

Some Words on Water

Concern about water quality often leads consumers to ask questions such as "What is in my water?" or "Is my drinking water safe?"

All water from natural sources contains dissolved substances. These substances are often called contaminants, especially when the amounts present are at possibly harmful or problem levels. The substances present in water can result from either natural processes or human activities. At low concentrations, many do not cause known harmful effects and may, in fact, be beneficial. Research has shown some substances may be harmful only when present at high enough concentrations.

The only way to know if the water you use for drinking and cooking contains potentially harmful substances is to have it tested. This testing determines what substances are present and their concentration levels.

In most cases, testing a private water supply is a decision made by the water user. Testing a private water supply is not required by current regulations except in cases where state licensing may be required for a specific activity.

The table below lists problems found in water supplies, as well as the appropriate tests to request. This table should be used as a guideline only. Consult an expert if you suspect any contaminant which could present an

immediate or long-term health risk. Nebraska Health and Human Services System Department of Regulation and Licensure staff can provide advice on what analyses to request. Staff from City-County Health Departments and independent commercial laboratories also can provide assistance.

For detailed information on several contaminants listed above, read individual University of Nebraska Cooperative Extension NebGuides on drinking water and bacteria, nitrate-nitrogen, methemoglobinemia, lead, copper, man-made chemicals, hard water, sulfates and hydrogen sulfide, iron and manganese, and fluoride. (DJ)

Acreage Insights



The 2001 Acreage Owners Expo

The 2001 Acreage Owners Expo, a one day symposium for acreage and small farm owners, is scheduled for Saturday, August 18 from 9 a.m. to 3 p.m. at the Agricultural Research and Development Center (ARDC) near Mead Nebraska.

In the past this program was held in February or March, but increased attendance and the desire for educational tours prompted the August date.

The Expo still has a full day of educational programs at the ARDC headquarters building but will also feature a series of guided tours featuring landscaping, pond management, windbreaks and turf management.

For more information, contact Lancaster County Cooperative Extension, 444 Cherrycreek Road, (402) 441-7180, or Lancaster-County@UNL.EDU. (DJ)



Problems found in water supplies and appropriate tests to request.

Problem or Concern	Tests to Consider <i>(Test as appropriate after further study)</i>
Appearance is: Frothy, foamy Black flakes Brown, yellow or reddish	Detergents Manganese Iron
Has Odor and/or Tastes Like: Rotten egg Metallic Salty Septic, musty or earthy Soapy Gasoline or oil	Hydrogen sulfide pH, iron, zinc, copper, lead Total dissolved solids, chloride, sodium, sulfates Coliform bacteria, iron Surfactants, detergents Hydrocarbon scan, volatile organic chemicals (VOCs)
Causes The Following on Fixtures or Clothing: Red or brown stains Black stains Green or blue stains Reddish-brown slime White deposits, soap scum	Iron Manganese Copper Iron bacteria Hardness
For Use As And/Or Has Symptoms of: Private water supply used for children with developing teeth buds or discoloration of children's teeth occurs Water supply used for infant less than six months old, pregnant or nursing woman or elderly with a genetically impaired enzyme system Family or guests become ill	Fluoride Nitrate
If You Suspect or Observe: Leaking fuel tank Road salt Landfills Sludge utilization Intensive agricultural use Septic system failure	Coliform bacteria, sulfates, Giardia Hydrocarbon scan, VOCs Total dissolved solids, chloride, sodium Total dissolved solids, pH, VOCs, heavy metals Coliform bacteria, nitrate, metals (lead, cadmium) Coliform bacteria, nitrate, pesticide scan, pH, total dissolved solids Coliform bacteria, nitrate, detergents, total dissolved solids, chloride, sodium, sulfates
Causes Corrosion: Pitting, deposits	Corrosivity, pH, lead, zinc, manganese, copper, iron, sulfates, chloride

Table adapted from Mancel, Karen; (1986) AEX-314 Water Testing, Ohio State University Cooperative Extension; and Mengel, David B and C Janssen; (1990) WQ4 Water Quality, Purdue University Cooperative Extension.

