News Column
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Cottonwood Extension District, Hays
November 19, 2020

Testing private water wells
Contamination of drinking water can be caused by improperly disposed chemicals, animal wastes, pesticides, wastes injected underground, and naturally occurring substances. Public water systems use water treatment and monitoring to protect consumers from such contaminants. Unlike public water users, private well owners are responsible for all quality and safety aspects of their water.

Ensuring Safe Drinking Water
About 151,000 people in Kansas get their drinking water from private wells (United States Geological Survey, 2016). Wells and springs are often contaminated because of poor location, inadequate construction, delayed or lack of maintenance, accidents, and little protection. The most common health-concern contaminants are coliform bacteria, especially E.coli or fecal coliform, and nitrates. Others include metals (lead and copper), salts (often sodium chloride), petrochemicals, and pesticides. Water tests taken before pollution begins, or in its early stages, are helpful in showing damage to the water supply. The Kansas Department of Health and Environment's (KDHE's) Environmental Interest Finder, found at maps.kdhe.state.ks.us/keif/ can provide guidance on nearby known contaminated sites and probable contaminants of concern.

See the latest copy of KDHE's publication, Private Well Maintenance and Protection, for detailed private water well maintenance needs. Essential steps to be followed by the owner or well water user are:

Well location and construction:
•Consult a Kansas-licensed well contractor to verify proper separation between your well, home, waste systems, and chemical storage facilities.
•Periodically check the well cover or well cap to ensure it is intact.
•Ensure that the top of the well is at least one foot above the ground.
•Slope the ground away from your well for proper drainage.

Well maintenance, evaluation, and protection:•Wells should be checked and tested annually for mechanical problems; cleanliness; and the presence of coliform bacteria, nitrates/nitrites, and any other contaminants of local concern.
•Store chemicals such as fertilizer, pesticide, oil, fuel, paint, or solvent far away from the well.
•Don't allow back-siphonage. When mixing pesticides, fertilizers, or other chemicals, don't put the hose inside the tank or container.
•Keep your well records such as the construction report, annual water well system maintenance reports, and water testing results in a safe place.

Necessary Testing
There is no single test for drinking water safety. Routine testing is the only reliable way to find pollutants and evaluate the safety of your water, and is necessary to determine the need for treatment. See the latest KDHE publication - Recommended Water Tests for

Private Wells. KDHE recommends annual testing for bacteria (total coliform, and E.coli or fecal coliform) and nitrates. Other testing is required to ensure safe, contaminant-free water, especially when a well has location or construction deficiencies. For most other contaminants, a test every one to three years is adequate and forms a baseline for detecting changes that indicate possible contamination.
If you have a private well in Ellis County, the Ellis County Environmental office offers a wonderful service of testing your well, they can be contacted at 785-628-9449. Outside of Ellis County you could contact your local County or District Extension Office, they may have a water test kit. In which you can take the sample yourself and send it off to a private lab for testing.

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