultivar selection, planting date) to improve weed management. Soybean is often the first crop following transition, to take advantage of its high value, as opposed to growing it as a transitional crop where no premium is available.

For full report go to <http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1186004329843&lang=eng>

Co-dependency Between Organic and Conventional Agriculture: Transient or Long-Lasting?

This article by Jean Duval agr. poses some interesting and thought provoking comments.

Is organic agriculture dependent on conventional agriculture? Does conventional agriculture benefit from organic? His essay discusses numerous issues related to manure, genetics, equipment, research, certification and traceability.

For full article go to the OACC website at: <http://www.organiccentre.ca/Docs/DiscussionPapers09/Codependency%20final%20version.pdf>

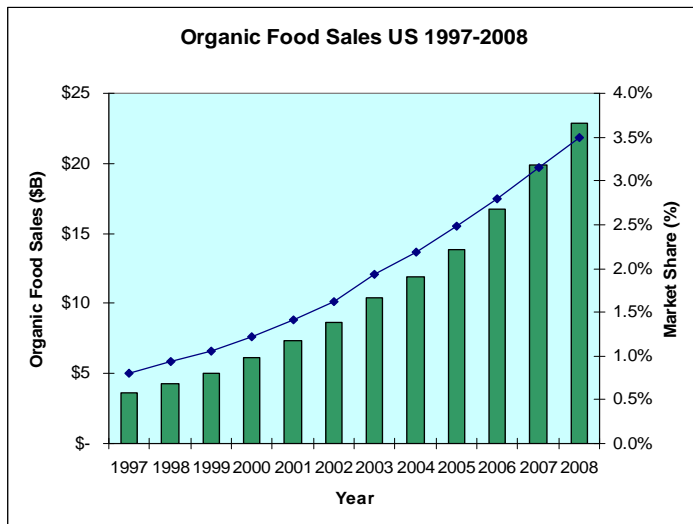
U.S. Organic Food Sales

By Hugh Martin, Organic Crop Production Program Lead, OMAFRA

This past week the Organic Trade Association released results of their 2008 Manufacturers survey. This is an annual survey to track the sales and growth of organic food and other organic products. In 2008 the sales of organic food grew 15.8% to reach \$22.9 billion in the USA. Non-food organic products grew by 39.4% to reach \$1.6B.

The graph below shows the growth of organic over the past 12 years. Organic food sales have grown from \$4B in 1997 to almost \$23B in 2008. Also note the significant increase in the market share percentage that organic has of the overall food basket. Organic foods now make up 3.5% of all food sales in the U.S.A.

In Canada, our organic food sales are estimated at \$1.5 to \$2 Billion per year and the overall market share is approximately 2%.



Articles from OMAFRA Newsletters

Tips for Successful Planting

By Leslie Huffman, Apple Specialist, OMAFRA

The investment in a new orchard is large, so it's very important to do things right, beginning with the planting year. Here are some tips to plant successfully:

- Site preparation: It usually takes 1-2 years to get a field ready for planting. For orchard replant sites, it might take

more, maybe up to 5 years. This is the time to improve drainage, add organic matter (cover crops, manure), adjust soil pH with lime if required, apply phosphorus, and control perennial weeds (which may take 2 to 3 years).

- Nursery stock: It's important to work with your nursery to ensure good quality trees delivered when you are ready. Trees should be kept dormant until planted, and roots should not be allowed to dry out. If planting is delayed, trees should be heeled into the soil, or kept in cold storage. Avoid keeping trees in storages where apple fruit have been stored, as the ethylene can severely damage trees.
- Time of planting: This is pretty simple - the earlier the better. This allows the tree to establish new roots before the warm weather begins pushing the tree's growth and drawing large reserves of moisture. For some sites, fall planting can also be successful if site preparation is good, weather is in your favour, and nursery stock is available.
- Method of planting: Hand or mechanical planting can be successful as long as roots are given adequate room in the planting hole or trench. The most important part is to re-adjust the tree height to ensure that the graft union is a uniform height above the soil line - after soil has settled.
- Care after planting: The soil needs to come in intimate contact with moist soil after planting. This usually requires physical movement of soil in the root area, as well as generous amounts of water. This first watering can also include plant starter fertilizer, mixed as directed, to avoid root burn. Avoid putting dry fertilizer or fresh manure in direct contact with roots.
- Pruning vs. training: I was taught that the top of the tree needs to be cut back to balance with the loss of roots due to digging the nursery tree. However, with advances in nursery production (which produces better, more compact root systems), and the need for early apple production (which is delayed with every pruning cut), many newly planted apple trees should not be pruned. The focus instead is on tying down all usable feathery branches, and providing the tree with all the water it needs from Day 1. In short, keep those pruners in your back pocket (exception if there is one dominant lateral - cut it off!)

