



MONTHLY TIP

Prussic Acid After Frost

As temperatures drop, be cautious when grazing Johnsongrass, sudangrass, and sorghum x sudangrass after a frost. These grasses contain compounds that can release prussic acid when freezing damages plant cells. Once consumed, prussic acid can poison cattle and, in severe cases, cause death within minutes.

Freezing damages plant cells, allowing these compounds to break down and form prussic acid. Both mature foliage and new regrowth can be dangerous following a frost.

As a precaution, wait 10 to 14 days after a frost before grazing pastures containing these grasses. This gives prussic acid concentrations time to decrease as the forage dries. Keep in mind that the time needed for the forage to become safe can vary with weather conditions and the extent of plant damage.

Also, watch for new shoots following frost events. Young regrowth can contain high concentrations of prussic acid and should not be grazed. Avoid grazing regrowth until it dries following a killing frost or reaches 18 to 24 inches tall. At this time of year, it may be unlikely to reach that height. When in doubt, keep cattle out and give the forage more time.

Dr. Bruno Pedreira, *Director of the UT Beef & Forage Center*



"Climate is what we expect. Weather is what we get."

- Mark Twain

WHO ARE YOU REBUILDING WITH?

Dr. Troy Rowan, *Associate Professor, Department of Animal Science*

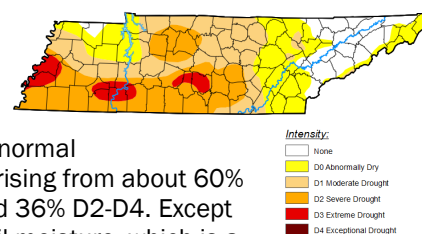
If you've been to a cattlemen's meeting or the coffee shop lately (in the last ~3 years) a topic you're sure to hear a good bit about is the "national herd rebuild." Our times of high prices are being driven by the perfect storm of incredible consumer demand and low inventory because of a depleted national cowherd. I won't wade into the murky waters of when or how the larger industry will eventually carry out this monumental task. I will, however, walk you through to how I think about who (i.e., which animals) we choose to retain as replacements as we rebuild or refurbish our own herds. Heifer development is an expensive endeavor. We want to be certain that we're keeping the ones that have the highest likelihood of being productive, fertile, and long-lived cows. These are some considerations as you start making replacement decisions:

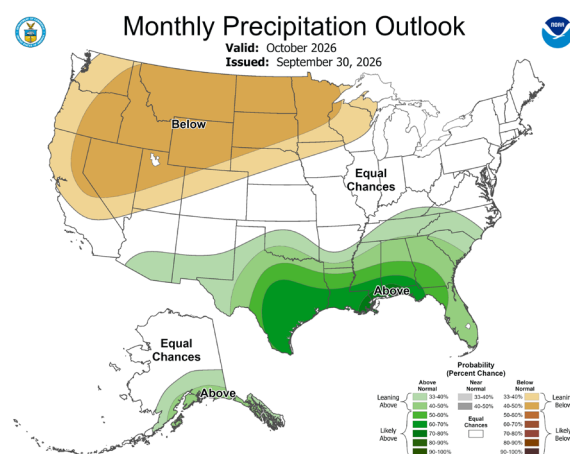
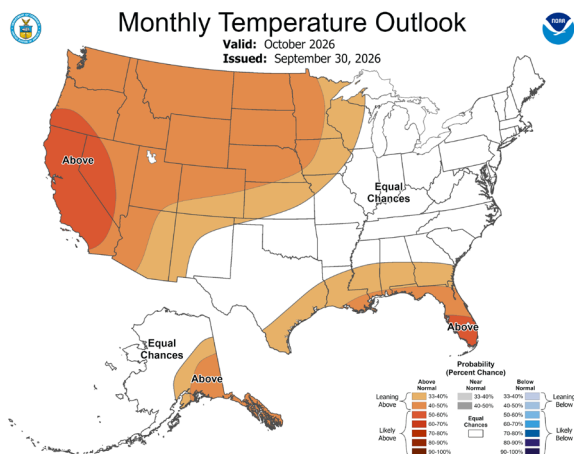
- **Keeping cow size and growth in balance:** They're not making more land! With land as our limiting factor, it often means that stocking a higher number of more moderate cows comes out ahead from a profitability perspective. High forage and feed costs make animal efficiency more important. We've got to find animals that strike the balance between growth (revenue) and inputs (costs). Keep an eye on sire Mature Weight EPDs and evaluate dam weaning efficiencies each year (% body weight weaned)
- **Selecting with common-sense based approaches:** Much of heifer selection is keeping ourselves out of the ditches. Things like screening females for reproductive tract score or pelvic area can help us avoid issues with breeding and dystocia, respectively. Feet and leg structure and disposition are also easy lines to draw in the sand when evaluating potential replacements. Those issues generally don't get better with time!
- **Adopting new technologies:** Genomics for commercial replacement heifer selection is an increasingly affordable and useful technology. It allows us to make decisions about animals with higher degrees of confidence. EPDs are no longer just for bull purchases, we can use these tests in commercial heifers to identify animals with higher genetic potentials for traits from birth to maternal to harvest.

