This well has a modern, insect-proof well cap. If your well cap is like this one, you don't need to worry about earwigs. If the cap has been damaged, replace it.

These two photos show old style well caps. They are vulnerable to insect entry. A distinguishing feature of the old style caps is the allenhead screws holding them onto the well.

BACTERIOLOGICAL WATER TEST

Coliform bacteria are intestinal organisms that come from septic systems, animal waste, or surface runoff. They can enter a well through faulty or deteriorated well construction. Earwigs and other insects carry coliform bacteria into a well. These indicator bacteria normally do not cause illness in healthy individuals, but they signal the possible presence of harmful bacteria.

A positive test doesn't automatically mean that insects are in your well. If insects have been observed within a well that tests positive for coliform bacteria, they are likely to be the source of the bacterial contamination.

An annual water test for coliform bacteria is recommended. However, if the taste or clarity of the water suddenly changes, testing should be done immediately.

For further information, contact your county or district health department or the Michigan Department of Environmental Quality, Water Division, Groundwater Section at 517-241-1377 or fax at 517-241-1328. Our mailing address is: Michigan Department of Environmental Quality, Water Division, P.O. Box 30630, Lansing, MI 48909-8130. Internet address: www.michigan.gov/deq

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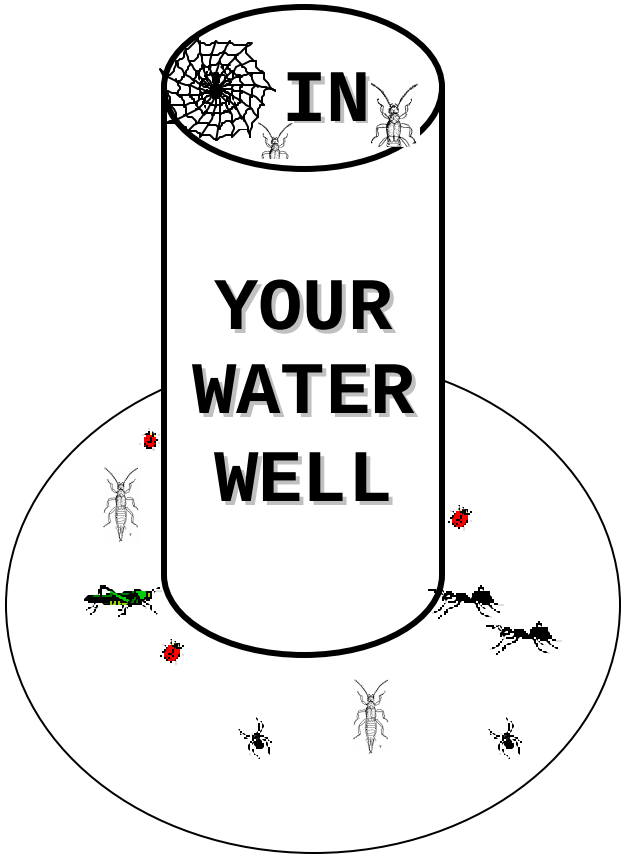
INSECTS



DEQ

Michigan Department of Environmental Quality

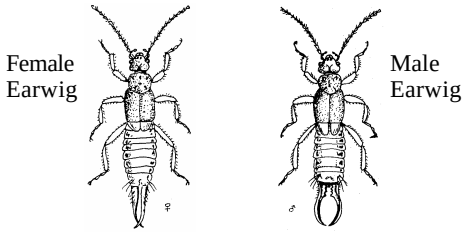
Water Division

1/2003 EQC 2060

INSECTS IN WATER WELLS

Every well owner wants a clean, safe, and reliable drinking water supply. Well owners should protect their water supplies from insect infestation by preventing their access into the well. Illness-causing bacteria and viruses can be carried into the well by insects.

Some older style well caps have a gap between the cap and the well casing pipe. Earwigs and other insects can gain access to the well through this gap. Once inside the well, insects often build nests. They can fall into the water and can be drawn into the pump intake when the pump starts. Ground up insect parts can wind up in a glass of drinking water. Insect parts can be trapped by the screen in a faucet aerator and not appear at the tap.



Earwigs find the moist interior of a well casing more to their liking than most other insects. They are brown insects about one inch long and one-quarter inch wide. They are recognized by having a fierce looking tail pincer (see drawing).

Earwigs are scavengers on dead animal and decaying plant matter. Some species are predators and others feed on live plants. They are primarily active at night and find shelter during the day in damp, cool places like woodpiles or under vegetation.

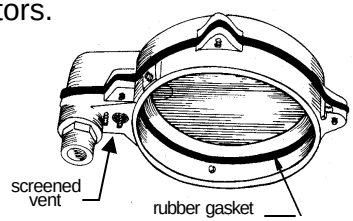
HOW TO CHECK FOR INSECTS

First, remove sink faucet aerators to check for insect parts. If your water system has a cartridge-type filter, it should be thoroughly inspected. An easy way to check your well for earwigs is to remove the well cap (turn off electricity to pump beforehand) and shine a flashlight down the casing pipe. Earwigs will be seen scurrying on the inner wall of the well casing pipe. Even if you don't see any earwigs, look for cocoons or cobwebs on the underside of the well cap (see photo) or inside of the casing. They are a sign that your well is vulnerable to insect infestation. Modern well caps have screened air vents and tight seals to keep out insects. If your well was installed after 1985, it should already have an insect-proof cap.

HOW TO STOP INSECTS FROM ENTERING A WELL

- Remove debris such as woodpiles and vegetation from around your well casing. *(**DO NOT** use insect sprays in or near your water well.)*

- Install an insect-proof well cap (see drawing). Michigan well drilling contractors and pump installers are licensed to perform this type of work. See your phone book under "Water Well Drilling" for the name of local contractors.

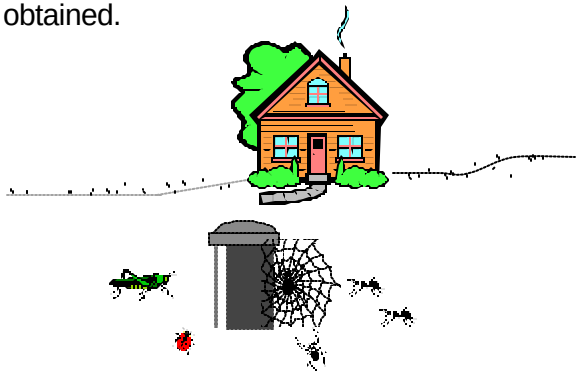


- Inspect the wellhead (cap, screened vent, and casing) at least annually to make sure the cap is securely attached to the casing and has not been damaged.

TREATING AN INFESTATION

1. Flush pressure tank and hot water tank to remove insect parts.

2. Remove insect parts from filters, faucet aerators, sink hand sprayers, showerheads, and other water using devices with a screened opening.

3. Hire a well drilling contractor to disinfect the well and water system with a chlorine solution. Chlorine will kill bacteria that have been brought into your well by earwigs or other insects.

Sometimes it is necessary to disinfect the well more than once. In severe infestations, a well drilling contractor must remove the accumulated insects from the bottom of the well. Bailing or blowing with compressed air is necessary before a safe bacteriological water sample can be obtained.