

Jody G. Holthaus
District Extension Agent
Livestock and Natural Resources

Testing Private Wells

Private water supplies can include wells, springs, and cisterns. The home owner/well owner is responsible for assuring the water is safe for potable use. Routine testing for common contaminants is highly recommended. Even if you have a safe water supply, regular testing can be valuable as it establishes a record of water quality. If your water quality changes, you can address it, and if someone damages your water supply, your records can demonstrate the historical water quality, which may help you in your efforts to correct the impaired water supply. Why should you test your well water? No one else will test your water for you. Regular testing helps to protect you and your family's health and protects the financial investment you have in your home. The only reliable way to detect contaminants in your water is to test it. Laboratory testing provides you with information on the quality of your well water.

When should you test your well water? In addition to yearly testing, as a private well owner, you should have your drinking water tested whenever:

- You notice a change in the taste, odor, or color of your water
- Before buying or selling a home with a private well (this may be a requirement in some areas, check with your real estate agent or county health department)
- Before and after installing any type of water treatment system

Because of differences in groundwater quality throughout Arizona, it is best to check with the Extension office or local health department for information to help you determine what to test for, as there may be local pollution issues that influence your drinking water quality. The most common times to test your well water quality are when you are buying a home or are experiencing problems. How do you collect a water sample for testing? Well owners should analyze their water both at the wellhead (if possible), after a water treatment device (to make sure that it is removing the constituents it is supposed to remove), and at the tap that has received no water treatment (choose an inside cold water line). Water analyses at the wellhead and at a tap that doesn't receive treated water should be the same. If not, you will want to find out why any parameters are different (could be because of a cracked pipe, leak, or contaminated storage tank/ distribution system). The best option is to obtain a container from the laboratory that will be analyzing your water. We have the water test kits at the Extension office. There are 2 bottles in the kit, one for bacteria and the other for general drinking water quality.

The clear bottle for the bacteria has a white pill in it; this is a preservative for the bacteria that are in the water.

Mailing the kits this time of year is ideal; put them in the mail or UPS or FedEx at the beginning of the week. The lab we use likes to test the water within 30 hours of collection. If you have any more questions, give us a call at the Extension office.

David G. Hallauer
District Extension Agent
Crops & Soils/Horticulture

Soybean Response to Nitrogen

With any luck, you can see the light at the end of the harvest tunnel. It may also mean some analysis about why one field or portion of a field performed better/worse than another.

Because we know soybeans are large N users (most research suggests three to four pounds of N per bushel of yield), it's fair to question whether plants really *did* get everything they needed from root fixed N plus soil available nitrogen. Research in Kansas seldom shows a response to N for soybeans unless something drastic –failure to inoculate, etc...- occurs. We are better off focusing on other management techniques to increase yields. What about other states?

An analysis of soybean N response studies across the country's major soybean growing regions from 1996-2016 showed much the same. The analysis looked at 105 different locations across 16 states (Kansas included...), with results analyzed to determine whether nitrogen applications in soybeans might indeed be needed. Their findings: not likely.

Among all the experiments, less than one percent of the total yield response was due to a nitrogen related variable (rate/timing/etc...). In other words, there are other factors (weather, soils, other major management decisions...) affecting soybean yield before nitrogen.

Some treatments *did* show a response. The six percent that showed a significant response to N treatment were typically associated with irrigation or very high populations. This suggests that most N responses were tied to other management decisions that also affected yield.

The conclusion: soybean response to nitrogen is measurable but very small, and application typically will not result in positive economic return. That doesn't mean very high management/high yielding soybeans will *never* respond to nitrogen, but that year in year out response chances aren't high for most of our area. Attention should instead remain on major management factors like P/K, weed control, and insect/disease management.

For study results, request a copy via e-mail to dhallaue@ksu.edu or through any District Office, or check it out online at <https://coolbean.info/library/documents/Nstudy.pdf>.

Lawn Weed Control Time

The dandelions aren't nearly as visible now as they were in May – but that doesn't mean they aren't out there. Look a little more closely. They typically produce a flush of new plants in September that are just getting started at causing you issues for next season.

Fortunately, fall gives us a great opportunity to get on top of these weeds now, as well as other winter annuals, while the weeds are small, rather than waiting until next spring when the weeds have all the advantages. Winter annuals are actively moving resources from the top of the plant to the roots, meaning herbicides will translocate well, killing plants from the roots up.

A number of products are available, many including active ingredients like 2,4-D, MCPP, and dicamba. Make sure the weed is actively growing, and temperatures are in the 50's for best results. Control will be slowed by cooler temperatures, but there are options for cooler time frame applications as well. With any product, always read and follow label directions.

Cindy Williams
Meadowlark Extension District
Food, Nutrition, Health, and Safety

Food Pantries and COVID-19

While food pantries have been quite busy this year, the holidays are traditionally the time when there is a great need for food pantries. This year is no different.

Managers of food pantries and food distribution sites can consider these steps to help ensure safe access to food for their clients while helping prevent the spread of COVID-19.

Follow local guidelines and policies as to where and when food distribution can occur. This may include extended hours, outdoor distribution locations, and enhanced COVID-19 safety protocols.

Educate staff, volunteers, and clients for their own safety. If anyone is sick, stay home!! Clients should find someone else to pick up the food.

Food insecurity, even in the short-term, can have serious impacts on physical and mental health. During this difficult time, food pantry and food distribution sites are critical. Managers can provide safe and flexible options to help people with food insecurity while prioritizing the health and safety of clients, staff, and volunteers.

A COVID-19 Look at Home Kitchens

Have you spent more time in your kitchen this year? If so, you are not alone. Surveys show that 70% of U.S. households are now food preparation central for 80% of meals. This is up 40% from 2019 and likely not slowing down.

What are home cooks making? One survey says the most common recipes searched for on the internet include banana bread, pancakes, chicken, pizza dough, brownies, crepes, meatloaf, French toast, lasagna, and cheesecake.

Who's doing the cooking? Millennials and Gen Z consumers learn new cooking skills and discover new passions through culinary experimentation, particularly with new seasonings.

What are we cooking with? Slow cookers are in nine in 10 households, and pressure cookers are in half of the consumer's kitchens. Baking has become very popular, as evidenced by empty grocery shelves where baking supplies are sold. Will these bakers keep baking? Eight in 10 say yes!

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Nancy Nelson
Meadowlark Extension District
Family Life

Nancy has no news to share this week.