

use up to 62 gallons of water per wash load. On a heavy wash day you can easily put 400, 500, 600 gallons of water down the drain in a few hours. The solution is to spread out your water use. Do one or two loads of laundry per day, rather than 10-15 loads on Saturday morning.

Water softeners can also damage your system by putting too much water through the septic system. These devices can put several hundred gallons of uncontaminated water down the drain every week. Fortunately, there are a couple solutions to this problem.

You can upgrade your softener with a newer efficient model that uses less water and regenerates on demand (when you use X number of gallons of water) instead of a timer system that regenerates whether you use water or not. You can also install a mini-septic system for your softener.

Prevent solids from leaving the tank

First of all, you should get your tank pumped at regularly scheduled intervals to prevent excessive accumulation of solids in the tank. Under normal conditions, you should have the tank pumped and inspected every one to three years. *Very important:* Tanks should be pumped and inspected through the manhole cover, not the inspection pipe.

Effluent filters, about \$70, are installed (by a contractor) in the exit baffle of the tank and stop the larger solids from getting out to the drainfield. These filters are cleaned every few years when you have your tank pumped. They are cheap insurance and along with a washing machine filter, one of the best things you can do to protect your system.

Use of household cleaning products

Excessive use of these products can contribute to septic system failure. If you do over five loads a week using bleach, problems could arise. Avoid powdered detergents, as they contain non-biodegradable fillers that can plug up your system. Also, be careful with harsh automatic toi-

let bowl cleaners, which have put quite a few septic systems out of commission.

Should I use a separate system for my washing machine?

Some people say that you should use a separate system for your washing machine, called a laundry interceptor. However, this is not necessary and is in fact undesirable. Washing machines should discharge into the regular system because it actually works *better* than discharging into its own system.

In order to work, septic tanks require bacteria colonies which break down biodegradable matter. These bacteria colonies require "food" which is found in our wastewater, but not in detergent. Without "food" these bacterial colonies die, and the system fails. Many people who have installed these systems found this out the hard way, as their systems failed in a short period of time.

A research project conducted in several east coast states utilized some rather high tech systems for washing machine discharge and many began failing in as little as eight months.

Other tips:

- Only discharge biodegradable wastes into your system.
- Divert surface runoff water from roofs, patios, driveways, and other areas away from your drainfield.
- Keep your septic tank cover accessible.
- Have your septic tank pumped regularly. It should also be inspected for leaks, cracks, and to make sure the exit baffle is in place.
- Compost your garbage or put it in the trash.

Don't:

- Use a garbage disposal. These items usually double the amount of solids added to the tank!
- Flush sanitary napkins, tampons, disposable diapers, condoms and other non biodegradable products into your system.
- Dump solvents, oils, paints, thinners, disinfectants, pesticides or poisons down the drain which can

disrupt the treatment process and contaminate the groundwater.

- Use harsh toilet bowl cleaners, which have put quite a few septic systems out of commission.
- Dig in your drainfield or build anything over it.
- Drive over your drainfield or compact the soil in any way.
- Plant trees or shrubbery in the absorption field area, because the roots can get into the lines and plug them. Grass is the only thing that should be planted on or near a drainfield.
- Cover the absorption field with hard surfaces, such as concrete or asphalt.

If your system fails

In quite a few cases, a tune-up can fix your system and you can avoid the high costs of replacing the system. This tune-up includes properly pumping the tank, cleaning the drainfield lines, and installing washing machine and effluent filters. If these measures are not sufficient, some failed systems can be rejuvenated by fracturing the soil.

This process utilizes a hollow tube inserted into the soil, then a 300 pound blast of air is injected into the soil, creating thousands of tiny fissures. These fissures allow the drainfield to drain, creating an oxygen atmosphere and allowing the aerobic bacterial colonies to re-populate. This process can be performed in a matter of hours with no digging or damage to the yard. The cost will range from \$1,000-\$2,000, which is a lot cheaper than a replacement septic system.

If you have a clay soil which has become plugged due to sodium from wastewater, Septic Seep can help. This product releases sodium bonded clays and reopens soil, restoring passages of air and water. It also has the added benefit of dispersing greases and scums that clog soil passages.

Corey is the President of The Laundry Alternative, Inc., a company which specializes in providing environmentally-friendly, cost-saving laundry products and advice. You can visit their site at <www.laundry-alternative.com>.

*Drainfields can be unsightly,
barren patches of grass or weeds,
but they don't have to be...*

Landscaping your drainfield

As we mentioned on the previous pages, sewage systems and drainfields represent a large investment for homeowners. Protecting your system from damage can save substantial time, work and money. It's important to check on the location of the drainfield before doing any landscaping, gardening, or construction work — you don't want to ruin any tiles or collapse pipes by driving over them with heavy equipment.

Proper care and planning for your drainfield includes avoiding the following in the drainfield area:

Do not:

- Use impermeable materials such as concrete or plastic; they reduce evaporation and the supply of oxygen to the soil.
- Allow traffic such as vehicles, heavy equipment, and livestock — the pressure can compact the soil and even damage pipes.
- Water — excess water reduces the soil's ability to treat wastewater.
- Plant deep-rooted plants — these tend to invade and damage drain pipes.
- Rototill — it can be damaging to pipes.

Here are some options for drainfield plantings:

Grasses do not always need to be mowed. They are great conservation plantings to stabilize the soil. They also provide food and cover for small birds. By mixing with shallow rooting native flowers, you can create a prairie or meadow. Festuca (fescue) grasses are better suited for areas under or near trees.

Plants with shallow roots

1. Herbaceous annuals such as:

Ageratum (*Ageratum houstonianum*)
Wax Begonia (*Begonia semperflorens*)
Coleus (*Coleus species*)
Impatiens (*Impatiens species*)
Lobelia (*Lobelia erinus*)

Sweet alyssum (*Lobularia maritima*)
Geranium (*Pelargonium x hortorum*)
Petunia (*Petunia x hybrida*)
Salvia (*Salvia species*)
Marigold (*Tagetes patula*)
Zinnia (*Zinnia elegans*)

2. Herbaceous perennials such as :

Ameria, Seathrift (*Armeriac maritima*)
Astilbe (*Astilbe x aredsli*)
Basket of Gold (can also be used as a ground cover)

Aurinia saxatillis

Campanula (*Campanula tomentosum*)
Snow in Summer (*Cerastlum tomentosum*)
Lily of the Valley (*Convallaria majalis*)
Sweet William (*Dianthus barbatus*)
Cottage (and other) Pinks (*Dianthus species*)
Coral Bell (*Heucheria sanguinia*)
Candytuft (*Iberis empervirens*) evergreen
Lavender (*Lavendula angustifolia*) evergreen
Moss Pink (*Phlox subulata*)

3. Ground covers (all perennial)

Carpet Bugle (*Ajuga reptans*)
Kennickinnick (*Arctostaphylos uni-ursa*)
Irish moss (*Arenaria verna*)
Bunchberry (*Cornus canadensis*)
Blue fescue (*Festuca ovina glauca*)
Wintergreen (*Gaultheria procumbens*)
Salal (*Gaultheria shallon*)
Lydia broom (*Genista lydia*)
Pachysandra (*Pachysandra terminalis*)
— Shaded areas only.
Sword fern (*Polystichum munitum*)
Stone Crop (*Sedum species*)
Hens and Chicks (*Sempervivum tectorum*)
Periwinkle (*Vinca minor*)
Thyme (*Thymus species*)