For full article from the HortMatter s newsletter go to <http://www.omafra.gov.on.ca/english/crops/hort/news/hortmatt/2009/05hrt09a2.htm>

Give Food Safety a Helping Hand

By Jan Schooley, On-farm Food Safety Specialist, OMAFRA

One of the "big three" factors in on-farm food safety is hygiene. The hands that touch fruits and vegetables can carry hitchhikers that could cause foodborne illness. Both Salmonella and E. coli can be transferred from hands to the food. These two hitchhikers come from only one place -

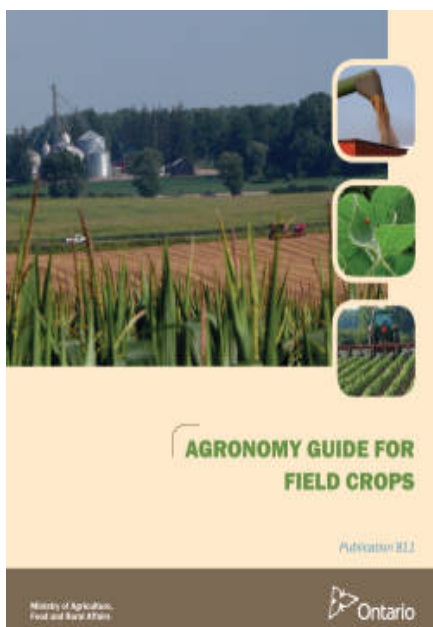
feces - or as your kids would say 'poo'. Your defence against this insidious traveller is relatively simple. Make sure that all employees who handle food products have adequate, easily accessible handwashing facilities. Are there toilet facilities readily available - are they clean - do they have soap, water, paper towels and a garbage bin? Is there hand sanitizer within easy reach when needed? To help you remind employees about the need to wash hands, OMAFRA is making available laminated posters in English and Spanish. Just call Kelley in Guelph at 519-826-3289 or Jan in Simcoe at 519-426-5694.

New Publications

OMAFRA has two new publications available this spring, Agronomy Guide for Field Crops and Integrated Pest Management for Apples. Both books offer significant revisions and updates from the previous editions. These are excellent publications with many descriptions of pests, crop problems, and other crop management issues that can increase the knowledge for all growers organic or conventional.

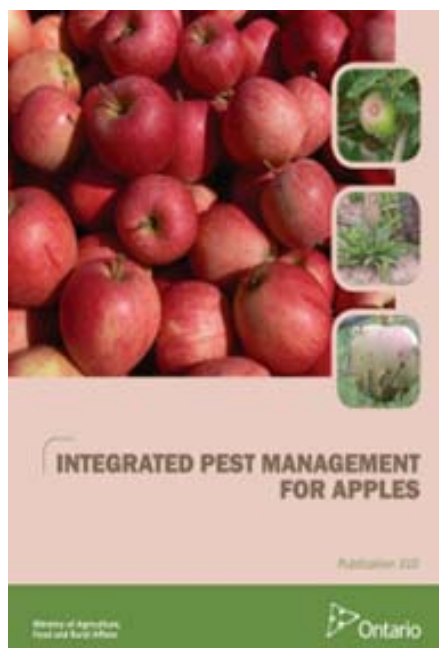
Agronomy Guide For Field Crops - Publication 811, Order #811, Price \$30.00

This revised publication is a comprehensive guide to field crop production. The latest recommendations on all aspects of producing field crops are included. Information on tillage options, soil management, variety selection, seeding, fertility, harvest, storage and more make this an important tool for a better bottom line. Descriptions of crop problems and more than 150 colour plates help with quick diagnosis. Diagnostic guides and scouting calendars make this publication a useful resource.



Integrated Pest Management for Apples- Publication 310, Order #310, Price \$50.00

The Ontario Ministry of Agriculture, Food and Rural Affairs



promotes the adoption of IPM, including using reduced-risk pesticides as well as alternative approaches to pest management. Our goal is to ensure that all apple growers use an IPM program, using pesticides only when necessary, and in ways that minimize possible impacts on people and the environment. This manual provides growers and consultants with the information they need to implement a

successful IPM program including pest identification, biology, monitoring, thresholds and management.

To order copies of these publications (or any others):

- Visit ServiceOntario Publications website at www.ServiceOntario.ca/publications
- Contact ServiceOntario Publications Contact Centre at: 1-800-668-9938 416-326-5300 TTY 1-800-268-7095

Research

Food Safety Research Program (FSRP) - Call for Letters of Intent

Researchers are invited to submit proposals for OMAFRA's Food Safety Research Program 2009/2010. The FSRP is an open, competitive research fund with the purpose of enhancing food safety in Ontario through state-of-the-art research. To date, the program has allocated \$6.7 million to 74 food safety research projects at a number of research institutions. The deadline for receipt of Letters of Intent is Friday, May 22, 2009 at 4 p.m.

