

ENVIRONMENTAL MANAGEMENT NEWSLETTER

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STINKY NEIGHBOURS?

WHAT HAPPENS WHEN PEOPLE MAKE COMPLAINTS

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IN THIS ISSUE :

- What happens when people make complaints?
- Green Energy Community
- Nutrient Management Updates
- Upcoming Events

With farms, woods, wildlife and fresh air, rural residents cherish the charm and beauty of the countryside. Many people move from cities seeking peace and a pristine environment in the country.

Most people understand that a rural community includes farmers and that farming is a business. Ontario's agriculture and food sector employs 650,000 people and contributes more than \$30 billion to the province's economy every year. This means that certain activities take place according to a production schedule; and some affect residents living close to farms. In almost all cases, farmers and their rural neighbours get along well together. However, there are some exceptions.

Last year (2007-08) the ministry received 203 complaints related to farm practices. Of these, 103 (51%) were about odour. The others were mainly about noise (35 %) and dust (8 %). The odour complaints are generally related to:

- farmers spreading manure on fields
- fans ventilating livestock barns
- manure piles
- mushroom farms.

To manage conflict about farm practices, the Ontario government enacted the Farming and Food Production Protection Act (FFPPA). This act establishes the Normal Farm Practices Protection Board (NFPPB) to determine "normal farm practices". When a person complains about odour or other nuisance from a particular farming practice, the board has the authority to hear the case and decide whether the practice is a "normal farm practice". If it is, the farmer is protected from any legal action regarding that practice.

Traditionally, when people make complaints about farm practices, a regional agricultural engineer works with all parties involved to resolve the conflict. This year (2008-09), the branch's environmental specialists have joined the engineers in resolving complaints. The board requires that any complaint go through this conflict resolution process before it comes to a hearing.

Each year, through the conflict resolution process, branch staff have resolved the vast majority of complaints. In 2007-08, only six of the 203 cases resulted in hearings before the board. Of these, only two were odour cases. Thus, while odours remain the biggest cause of complaints about farm practices, branch staff working through the conflict resolution process has proved very effective in dealing with them.

SWISS ENGINEER SPEAKS ABOUT GREEN ENERGY COMMUNITY

By: Jake DeBruyn, P.Eng, OMAFRA Innovation, Engineering and Program Delivery Unit

The Oxford County (Ontario) Federation of Agriculture recently hosted Thomas Boehni, an energy engineer from Switzerland to discuss rural green energy communities. Mr. Boehni, a mechanical engineer by training, runs Boehni Energy and the Environment based in Frauenfeld, Switzerland. At a workshop in Woodstock, Ontario on November 18, 2008 Boehni outlined his work with the village of Hohentannen. This village of 604 inhabitants is pushing to a goal of 50% locally-sourced renewable energy by 2012. The focus is on electricity, heat, and vehicle fuels.

The region around Hohentannen has a population of 250,000 people, and spends roughly \$600 million/year on oil and natural gas source from other jurisdictions. By shifting to locally sourced energy sources (even if they cost a little more) significant economic benefits can be captured for the local community, and spending is kept in the local area.



Figure 1. Solar photovoltaic installation on residence Hohentannen

One area Boehni focused on in his presentation is the installation of solar photovoltaic (PV) units in conjunction with heat pumps as a key opportunity that is being widely implemented by farmers and villagers. He focused on optimizing energy capacity from a small footprint. The following conversions outline different approaches to capturing energy from 1 m², according to Boehni:

- 1 m² solar panel (PV) = 140 kWh electrical/year
- 1 m² PV with heat pump = 560 kWh heat = 50L oil
- 1 m² solar thermal heat = 380 kWh heat/year
- 1 m² corn silage = 1.5 kWh electrical (via biogas)
- 1 m² grain corn fed to animals = 0.1 kWh energy (in meat)
- 1 m² potato = 3.3 kWh energy (as food)
- 1 m² wood residue (after lumber)=1 kWh heat

In terms of transportation, the Swiss are more apt to drive small vehicles and have more diesel vehicles available in the marketplace. As a result, the use of Straight Vegetable Oil (SVO) is becoming common, blending with diesel at up to 50% during summer months. Note that this is not biodiesel, rather pure oil. SVO is purchased directly from the farmer at a fuel pump on the farm. In terms of using land for fuel, Boehni pointed out that a conventional North American pick-up truck gets about 1 km from the yield from a square meter of canola field, a small economical car gets about 5 km/square meter of canola field, and an electric bike gets about 5000 km with a square meter of solar panel.

Switzerland has an electricity price regime that favours solar panels mounted onto existing roofs, offering about 70¢/kWh, compared to ground-mounted solar panels which get about 50¢/kWh (comparable to the 42¢/kWh offered for solar PV in Ontario under the Renewable Energy Standard Offer Program). But rapid uptake in their electricity system means that some projects don't get the high price. Despite this, people are installing a variety of systems even in the absence of incentives or grants. The motivation to support local industries (one PV manufacturer is located a few kilometers away in Germany) or local sources of fuel (local biomass for use in a district heating system) act as additional motivators for local participants.



