

# Oldham County Ag Talk

## June-July 2018



**Amanda Spiva**

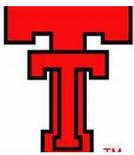
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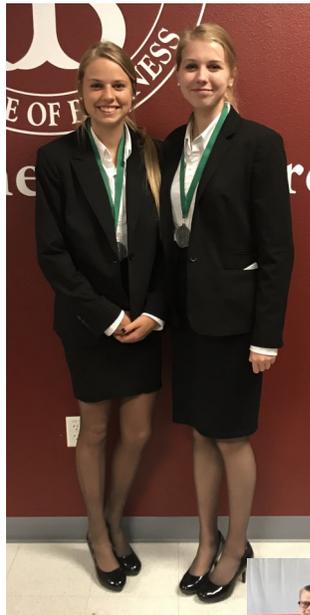
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District Contests were held in April and May. Everyone did an excellent job!! Below are some pictures of their success .



“Texas A&M AgriLife Extension provides equal opportunities in its programs and employment to all persons, regardless of race, color, sex, religion, national origin, disability, age, genetic information, veteran status, sexual orientation, or gender identity.” “The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating”

## “Well Informed”

July 19th Bushland Research Center

**‘Well Informed’ 1 hour Session** is an education program that gives well owners the opportunity to have their well water samples to be screened for common contaminants including fecal coliform bacteria, nitrates, and high salinity. The screening of the water sample is followed by a 1 hour explanation of the screening results and water well protection practices and focuses on wellhead protection and recommendations for remediating well contamination.

A time will soon be announced. Please contact us if you are interested so we can get you a collection bottle. The next page is information about how to use the collection bottle once you get one from us.



## **Post-emergent herbicide timing key in corn production**

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AMARILLO – Weed control in corn is important to profitability, but producers need to be aware of herbicide application timing, said Dr. Jourdan Bell, Texas A&M AgriLife Extension Service agronomist in Amarillo.



Identifying the leaf collar and first true leaf are critical to accurately stage corn, according to Dr. Jourdan Bell. (Texas A&M AgriLife photos by Kay Ledbetter)

“We know post-emergent herbicide applications are necessary for season-long weed control,” Bell said.

“However, it is important to follow post-emergent corn herbicide labels, which define the latest growth stage for which herbicide applications can be made without causing crop injury.”

She said herbicide applications past the recommended growth stages can result in significant crop injury, so it is important producers understand and recognize each of the stages.

“Some herbicide labels also provide a recommended height for the last herbicide application as plant height often corresponds with a particular vegetative stage.”



The first round-tipped leaf. (Texas A&M AgriLife photo by Kay Ledbetter)

However, Bell said, in high-input environments with abundant irrigation and/or precipitation and fertility, internode distances can expand at a greater rate than new leaves.

“Consequently, plant height does not always correspond to the correct vegetative stage,” she said. “So, it is important to accurately stage the corn crop before making post-emergent herbicide applications.”

Bell also warned stressful production environments with limited water or cool temperatures can slow corn growth, which can result in magnified crop injury because the plant does not metabolize the herbicide quickly enough to avoid injury.

For labels that provide both plant height and growth stage, the applicator should follow the more conservative recommendation, she said.

The vegetative stages are described using the leaf collar method. Leaves are counted from the lowermost first rounded-tip leaf to the uppermost leaf with a leaf collar, which is the connection between the leaf blade and the leaf sheath, she explained.

“The key features to identify are the leaf collar and the first round tipped leaf,” Bell said. “While the individual stages are important, it is key to be able to identify the leaf collar and first true leaf to accurately stage corn.”

The leaves in the whorl that are not fully expanded are not counted, she said.

Leaf stages are labeled as “V” stages. Some of the more important V stages include:

– Coleoptile leaf or first leaf is visible, V1. This leaf will be shorter than later emerging leaves and has a rounded tip. It is also referred to as a spike. The growing point of the plant should be 1-1.75 inches below the soil surface. Seminal roots begin growing from the seed and the permanent nodal root system will begin developing at this point. If the seed is planted too shallow, the root system will have a difficult time becoming established.