More information is available at OMAFRA's website.

Events

May 21st - A Pasture Walk with Jack Kyle and Joel Bagg, OMAFRA

When: Thursday May 21st, 7:00 pm Come prepared for the weather! (Rain date: May 28th (Thursday) - 7:00 pm only in the event of torrential rain or lightening)

Where: Scott Honey's Farm 127 Honey Line, North of Warkworth, east 1 km on Honey Line off of Highway 25.

What: See first hand Scott's success with his intensive rotational grazing system and hear about the improvements in both health and productivity of his 85 head beef cow-calf herd. Scott has successfully extended grazing days and reduced production costs by planting a variety of crops in his pasture. Jack Kyle and Scott will lead us on a tour of the pasture system and review the technical aspects of a successful rotational grazing system. At sunset we'll join Joel Bagg in the driveshed to enjoy local, farm fresh, food and drink and take part in an open discussion on forage production and improving the bottom line your farm's 'green acres'.

For more information contact: Carolyn Geer, 705-340-0970 or carolyn.geer@sympatico.ca.

June 17-18 - Food Meets Function: The Science & Business of Functional Foods (London)

If you are involved in the functional food value chain, you won't want to miss this opportunity to learn about the latest innovations and cutting-edge research. From health professionals and researchers to producers and agribusiness professionals, this conference is for everyone who wants to learn about consumer needs now and in the future, how to educate a broader consumer base, and opportunities to generate alliances and strategies that start with the producer and end with the consumer.

More than 30 speakers will cover new advances in functional foods, beneficial bacteria, the benefits of functional foods of animal origin, and consumer, processing and retail trends. Registrants will also have the opportunity to participate in a pre-conference tour of livestock farms and processing facilities that produce functional foods in the area. For more information and to register, visit <http://www.foodmeetsfunction.ca/>.

Training

Guelph Food Technology Centre (GFTC) June 18 - Foods as Natural Health Products (NHPs): Part 1 of 2

This one-day workshop will provide expert advice about the interpretation, direction and use of the guidance document "Classification of Products at the Food-NHP Interface: Products in Food Format," launched by the Natural Health Products Directorate in March. The second part of the workshop will be offered in October.

June 19 - Health Claims Workshop - New Guidance Document

Gain in-depth knowledge and understanding of Health Canada's new guidance document for preparing a submission for food health claims.

June 23 or 24th - Soil & Water Management Workshop

Fine tune the skills and techniques needed for diagnosing soil quality and fertility problems in the field. Identify soil and nutrient management practices you can use to improve and maintain soil health and productivity. Cost: \$60

Program to Include:

- soil water and texture
- soil moisture monitoring
- soil structure and compaction
- ponds and drainage
- soil management influences on root systems
- irrigation
- soil life and nutrient cycling

The morning program will focus on the above topics. The afternoon will look more closely at assessing soil quality and diagnosing problems in field. The workshop is a hands-on and in field exploration of soil management issues.

Dress appropriately - i.e.: work boots, hat, bug spray & sunscreen. Bring your own - knife or soil trowel

Workshop Dates and Locations

June 23, 2009 - Niagara-on-the-Lake
June 24, 2009 - West Niagara
9:00 a.m. - 3:45 p.m.

Interesting Web Links

eOrganic - Organic Agriculture's New National Resource for Farmers and Ranchers brought to you by eOrganic

<http://www.extension.org/organic%20production>

This website features a lot of links to US state extension bulletins and projects for organic agriculture.

This resource, created by the eOrganic Community of Practice, is for farmers, ranchers, agricultural professionals, certifiers, researchers and educators seeking reliable information on organic agriculture, published research results, farmer experiences, and certification. Our current content is focused on general organic agriculture, dairy production, and vegetable production. The content is collaboratively authored and reviewed by our community of University researchers and Extension personnel, agricultural professionals, farmers, and certifiers with experience and expertise in organic agriculture.

Links to Organic Agriculture Information

Organic Council of Ontario (OCO)

<http://www.organiccouncil.ca>

Canadian Organic Growers (COG)

<http://www.cog.ca>

OMAFRA Organic Agriculture

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

Ecological Farmers Association of Ontario (EFAO)

<http://www.efao.ca>

Organic Agricultural Centre of Canada (OACC)

<http://www.oacc.info>

Agricultural Information Contact Centre: 1-877-424-1300

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

Northern Ontario Regional Office: 1-800-461-6132

www.ontario.ca/omafra