

Septic Additives and Treatments

By:

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Many rural homes rely on a private septic system to treat their wastewater. Septic systems are designed by engineers to handle calculated outflow based on the number of bedrooms in the house, not the square footage or number of bathrooms or occupants. Proper maintenance of your septic system can keep it running smoothly for many years and avoid costly repairs or replacement.

What is proper maintenance? Pumping your system out every 2-3 years to remove collected solids is the general rule of thumb but if your occupants are particularly taxing on the system, you may want to do it more often. So if you have a lot of people occupying your home...running showers, washing dishes, doing laundry, or doing anything that will damage the system such as running garbage disposals and putting food scraps down the drain...you may want to pump your system even more frequently.

Many companies recommend additives to help maintain your system, but are they really necessary? 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. Some flaunt them as fixes for a troubled system while others claim they will extend the amount of time between pumpings. There are over 1000 additives on the market but are they worth the money or are you simply throwing your money down the drain literally?

Many studies have been conducted on septic tank additives in the last 40 years, and their effectiveness is very much in doubt. The beneficial effects of biological additives on the septic system are still being debated, but two benefits may ultimately be identified. First, enzymatic products might have the ability to reduce the amount of oil and grease in the septic tank. Second, 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 by a large dose of toxic substances like liquid bleach, disinfectant cleaners, or drain cleaners. Other factors that can cause die-off include the use of antibacterial agents, and, in certain cases, medications taken by the homeowner. If the bacteria in your septic system dies off, the system fails.

Research suggests that some biological additives may increase the biological activity to the point where excess solids can be carried into the drainfield. 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 allow solids into the drainfield where clogging can occur. Again this causes the system to fail.

Contrary to the ability of enzymatic products to reduce scum, the effects of degradation in the scum layer are believed to be harmful to a soil absorption system. The scum layer holds fats, grease, and floatables, preventing their escape to the soil absorption system where they can cause clogging. Enzymatic products can break up this scum layer and increase its mobility, allowing it to enter the drainfield. So while at first the more effective enzymes sound like a good idea, really they can be dangerous, breaking up solids that should be pumped out instead.

Some chemical additives that have been used in septic systems include hydrogen peroxide, formaldehyde, baking soda, and alum. Studies have found that such chemicals could agitate soils containing clays and silts, destroying the soil structure and thereby decreasing the soil's permeability. A number of products sold over-the-counter for soil absorption systems and clogged drain pipes contain sulfuric acid, which is highly corrosive in concentrated form. This could destroy the microbial population in the septic tank and soil absorption system.

So what is the consensus? Some experts feel additives may hurt your system while others feel they are not harmful but do not really have any positive effects on your system. Most scientists, engineers and experts do not recommend using additives. The positive reviews and opinions are generated by the additive manufacturers themselves.

The best advice to extend the life of your septic system is a regular maintenance program and pumping every 2- 3 years. Keeping grease and fat from going down your drain as well as harmful chemicals such as bleach and harsh cleaners will also extend the life of your system. Knowing what should and shouldn't be put in your septic system as well as limiting water usage and spacing out the amount of water that drains into the system can keep your system running smoothly and avoid costly repairs.

The regular maintenance program that All Clear Septic and Wastewater Services and Septic Preservation Services offers will keep your system in great shape. Costly and perhaps harmful additives are not needed. For answers to any of your septic system questions, give them a call at 877-678-4279 or visit www.septicpreservation.com