– 4-Leaf, V4. Collar of fourth leaf is visible. The growing point is below the soil surface. Roots are elongating and the root system is primarily nodal roots. Weed competition will begin to significantly reduce yield potential.

– 5-Leaf, V5. Collar of fifth leaf visible. May have lost the coleoptile leaf by this time. Leaf number and ear shoot formation is now complete. The plant is about 8 inches tall. The growing point is just below the ground surface. A hail or light freeze will cause little long-term damage to the plant. However, flooding while the growing point is below ground can kill the plant, especially if temperatures are high. The first internode to elongate is about one-half inch long and is located just below the node to which leaf five is connected. This is an important reference for crop growth staging. Tassel formation has been initiated.

– 6-Leaf, V6. Collar of sixth leaf is visible. This occurs approximately about three weeks after emergence. The growing point and tassel is above the soil surface, making the plant more vulnerable to a hail or freeze. The permanent root system rather than the seminal roots is now the primary root system supporting the plant. The root system extends about 18 inches.

– 13-17 Leaves, V13-V17. V17 occurs about eight weeks after emergence. Leaf stages 13 to 17 will develop very rapidly. At some point the tip of the tassel will be visible. Early maturing hybrids progress from the 13-leaf stage through the 17-leaf stage faster than later-maturing hybrids and have smaller ears. Brace roots are developing from the sixth node.

Another consideration, Bell said, are non-labeled spray adjuvants. Spray adjuvants are to enhance herbicide performance, but under certain conditions, non-labeled spray adjuvants can increase herbicide injury from a poorly timed post-emergent application. Consequently, it is always recommended to check the label for appropriate adjuvants.

“In addition to the crop stage and condition, knowledge of the weed species and weed size are also important for effective post-emergent herbicide applications,” Bell said.

A complete list of post-emergent corn herbicides evaluated in the AgriLife corn herbicide trials at Bushland is available at: <https://tinyurl.com/cornherbicidepub>.

# Drought Gardening

Dr. Leonard P. Perry, Extension Professor

You may see the term "xeriscaping", referring to dry climate gardening. Many often think just of deserts, and cacti and succulent plants, with this term. But with dry climates periodically in much of the country now, this term means much more and definitely does not mean "zero-scaping". Following some drought-wise garden water tips, you can have your water, and your garden too.

## Watering

- If you have water restrictions in your area or town, find out just water they cover. If not too severe, they may just cover lawn sprinklers and not watering of gardens.
- Water in the early morning, when there is less heat and wind, and so less water lost to evaporation. Timers on automatic watering systems make very early watering much easier.
- Don't use overhead sprinklers, which may lose over half the water on a hot day to evaporation. Instead use manual watering, soaker hoses or drip systems. Soaker hoses are merely permeable hoses, often of recycled materials, that allow water to soak through them slowly. Placed on beds near plants, they allow water to slowly soak into the root zone. Cover these with mulch, and they lose even less water to the air, and are invisible.
- Water deeply and less often rather than for shorter periods more often. This allows water to penetrate deeper, and so encourages deeper roots which are more resistant to drought. Lawns and bedding plants should be watered to at least 6 inches deep. Perennials, shrubs and trees should be watered to at least 12 inches deep. Check your sprinkler or rainfall with a rain gauge, available from garden and hardware stores. One inch of water will wet a sandy soil to a depth of about 12 inches.

Water established plants only if "really" needed and once they begin to wilt. Many perennials and woody plants may wilt, and not perform best if dry, but will survive. This is especially true if they were healthy and well-watered prior to drought conditions. Only a few perennials such as false spirea (*Astilbe*) have leaves that turn brown and don't recover if dry, but have to generate new leaves.