Drinking Water Q&A

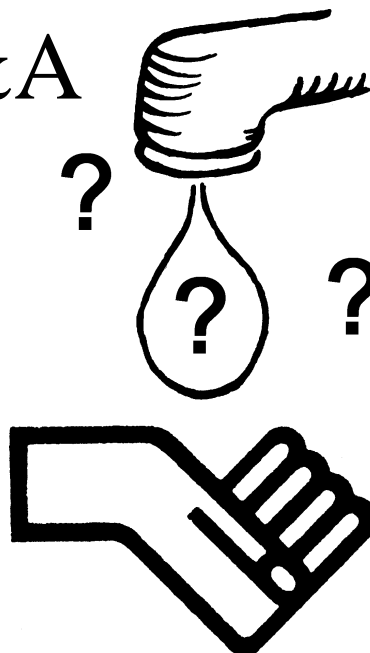
Q. How do I know what is in my drinking water?

A. In 1999 you should have received a new communication from your public water utility. The Consumer Confidence Report (CCR) was a new requirement of the revised federal Safe Drinking Water Act. If you live in a large community, you probably received the report in the mail. If you live in a smaller community, the report might have been published in the local newspaper. You will get another CCR from your public water utility this year. Take time to study it. It will provide information so you, the water consumer, will know and understand what is in your drinking water. Among other things, the CCR will identify the source of your drinking water, the treatment used, any contaminants that have been identified in the water, and what the potential health effects of those contaminants are.

Q. Can I tell if my drinking water is OK by looking at it, tasting it, or smelling it?

A. No. In many cases, chemicals or microbes that could make water unsafe to drink cannot be seen, tasted, or smelled. The only way to know if water you use for drinking and cooking contains potentially harmful substances is to have it tested. All public water supplies are required by the federal Safe Drinking Water Act and Nebraska law to be tested on a scheduled basis for potentially harmful contamination. Testing a private water supply is not required by current regulations. Owners of private water supplies are responsible to themselves for having their water supply tested to ensure it is safe.

Q. Water often looks cloudy when first taken from a faucet and then it clears up. Why does



this happen and is the water safe to drink?

A. The cloudy water is caused by tiny air bubbles in the water. After a while, the bubbles rise to the top and are gone. The air bubbles do not make the water unsafe to drink.

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Controlling Pocket Gophers

Pocket gophers are a nuisance on many farms due to the mounds of soil they make in fields. Mounds and runways cause potential damage to livestock, machinery and reduction of crop yields. Pocket gophers can be legally controlled, and in most counties carry a bounty. Check with your township officer or city hall for more information on collecting gopher bounties.

Control methods are more effective during the spring and fall when pocket gophers are most active. This activity can be noted by the presence of fresh mounds of soil.

Traps and poisoned baits are the most practical methods of control. On small areas where a few animals are involved, trapping or hand baiting is effective. Gopher traps and baits are available at most farm supply or lawn and garden section of your favorite hardware store. When handling gopher traps, be sure to wear gloves for safety reasons and to reduce the presence of human scents. The presence of human scents in a gopher run can lead to an empty trap.

Hand baiting involves dropping poisonous baits into the underground runways. One pound of bait can treat many acres. On large and heavily infested areas, a tractor-drawn machine called a burrow builder is used to make artificial burrows and automatically drop baits into them.

When using a burrow

builder, make artificial burrows twenty feet apart across the field at the same depth as the natural burrows. The machines drop poisoned bait mechanically at nine to twelve inch intervals in the artificial burrow. One pound will treat one acre.

On smaller acreages, to hand bait remove the earth plug from the lateral tunnel of a fresh mound of dirt. Insert a tablespoonful of poisoned bait into the main runway with a long handled spoon. Cover the opening to exclude light and loose dirt. The main runway can also be located by probing with a stick or metal rod about 8-18 inches back from the plug mark in the ground.

When the runway is found, enlarge the hole, put in the bait and cover as before. Scrape over mounds and after 48 hours retreat those runs showing signs of new activity. One pound of poisoned bait will treat five or more acres.

For extensive hand baiting, purchased or homemade probes made of 3/4 inch pipe welded to a blunt point and cut to 34 inches in length make the job easier and quicker. A foot rest can be made 16 inches from the end.

Some gopher baits/poisons are classified as "restricted use" pesticides. To purchase you will need a private pesticide applicators licence. Always read and follow label directions before using any pesticide. (DJ)

Steps To Maintaining a Healthy Pasture

One of our most neglected agricultural resources is our pastures. Yet, from those pastures we expect to provide nutrients required for the growth and/or maintenance of our animals. In addition to lacking necessary nutrients, poorly maintained pastures are often overrun with weeds, have poor

soil structure, and can be a substantial source of non-point source surface and groundwater pollution.

Properly maintained pastures reduce surface run-off and soil erosion by slowing down and using surface water and

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