AG NOTES

By John Teague
UT/TSU Extension
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CHERRY LEAVES

After the wind storms of recent weeks, I've had several conversations about cattle getting poisoned with the leaves of wild cherry trees. Here is information published by Extension faculty of Michigan State University and The Ohio State University, Bruce Mackellar and Rory Lewandowski, respectively.

The leaves of wild black cherry trees, which are a very common fencerow and woodlot species, can cause a lethal poisoning risk if grazing animals consume wilted leaves. The toxic component in the leaves is prussic acid, a hydrogen cyanide toxin that is only formed when glycosides in the leaves are combined with hydrolytic enzymes. Under normal circumstances, the two components are stored in separate tissues, but can become poisonous in storm-damaged wilted cherry leaves.

With tornadoes, it is possible for branches to be carried quite some distance. We would encourage producers to check branches and trees down in their pastures to make sure that wild cherry is not in areas that livestock can get access to.

"Cattle Grazing: Summer Storms and Wild Cherry Trees," written by educator Rory Lewandowski and published at Dairy Herd, states that as little as 1.2 to 4.8 pounds of wilted black cherry leaves could constitute a lethal dose for a 1,200 pound dairy cow. To protect grazing livestock, limbs with wilted leaves should be removed from pasture areas. Lewandowski recommends the animals be removed from the pastures until the damaged black cherry branches have been removed or the leaves become dried up and turn completely brown.

This is the same chemical process when frost damages some of our forages, such as johnsongrass and the sorghum-sudangrass hybrids. This prussic acid is very lethal as these published articles indicate. As to how brown the leaves must be to not be lethal, I'll leave that up to you. But I would strongly recommend removal of the limbs and as much of the leaf tissue as possible.

YELLOW WEED

Every spring I get asked two questions. “What is that yellow weed in my pasture? What can I spray to kill it?” And a third one that usually follows is “Can I spray it now?” So here are the answers from UT Extension publication Pasture Weed Fact Sheet W323. It can be found on the UT Publication website. This information is pretty detailed but I think it’s important to know.

Several species of buttercup are found in Tennessee. Two of the most common are hairy buttercup and bulbous buttercup. They are not native to the United States and are members of the buttercup family (Ranunculaceae). They can be found in pastures, hay fields, roadsides and marginal areas. Although bulbous buttercup is a perennial and hairy buttercup is an annual, they are similar in appearance. (These are not the same buttercups that we watch for in January! We actually are looking for daffodils, there proper name.)

Both species grow from basal rosettes that form in late autumn and winter. Leaves are palmately 3-lobed, 0.75 to 2 inches long and wide, alternate upward, and hairy. Stems are erect, hairy,

single or branching from base, and can reach heights of 24 inches. Solitary flowers open in the spring and are pale to bright sulfur yellow, 0.5 to 1 inches wide, with 5 petals and numerous stamens.

The fruit is an aggregate of 10 to 40 achenes in a globose or oblong head, turning brown at maturity. The best way to differentiate the two species is to dig up and examine the underground plant parts. Bulbous buttercup has slightly thickened roots that arise from a corm or “bulb-like” base while hairy buttercup has fibrous roots and does not have a swollen base. Both species spread by seed but bulbous buttercup can also regenerate from corms.

Buttercups are not as palatable as desirable forages in a pasture, and cattle will selectively graze around them. However, buttercup species contain the oil protoanemonin, which can cause oral and gastrointestinal irritation. Toxicity varies with species, age, and habitat, but in general, the leaves and stems of flowering plants have the highest concentration.

Poisoning is uncommon, but can occur when desirable forages are in short supply. The oil volatilizes rapidly, so plants found in dried hay do not pose toxicity problems. Buttercups can also compete with grasses and increase in density over time. Since buttercups mature in late spring, they can significantly impact the first hay cutting. If not managed, buttercup seed will accumulate in the soil and provide new generations of weeds every year.

Prevention is a crucial component in the management of pasture and hay field weeds. Even just a few mature buttercups growing in a field or brought in from hay bales can provide seed for hundreds of plants the following year. In severe infestations, herbicides are usually needed as part of a control program.

Timing is critical for effective buttercup management. Waiting to spray a field when it is a “sea of yellow” is too late because many of the plants have already gone to seed. The best time to spray is in the fall (late October to early December) or late winter to early spring (March to early April). One advantage of spraying in the fall may be time availability. Springtime is very busy for many producers who are in the middle of calving or preparing row crop ground. Another advantage of fall application is there may be fewer gardens and sensitive crops growing that can be injured by herbicide drift.

Regardless of a fall or spring application, it is important to have three days where temperatures reach 60 F, so that herbicides can be most effective. Another factor to consider is the height of surrounding forages and thatch. Since buttercup rosettes are low growing, the grass should not be so tall that it prevents the spray from reaching the weeds.

University of Tennessee research indicates that 2,4-D ester applied pre-bloom will adequately control hairy buttercup. However, products containing aminopyralid (GrazonNext HL) or dicamba (Banvel, Clarity, Oracle, others) will give more complete control of bulbous buttercup.

As is the case with all pesticide applications, be sure to thoroughly read and follow the label directions. Also, remember that practicing good herbicide stewardship is everyone’s responsibility.