

THE LATEST DIRT

WINTER 2004



THE NEWSLETTER OF THE GREATER VICTORIA COMPOST EDUCATION CENTRE

COMPOSTING TOILETS! The Next Wave of Composting (Part 1 of 2)

by Angela Evans, BES, MCIP

Inside

Smashing Pumpkins
Successful

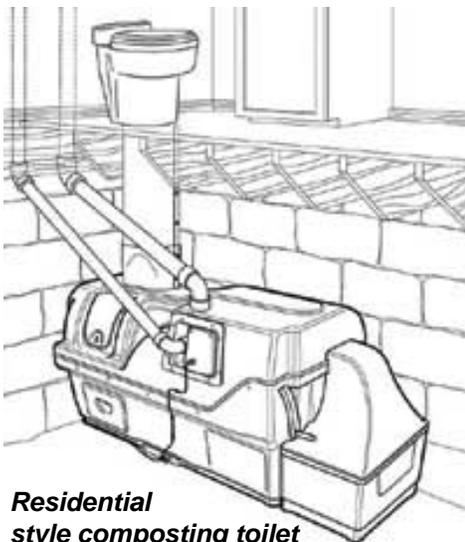
Angela Evans is a long time Compost Education Centre member. She sees composting toilets as one of the many exciting appropriate technologies available to help communities become more sustainable. Angela is a planner with Local Solutions Consulting Services, researching, writing, speaking, and engaging communities to help them towards the goal of sustainability.

OK all you composting converts, get ready for the next wave. You've heard of deep ecology? Well think of this as deep composting! Sure, you believe that all our organic food wastes should be returned to the soil in order to complete the nutrient cycle, reduce landfill waste, and to replace expensive petro-chemical based fertilizers. But what about the nutrients that cycle through our bodies? Going too far perhaps? Well, there are many benefits to keeping our human waste out of our water systems (oceans, streams and aquifers) by removing water from the toilet equation as completely as possible, and letting oxygen and bacteria turn the "waste" into a resource.

The Problems:

The first problem is conventional sewage treatment plants. They smell bad. They are stunningly expensive to site, build and run, use harmful chemicals and energy, aren't based on the principles of sustainability, and yet still pump polluted effluent into water bodies. Because all types of waste (commercial, residential, institutional, industrial) goes into the same pipe, this effluent contains nutrients and pathogens at best, leading to the closure of shellfish harvesting areas and beaches. At worst the effluent can contain a cocktail of chemicals, heavy metals and medications which typically don't get treated.

What if you're not connected to a municipal treatment plant? You are likely on a private septic system. These are ever more expensive to install and maintain, take up lots of otherwise useful rural land on your property and sometimes need the importing of tonnes of the 'right' kind of soils for a disposal bed. In addition, they sequester only about 10% of the nitrogen in the sewage and leave the rest to enter the soils and/or groundwater. Studies have shown that the longevity of a well installed system is rarely the industry standard of 20 years, but closer to 7 years. Granted, many new systems are coming onto the market but their longevity isn't proven yet either.



**Residential
style composting toilet**
- photo courtesy of Sun Mar

Both of these approaches rely upon huge volumes of clean, treated, potable water to transport the human waste from the toilet to the treatment location. Our source in the CRD is the Sooke River Reservoir, a finite resource. In addition both systems create an undesirable by-product - - sludge. Presently solids screened from our core are sewage is trucked to the Hartland Landfill from where the leachate is drained back to the sewage outfall at Clover Point. This Flush-and-Forget-it approach just isn't sustainable. Sludge pumped out from septic systems and the peninsula treatment plant CRD is trucked to a private company in Langford for treatment.

The Solution:

The answer to our wastewater woes would use less energy and fewer resources, create fewer toxic by-products and result in less discarded material. It would have minimal impact upon wildlife and human habitat, be easier to build and operate (preferably by members of the community at large), and allow for closer links between waste production and resource use. It would reduce the amount of land required for new development of both urban and rural communities. And it would not smell bad. Can anything fit this bill? Yes! Composting toilets, also known as dry, waterless or biological toilets.

