

Will Additives Help My Septic Tank?

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This is one of the most frequently asked questions by septic tank owners. The short answer is that there is no scientific evidence that conclusively proves that additives are beneficial. However, additives which greatly add to the biological actions in the septic tank or those which tend to kill off the biological activity to control odor can result in excess suspended solids flowing out of the tank to the drainfield.

A septic tank is a buried vault that accepts the flow of raw sewage from the home and is large enough that the sewage has a chance to spread and the flow velocity become nearly zero. On the average, wastewater is in the tank for 2 to 4 days. This gives plenty of time for solids that are heavier than water to settle in the tank and those which are lighter than water to float to the top and be skimmed off by the outlet baffle. A tank that is working normally will result in an outflow which is relatively low in suspended solids. There are commercially available screens which can be added to the outlet of the septic tank to prevent excess solids leaving the tank. These screens have a large amount of surface area and as solids build up on them they tend to slough off and drop to the bottom of the tank. Screens are considered to be a more reliable means of protecting the downstream components of the systems such as the soil absorption system than using additives. Generally screens have a large enough surface area that they do not require servicing any more often than the frequency of pumping the tank.

Septic tank additives that are advertised as products that will eliminate the need for removing settled solids from the tank are to be avoided. If these products are actually effective in meeting the stated claim, they undoubtedly result in excess suspended solids flowing out of the tank and into the drainfield where they will cause premature clogging and possible failure of the drainfield. Some additives may actually contain chemicals that can pollute groundwater.

There may be special circumstances where biological additives for the septic tank are warranted. These special circumstances may be where homeowners are required to take antibiotics on a continual basis, where there is someone in the home who is on chemotherapy for an extended period of time, or where dialysis takes place. Wastewater from these conditions can greatly reduce the population of normal organisms in the septic tank and may be a condition where enhancing the organism population through additives could be warranted.

The best advice is to use the septic tank normally, spreading clothes washing throughout the week rather than doing it all at once and minimize other hydraulic loads.

Extensive use of a garbage grinder adds both hydraulic load and excess solids to the tank. Studies have shown that where an adequate septic tank volume (1,000 gallons or larger) is present and where outlet effluent screens are used, the use of a garbage grinder is not

necessarily detrimental but it does increase the rate of solids built up in the septic tank requiring more frequent pumping of the tank.

The frequency of septic tank pumping depends upon the size of tank and the number of people using the tank. For a 1,000 gallon septic tank utilized by 4 people, the normal recommendation is to pump the tank every 3 to 5 years. If the number of people in the house drops to 2, then the septic tank pumping interval can be extended up to 6 or 7 years with a 1,000 gallon tank. Many newer homes have tanks of 1,500 gallons capacity or larger. With larger tanks, they are commonly built in two compartments and the septic tank pumping interval can be extended proportionately.

There are many good web sites for additional information. A fairly [detailed review of septic tank additives \(pdf\)](#) and the research that has been done can be found at the [National Small Flows Clearinghouse](#)