

David Hallauer

District Extension Agent
Crops & Soils/Horticulture

Applicator Certification

The label is the law. It's a statement used often in discussions surrounding pesticide use to underscore the need for knowledge of product labels prior to application. In fact, there may be requirements you need to understand even prior to *purchase*. One of those is knowledge of whether or not the pesticide is considered restricted use.

Restricted use pesticides require applicator certification prior to purchase/application. There are two categories in Kansas: commercial and private. In short, Commercial pesticide certification is for application as a business or for compensation. Private applicators are applying on owned/rented property without compensation. Commercial certification requires passage of a general test plus an additional test in at least one other application category at approved testing locations. Private pesticide applicators have to pass an open book examination administered through local Extension Offices. If you're unsure what certification you need, visit the Kansas Department of Agriculture at: <https://www.agriculture.ks.gov/divisions-programs/pesticide-fertilizer/pesticide-applicator> or contact any of our District Offices for clarification.

How does this apply to product labels? There can be confusion about whether application certification is necessary. As you prepare for applications this spring, look closely at product labels. If you have the product, open up the label and take a look. If not, you can find them on company websites or sites like cdms.net or greenbook.net. As an example, Tordon RTU is *not* restricted use (that's why you can purchase it off the shelf at many farm supply stores – but Tordon 22K is (read the label closely and you'll see how different they really are). If you're going to purchase Tordon 22K, make sure you have your private pesticide certification in order.

Don't want to mess with the certification and testing process? In some cases, non-restricted use products may be available as a substitute. Resources like the *2023 KSU Chemical Weed Control Guide* (available online or via District Offices) can help you sort through it.

Pruning Fruit Trees

So long as fruit tree wood isn't frozen, pruning season runs from now through March. Spring will be here soon, and while it's easy to get overwhelmed by the task of pruning, it's a necessary process. Follow these simple rules to make the process easier:

Broken/damaged/diseased branches are an easy first cut. Narrow branch angles are an easy prune as well. They are weak points that result in breakage issues during wind or ice storms.

Suckers are branches growing straight up from the trunk or major branches. Remove them, then remove any that are rubbing or are interfering with mowing/harvesting/pruning. Always cut back to another branch or bud and do not leave a stub.

Once you remove 30 percent of the tree's branch area, stop. Otherwise, you can remove thinner branches on the tree's interior or cut back branches to reduce total tree size as necessary.

Interested in *seeing* the process? Visit this Kansas Healthy Yards series pruning video: https://kansashealthyyards.org/index.php?option=com_allvideoshare&view=video&slg=pruning-fruit-trees&Itemid=342.

Ross Mosteller

District Extension Agent
Livestock & Natural Resources

Pond Ecology & Management

Part of my professional title is Natural Resources, something I've been called out on for not giving more attention to. That is fair, livestock is my primary interest, but everyone can agree that without a healthy balance of our natural resources, animal life is in trouble. One of the most important of our natural resources is water. Today let's look at constructed ponds, as that is a general topic area that creates lots of discussion at the Extension office throughout the year. Winter might seem like a strange time to discuss this topic, but read on, it will make sense!

Pond ecology can be described as the interaction of the life in a pond with the environment that exists within. A newly created, deep, spring-fed pond may have little life of any kind in it because of cool water temperatures and lack of food supply. On the flip side, a shallow, nutrient-rich pond, directly exposed to full sunlight, with little water flowing through it, will be full of algae and aquatic plants. It may have very little animal life present because of low oxygen levels. This is most often the ponds that generate questions in the office with dead fish, poor water quality, aquatic weeds and in some cases the toxic harmful Blue Green Algae blooms.

All ponds age and just like everything else in life, they require management. A pond begins with mostly water, few nutrients, and little aquatic life. Over time the pond accumulates nutrients through a process called eutrophication. The addition of nutrients stimulates the growth of aquatic life. These organisms will live, grow and die. Their remains decay in the pond and the nutrients it took to grow them are released back into the pond water, creating a cycle. Slowly over time there will be an accumulation of material that resists decay and the pond will fill in. Ponds will become bogs and will eventually resemble dry land. This process of returning to dry land can happen in a decade or may take centuries. If this is not what you want out of your pond, your job is to slow the process down as much as possible.

