

D's Notes
08/10/26

REMINDER: DeWayne will be taking down Open Class State Fair entries on August 27. Anyone wanting to send an item with him, needs to bring the item and the entry form from the state fair to the Extension Office.

K-State watershed specialists, livestock experts emphasize importance of water sources

Water is likely the most important nutrient in raising livestock, and yet Kansas State University Extension cow-calf specialist Jason Warner says it is often the most overlooked.

“A big reason why many of our pastures and rangelands go underutilized is simply due to a lack of access to high-quality, abundant water resources,” Warner said.

Warner said many beef operations in Kansas and similar regions do not have abundant groundwater or access to rural water systems. Instead, they rely heavily on surface water sources to supply their cow-calf herds, stocker cattle and replacement heifers. Springs, ponds and other natural sources such as creeks and streams are a critical part of the ranch’s bottom line and long-term sustainability.

“If we think about a ranch or an operating unit that has underdeveloped water resources versus one that has developed and high quality and abundant watering resources, that can certainly add a tremendous amount of value to that operation just in and of itself,” Warner said.

Among the most cost-effective tools for farmers and ranchers are spring boxes, structures that capture natural spring flow and direct it into a tank, small pond or trough. Warner said spring boxes are relatively easy to develop and can provide dependable water when properly designed and maintained.

At the same time, he urged producers to regularly check existing springs and spring boxes for reduced flow or leaks.

“If you have those types of watering resources on your operation, and you notice that the spring spring box is not holding water -- or the spring is not flowing -- as much as they should, there can be a number of different reasons,” Warner said. “It’s important to take the time to look at those resources ... and what steps you might need to take in order to be able to appropriately address and correct that issue.”

Stacy Minson, a K-State Extension watershed specialist in the Kanopolis Watershed in west-central Kansas, said the university’s extension network is designed to support ranchers tackling these types of water challenges.

“One of the best things about extension, as a watershed specialist or even extension staff, is having the ability to reach out if a rancher reaches out to one of us or to an office,” said Minson, who is coordinator of the university’s Watershed Restoration and Protection Strategies (WRAPS) program. “Farmers and ranchers can do a lot of things on their own, (but) sometimes they do need that additional expertise.”

Warner tied water development directly to broader goals of grazing distribution, forage utilization and regenerative agriculture. Underdeveloped water is a key reason why cattle often overgraze near existing tanks or ponds while leaving distant forage largely untouched.

Improved water distribution, he said, helps spread grazing across a pasture, improving soil health, reducing erosion, limiting invasive species and supporting the ranch's regenerative goals.

"When we improve our grazing distribution, not only do we improve our soil health, but we also can help minimize our erosion and losses of our key natural resources," Warner said.

Warner also emphasized water conservation as a growing priority for agriculture. He pointed to leaky tanks, pipelines and spring boxes as examples of where operations may be losing water they cannot afford to waste.

Farmers and ranchers are encouraged to view an online publication, *Waterers and Watering Systems: A Handbook for Livestock Producers and Owners*, available at https://bookstore.ksre.ksu.edu/item/waterers-and-watering-systems-a-handbook-for-livestock-producers-and-landowners_S147. The handbook can be downloaded and covers water and power source options, water transport systems, waterer types, and more.

VIDEO OF THE WEEK:

Algae and moss are a common sight in Kansas ponds over the summer months. Whether it's a back yard water feature or a community pond, algae and moss can establish rapidly, covering the pond and causing issues for aquatic life. Dr. Joe Gerken, Fisheries & Aquaculture Extension Specialist from K-State, provides suggestions on how to get algae and moss under control in your pond. *This week's video covers the right way to get rid of pond moss/filamentous algae (in under 120 seconds)*, and discusses the key things you need to know when caring for your pond: <https://www.youtube.com/watch?v=MolEMugu7PY>

GARDEN CALENDAR:

- Provide approximately 1 inch of water per week to the vegetable garden. Consistent water is important for produce development.
- Start a fall garden by planting beets, carrots, beans, and turnips for an autumn harvest.
- Ease fruit loads on tree branches by propping them up with wooden supports.
- Divide irises and daylilies during this dormant period.
- Cut back and fertilize annuals to produce new growth and fall blooms.
- Take a soil test to determine what fertilizers are needed in your lawn fertility program.
- Eradicate unwanted bermudagrass and zoysia in your cool season lawn in before overseeding this fall.
- Water young trees every 7 to 10 days by thoroughly soaking the root system.
- Check plants for bagworm activity. Feeding will likely be wrapping up in the next few weeks. Only apply insecticides if bagworms are actively feeding. Otherwise hand-remove bagworms.
- Water houseplants regularly and fertilize to promote growth.

