

The Newsletter



The Sustainable Development Committee

Recycling of Organic Materials: a challenge for Quebec

Organic materials account for 60% of the content of Quebec garbage bins. If all these wastes were recycled, the amount of garbage going to landfill sites in Quebec would be reduced by more than half! Zoom in on composting in the MRC de Memphrémagog.

This spring, the Quebec government announced its new "Politique de gestion des matières résiduelles", including a ban of all organic materials in sanitary landfill sites within ten years. This is a news item to make you stand up and take notice and one which has been the subject of various blogs in recent weeks and has elicited widely different points of view.

Recycling of organic materials is a very big topic in the world of specialized environmental technologies these days. The 9th Biennial "Americana" Salon of environmental technologies in March, organized by the Réseau environnement, hosted experts in the field. Biomethanization (see the article on page 3), pyrolysis, plasma gasification and other industrial composting technologies were among the themes on the program. The president of the Sustainable Development Committee of the MRC and mayor of Ste-Catherine-de-Hatley, Mr. Jacques Demers, said, "This conference featured very specialized and highly technical presentations, of great interest for all the promoters of projects".

The municipality of Ste-Catherine-de-Hatley, situated between Lake Magog and Lake Massawippi, is one of those that took the initiative of signing an agreement in 2008 with the Régie de gestion des déchets solides (the solid waste management board) for the Coaticook region. I encourage you to read the article written by the general director of this board on page 3. By signing an agreement with the Régie, the municipalities began *third stream recovery* (with a brown bin for organic materials) in 2009. As a result, for the past two years the partner municipalities have been able to boast of being among those that are diverting the highest proportion of organic materials from the landfill stream. The figures speak for themselves; is the time for the municipalities that do not yet offer this service (three-stream pick-up; leaves and Christmas trees) to engage in some serious thinking about organic materials with their citizens.

This reflection could well be extended beyond the boundaries of the MRC.

Will we be able to ban organic materials from waste management sites for 2020? It is a question of willingness in all sectors, from the provincial and municipal to the individual. We hope at the very least that the tips we offer here will help you act in a way that lives up to your good intentions.

I leave you with an image of Épinal at the end of a wonderful ski season!



Mont Orford tourist station.

Photo: Stéphane Lemire

Christine Labelle
Assistant director



The chronology of compost

9000 B.C. – Farmers note that as the leaves rotted, they became part of the earth; the first traces of compost were observed near Jerusalem and in China.

XIth century – The Templars become masters of composting forest waste materials.

XIIIth century – Compost: adjective from the Norman word "compote" (a dish made of meat and mixed foods, preserved in vinegar).

XVIIIth century – The occupation of refuse collector appears in towns overwhelmed by garbage and debris of all kinds; the refuse collector collected urine and excrement from the latrines and the mud from roads and sold it back to the peasants as fertilizer.

1990 – The Composting Council of Canada, which advocates for composting in Canada, comes into being.

1995 – Originally established in Canada, International Compost Awareness Week is intended to focus the attention of the public, companies and other groups on composting.

2000 – In Edmonton, Alberta, the largest composting factory of its kind in North America acquires a bioreactor, 38,690 sq. metres in size, which is the equivalent of 8 football fields.

2008 – Several municipalities in the MRC choose three-stream management for their citizens, and organic materials are now being sent to the composting platform in Coaticook.

2009 – The team at the MRC de Memphrémagog begin a series of visits to schools to teach about vermicomposting (with worms), to the great delight of the children.

2011 – The Champlain Bridge officially begins to compost! (With a wink at Philippe Laguë.)

2020 – Directing putrescible (rottable) material to landfill will be prohibited.



Composting deconstructed

By Mélanie Desautels
Project manager

Household composting is a simple and ecological way to obtain an excellent soil amendment for gardens and flower beds. The organic material is decomposed into a product that resembles earth, called compost. This is a natural process carried on by microorganisms that transform wastes into a nutritive material.

Producing compost makes it possible to add value and use up a large quantity of organic material by reducing at source the amount of wastes to treat. Compost improves the soil structure by offering the best conditions for aeration, moisture retention and drainage. In addition, in contrast to fertilizers that

nourish only the plants, compost promotes multiplication and activity of microorganisms in the soil. These nutritive elements are more easily available, because the compost is completely accessible to the plants (bioavailable).

At home, organic kitchen and garden wastes are compostable. Among the best materials: residues of fruits and vegetables, bread, pasta, egg shells, coffee grounds, dead leaves, plants and wood chips. To avoid problems, it is best not to put leftover meat or fish, diseased plants, dairy products or fats in the compost.

To prepare compost, a commercial or home-made composter is usually used. Certain rules should be followed:

- Place the composter in a shady, well-drained place;
- Turn over the soil where the composter will be located, and cover the soil with a layer of small branches;
- Alternate layers 5 to 10 cm thick of damp materials (e.g.: fruits and vegetables) and dry materials (e.g.: dead leaves);
- Aerate the pile frequently by making holes to increase the amount of oxygen;
- Keep an eye on the humidity of the pile, because the pile will decompose more slowly if it is too dry and it is more likely to smell bad if it is too humid.

