

How to Care for Your Septic System

Inspect and Pump Frequently

The average household septic system should be inspected at least every three years by a septic service professional. Household septic tanks are typically pumped every three to five years. Alternative systems with electrical float switches, pumps, or mechanical components should be inspected more often, generally once a year. A service contract is important since alternative systems have mechanized parts.

When you call a septic service provider, he or she will inspect for leaks and examine the scum and sludge layers in your septic tank. Your septic tank includes a T-shaped outlet which prevents sludge and scum from leaving the tank and traveling to the drainfield area. If the bottom of the scum layer is within six inches of the bottom of the outlet, or if the top of the sludge layer is within 12 inches of the outlet, your tank needs to be pumped.

To keep track of when to pump out your tank, write down the sludge and scum levels found by the septic professional. Keep maintenance records on work performed on your septic system. The service provider should note repairs completed and the tank condition in your system's service report. If other repairs are recommended, hire a repair person soon.

The National Onsite Wastewater Recycling Association (NOWRA) has a septic locator that makes it easy to find service professionals in your area.

Tips to Maintain your Septic Tank

Use the following

High-efficiency toilets.

Toilet use accounts for 25 to 30 percent of household water use. Many older homes have toilets with 3.5- to 5-gallon reservoirs, while newer, high-efficiency toilets use 1.6 gallons of water or less per flush. Replacing existing toilets with high-efficiency models is an easy way to reduce the amount of household water entering your septic system.

Faucet aerators and high-efficiency showerheads.

Faucet aerators, high-efficiency showerheads, and shower flow restrictors help reduce water use and the volume of water entering your septic system.

Washing machines.

Washing small loads of laundry on your washing machine's large-load cycle wastes water and energy. By selecting the proper load size, you will reduce water waste. If you are unable to select a load size, run only full loads of laundry.

Try to spread washing machine use throughout the week. Doing all household laundry in one day might seem like a time-saver; but it can harm your septic system, not allow your septic tank enough time to treat waste, and could flood your drainfield

Do not run your dishwasher on the same day as you do laundry. By doing so this allows your septic tanks enough time to treat waste and prevent flooding your drainfield.

Septic System

Toilets aren't trash cans!

Your septic system is not a trash can. An easy rule of thumb: Do not flush anything besides human waste and toilet paper. Never flush:

- Cooking grease or oil
- Non-flushable wipes, such as baby wipes or other wet wipes
- Photographic solutions
- Feminine hygiene products
- Condoms
- Dental floss
- Diapers
- Cigarette butts
- Coffee grounds
- Cat litter
- Paper towels
- Pharmaceuticals
- Household chemicals like gasoline, oil, pesticides, antifreeze, and paint or paint thinners
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Think at the sink!

Your septic system contains a collection of living organisms that digest and treat household waste. Pouring toxins down your drain can kill these organisms and harm your septic system. Whether you are at the kitchen sink, bathtub, or utility sink:

- Avoid chemical drain openers for a clogged drain. Instead, use boiling water or a drain snake.
- Never pour cooking oil or grease down the drain.
- Never pour oil-based paints, solvents, or large volumes of toxic cleaners down the drain. Even latex paint waste should be minimized.
- Eliminate the use of a garbage disposal. This will significantly reduce the amount of fats, grease, and solids that enter your septic tank and ultimately clog its drainfield.

Maintain Your Drainfield

Your drainfield—a component of your septic system that removes contaminants from the liquid that emerges from your septic tank—is an important part of your septic system. Here are a few things you should do to maintain it:

- **Parking:** Never park or drive on your drainfield.
- **Planting:** Plant trees the appropriate distance from your drainfield to keep roots from growing into your septic system. A septic service professional can advise you of the proper distance, depending on your septic tank and landscape.
- **Placing:** Keep roof drains, sump pumps, and other rainwater drainage systems away from your drainfield area. Excess water slows down or stops the wastewater treatment process
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Are septic tank additives useful?

A homeowner does not need to add a stimulator or an enhancer to a septic tank that is designed, operated, and maintained properly—naturally occurring bacteria are already present within human fecal matter. Contrary to popular belief, yeast, antifreeze, or raw hamburger do not need to be added to the septic tank. Chemical additives, such as caustic hydroxides and sulfuric acid, should never be added to a septic system.

Adding these products will destroy the bacterial population in the septic tank, change the permeability characteristics of the soil absorption system, and may cause groundwater contamination. Often, manufacturers of biological additives market their use to restore the bacterial balance in a septic tank on a monthly basis as part of a routine maintenance program. This is not necessary because these bacteria already reside in human feces. 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.