## Collecting, Saving Water

- Repair leaks in hoses and fittings. This may be as simple as replacing the washers in hose fittings. A slow leak of one drip per second can lose 9 gallons of water a day, 260 gallons a month. A faster leak, filling an 8 ounce cup in 8 seconds, wastes 675 gallons a day, or 20,000 gallons a month!
- Collect wasted and "gray" water from the household. The latter is rinse water from washers, and from washing dishes. When adjusting the hot and cold in baths and showers, collect in a bucket the water that would normally go down the drain before the temperature is adjusted. Also collect and use water from dehumidifiers or window air conditioners. Collect water from downspouts of gutters, or divert these into flower beds.

### Cultural Practices

- For flowers and vegetables, use wider spacing to reduce competition for soil moisture, mulching in between plants.
- Use 3 to 4 inches (after settling) of organic mulch (pine bark, straw or similar) to prevent soil from drying and losing moisture to the air. Keep such mulch away from trunks, and off the top of desirable perennials. Plastic mulches in vegetable and annual flower gardens in which plants are spaced regularly, or around shrubs, can help as well. Or use thick layers of newspapers in rows, covered lightly with mulch.
- Incorporate organic matter into the soil, which will aid in water retention. Compost also adds nutrients, but breaks down faster than peat moss—another common amendment. Peat moss lasts longer in the soil, at least a year or more, but adds few nutrients and acidifies the soil. Water absorbent materials (hydrogels) can help dry sandy soils.
- Fertilize less, both less in amount and less often, and avoid too much high nitrogen fertilizer. Too much nitrogen results in excessive growth, and need for water by plants. Organic fertilizers provide less, and over a longer period usually, and they help soil humus which helps hold water.

Choose and place plants properly. Don't choose plants that prefer moist, and place them in a dry area. And choose plants more resistant to drought. As mentioned at the beginning, there are many other plants other than cacti and succulents such as those with deep tap roots (baptisia or false lupine), thick storage roots (daylilies), or those with waxy coated leaves (sedum). Perennial flowers need water when newly planted, but once established require much less water than annual flowers. Native plants may be a good choice as well. See [OH Leaflet 73](#) on drought resistant plants.

- Don't apply pesticides that might cause injury to stressed plants, or in heat, or that need to be watered in.
- Avoid pruning when plants are stressed and not growing, and so unable to heal wounds quickly. Pruning also may stimulate side shoots and more growth, and so more need for water.
- For evergreens, use antitranspirant sprays on leaves that help prevent water loss. Or erect windbreaks around such plants, if they're small or new, and a windy area. Burlap strung

between posts is effective. For routinely windy sites, consider planting a more permanent windbreak of spruces, firs or other evergreens to screen other plantings.

- Use hoeing and soil cultivation of weeds sparingly. Continually disturbing the soil surface will result in it drying out much faster. You may have to merely cut weeds off at the soil surface, or use contact or systemic herbicides, and save the cultivation until drought conditions ease. At least the bright side is that under drought, weeds won't grow as fast either! But keep weeds down, as they compete with more desirable plants for water.

### **Container plantings**

- Move container plants to more shaded areas.
- Use pottery containers that are glazed on the outside, which prevents much water loss. Or use plastic containers, or set plastic containers if unattractive into more attractive outer pottery ones.
- Don't crowd too many plants into containers, or use large containers for large plants. This will help keep them from drying out so often, and requiring watering daily or more often.

### **Lawns**

- Leave grass clippings to act as mulch and recycle nutrients and some moisture.
- If seeding lawn areas, or repairing areas, use drought resistant grass types such as fine fescues.
- If water is not available, allow grass to go dormant. Unless extreme conditions for a long period, it will usually begin growing again once conditions improve.
- Don't mow grass when it is dormant and not growing. Even when growing, set the mower height at 2 to 3 inches high. High mown grass develops deeper root systems that are better able to withstand drought.

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**If water is restricted or in short supply, give highest priority to the following:**

- Newly planted trees, shrubs and perennials
- Newly seeded lawns or repaired lawn areas
- Plants on sandy soils or windy and exposed sites
- Vegetables when flowering