To learn more about household composting, consult the website of the MRC under the environment section. For additional information, in English, check the site of the Composting Council of Canada.

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One of the “Master composters” in the Municipality of Potton who shows off a home-made composter.

Photo: Municipality of the Township of Potton

Herbicycling or grasscycling: effortless lawn enhancement!

By Mélanie Desautels
Project manager

Turning to the outside, herbicycling or grasscycling makes it possible to decrease at source the amount of organic material produced by your lawn. Favoured in rural areas where properties are larger, this method consists simply of leaving grass clippings where they fall, when the grass is cut. As they decompose, these “wastes” release a natural fertilizer rich in nitrogen, which makes for a healthy lawn. Herbicycling also makes it possible to save time (you no longer have to rake the grass), and money, by reducing the need for lawn fertilizers.

Although it is not essential, using a lawn mower with a shredder blade is the best tool for herbicycling. It is usually possible to change a standard lawn mower blade for a blade that shreds as it cuts. However, an ordinary blade will be just fine if it is well-sharpened and the grass is dry.

Other tips for healthy lawns

For a lawn that can resist drought, pests and disease, one of the keys to success is to promote the presence of several plant species. To make a denser lawn with less room for “weeds”, it is also possible to reseed bare areas with a mixture of several grasses (Gramineae). Another is to set the height of the lawn mower to about 8 cm (3 inches). The grass roots will then be deeper and will be able to reach water more easily.

The soil naturally plays an important role in having a healthy lawn. If the lawn is small, it can be aerated to bring oxygen, water and nutrients to the roots. By spreading compost over the lawn in the spring and by practicing herbicycling, you will be fortifying the soil and growing its long-term fertility.

In addition to contributing to creating favourable conditions for the lawn, ecological lawn maintenance makes it possible to reduce the consumption of fertilizer and pesticides and to limit the amount of organic materials sent to landfill, all advantages for the environment not to be sneezed at!

An electronic version of this newsletter is available at www.mrcmemphremagog.com.
Une version française du bulletin est disponible au www.mrcmemphremagog.com.



An Efficient Composting Platform in Coaticook

By Francis Lussier
General director

Régie intermunicipale de gestion des déchets solides de la Région de Coaticook

The *Régie intermunicipale de gestion des déchets solides de la Région de Coaticook* (the waste management board or *RIGDSC*) is made up of 18 municipalities of the MRC de Coaticook and the MRC de Memphrémagog. The member municipalities from the MRC de Memphrémagog are: Ayer's Cliff, Canton de Hatley, Stanstead Township, Hatley, North Hatley, Ogden, Ste-Catherine-de-Hatley and Stanstead.

The RIGDSC is taking major steps to keep organic material out of landfill. In December 2007, a composting platform was erected above a former landfill cell. The treatment of compostable materials is carried out on an impermeable surface of 3,575 sq. metres (55 m x 65 m). This site was chosen to limit the clearing of an area of virgin land and to optimize the use of the present property.

The Régie is authorized to produce 4,500 metric tonnes of compost annually. The actual production of compost is around 2,500 metric tonnes per year.

After the organic materials are unloaded, they are mixed with the basic raw material (wood chips and

bark) and then piled. This is when the biological treatment begins. The temperature in the piles reaches around 70 °C. The piles are turned over to promote aeration and thus keep the biological process at its optimum level.

In general, the composting process is completed after a period of six months. Once the various physical and microbiological tests are completed, the compost is ready for a variety of uses. Most of the compost produced in past years has been distributed to the municipalities.

Since the composting platform was set up, the members of the Régie and their clients have added value to nearly 11,500 metric tonnes of organic material and produced almost 5,000 metric tonnes of compost. The environmental gain in terms of greenhouse gases (GGE) avoided through composting represents around 11,000 tonnes of equivalent CO₂ (GGE).

It is possible to visit the installations of the Régie. Just call 819 849-9479.



Incoming organic material.

Photo: Régie intermunicipale de gestion des déchets solides de la Région de Coaticook



Turning the piles.

Photo: Régie intermunicipale de gestion des déchets solides de la Région de Coaticook



Mature compost.

Photo: Régie intermunicipale de gestion des déchets solides de la Région de Coaticook

Municipal collection services for organic materials near you

	Type of service		
	Three-stream pick-up	Leaves *	Christmas trees*
Austin		X	X
Ayer's Cliff	X	X	X
Hatley	X		X
Canton de Hatley	X		X
Magog		X	X
North Hatley	X	X	X
Ogden	X		
Canton d'Orford	X	X	X
Potton Township		X	
Ste-Catherine-de-Hatley	X		
Stanstead	X	X	X
Stanstead Township	X		

* Voluntary for those who wish to compost leaves or Christmas trees.

Technologies: Biomethanization

By Alexandra Roy
Environment project manager

Biomethanization is a process to produce gas from a variety of organic sources, including garbage, food wastes and the sludge from waste water treatment. Just as in composting, bacteria break down organic material, but in an anaerobic setting, that is, without oxygen. There are two

main products that result: digestate, a sludge rich in organic material and biogas, and a gaseous mixture mainly composed of methane (50 to 70%) and carbon dioxide (20 to 50%). Biogas can then be used to replace fossil fuels or to produce electricity, while the digestate can be composted.