Look For Spider Mite Activity In The Garden:

Most types of spider mites thrive in hot and dry weather conditions. After several weeks of these conditions in Kansas, we are seeing spider mite populations start to explode.

Spider mites are tiny arthropods (they are not true insects). They are very small (0.3 to 0.45 mm long), oval-shaped, and may vary in color from green to yellow to red-orange

depending on the host plant they feed on. They are born from eggs, hatch into yellow-green, six-legged larvae, and quickly mature into eight-legged nymphs, and then adults. All stages of spider mite development (except as eggs) feed on plant leaves with piercing-sucking mouth parts, causing plant damage.

To identify spider mite damage, look for stippling on the upper surface of the leaves (areas of tiny, bleached, yellow or white dots on plant leaves). Since spider mites are sap-sucking pests, they remove the green chlorophyll from the plant leaf, leaving the white or yellow leaf spots. In heavy spider mite populations, fine webbing on the underside of the leaves may also be visible.

Spider mites themselves are often difficult to see due to their size and their habit of feeding on the underside of leaves. If spider mites are suspected, hold a sheet of white paper beneath a leaf and vigorously shake the leaf above the paper. Spider mites will be dislodged from the leaf, and can be seen as dark, tiny specks (resembling flakes of black pepper or dust) on the paper that move about across the paper. If you rub your hand across the paper, spider mites will smear, leaving a streak across the paper.

Spider mite control can be challenging. Often the best method of control is to spray infested plants with a strong jet of water to remove the mites. Be sure to use a high-pressure spray on all surfaces of the leaves to dislodge the mites. For best control, be sure to direct water to the undersides of the leaves. Plants should be sprayed with a strong stream of water at least twice a week under hot, dry conditions. Spider mite eggs hatch within only 7 to 10 days, so repeat water sprays are required for good control (every 3 to 4 days).

Horticultural oils and insecticidal soaps can also be helpful on some landscape plants. These products must be sprayed early in the morning when temperatures are cooler and plants have rehydrated. Most spider mite eggs will survive chemical sprays, regardless of the kill rate achieved on adults and nymphs, so additional treatments are still usually required. Retest leaves over a white sheet of paper to determine if resprays are necessary.

Select Good Transplants: Select plants that have a dense root system, with many white, fibrous roots. Look for plants with dark green leaves that are free of leaf spots or scorch. Plants should be dense, and well branched, not tall and spindly. Select plants with minimal flowers, so after transplanting plants can prioritize root growth before fruit/seed production.

Visit our *Two Spotted Spider Mite Fact Sheet* for more information about spider mites and their control: <https://hnr.k-state.edu/extension/horticulture-resource-center/common-pest-problems/documents/Two-spotted%20Spider%20Mite.pdf>

Caring For Dormant Cool Season Lawns This Summer:

Kansas summers can be tough on cool season turfgrasses in Kansas, especially tall fescue and Kentucky bluegrass lawns. These grasses grow best when temperatures are cool (between 60°F and 75°F) and growing conditions are moist (with adequate rainfall). Naturally, these grasses struggle during periods of prolonged heat and drought.

Instead of constantly trying to keep cool season turfgrasses green during the summer months, consider allowing the lawn to go dormant. Summer dormancy is the natural defense mechanism for cool season lawn survival in the summer heat. Instead of fighting this response, consider embracing turfgrass dormancy during the summer. This management

strategy not only helps to conserve water, but also protects the long-term health of turf, allowing for plant recovery when cooler, moist conditions return.

During dormancy, dormant turfgrass will turn tan or brown and stop active growth, but the crowns and growing points of the plant remain alive. While a dormant lawn may look dead, it can recover quickly when cooler temperatures and adequate moisture return in late summer or fall.

