

David Hallauer  
District Extension Agent, Crops & Soils

### **‘Other’ Brush Control Options**

Basal bark and cut stump treatment options have been the focus in this space the last two weeks. Both provide options for ‘extending’ our brush control window once foliar application windows have closed. Two other chemical methods to consider are also options. Girdling - making a cut an inch or two deep around the tree’s circumference – can kill larger trees, but resprout prevention is optimized when a herbicide is applied to the girdled area. Soil treatment herbicides in various forms can provide brush control as they soak into the soil surface and are absorbed by roots, stolons, or rhizomes, killing the plant.

All these chemical options can be effective, but almost all are enhanced using an integrated brush management strategy as well. An integrated approach is simply tying together multiple strategies with the goal of making the sum of the approaches greater than the individual ones. Prescribed burning and stocking rate management are two such strategies.

Prescribed fire has long been utilized in rangelands as a low-cost way to control woody species after establishment. It’s not as easy as lighting a fire and putting it out when it’s done, however. Advance planning requires an evaluation of species to control and the grass species you are burning (warm season grasses respond better than cool season species and any fire is going to require adequate an adequate fuel load at the right time) as well as your ability to safely conduct the fire. Simply burning a brush species doesn’t necessarily kill it. Fire timing is also important. Planning for prescribed fire next season starts now with work to mow/manage fire breaks and forage management to leave plenty of forage for the upcoming fire.

Stocking rate management is one of the best brush control methods available. A properly stocked pasture results in dense stands that can help prevent brush from getting a start. A lot of factors affect our ability to stock appropriately. Now is a good time for a last look at pastures to see how they responded to our grazing management. Use the dormant season to further analyze stock rates to ensure you grazing plan matches what pastures are providing.

Brush control is a major problem in eastern Kansas. In most cases, it didn’t show up overnight – and it’s not going away overnight, either. Start planning now to implement an integrated approach with the goal of maintaining – and even recouping – valuable grazing acres. Drop me a line if you want to discuss some of these options further.

Ross Mosteller  
District Extension Agent, Livestock & Natural Resources

### **Insuring Proper Heifer Development**

Fall calving herds have likely already made selection decisions for the next group of replacement heifers, but if not, this might be timely and it is never too early to discuss this topic for spring calving herds as well. There continues to be buzz in the industry on national cowherd numbers continuing to contract and wondering at what point heifer retention numbers will point to expansion. Heifer development is a long and expensive process so it is important to control costs and optimize reproductive outcomes. One of the most important factors in heifer development is proper assessment of reproductive maturity.

General recommendations are that heifers should achieve a target weight of 60% of mature body weight by the onset of the first breeding season. Since mature cow size has increased over time, it is important to have a realistic estimate of the heifer's future mature weight. While age and weight are key determinates of the timing of puberty in heifers, they are not absolutes. Examples exist where heifers that should have been big enough and seemed to be cycling had a lower than expected heifer pregnancy rate. In these cases, there is rarely any hard evidence of actual reproductive maturity, despite larger heifer size.

Reproductive maturity can be assessed by palpation prior to the breeding season. Each heifer is palpated by a trained veterinarian during which the size and tone of the tract is evaluated as well as the ovaries and any structures on the ovaries. The reproductive tract score is a scale from 1 to 5 with 1 being infantile to 5 a cycling heifer with a corpus luteum. This system is a true evaluation of reproductive maturity and has repeatedly been shown to be related to heifer pregnancy rates.

Data from the Missouri Show Me Select heifer program illustrates the relationship between reproductive tract scores and weights. While the average weight of heifers increases from the most immature tract score to the most mature, there are still 1050 to 1100 lb heifers with tract scores of 1 and 2. For the most immature score, weight prior to breeding ranged from 375 lbs to 1100 lbs, for a 725 lb spread. Similar weight ranges exist for other scores, so weight alone cannot be used.

Along with reproductive tract scoring should be pelvic measurement, as this gives an indication of the heifer's ability to calve unassisted. Work with your veterinarian to have this measurement done as well. Knowledge of actual reproductive tract maturity & pelvic measurement prior to breeding allows time for ration adjustments, breeding adjustments or additional culling based on the number of heifers and the distribution of scores.

While it is important to pay attention to weight gain in developing heifers, weight alone may not tell the whole story. If reproductive tract scores are taken 40 to 60 days prior to breeding, when pre-breeding vaccinations are given, an accurate assessment of heifer maturity can be made and adjustments made accordingly. This may be especially worthwhile for those that plan to synchronize and AI heifers and want to reduce the risk of a poor response from pre-pubertal heifers.

In situations where heifers of unknown or unfamiliar genetics are being developed, this would be a valuable tool to reduce risk. Depending on how far in advance of the breeding season the scores are taken and how long the breeding season lasts, some tract score 1 and 2 heifers may mature enough to conceive before the end of the breeding season. Using a fairly short 30 to 45-day breeding season will naturally sort out those immature heifers, but will not conserve early pasture resources.

Laura Phillips  
District Extension Agent, Horticulture

### **It Is Time to Harvest Horseradish**

If you grow horseradish in your garden, you can begin harvesting the fruits of your labor. Most of its growth happens from the end of summer into early fall, so you do not want to harvest too early. Wait until the leaves have died back, indicating that it is dormant for the season. Ideally, harvest should be delayed until just before the ground freezes, usually November to December.

