



What to do about....

Old Farm Drainage Tiles

The Soil and Water Conservation District often gets calls from landowners who have mysterious holes that have developed in their yards. There may be only one hole or there may be several in a line. Those who have filled in the holes report that they reappear after awhile and many tell us they are concerned because their mystery holes are growing larger. What could they be?

Historically, Marion County was a land of many wet and swampy woodland areas. As settlers moved in, they cleared the land to farm it but found the ground too wet to establish their crops in these high groundwater table soil types. One of the first factories in the county was built to provide drainage tiles for these farmers to dry their land out enough to keep their crops from drowning. Farmers installed these tiles by the miles by hand, on average about 3 feet deep, draining the groundwater to the nearest ditch or stream. Drainage tiles are sized according to how much water flows through them. Small tiles, some only a few inches wide, are used on the upper reaches of the watershed. These connect, often herringbone style into larger tiles which eventually empty into ditches or streams.

It is estimated that we have more miles of drainage tile in our county than we have roads. These tiles have worked diligently in crop fields, with little maintenance, for well over a hundred years. They have two main reasons for failure – tree roots and construction. Tree roots can grow into drainage tiles and clog them, and construction can crush, cut, or plug tiles. Whenever there is a blockage of the tile the water which flows through it starts backing up and the water pressure increases. The holes that develop are called ‘blow holes’ because they are created by the mounting water pressure in the tile. These blow holes will grow larger and/or more holes will develop along the tile line unless the tile is cleaned out and repaired.

Broken tiles can be dug up to see which direction they are running or you can use a tile probe to follow it. (Red clay tile will rub off on the tile probe tip letting you know you’ve hit one) If a ditch or stream is nearby you may be able to find the outlet end. Once you’ve found the tile direction, look down hill to see if there are trees along the path whose roots may be growing into it. Remember that the root systems of trees often spread out further than the branches.



**For more information contact the Marion County Soil & Water Conservation District
(317)786-1776 www.marionswcd.org**

Clay tiles can be roto-rootered to clean them out, then replace or repair the broken tile areas. Adding a “clean-out” riser pipe will help you locate and maintain the tile in the future.

If a tile was broken or plugged during building construction the old field tile should be located on both sides of the building and the tile re-routed around the building. In new construction always take this precaution, even if the tile appears to be clogged with sediment and no longer functioning. Tiles which are cut can clean themselves out eventually. We’ve seen basement sump pumps pumping an unbelievable amount of water because an old field tile was draining right to their basement wall.

NEVER PLUG AN OLD FIELD TILE! Intentionally plugging a tile will only cause blowholes above and behind it.

Check the Marion County Soil Survey to see if your property has a high ground water table soil type. (Soils information can be found at <http://soils.usda.gov/survey/>). For more information or to request a listing of local drainage contractors see the service providers list on our website (<https://marionswcd.org/contractors-service-providers/>) or contact our office at 317-786-1776.