To keep dormant turf alive, apply enough water to prevent desiccation of the crowns and roots. Water turfgrass just enough to keep plants alive, rather than watering to keep the lawn green and lush. During extended dry periods, this means about ¼ to ½ inch of water every two to three weeks. This minimal amount of water is often sufficient to maintain survival, especially during periods of extreme heat. Again, the goal is to simply keep the lawn alive, not thriving, until ideal growing conditions return.

While the lawn is dormant, avoid heavy fertilization and minimize traffic on the turfgrass. Brittle leaves and stressed crowns of dormant lawns are more susceptible to injury. Mowing dormant lawns is also unnecessary since growth is paused.

A healthy, established tall fescue lawn can usually survive for up to 8 weeks in dormancy without substantial irrigation. To learn more about watering the lawn to promote summer dormancy, visit our *Watering Established Lawns* publication online at: https://bookstore.ksre.k-state.edu/pubs/watering-established-lawns_MF2803.pdf.

If irrigation is available and maintaining green turf is desired (avoiding summer dormancy), water deeply and infrequently rather than with frequent, shallow applications. Deep watering encourages healthier root systems and improves stress tolerance.

Look For Large Bagworms Now:

Most gardeners notice bagworm damage in late July to early August, when bagworms are reaching their mature size and wrapping up their feeding activity. As bagworms grow, they consume larger and larger quantities of plant material, making their damage most noticeable this time of year. Bagworms, however, are difficult to control when they are large.

Around mid-August bagworms reach their mature size, about 2 inches long. At this point, the larvae stop feeding and seal the top of the bags, tying their bags around a branch several times with their silken string, signaling the end of their feeding. The larvae then enter the pupae stage. Adult bagworms will develop and mate, with the male bagworms emerging as a moth that will travel to female bags. After mating, female bagworms lay eggs within the bag. The eggs overwinter inside the dead female's bag, often with 500 to 1,000 eggs per bag. Young larvae normally hatch and emerge during mid to late May in Kansas, beginning the process over again.

Bagworms are always easiest to control when they are small. At this time of year, bagworm control becomes very time sensitive, and options become more and more limited.

If bagworms are present on your plant, first check to see if they are actively feeding. Bagworm caterpillars will partially emerge from the end of the bag during the day to feed on plant material. If bagworms are actively feeding, chemical control may still be a viable option. Use insecticide products that contain the active ingredients acephate, permethrin, cyfluthrin, bifenthrin, or lambda-cyhalothrin. Thorough spray coverage of all plant foliage is essential for good control with any of these products.

As bagworms reach their full size and cease feeding, insecticides will no longer be an effective option for control. At that point, hand removal of mature bags is the only option during the fall and winter months. No additional plant damage will occur during this time, however, removing mature bagworms will help reduce next year's population by destroying the overwintering eggs.

Visit our *Bagworm* publication for more information on the bagworm lifecycle:
https://bookstore.ksre.ksu.edu/download/bagworm-insect-pest-of-trees-and-shrubs_MF3474

New Annual Flower Variety Research Efforts:

Each year, plant breeders around the world develop new varieties of annual flowers. Often breeders are looking for new colors, unique sizes, increased numbers of blooms, and resistance to common pests. While hundreds of new varieties are released for sale each year, new does not always mean better. Often times we find that new varieties of annual flowers do not all perform equally well in Kansas, given the tough growing conditions of our summers. Extreme heat, drought, drying winds, insects, and disease all limit the success of our annual flowers. That is where research comes in.

This year, I am conducting new research at K-State to evaluate many new varieties of annual flowers for their performance in Kansas. Planted at the John C. Pair Horticultural Research Center, there are 40 new flower varieties that are planted and being monitored to document their performance. Each month, the flowers are evaluated on their vigor (how quickly and healthy they grow), uniformity (do all plants of the same variety look the same), floriferousness (the amount of flower coverage, or leaf color on non-flowering plants) and stress tolerance (tolerance to insects, diseases, and environmental stresses). Plants are scored on a scale of one to five in each category, and top performers are identified each month.

