

What You Don't Add to a Septic System May Be More Important than Commercial Additives

What you put into your septic system greatly affects its ability to do its job. As a general rule of thumb, do not dispose of anything in your septic system that can just as easily be put in the trash. Remember that your system is not designed to be a garbage disposal, and that solids build up in the septic tank and eventually need to be pumped out.

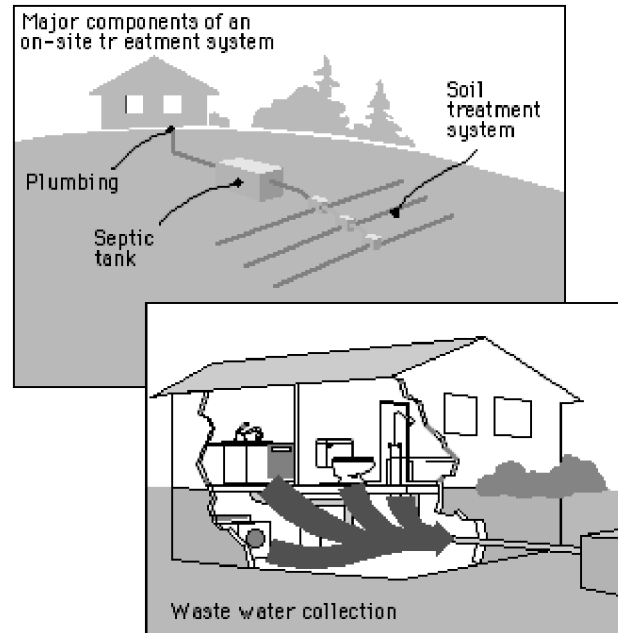
Avoid washing food scraps, coffee grinds and other food items down the drain. Garbage disposals can increase the amount of solids in the tank up to 50% and are not recommended for use with septic systems.

Don't use the toilet to dispose of plastics, paper towels, tampons, disposable diapers, condoms, kitty litter, etc. the only things that should be flushed down the toilet are wastewater and toilet paper.

Information obtained from:
Small Flows Quarterly, Winter 2002
Pipeline Fall 1995
NSFC at 1-800-624-8301

<http://www.extension.umn.edu/distribution/naturalresources/DD6583.html#02>

Septic System Maintenance



Waupaca County Zoning Office
811 Harding Street
Waupaca WI 54981-2087
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How Does a Septic System Work?

Household wastewater first flows into the septic tank where it should stay for at least a day. In the tank, heavy solids in the wastewater settle to the bottom forming a layer of sludge, and grease, and light solids float to the top forming a layer of scum (refer to graphic).

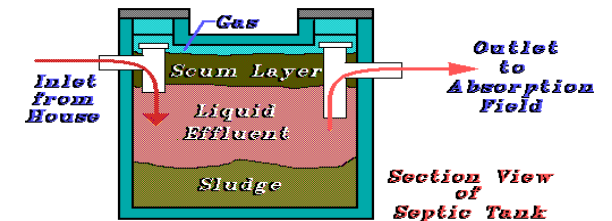
The sludge and scum remain in the tank where naturally occurring bacteria work to break them down. The bacteria cannot completely break down all of the sludge and scum, however, and this is why septic tanks need to be pumped periodically.

The separated wastewater in the middle layer of the tank is pushed out into the drainfield as more wastewater enters the septic tank from the house. If too much water is flushed into the septic tank in a short period of time, the wastewater flows out of the tank before it has had time to separate. This can happen on days when waster use is unusually high (laundry day, for example), or more often if the septic tank is too small for the household.

Some installations may have two tanks or one large tanks with two compartments. However, all tanks have inlet and outlet baffles, inspection pipes and a manhole.

Filters are now required in new installations to prevent solids from reaching the drainfield. Regular maintenance is required to keep the filters from clogging and causing backups. A clogged filter means that it is working, and saving your drainfield. If you are having to clean it often, you should look at putting lint traps on your washing machine and drains.

The **drainfield** is where the next step of treatment takes place. The effluent travels though the soil. Soil treatment kills disease-causing organisms in the sewage and removes nutrients. At least 3 feet of unsaturated soil is needed for treatment.



Septic Tank Additives



What Are They?

There are two distinct categories of additives used in a septic system.: 1) chemical, includes inorganic and organic compounds and 2) biological, includes yeast, bacteria, and enzymes. There are approximately 1,200 additive products on the market today, many of which contain enzymes that can be purchased through septic tank pumpers, discount stores, and chemical companies.

Good or Bad?

Under septic tank bacterial “die-off” conditions, slight reductions in the amount of effluent solids have been achieved by using additives.

“Die off” conditions occur when the bacteria in a septic tank are destroyed due to the presence of toxic substances. Die off conditions were observed when adding a concentration of 1.85 gallons of liquid bleach, 5.0 gallons of liquid Lysol cleaner, or 11.3 grams of Drano drain cleaner to a standard 1,000 gallon septic tank. Other factors that can cause die off include the use of antibacterial agents, and in certain cases, medications taken by the homeowner.

However, research suggests that some biological additives may increase the biological activity to the point where excess solids can be carried into the soil absorption system. This occurs when anaerobic decomposition of solids causes the formation of methane gas. As they rise, bubbles push solids up from the settled portion of the septic tank. Ultimately, this may lead to solids “carryover” to the soil absorption system where clogging can ensue.

Some advertise the ability of their enzymatic product to reduce scum. However, the effects of degradation in the scum layer are believed to be detrimental to a soil absorption system. The scum layer “holds” fats, grease, and floatables, preventing their escape to the soil absorption system. Enzymatic products can “break up” this scum layer and increase its mobility, allowing it to enter the soil absorption

system.

There are special instances when the use of a biological additive may be warranted, such as when homeowners take antibiotics or other prescription medications. However, it should be noted that research is still needed in this area.

Do I Still Need to Pump?

Claims made on the effectiveness of additives to either eliminate pumping of a septic tank or restore permeability of the soil absorption system are unsubstantiated. No product will allow a homeowner to escape a regular septic tank pumping and maintenance schedule.

Be aware that routine pumping is required by law for systems installed in Wisconsin per the Wisconsin Fund Grant Program and DSPS 383.54. The cost for pumping a tank runs between \$100 to \$120 — often much less than you would pay for a year’s supply of septic tank additive products.

Product Review Required

While there is no accepted test method to prove septic tank additives products work or don’t work, some products are actually harmful. In Wisconsin, all products claiming to aid digestion in septic systems must be reviewed, prior to sale, by the Department of Commerce for proof they do not adversely affect:

- Bacterial action in the private sewage system.
- Soil hydraulic conductivity in the absorption areas; or

- Groundwater quality beneath the private sewage system.

Some companies claim to have DSPS approval, when in fact, they do not. To check on a specific product, contact:

DSPS Product Review

Glen Schluetter

Watch Out for “Free” Offers

There have been many consumer complaints regarding marketing techniques used by some companies. Consumers first receive a mass-mailed advertisement offering free information on how to save hundreds of dollars and prevent septic system clogs. Although consumers think they are requesting free information or a free sample, they are often shipped huge quantities of the septic tank additives along with a bill for more than \$100.

If this happens, we encourage you to file a consumer complaint. Contact:

Office of Consumer Protection

17 W. Main St.

P.O. Box 7857

Madison, Wisconsin 53707-7857

<http://www.doj.state.wi.us/columns>