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Livestock and Natural Resources

Farm Ponds

I've done a lot of looking at farm ponds this summer. Thankfully, we haven't seen too many harmful algae blooms (blue/green algae). It's a good thing unless you're trying to study it. The results from the pond project will be wrapped up this month, and hopefully, the data will be released soon.

It might be pushing things to call our farm pond a "pond," because you can't actually see much water in summer. What you see instead is algae, weeds, and bullfrog eyes. When people claim their ponds are covered in blue/green algae or moss, I have had calls when actually it is Duck weed. This is a very tiny floating plant. While it is unsightly, it is fairly high protein for your livestock.

The main problems ponds have are too many weeds, too much algae, and not enough oxygen in the summertime. Depleted oxygen causes fish to die.

To keep a pond healthy, you've got to do several things. The first is to reduce weed growth by eliminating nutrient sources such as lawn or farm fertilizer, livestock manure, or septic tank leachate (the liquid produced by water trickling through the waste).

Pond weeds are a natural process, but we speed it up with fertilizer runoff.

Autumn leaves are a double-whammy if you have trees around the pond. Falling leaves contain 60 percent of the nutrients a tree takes in during a year, he explains, so those nutrients now feed pond vegetation. In decomposing, leaves also take up dissolved oxygen, thus competing with fish for the oxygen supply. This results in more nutrients to feed even more pond weeds. Be sure to cut down trees that are on your dam. If they should die, the rotting roots can cause ponds to leak or weaken the dam.

It's a natural ecosystem. Mother Nature wants plants in a pond. People don't. There's been a change in our mindset since the days of bullfrogs on lily pads. Now people want ponds to be like a swimming pool, with crystal clear water full of 5-pound bass. But you can't have both.

To eliminate the shallow water where weeds thrive, a pond should have relatively steep sides and good depth. A good slope is 1 foot down to every 3 feet across, and it is recommended that 25 percent of the pond be more than 8 feet deep - both for fish habitat and weed reduction.

Oxygen depletion causes fish kills in summer because oxygen is less soluble in warm water, which is exactly when fish are most active and need more oxygen.

Learn to spot the problem because if it's serious, it's immediate, and you have to act. You don't have time to price-shop for an aerator.

We do have an excellent publication on Aquatic Weeds; you can find it on our online bookstore at <https://www.bookstore.ksre.ksu.edu/pubs/c667.pdf>

David G. Hallauer
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Crops & Soils/Horticulture

Soybean Cyst Nematode Testing

A 2018 Crop Protection Network survey estimated losses in the U.S. from Frogeye Leaf Spot – one of our most troublesome soybean foliar diseases – at 53.4 million bushels. Two more fairly common diseases – phytophthora and charcoal rot, totaled another 51 million bushels lost. All three of them are fairly 'visual' in nature. We can *see* when they are causing damage.

One disease issue we *can't* always see is every bit as troublesome. Soybean cyst nematode (SCN) is a major problem in eastern and central Kansas and across the nation, causing estimated losses of 125.6 million bushels in that same 2018 survey. So even though it's not easily seen, it is an important disease to monitor for on a regular basis to see if implementation of management strategies like variety resistance and crop rotation might be in order.

The best time to test for SCN is right after harvest. Divide fields in to sections based on cropping history or soil type for best results. From each field – or subsection thereof – walk in a Z pattern, collecting 10 to 20 cores from a depth of six to eight inches. Mix the cores well and submit a pint of soil in a labeled plastic bag.

Sample handling is important. Keep samples refrigerated until shipping and send overnight or deliver to the lab to prevent heating during shipping. Bags left in the sun can kill nematodes and skew results.

Samples to the K-State Plant Disease Diagnostic Lab can be submitted through your local Extension Office for \$25 plus shipping. Samples sent directly will be charged \$34.

For more information on sampling, feel free to drop me a line. You can also check out this short, informative video from our lab: SCN Sampling 2020: <https://youtu.be/b6Eo0isI1I0>.

Pruning Trees and Shrubs in the Fall? Maybe Not...

As trees take their last gasp before dormancy, it might be tempting to do a little 'trimming' while we can still see some shape. If you are planning to do so this fall, be careful.

Penn State Extension Specialist Dr. Rich Marini writes: *'Based on everything that has been published we can conclude that woody plants do not attain maximum cold hardiness when they are pruned in the fall. Trees are affected more by heavy pruning than light pruning.'* So what's that mean for possible fall pruning?

In most cases, we can probably get by with it. Damage typically occurs when we have a sharp drop in temperature before plants are completely hardened off. Hardiness of plants also makes a difference. That means that while light pruning and removal of dead wood are fine this time of year, you may want to delay severe pruning until spring. Watch to see what weather is going to do as well.

What is 'light pruning'? Consider pruning to be 'light' if 10 percent or less of the plant is removed (dead wood doesn't count...). Remember as well that even light pruning of spring-blooming shrubs such as lilac and forsythia will reduce flowers for next year. It's probably best to wait on them until after flowering next spring.

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

Apples and Pumpkins and Squash Oh My!

Fall foods contain some incredible fiber and nutritional benefits making them great healthy choices for you and your family!

We all know apples come in a variety of colors, and so do squash and pumpkins, but don't forget the other colorful fruits and vegetables that are fall favorites such as broccoli, cauliflower, cranberries, grapes, oranges, peppers, sweet potatoes, and more!

Many of these fall foods such as pumpkins, apples, broccoli, and sweet potatoes are high in fiber, which helps control weight, lowers blood cholesterol, may reduce the risk of type 2 diabetes and lower the risk of breast, prostate, and colon cancers.

The adage, "an apple a day keeps the doctor away," has merit. Apples can slow digestion and produce fewer and smaller spikes in blood sugar, which can help control weight. They also have antioxidant effects that help fight against cancer and type 2 diabetes.

These fall foods are also some of the most fun to harvest and incorporate into your cooking. To enjoy these fall foods, consider some of the following:

- *Visit a local orchard for farm to pick your own apples and pumpkins.
- *Make a pumpkin pie and roast the pumpkin seeds from the pumpkins you find.
- *Apple pies and caramel-dipped apples are traditional fall sweets.
- *Carve a face into your pumpkin and create a Jack-O-Lantern.
- *Learn new recipes using apples, pumpkins, and squash.

Take time this fall to really get to know these great foods.

Nancy Nelson
Meadowlark Extension District
Family Life

Safe and Clean While Traveling

Many of the risks of COVID-19 can be amplified while traveling. The American Cleaning Institute® recommends choosing your destination wisely and taking some precautions. You don't have to stay safe and clean at home; you can also be safe and clean on the road.

Consider locations that are close enough to drive to in your personal cars instead of ones you have to fly to. Flocking to the popular tourist destinations might make it difficult to maintain physical distance. Consider less popular attractions this year. Find a great hiking spot or relax by a lake.

Check hotels in the area and their new cleaning measures before booking or ask if the rental you're considering is professionally cleaned and disinfected between reservations. Consider bringing a travel pack of disinfectant wipes to use on frequently touched surfaces like door handles and light switches upon arrival.

According to the CDC, there is currently no evidence of transmitting COVID-19 through food. However, being in close quarters in a restaurant could be more problematic. Consider getting a hotel room with a mini-fridge for storing any leftover take-out or a kitchenette so you can cook. If you do go to a restaurant, outdoor seating is a good option.

Continue to maintain social distance whenever possible, wash your hands frequently, and avoid touching your face.