
Well and Septic Questions Common

Hardly a day goes by at the Extension office without a couple of questions about water well testing, septic lagoons, septic tanks, or drinking water quality. I thought in this column, I might share some of the more common questions and concerns.

How often should I test the water from our private well? Water in city water systems is tested monthly or in some very small towns quarterly. The State Health Department recommends yearly tests for bacteria level in private wells. Nitrate levels should not change quickly enough to warrant yearly testing and should be checked every other or every third year. It is wise to keep a file of all old tests for reference. One rural homeowner a few years ago told me he was never going to test, because if they sold the house he would have to disclose the results! True, but the world would run at a bigger tilt if everyone used that logic.

What test(s) should be run on a well? By far the biggest health concern is bacteria. Bacteria which inhabit the human gut are called coliform bacteria. The water lab filters the sample and then imprints the filter on agar and grows out bacteria colonies in the growth chamber. You must have a ZERO test for coliform bacteria to be sure your water quality is acceptable. Nitrate is a lesser problem and we would like to see tests below 10 milligrams per liter (mg/l) or parts per million (ppm). Some people have hard water and conduct a hardness test. Iron and manganese are the most common mineral problems. I asked a client from the Liberty area once how bad the iron was in the water. He answered that once they got the iron level reduced they found out the kids really didn't have red hair!

Where do we get water sample bottles? The Extension office in Gage County has a supply of test bottles from the Grand Island-Hall County Health Lab. We will also order bottles from the State Health Lab (Lincoln) for mineral testing. When you get your first water bottle at the office, you will get detailed sampling information. Sampling must be done carefully to avoid contamination.

My lagoon smells, the contractor said it would not smell. The contractor should have installed a depth gauge stick in the middle of the lagoon. This should have marks on it a two feet (point A) and at five feet (point B). This is the recommend minimum and maximum operating depth. If the water level is less that two feet, the chance of odor generation increases dramatically. If the water level is above five feet, you should minimize additions as it is likely a moderate rain could over-top the lagoon. If you didn't get the depth gauge stick installed, you may want to ask the contractor to complete their work.

Last year my well water was okay, but now it has bacteria. It was constructed 15 years ago and is cased and sealed. Where is the bacteria coming from? It is possible the case has developed a leak. It is also possible that you had some well repair work done and the repair worker never shock chlorinated the well after the repair. This is standard and if it was not done call them back. We have information on shock chlorination if you desire to do it yourself.

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