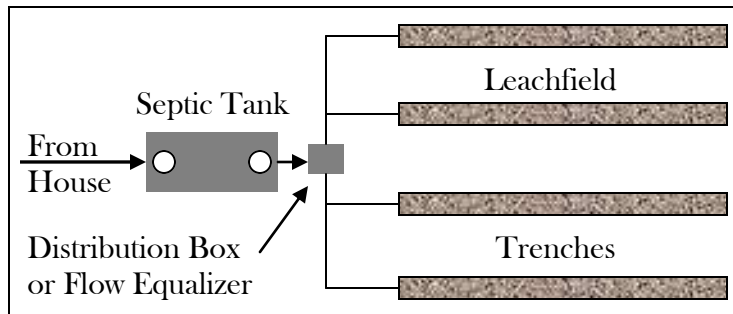


# **HOCKING COUNTY HEALTH DEPARTMENT**

**350 St. Rte. 664 N. ~ Logan, Ohio 43138 ~ Phone 740-385-3030 ~ Fax 740-385-2252**

## **FACT SHEET LEACHFIELDS**



### **What is a Leachfield?**

The leachfield or drainfield is the final component of the treatment train in a septic system. It is made up of a several trenches similar to underground “tunnels” in the soil to treat and dispose of the wastewater that flows from the septic tank or aerator.

### **What is it Made of?**

Most older systems have leaching pipe (pipe with holes that allow the wastewater to drain) surrounded by gravel. Today’s leachfields may be built with preformed units of either leaching chambers that snap together end to end to create a tunnel or perforated pipe surrounded by Styrofoam packing peanuts held together with netting.

### **How Does the Leachfield Work?**

Through natural degradation processes. Wastewater is distributed through a series of porous pipes or chambers. The wastewater fills the trenches and moves out through the soil. The soil acts as a filter, capturing and treating the suspended solids, organic/inorganic materials, bacteria, and viruses from the wastewater. Soil particles attract and hold on to these organisms so microbes can consume and transform them. As the wastewater is filtered by the soil, it percolates through the ground where it evaporates or moves to surface or groundwater. Most scientists agree there must be 3-4 feet of dry soil under the leaching trenches to filter out all the micro-organisms before they reach bedrock or groundwater.

### **Do I Have 2 Leachfields?**

Maybe. Many septic systems have 2 fields that should be switched every 6 – 12 months. If your system was designed with 2 fields, there is most likely a distribution box with 3 pipes. One pipe is from the septic tank or aerator and the other 2 pipes lead to each field. To switch fields simply take the pvc elbow off the one pipe and place it on the pipe leading to the other field and not the pipe from the tank or aerator!

### **How Long Does a Leachfield Last?**

That depends on a lot of different factors. If the leachfield is properly sized, installed, and maintained, it can last a very long time. However if the system is too small, located in a wet area, installed too deep, or abused by the homeowner you will soon experience problems.

### **What Happens When a Leachfield Fails?**

Inside you may notice slow draining or gurgling toilets and sinks, sewage backing up into the home, or sewage odors. Outside you may experience odors, sewage around the lids of your tank or aerator or lush green growth or damp/soggy spots over the leachfield.

### **What Causes a Failure?**

Assuming the leachfield was sized, located and installed correctly, failures occur when they receive too much water, organic matter, chemicals, or are physically damaged.

### **Too Much Water...**

When saturated conditions prevail, the soil is unable to breakdown the wastewater. In this anaerobic (without oxygen) environment, a clogging mat begins forming till it completely fills the leaching trench and blocks its ability to drain. Reduce saturated conditions by spacing out laundry loads and fixing leaky fixtures. Divert gutters, sump pumps, and footer drains away from the leachfield.

### **Too Much Organic Matter...**

Too many solids will also cause clogging of the soil pores slowing down the soil's ability to drain the wastewater. Most organic matter is introduced through a garbage disposal so limit how much it is used or better yet compost. Broken or missing baffles in the septic tank or clogged or broken filters in the aerator will also allow solids to enter the leachfield.

### **Chemicals...**

Harsh or toxic chemicals will kill the natural microbes in the septic tank or aerator keeping fats, oil, grease and solids in suspension so they pass on out to the leachfield. They will also kill the wastewater eating microbes in the soil causing a leachfield failure.

### **Physical Damage...**

Many leachfields only have 6 inches of soil over the trenches so they can be easily damaged. Driving over or allowing livestock on the leachfield will compact the soil impairing its ability to drain. Keep a record of the location of the leachfield and never build on top of or pave over any part of it. Never plant trees or shrubs on or near the leachfield in case roots clog the pipes.

### **How Do You Repair a Failed Leachfield?**

The first step is to figure out why the leachfield is failing. If excess water is entering the field from a leaking toilet, simply fixing the toilet may solve the problem. Otherwise, additional leaching may need to be added in the yard. The extra leaching allows the old field a chance to rest and to allow the soil microbes to breakdown the accumulated clogging mat so it is as good as new. Just make sure to obtain a permit from the Health Department first.

### **What Can I Plant on Top of My Leachfield?**

Grass is the best cover for your leachfield as it has a shallow root system, helps remove water and nutrients from the soil, and prevents soil erosion. Never plant "root vegetables" on the leachfield and do not allow trees or shrubs to grow on or near the system.

### **How Can I Locate My Leachfield?**

Your local Health Department should have a permit on file for the system including the location of the leachfield. Your leachfield may also have inspection ports that allow you to look directly into each trench.