Everyone has a different desired use for ponds be it; food/fishing, recreation, aesthetics, a water source or simply outdoor enjoyment. While the aging process described is natural, there are some management principles to employ to extend pond life. A long life is best achieved by limiting the inputs of nutrients to the pond. Capture sediment before it enters the pond, limit the use of fertilizers within the watershed when possible, limit animal access, and prevent the addition of organic matter. Flushing nutrients from the pond is encouraged by a clean, year-round water supply. Mechanical removal of plant vegetation is also a method of removing significant nutrients from a pond. Finally, aeration is valuable for both supporting aquatic life and promoting the decay of waste material. Keeping the surface clear of plant cover and open to wind action are aids to better aeration, not to mention fishing.

If this has triggered an interest in pond management, you are in luck! Meadowlark Extension District will be hosting a pond management meeting, Tuesday, March 21, 1:00 pm at the Ozawkie Township Hall in Ozawkie. Joe Grekin, K-State Fisheries and Aquatic Extension specialist, will be discussing many of the practices mentioned above, as well as touching on Blue Green algae. K-State Extension Watershed specialists, Will Boyer will also be on hand to discuss options for using ponds as an effective water source for livestock. There is no cost to attend, but we do request an RSVP by March 15 to rmostell@ksu.edu or 785-336-2184. Hope to have you join us in Ozawkie to talk about ponds!

Teresa Hatfield

District Extension Agent
Family and Community Wellness

Manage Your Arthritis

In Kansas, arthritis affects 1 in 4 people over age 18. Arthritis is a term that describes inflammation or swelling in one or more joints. There are more than 100 different types of arthritis, but the most common types are Osteoarthritis, Rheumatoid arthritis, Gout, and Fibromyalgia. Pain and symptoms vary based on the type of arthritis you have.

Osteoarthritis is the most common form of arthritis. Wear and tear on your joints cause osteoarthritis. After a time, the cartilage around your bones begins to break down, making it harder and more painful to move. Because cartilage is a protective layer, as it wears away, the bones begin to rub against one another and cause pain.

Rheumatoid arthritis is an autoimmune disease. An autoimmune disease occurs when the body's immune system can't tell the difference between foreign cells and the body's healthy cells. The body's immune system attacks healthy normal cells. With rheumatoid arthritis, the healthy cells of joints and organs, especially the lining of joints. As this continues to occur, inflammation causes the breakdown of the joint and causes permanent damage.

A build-up of uric acid crystals in the body causes gout. The excess crystals can accumulate in the joints causing severe pain. The large joints are often affected, such as the big toe. Gout flare up can come on very quickly and be extremely painful.

Fibromyalgia causes chronic pain throughout the body. Fibromyalgia occurs more frequently in women than in men. People with fibromyalgia also experience fatigue as well as trouble sleeping. People may also be more sensitive to pain or report feeling pain differently than people without fibromyalgia.

Risk factors for developing arthritis include injury or overuse of a joint, age, being overweight, family history, or being female. It is often diagnosed by reviewing your symptoms with your doctor, using X-rays and lab tests. Talk to your healthcare provider when symptoms first appear, and they will be able to devise a treatment plan that might include exercise.

While exercise might seem counterintuitive, it could be one of the best things you can do. If you are overweight, losing weight will help to put less stress on your joints. Exercise is also one of the most effective ways to manage your symptoms. K-State Research and Extension has a joint-friendly exercise program for people with arthritis. The Arthritis Foundation's Walk With Ease program will be offered in Holton starting on March 13, 2023, at the Evangel Church at 1:30 PM on Mondays and Wednesdays. Walk With Ease is a 6-week program that aims to help people start or maintain a safe walking habit. Participants will also learn how to manage their arthritis. The Walk With Ease program was designed for people with arthritis but can be practical and valuable for anyone. Any adult can participate in the program, male and female, fit or flabby—anyone who wants to increase physical activity to gain the benefits of exercising.

The class is free, and all participants will receive an Arthritis Foundation Walk With Ease guidebook. Space in the class is limited. Call Teresa Hatfield at the Meadowlark Extension District to sign up at 785-364-4125 or thatfield@ksu.edu.

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Cindy Williams
District Extension Agent
Family & Community Wellness

No new this week.