Chemical septic tank additives

The biggest demerit of chemical additives is that they work on the assumption that the septic tank has enough bacteria and enzymes. Unfortunately, this is seldom the case especially since most homeowners use products that harm the efficacy of bacteria. The following are some of the common components of chemical additives

Calcium

Calcium is one of the commonest ingredients in chemical additives. The main idea of using calcium as an additive is that it raises the pH levels in the sewage to create a conducive environment for optimal bacterial activity. This is based on the fact that natural bacteria activity lowers the pH levels in the septic tank hence the need for raising it via calcium. Theoretically, it sounds like a good idea but the problem is that calcium will actually do more harm than good. When the pH levels are raised in the septic tank, it might get too high and that will result in the death of beneficial bacteria. To make matters worse, the calcium might also become a flocculant which will end up making the solids to suspend in the septic tank and these eventually find their way into the leach field.

Sodium Bicarbonate

Some chemical additives use sodium bicarbonate as another pH buffering chemical. Sodium bicarbonate is better than calcium because it adds the alkalinity of the septic tank as opposed to adding the pH. This means you will not be at the risk of increasing pH levels to dangerous levels like is the case with calcium.

Flocculants/ surfactants

Flocculants and surfactants work by reducing tension between molecules. Soap is the most common example of this principle at work – soap joins FOGs with water thereby allowing them to flow easily. Additives that use these products use the same principle to allow the solids to break down and flow easily with the wastewater. But flocculants and surfactants are a bad idea for septic tanks because the solids in the wastewater will leave the septic tank before they are treated. But there is an exception to the rule when using biosurfactants in combination with bacteria. In such a case, the biosurfactant will actually assist the bacteria in the digestion of organic matter.

Nutrients

Some septic tank additives aim to introduce food in the septic system. Like any other living organism, bacteria need food for sustenance. These additives, therefore, add minerals, carbon, grain, meat, protein and other forms of food for the bacteria. But there are two main problems with these additives. First of all, they work on the assumption that the septic tank has the right type of bacteria and in good proportions. Secondly, giving bacteria another source of food is counterproductive because the whole idea of the septic tank is for the bacteria to feed on the organic waste in order to liquefy it in the process.

Enzymes

Enzymes are naturally produced in our bodies to help in breaking down the food so that our bodies can absorb the nutrients more easily. Enzymes play an almost similar role in septic tanks. They break down the complex molecules thereby making them more palatable for the bacteria. Yeast is one of the commonly used products

in the manufacture of enzymes but its main challenge is it doesn't have the enzymes needed for the degradation of FOG and hair protein. Enzymes need to work in tandem with bacteria so it doesn't make sense to use an additive that only introduces enzymes without bacteria into the septic tank. Bio-Sol's additives are made from both enzymes and bacteria to avoid this common conundrum. The enzymes that are in Bio-Sol's additives are;

- Lipase, which transforms the molecular structure of fats to water
- Amylase, which digests starches by transforming them into a soluble solution
- Protease, which eliminates odors and liquefies solid wastes
- Cellulase, which helps in the breaking down of toilet paper

CAUTION: Even though yeast has some enzymes, it is not advisable to add yeast into the septic system. Since the yeast doesn't have bacteria, your system might get an enzyme/bacteria imbalance and that will result in frothing which can result in pushing suspended solids into the leachbed before they are digested by bacteria.

Bacteria

Every time you flush the toilet after passing stool, the correct bacteria is added into the septic tank together with the excrement. Bacteria are part and parcel of the human body digestive secretions. These bacteria function optimally in a balanced pH and at body temperature. So why would you need to add additives with bacteria to the septic system? Well, there are a couple of reasons. First and foremost, adding specialized bacteria in the system will help to make the system more efficient because the specialized bacteria are designed to handle greater temperature fluctuations as well as greater fluctuations in pH values. Secondly, most homeowners unknowingly flush down harmful substances that end up killing bacteria on a daily basis. As bacteria get depleted and the pH levels messed up with because of the harmful products, it is a good idea to use a good biological additive to replenish the system. Bio-Sol's biological additive introduces billions of bacteria and enzymes into your septic system and this is why it has proven to be successful in cleaning septic systems.

Conclusion

Chemical *septic tank additives* can actually harm the septic tank by killing the bacteria as well as polluting the environment. It is, therefore, a good idea to avoid them altogether.