The biomethanization process is carried out in an installation used solely for this purpose, while the biogas may be recovered from engineered landfill sites, where the garbage is buried and does not come in contact with the air. In Quebec, the MRC de Rivière-du-Loup has been developing a

biomethanization project for organic materials. Closer to home, a cooperative has been operating since 2005 with biogas recovered from the landfill site in Coventry, Vermont, to produce electricity. With an energy production capacity of more than 8 megawatts, the site makes it possible to provide electricity to two thirds of the 10,000 members of the cooperative.

Regional Notice board

Municipality of Austin

The reduction of waste materials and its impact on the environment is something the Municipality of Austin considers very important. It has taken various steps to ensure that its citizens are well informed and aware of the challenges. The municipality wants to provide all possible tools to reduce, recover, reuse and add value to these materials wherever possible. The ultimate goal is to meet the requirements set by the government, to help residents take responsibility and to improve the quality of the environment.

As part of its effort to enhance public awareness, the municipality recently invited Ms Edith Smeesters, biologist and speaker, to train a group of interested citizens to become "master composters". These future master composters will then share their knowledge and know-how with the community, acting as volunteers for composting.

The objectives of this program are to:

- Reduce organic materials at source and in an ecological way;
- Reach as many people as possible by training multipliers who will stimulate others to compost;
- Train experts in household composting who will share a common message thanks to excellent training incorporating both theory and practice;
- Give citizens simple, precise information to show the advantages of composting, how easy it is and how many ways there are to do it;
- Help citizens assume responsibility for reducing their garbage at source. By making compost, people see that they can do something to improve their environment and they can show others how to do it too;
- Improve composting techniques and the methods of promoting and disseminating these techniques.

The more citizens become involved, the more these new ideas will take root. Call us!

Ville de Magog

Ecocentre opening hours, 2011

SPRING AND FALL OPENING HOURS
March 24 to May 30, 2011 and from September 1 to November 26, 2011:
Thursday, Friday, Saturday, Monday, from 8 am to 5 pm Sunday from 8 am to 1 pm NEW
The re-use area: Friday and Monday from 1 pm to 5 pm
SUMMER OPENING HOURS
June 2 to August 28, 2011:
Thursday, Friday, Saturday, from 8 am to 5 pm Sunday from 8 am to 1 pm NEW
The re-use area: Friday from 1 to 5 pm
WINTER OPENING HOURS
December 3, 2011 to March 17, 2012:
Saturday, 8 am to 5 pm

There was an error in the garbage and recycling calendar of waste materials and recyclables 2011, distributed to residents of Magog. The summer timetable for the ecocentre, for Thursday, Friday and Saturday should be 8 am to 5 pm. Thank you for your understanding.

Composting workshops, 2011: April 2, May 7, June 4, July 9, August 6. To participate in one of these workshops, you must be a resident of Magog and call the Public Works and Technical Services to register: 819 843-7106.

2011 Activities – MRC de Memphrémagog

Event: Septic systems

Date: Saturday May 21, 2011
Time: 9 am
Place: Community hall, Ste-Catherine-de-Hatley, 85 de la Grande Rue (route 108)

NO CHARGE FOR ADMISSION

Exhibitors' Salon from 9 am to 2 pm (Room A): Come and meet representatives of the different residential waste water treatment technologies, and the technologists offering consulting services to evaluate the work.

Talk from 10 am to 12 pm (Room B): The two invited speakers will demystify septic systems: they will explain how they work, and talk about different technologies, municipal regulations that apply, maintenance and the steps to take to carry out work.

School workshops

Two workshops will be presented by the MRC de Memphrémagog in elementary classrooms this spring on: «*La biodiversité – La quête pour les bêtes*» and «*Une vie nouvelle pour nos déchets*». These activities, which will be led by an experienced and dynamic animator, Mr. David Curry, have been developed to stimulate the interest of students by involving them looking for ways to preserve biodiversity and to reduce trash at source, and re-use and recycle or recover it at home and at school.

Come meet an environment councillor at the MRC booth during the following events:

May 7	Reception for new arrivals and volunteers, St. Matthew's Church, Stukely-Sud
May 14	Journée du Grand ménage, Eastman
May 21	Exhibitors' Salon, talk on septic systems, community hall, Ste-Catherine-de-Hatley
May 21	Distribution of trees and annual sale of perennials, Ayer's Cliff
May 29	Distribution of plants onsite, LAMRAC, Magog
June 4	Neighbours' Day, municipal park, East Bolton
June 24	Fêtes de la Saint-Jean-Baptiste, Parc Forand, Stanstead Township
June 25	Austin en fête, municipal park, Austin
July 1	Canada Day, Hatley
July 9	Border Fest, Stanstead
August 26 to 28	Country festival, Stukely-Sud
August 27	Distribution of compost, 520 rue St-Luc, Magog
September 4	Distribution of plants, 520 rue St-Luc, Magog

Visit the site of the MRC at **www.mrcmemphremagog.com** for other activities as they are added.

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