

## Septic system indigestion How to maintain your septic system August 2009

By Shannon Stephens

The poor dietary habits of septic systems... it's an article I never thought I'd have to write. However, during my visits with many septic owners following the launch of the *Ontario Drinking Water Stewardship Program* last year, I've been surprised by what septic owners are regularly feeding their septic systems.

Some septic tanks get gourmet meals of rare, juicy steaks. Whereas, presumably the unlucky ones, get fed only road-kill raccoon or possum, or dearly departed goldfish. Some tanks are unhappily dosed with hazardous chemicals. And I even met one very nice lady, (who I hope will forgive me for telling), who home-cultured yogurt specifically for her system – gallons of it.

Feeding your septic more than what should normally be flushed down the loo can give it indigestion. Septics are designed to treat human waste. Properly functioning septics are critical to protecting the groundwater we drink, as well as nearby lakes and rivers. Failed septics are the most common source of bacterial well contamination, a disturbingly frequent occurrence. Be sure to use the free water test offered by your local health unit at least three times per year.

Residents living very close to municipal drinking water sources may be eligible for grants to inspect and fix broken septic systems, under the *Ontario Drinking Water Stewardship Program*, which is delivered locally by the Nottawasaga Valley Conservation Authority. Residents that live farther from municipal drinking water sources may be eligible for other grants such as the new Federal Homeowners Renovation Tax Credit or the need-based programs offered by Canada Mortgage and Housing Corporation.

Road-kill, hamburger or food waste should not be added to the septic tank. Contrary to the notion that they encourage decomposition, they actually add solids to the tank. This means you need to pump-out more often. In one case, a dead raccoon blocked the effluent pipe and caused sewage to back-up into the house. Yeast (and some of the septic additives) can increase gas production, which stirs up the tank and sends the solids down into the tile-bed. You may not need to pump-out as frequently but you can significantly shorten the life of your septic bed, which costs about \$7,000 to replace.

There are about 1,200 septic additives on the market. Independent research has largely found them to be unnecessary, or in the worst cases, harmful. The Ontario Ministry of the Environment reports that "the function of a septic tank is not improved by the addition of disinfectants or other chemicals. ... Such compounds may result in sludge bulking and a large increase in alkalinity, and may interfere with digestion. The resulting effluent may severely damage the soil structure and cause accelerated clogging, even though some temporary relief may be experienced immediately



The tiles of new septic system bed are being surrounded by sand and gravel.

after application of the product." Likewise, adding extra enzymes or bacteria is redundant, since every gram of 'poop' flushed adds about a billion bacteria per gram.

A conventional septic system works in two parts. The tank allows solids to settle and oils/fats to float. Only about 10 per cent of the treatment occurs in the tank, whose primary role is to keep the solids and fats from clogging the tile bed. This is why the tank needs to be pumped-out every three to five years. The tank's water then enters the tile bed, which is a set of perforated pipes that allow the effluent to enter the sand and feed the bacteria growing in between the sand grains. These bacteria gobble up the organics, compete with harmful bacteria and basically perform 90 per cent of the sewage treatment.

A septic system, is like a roof or furnace - they have a life span and will need replacement one day. A study found failure rates increase significantly after 20 years. Good practices can lengthen a septic's life, but can't make them immortal.

**Here's what you can do to give you septic system a long, indigestion-free life:**

- Don't flush dental floss, feminine hygiene products, condoms, diapers, fats/oils, hair and cat litter
- Pump-out the tank about every 3 to 5 years, and have the contractor inspect it
- Keep a map, with measurements, indicating the location of your system
- Don't use food garbage on systems not designed for them
- Rent a port-a-potty if you are having a large party (weddings, family reunions, etc.)
- Don't flush hazardous chemical down the drain (paints, solvents, drain cleaner, etc)
- Protect your tile bed from tree roots, vehicles, fertilizer, and livestock
- Divert excess water from your tank and bed (e.g. eaves, sump-pumps, water-softner purges)
- Failed septic systems are the most common source of bacterial well contamination, so test your well water at least 3 times per year. For test information contact the Simcoe Muskoka District Health Unit at 721-7520 or 1-877-721-7520 and Wellington Dufferin Guelph Public Health at 1-866-941-7014.

To learn if you are eligible for any septic care grants from the Nottawasaga Valley Conservation Authority, please contact Shannon Stephens at (705) 424-1479, ext. 239 or [sstephens@nvca.on.ca](mailto:sstephens@nvca.on.ca), or visit [www.nvca.on.ca](http://www.nvca.on.ca).

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