

Preventing Tick Bites

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Ticks are most common in rural areas, where wild animals are abundant. They live in tall grasses and enjoy humid temperatures. Ticks find their host by detecting carbon dioxide given off by the animal. They climb to the top of a blade of grass and stretch out their legs until they grab onto a body, animal or human.

People can prevent being bitten by using insect repellents, such as DEET or picaridin-based products. Wearing light-colored clothing allows a tick to be more easily seen as it crawls on a person. Another preventive measure is to wear socks on the outside of pants and tuck in shirts, so ticks are less able to crawl under clothing. After being outside, people should have someone inspect them for ticks.

Pets should be checked if they spend time in tick-infested areas and then come indoors. The most effective method of preventing tick bites on pets is to regularly use repellent and control products. A veterinarian should be consulted to help select safe and effective products.



American Dog Tick Adult Male



Lonestar tick adult female

There are several methods of removing ticks that are dangerous. Burning a tick with matches or a cigarette is not recommended. Neither is spraying the tick with hairspray or alcohol. Squeezing the tick's swollen abdomen can make the blood in its stomach go back into the body, which could increase the chance of disease transmission. The most effective way to get rid of a tick is to grab the tick with

tweezers as close to the head of the tick as possible. Gently and steadily pull the tick, but do not jerk. After a couple of minutes the tick will tire and release its hold.

The most common tick throughout Nebraska is the American dog tick. This tick is a vector of Rocky Mountain spotted fever. Although, outbreaks of Rocky Mountain spotted fever aren't common, it does need to be treated by a doctor. The longer an infected tick feeds, the greater the chance of disease transmission.

Another common tick in southeast Nebraska is the lone star tick, named because the female lone star tick has a single white spot on their back. These ticks can transmit a disease very similar to Lyme disease.

People living in rural areas or acreages may be frustrated with ticks and want to spray insecticides to kill them. Because ticks have a leathery body and are not easily killed with insecticides, this type of control usually is not very effective. A more helpful solution is to maintain a short grassy lawn which is not a very conducive environment for ticks.

Photos by Jim Kalisch, UNL Entomology

Photos by Rod Wilke, UNL Extension Project Coordinator

Check Property For Unused Wells To Avoid Contaminated Drinking Water



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Windmills usually aren't the source of contaminated drinking water, but the well below can be.

Often, these wells are deteriorating and no longer used, but the well shaft still is a direct connection from the ground surface to the underlying aquifer. This can allow surface runoff to flow directly to the water-bearing zones, often carrying organic wastes, fertilizers and other chemical residues, such as pesticides and petroleum products, into the groundwater.

In addition, small animals can fall into these wells, further adding to the contamination. Contaminants that enter an old, out-of-service well can migrate to in-service water supplies, such as a new well on the property. Once groundwater is contaminated, it is difficult, if not impossible, to clean up and the process always is expensive.

Unused wells, especially those that are old and/or in disrepair or that do not meet current standards as an active well, pose a major threat to groundwater quality and represent a serious threat to human health and

safety. State law refers to these as illegal wells.

There are thousands of these wells on farmsteads, many on acreages and in other rural areas throughout the state. Often, when a new well drilled, the property owner neglects to properly decommission any old well or wells on the property.

While a windmill tower can be a sure sign, wells can be present at many other locations too. Rural property owners should observe carefully for any signs that wells may exist. Some signs include concrete pads where the legs of a windmill tower once stood; depressions where an old well pit or the walls of a dug well may have collapsed; an old stock watering tank in an over-grown area; a small area that is fenced off, especially if there also are pipes sticking out of the ground; flat stones, a concrete slab, old boards, metal sheets or other items that could be covering an old well shaft; and many others. Unfortunately, sometimes there are no signs.

Nebraska regulations require that illegal wells be decommissioned by a licensed Nebraska well contractor. This process includes removal of well equipment, such

as pump and piping, disinfection, sealing, filling, capping and reporting. The cost of decommissioning a well depends on several factors, including accessibility, construction technique and materials, diameter, depth and condition. Generally, this is not particularly expensive.

Because of the importance of protecting water quality, nearly every Natural Resources District, or NRD, offers an attractive incentive to assist well owners with decommissioning costs. Payment rates vary by NRD, but typically these programs will pay for 60-75 percent of the costs. Thus, out-of-pocket expense to the well owner often will be less than \$100 – a small price to pay to help assure that water quality and human safety are protected.

To apply for well decommissioning cost-share assistance, well owners must first contact the appropriate NRD for an information and applications packet that gives program guidelines, forms and instructions. No cost-share payments can be made unless all procedures are followed.

If there is an unused well, begin the decommissioning process today and help protect groundwater quality and human health and safety.

Store Drinking Water In Case Of Emergency

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There are many situations when a water supply could temporarily be interrupted for a few hours or up to several days or weeks. Availability of drinking water is critical in these situations because water is the most important nutrient for the human body. Creating an emergency water supply can be a lifesaver if a water supply is interrupted.

In an emergency, an ample water supply is a priority. Needs will differ depending on age, physical condition, activity, diet and climate. However, most people need to drink at least two quarts of water each day. Hot weather can increase this amount. Children, nursing women and ill people also will need more. In addition to drinking water, supplies for food preparation and hygiene are needed. In general, store at least one gallon of water per person per day. Never ration drinking water, even when supplies run low. Drink the amount needed for the day and try to find more for tomorrow. The amount of water needed can be minimized by reducing activity and staying cool.

An emergency water supply can be purchased bottled water or potable tap water stored in containers that have been cleaned out at home. There are many types of containers available for water storage, including those made of glass and plastic. Containers can be purchased in most housewares and sporting goods departments and some water vending locations. Avoid using plastic milk containers because fat traces may remain.

Treating the water with chlorine is recommended because organisms, such as bacteria, can be introduced as the water is collected. Use standard liquid household bleach with no scents, soaps, or other additives. Add four drops of bleach per quart or liter container of water. Stir the water, cover, and allow it to stand for 30 minutes. If you cannot smell chlorine after the 30-minute waiting period, add another dose. Cap containers and label each with the contents and date.

Store water containers in a cool, dry place away from direct sunlight. Since most plastic beverage containers degrade over time, store them away from heat and light to prevent leakage. Store water in plastic containers away from gasoline, kerosene, pesticides or similar substances because vapors from these products can penetrate plastic. Glass is non-permeable to vapors and gases. Also, water weighs over 8 pounds per gallon, so make sure the shelf or storage area is strong enough to support the weight. For best quality, use or replace shelf-stored water every six months.

To improve the taste of water stored for a long time, pour it back and forth between two clean containers several times to aerate it. Regardless of how water was treated and stored, measures should be taken to control exposure to bacteria once containers are opened. To reduce the chance of water contamination, open only the containers that will be used immediately. If electricity is available, store opened containers in a refrigerator at or below 40 degrees. Avoid introducing bacterial contamination into the stored water. Do not put dippers or spoons into containers or drink directly out of a container. Keep container openings and lids clean. Also, use water in opened containers within one or two days.