The flowers in this trial are all being grown with minimal care. We hope to identify varieties that can thrive in Kansas with minimal effort. Fertilizer, mulch, and weed preventers were applied at planting. Most plants are being grown in the ground in full sun, with a few varieties in containers or under shade, depending on plant needs. Each week the in-ground plants are watered by drip irrigation only 2-3 times per week, with the pots watered daily or every other day due to the limited growing space. Additional fertilizer is applied every other week during the growing season (beginning after one month of establishment). The rest is up to the plant, in order to see how it performs.

The annual flower varieties included in this year's research trial include: *Angelonia Guardian Angel Berry Sparkler*, *Angelonia Guardian Angel Blue*, *Angelonia Guardian Angel White*, *Blue Felicia Daisy Sea Spray*, *Calibrachoa Cabaret Frosty Lemon*, *Chlorophytum saundersiae 'Starlight'*, *Coleus ChargedUp Keylime Fringe*, *Coleus ChargedUp Dragon Heart*, *Coleus ChargedUp Prismatic*, *Coleus ColorBlaze Pepper Flakes*, *Coleus Ignite Heartbreak*, *Eucalyptus*, *Fuchsia Sun Pendants Hot Pink*, *Gomphrena Pinball Purple*, *Helianthus Suncredible Yellow*, *Impatiens SolarScape XL Red Glow*, *Lantana Landmark Sunrise Rose*, *Lantana Little Lucky Peach Glow*, *Lantana Little Lucky Yellow*, *Lantana Lucky Cherry Sunrise*, *Lantana Lucky Flame 27*, *Lantana Luscious Vanilla Breeze*, *Lantana Shamrock Cherry Sunrise*, *Lobelia Heatopia Blue 27*, *Petchoa Caliburst Nectarine*, *Petchoa Caliburst Nectarine*, *Petchoa CitraNova Lemon Zest*, *Petchoa CitraNova Limone*, *Petchoa EnViva Blue Vein*, *Petunia E3 Easy Wave Midnight Marble*, *Petunia NewBee*, *Petunia*

Supertunia Bordeaux, Salvia Mystical White, Salvia Outshine Orchid, Salvia Outshine Red, Scaevola Blazen Blue, Scaevola Blazen Compact Blue, Scaevola Blazen White, Verbena Endurascape Hot Coral, Verbena Firehouse Violet Vortex.

All of these varieties of annual flowers are being evaluated before you can buy them. These varieties will potentially be released at local garden centers and nurseries starting in Spring 2027. With this research, the data will help both growers & consumers select high-quality annual flower varieties to grow and buy next spring. *Matthew McKernan, Consumer Horticulture Extension Associate*

Webworms are Active in Pigweed and Alfalfa in Western Kansas

Heavy webworm infestations in pigweed have been observed in western Kansas over the last two weeks and, more recently, in alfalfa fields across the region. Abundant non-crop hosts and warm weather have likely enabled rapid development and population growth of this pest in the landscape.

Identification

Webworm caterpillars are yellow to green with clusters of black spots on each body segment and a stripe down the center of the back. Reaching approximately 1 inch at maturity, these caterpillars are typically first noticed by the messy webbing that forms towards the top of infested plants, along with heavily skeletonized leaves. From a distance, terminals in an infested alfalfa field take on a bound-up appearance due to the webbing. Upon closer examination, the webs usually contain varying amounts of frass (caterpillar waste) and caterpillars.

Management Considerations

Webworms have many hosts, and pigweed is a preferred one. Heavy infestations of caterpillars or herbicide applications that kill off pigweed stands can often force this pest to seek out other nearby hosts such as alfalfa. Multiple generations of webworm occur in Kansas each year, and the second and third generations, occurring August through September, can be most concerning for alfalfa.

Infested alfalfa stands with 25 percent or more of terminals covered in webbing will likely need some form of control. If early cutting is possible, this should eliminate the problem. If cutting is over two weeks out, chemical control should be considered. If fields need to be sprayed, it is important to use enough carrier to achieve penetration into the webbing and foliage where caterpillars will be sheltering.

For more information and control options regarding webworm in alfalfa, refer to the *Alfalfa Insect Management Guide*: <https://bookstore.ksre.ksu.edu/pubs/MF809.PDF>. Anthony Zukoff – Extension Entomology