Figure 2. Energy efficiency retrofits at local castle in Hohentannen

It is important that we weigh the economic, environmental and social implications of the energy approaches that we advocate. In most circumstances energy efficiency is the first and easiest step that any farming or food processing operation should pursue. In addition to federal and provincial grants being offered for audits or retrofits, usually the payback on energy efficiency steps merit the attention of facility or farm operators. And as technology and societal values shift (for example, the planned phase-out of coal-fired power in Ontario), old assumptions about certain technologies being non-viable or not being relevant for our stakeholders might change. Looking to other jurisdictions can be helpful to motivate and excite us as we move forward here in Canada.

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For more information on energy conservation and generation visit OMAFRA's energy website: www.omafra.gov.on.ca/english/engineer/energy.html

NUTRIENT MANAGEMENT

Attention consultants!

The first group Agricultural Operation Strategy and Plan Development certificates are due for renewal in 2009.

The Nutrient Management Regulation requires that three criteria be met to renew your certificate (s.100 (5)):

- Hold an initial certificate in good standing that has not been suspended or cancelled
- Within one year before applying for renewal Pass an exam
- Pay a fee to write the exam

We strongly suggest you start planning for your renewal one year in advance of your expiry date. This will ensure no interruption of your certified status. We recommend you follow the process below to have your certificate renewed.

1. Check your expiry date
2. Request a study package from the Nutrient Management Information Line 1-866-242-4460
3. Study for the exam
4. Call the Nutrient Management Information line to find out the exam schedule
5. Write the exam at least six months in advance of your expiry date
6. When you pass, submit your application for renewal to the Guelph office at least three months in advance of your expiry date

If you do not pass the exam, you will have two more opportunities to write before you must begin the certification process again.

NUTRIENT MANAGEMENT REGULATION AMENDED TO ONTARIO REGULATION 392/08

Nutrient Management Regulation 267/03 was amended to O. Reg. 392/08 which postpones the phase-in dates for some non-agricultural source material generators. The new phase-in dates are as follow:

Item	Type of non-agricultural source materials generated and circumstances	Date of phasing-in
1.	Sewage bio-solids if,	
	(a) the operation is a municipal sewage treatment works that has an approved design capacity of 45,400 cubic metres or less per day;	December 31, 2009
	(b) the operation is a municipal sewage treatment works that has an approved design capacity of more than 45,400 cubic metres per day.	January 1, 2005
2.	Non-agricultural source material that is not described in item 1.	December 31, 2009

Farms that are phased-in under the Nutrient Management Regulation and land apply non-agricultural source material (NASM) must have an approved NMP unless they qualify for an exemption until December 31, 2009 by meeting all of the following conditions:

1. Livestock numbers less than 300 NU and
2. The farm is not within 100 metres from a municipal well and
3. There is an Organic Site Certificate of Approval (C of A) issued by MOE and OMAFRA is notified of the C of A.

For a copy of the most current version of the Nutrient Management Regulation 267/03 visit
http://www.e-laws.gov.on.ca/html/regs/english/claws_regs_030267_e.htm

2008 STATISTICS OF INTEREST

# of Phased-in Farm Units / Associated Land Base	2200 / 250,000 ha
AOPC certificate holders (Certified Farmers)	171
AOSPDCC certificate holders (Private Sector NM Consultants)	102
NM course participants since 2004	3,400
PMAB Licence holders (Land Applicators)	144
Broker certificate holders	149
Technician licence holders	552

Estimated 2008 statistics

Question from Consultants and Farmers

QUESTION:

An uncertified farmer prepared his own NMS/Plan several years ago and it is due for a five year renewal. There are no changes to the operation that require a re-submission of an NMS/Plan for approval. What are the renewal requirements for this farm?

ANSWER:

The farmer needs to have a certified NM consultant update his strategy and plan, keeping this information on the farm. The farmer (or consultant) must also complete the registration documents and send them to OMAFRA.

Upcoming Events

January 17, 2009 – Farm\$mart Agricultural Conference, University of Guelph.

Mark your calendar and check for details at www.uoguelph.ca/farmsmart/

January 22 – 25, 2009 – 28th Guelph Organic Conference, "O is for Opportunity", Guelph University Centre. Complete details at www.guelphorganicconf.ca/

February 3 & 4, 2009 – Ontario Soil & Crop Improvement Association 2009 Annual Meeting, Sheraton Fallsview, Niagara Falls. Watch for details at www.ontariosoilcrop.org

March 10 – 13, 2009 – 3rd Annual Growing the Margins Conference, London Convention Centre, London, ON. This conference will be held in conjunction with the 1st Annual Canadian Farm and Food Biogas Conference and Exhibition. Visit www.gtmconference.ca/ or www.gtmconference.ca/splashbiogas/ for more details.

Nutrient Management Consultant Update Meetings:

February 12, 2009 Guelph
February 19, 2009 London
February 26, 2009 Kemptville

VISIT

US

ONLINE

WE WANT TO HEAR FROM YOU!

Do you have questions? Need more information?
Have a comment about what you'd like to see in the next issue? Please contact your area Environmental Specialist at:

<http://www.omafra.gov.on.ca/english/nm/newsletter/emn.htm>

Nutrient Management Information Line: 1-866-242-4460

E-mail: nman.omafra@ontario.ca

www.ontario.ca/omafra