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The Greater Victoria

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EDUCATION
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Lonely Board of Directors Seeking New Participants

Are you a keen composter and avid organic gardener? Would you like to spend time with others who are enthusiastic about giving input and setting direction for Compost Education Centre? We would love to meet you! We are five devoted board members seeking two additional board members for strategic planning fun!

Activities include:

- Attending monthly board meetings, including Annual General Meeting
- Maintaining knowledge of the Compost Education Centre and a personal commitment to its mission and objectives
- Actively participating in the overall planning of the Compost Education Centre's education programs and services.
- Reviewing the annual proposed budget
- Supporting and assessing the Executive Director of the Centre.
- Enhancing the public standing of the Compost Education Centre

Time commitment for the above activities: approximately 7 hours per month

Meetings dates: held on the third Wednesday of every month, at 5:30 in the Straw Bale Building of the Compost Education Centre.

Rewards: Working with an involved board of directors and enthusiastic and motivated staff!

Seeing the improved services and education programs at the Centre as a result of your work.

Call or email Kathy Cook (President) at 370-0991 or kcook@islandnet.com for more information. We would love to have you "on board"!

Comings and Goings



*Geoff
Johnson*

For the past five years, Geoff Johnson has been our compost and organic gardening guru, guiding the development of the demonstration site at the Compost Education Centre. That's five years of veggie garden and permaculture education, volunteer training, rain barrel installation, forest gardening, sheet mulching, hotline answering, worm production, compost humor and more! He has continually sought to improve himself professionally to the benefit of the Centre and definitely practices what he preaches. Now, our guide is moving on to another path: pursuing his long time interest of starting a specialty plant nursery. We wish Geoff well in his new endeavors, but won't give our final farewell yet- Geoff will still be facilitating some of our workshops in 2005 (It's not easy to let go!).

We welcome Chris Wells as our full time site educator for 2005. Chris is an organic farmer as well as a compost enthusiast. He has been involved with the Compost Education Centre since 2001, as a volunteer and part time staff member. Currently, he is working on some "radical rearranging" of the office in preparation for program delivery in the New Year!

We gratefully acknowledge the core funding support that we receive from the CRD and the City of Victoria. Additional support is provided by the Fernwood Community Association and through the generosity of our Compost Club Members and the residents of Greater Victoria.

PUMPKIN COMPOSTING PROMOTION A SMASHING SUCCESS



In October and November of this year you may have received the message that you should be “smashing, not trashing” your pumpkins after Halloween. If you did, it may have been the result of the media coverage we received after sending out the press release entitled, “Smashing Pumpkins, Give your pumpkin a proper burial in a compost heap”

This was the first time the Compost Education Centre, in partnership with the Capital Regional District, had promoted the concept of smashing and composting pumpkins after Halloween, instead of sending them to the local landfill. The goal was to raise awareness that:

- Approximately 120,000 kgs of pumpkins are sent to the Hartland Landfill each year
- Landfilling these pumpkins is a large waste when they can be easily composted with fall leaves and used as a soil amendment come Spring
- The Compost Education Centre provides information on how to start composting

Judging by the amount of free media coverage we received, this initiative was a success! Between Oct 29th and Nov 5th our messages appeared on or in:

- CBC radio one, “On the Island”
- The New VI’s New Day AND the evening news
- Times Colonist
- Website: 100.3 FM, The Q
- 98.5 FM, The Ocean

We also received several hotline calls from residents asking how to compost their pumpkins and had a record number of people attend our November Composting Basics Workshop.

Thank you very much to the following:

- Capital Regional District, Environmental Services Department for coming up with the idea and assisting us in carrying it out
- Thrifty Foods for providing us with the information we needed to calculate the number of kilograms of pumpkin sold and for donating pumpkins to the cause
- Galey Bros Farms for graciously letting us into their pumpkin patch to take pumpkin pictures



Stay tuned for us next year in the news as we continue to raise the profile of backyard composting and the Compost Education Centre.

VITAL VOLUNTEERS

This year, a big thank you goes out to all the volunteers who contributed a total of 1,389 hours to the Compost Education Centre. This is equivalent to one full time staff member!



Volunteers enjoy dinner and entertainment at recognition event

The varied activities that volunteers participated in were: community outreach, direction setting (board of directors), site work, office administration, computer and website maintenance, compost toilet acquisition, answering visitor and hotline questions, special events and more!