WEATHER UPDATE

Dr. Bruno Pedreira, *Director of the UT Beef & Forage Center*

September's average temperature was 77° F, about 4.9° F above the 10-year average. Total precipitation totaled 1.34 inches, 2.49 inches below normal (ncei.noaa.gov). Drought conditions worsened in TN, rising from about 60% in September to 85% in October. 61% is in D1-D4 and 36% D2-D4. Except for East TN, Middle and West TN have very limited soil moisture, which is a great concern for stockpiling pastures and even more critical for new stands. In the next month, temperatures should be above average for most of the state. Precipitation is forecast to be above normal in East TN, where the drought is less severe than in the West, where precipitation should be average. El Niño conditions should persist through the end of the year, with a greater than 83% chance of a very strong event during the fall and winter.





DON'T WING IT: STRATEGIES TO REDUCE BLACK VULTURE CONFLICT

Dr. Blair Downey, Assistant Professor, Department of Animal Science

If you're preparing for a calving season, chances are your neighborhood black vultures are too. Black vultures are increasingly reported to harass, and potentially kill, calves and even cows after calving. Keeping vultures away from your cattle can be a challenge: black vultures are intelligent, bold, and, most importantly, federally protected. You cannot kill vultures without a permit from the US Fish and Wildlife Services, but even if you have a permit, this isn't the best approach. Vultures provide important benefits to the ecosystem by safely removing dead things from the environment, which in turn reduces the spread of diseases that can be harmful to other animals and humans. There's also currently no clear evidence that killing vultures stops predation or harassment. So, what can you do to stop these pesky birds? A variety of physical and cultural deterrents can help. Using non-lethal strategies like these can keep vultures on their toes, reducing conflict while keeping our cows and our environment safe and healthy.

Physical deterrents: Items that you add to your farm that scare vultures because of their appearance or movement.

- Hang a real or fake effigy. Vultures are social, intelligent birds, and are often scared away by something that looks like a dead version of themselves. For this to be most effective, hang it by their roost. (Note: if you hang a real dead vulture, you need a permit allowing you to possess it; check with US Fish and Wildlife Services)
- Use an inflatable man, laser, or random loud noises. All of these can annoy and scare vultures, but for them to be effective, you need to deploy them frequently, but at unpredictable times and locations. If they're always on, in the same location, vultures will quickly learn to not fear them. (Note: without a permit, it is illegal to harm vultures, their eggs, or their roosts. Use of these items must not cause direct harm. Lasers are reported to be effective when directed at a vulture's feet while they roost, but should never be directed at their face).

Cultural deterrents: Changes to farm practices that make it less likely that vultures will want to hang around.

- Vultures are drawn to afterbirth. Clean this quickly after calving, or move your cattle away from a calving site, to reduce the chance of vultures bothering them.
- Check your fields frequently. Vultures don't seem to like hanging out if humans are constantly walking or driving past. Moving around your farm, especially at unpredictable times, will help keep vultures away.
- Consider moving cows into a barn, or close to an area you spend a lot of time in, so you can keep an eye on them. This should deter vultures, because frequent human activity will bother them, but it also means you'll be able to intervene quickly if vultures do approach.

This and other useful information can be found at your local UT Extension office or on UTBEEF.COM

UT BEEF & FORAGE CENTER

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UPCOMING EVENTS

Tennessee Forage & Grassland Council Annual Meeting

November 6, 2026 at 8 AM CT
in Crossville, TN

Live Stock Broadcast

November 11, 2026

Details can be found on
UTBEEF.COM



Photo of the Month by Bruno Pedreira.

The UT Beef & Forage Center showed out at this year's record-breaking Ag Day on the UT campus on October 2. Attendees of all ages learned about the Center's research efforts and forage testing services.