Two volunteer training sessions were held in 2004 with 22 compost educator graduates. In addition, many other volunteers made time for the Centre, coming in for individual training.

Our recognition event was held on Oct 16th and was attended by about 30 volunteers and their families. This was an opportunity for staff to thank volunteers for all their time and efforts by hosting a dinner, an awards ceremony and entertainment.

We look forward to the return of 2004 volunteers and meeting new “compost keepers” in the New Year.

NATIVE PLANTS SOUGHT FOR LANDSCAPING PROJECT

Plants, plants, plants! That is the current theme for the landscaping partnership project the Compost Education Centre is working on in Sidney. Called Homes and Habitats, the goal is to design and create an ecologically friendly landscape at homes being built for low-income families through Habitat for Humanity.



One of the plant we are looking for: Sword Fern, *Polystichum munitum*

For all native plant gardeners out there this is a great time to donate native plants from your yard and share the joy and benefits that native species can bring to a garden.

In addition, we are looking for the following materials: Big Rocks, Coarse woody debris (logs etc.), (Lawn) Edging material, Altwood recycled plastic lumber, Rain barrels, Drip irrigation components to service vegetable beds, Timers for drip irrigation, Pond liner, Pond pump, Solar panel to power pond pump.

To donate, or for more information, call Lynn at 386-9676. Thank you!

COMPOSTING TOILETS (continued)

Bad Rap:

Let's get something straight right away: we are not talking about privies or outhouses or even those small electric toilets that just dehydrate your waste with a heating element. The composting toilet (CT) is fundamentally different. The first package CT was developed in Sweden over 45 years ago and improvements have been continuous since that time. Unlike traditional toilets, they use little or no water. Rather than being flushed away, the waste decomposes aerobically in a nearby tank.

Design Fundamentals:

While there are several different designs, the modern commercially produced composting toilet system typically consists of a throne connected by a chute to an enclosed, insulated tank in the basement or on a lower storey. The tank or 'chamber' is designed to provide ideal temperature, moisture and aeration for composting organic matter. A small fan and vent stack remove water vapour, CO₂ and other gases resulting from composting action. And good ventilation is the key to happiness! The fan creates negative air pressure in the bathroom, pulling air down into the tank, over the waste and up the vent stack to ensure aerobic composting.

While most composting toilets do not need water, some are designed for extremely low flush using water or foam. This allows the waste to be moved horizontally or up to the composting chamber, reducing placement restrictions. One US company even uses red wiggler worms in the chamber.

You will may have seen advertisements in cottage magazines for the smaller-chambered toilets sized for seasonal or boat use. The composting tanks for these small systems are kept in the toilet room, directly below the toilet seat. For full time or large volume use, a larger tank is recommend. However, I do know one family which uses a small tank system on a full time basis but they reduce their volume by peeing into a separate bidet and using the CT only for bowel movements.

The latest innovation I know of, by Mats Wolgast of Sweden, actually separates out the urine from the solid waste, storing it in a cool underground tank. Wolgast based his design on the fact that most of the nutrients in human waste available for plant growth are found in the urine not the feces. Feces are mostly unabsorbed plant fibre. I have visited new homes in central Sweden which use this type of composting toilet combined with greywater recycling and a centralized urine collection system. The urine is removed by a local farmer for use on his fields.

Part 2 of Composting Toilets: The Next Wave of Composting will appear in the next edition of the Latest Dirt (Spring 2005). If you can't wait that long, email us at info@compost.bc.ca!

THANK YOU FOR YOUR DONATIONS

We wish to extend our sincere thanks to the following individuals for their generosity in donating to the Centre.

N. Komick	Peninsula Landscape Supplies Ltd.
J. Simpson	Trio Gravel Mart
J. Parks	Copley Bros. Construction
R. Gillmor	

THE LATEST DIRT is published quarterly. The deadline for submissions for the Spring issue is February 18, 2004. Submissions to the newsletter can be sent to the Compost Education Centre. Unless otherwise noted, articles appearing in this newsletter may be reprinted only in other not-for-profit publications, with the credit given to the author (when named) and THE LATEST DIRT.