If you do not feel like harvesting just yet, you can wait until spring. Although commonly grown as an annual, horseradish is a perennial and can survive in the ground year to year. If you decide to wait until springtime, apply a thick layer of mulch to protect the roots over the winter. You can harvest in the spring as soon as the ground thaws and becomes workable, ideally before it leaves dormancy.

To harvest horseradish, begin by digging a trench alongside the row of plants exposing the roots. Use a shovel or pull the plants by hand toward the trench, releasing the roots from the soil. Remove the foliage to about one inch above the crown. Remove smaller, side roots and collect the larger roots for storage.

Smaller roots can be cut into six- to eight-inch-long sections and planted now for next year's crop. Horseradish can easily spread throughout the garden if not contained so harvesting each year is important.

Thoroughly wash and dry the roots before storing them in plastic bags in the refrigerator. When preparing horseradish, peel the roots and cut it into sections. Blend the root pieces along with a little water and a couple of ice cubes. When blended, horseradish releases oils with strong fumes that can be an irritant. This is what gives horseradish the strong flavor but use caution when opening the blender to avoid getting it into your eyes. Incorporating vinegar stops this reaction.

If vinegar is added immediately after blending, the horseradish will be mild. So, you can wait a few minutes to add the vinegar if you want a stronger flavor. Two to three tablespoons vinegar per cup of horseradish is sufficient. One-half teaspoon of salt can also be added for flavor.

Teresa Hatfield  
District Extension Agent, Family and Community Wellness

## **Winter Fall Prevention: Keeping Your Home Safe**

As we approach the colder months, it is important to consider the risk of falling due to many factors, especially because of slick surfaces caused by winter weather. Winter can put everyone at risk for slips, trips, and falls. Slick surfaces are particularly dangerous to older adults. When we are children, we are able to recover more quickly after a fall. However, as we get older, falls can cause serious injuries.

Each year, millions of people take a fall. More than one out of every four older people fall each year. One in five falls causes an injury such as a broken bone or a head injury. With the coming of snow and ice, things get even more dangerous. There are steps that you can take to prevent a fall.

1. Create traction to reduce the risk of falling on slick, icy surfaces. Sprinkling cat litter on surfaces is an easy and affordable fix. The National Council on Aging suggests carrying a small bag filled with lightweight litter in your pocket and casting it out ahead of yourself as you walk.
2. Dress appropriately for the weather conditions. Wear layers to keep your muscles warm, which will help you maintain better balance.
3. Invest in a sturdy, waterproof boot with good tread. Shoes with non-skid soles provide a better grip on icy surfaces. You can also attach spikeless ice and snow gripper sole covers to shoes for extra stability.
4. Attach an ice gripper cane tip with spikes on the bottom to penetrate the ice and secure a firm grip.
5. Make sure your walkways are clear. If you need help, ask a friend or family member to shovel your sidewalks, driveway, and entryways regularly.
6. Don't carry heavy bags or other items that could cause you to lose your balance. Keep your hands free.
7. Keep your muscles strong by exercising on a regular basis. Strong muscles help us to maintain balance and prevent falling. Even though it is cold outside there are opportunities for indoor exercise.
8. Keep your phone charged and on and securely on your person so that if you do fall it is accessible, providing you with a means to call for help.
9. Stay in touch with friends and family members. Set up a time for someone to check in with you on a daily basis, this is important if you live alone. Also, keep others informed of your schedule, when you plan to go out so that they know when to expect you back.

These tips will help keep you safe and steady on your feet. Enjoy this time with family and friends and be aware of changing weather conditions. By embracing a few safety habits, you will be able to enjoy the winter months.

Cindy Williams  
District Extension Agent, Food, Nutrition, Health and Safety

### **Fried Turkey? Tips for a safe feast**

It is almost time for turkey, but preparing the for the food-filled season should start early. A safe feast starts with properly thawing and cooking meats as well as safely using kitchen tools.

Fried turkey has become popular. If you are considering this cooking method, purchase a fresh turkey 1-2 days before you plan to fry it, then refrigerating it. It takes at least 24 hours to thaw a 4-5 pound of frozen turkey in the refrigerator before starting the cooking process.

Plan an extra 24 hours to be sure it is completely thawed. Leave the turkey in the wrapping and place on a try to catch any drips from thawing. For frying, it must be completely thawed to prevent hot oil splattering. Test to see that the turkey fits in the fryer and adding water to cover the turkey. If the bird is too big, cut it into smaller pieces.

To begin frying, heat oil to 350° F and continuously monitor the oil's temperature with a thermometer. Plan to fry the turkey 3-5 minutes per pound. Remove the turkey from the oil for about 20 minutes before carving.

Use a food thermometer to ensure the turkey is cooked to an internal temperature of 165 degrees F. The internal temperature of the turkey should be measured in the innermost part of the thigh and wing and the thickest part of the breast. For reasons of personal preference, consumers may choose to cook poultry to higher temperatures.

Common food safety issues when preparing a turkey include not washing hands properly; not thawing the frozen turkey in a safe manner (such as on the counter at room temperature); rinsing the turkey with water before cooking (leading to cross-contamination); and letting cooked turkey set for more than two hours at room temperature.

A simpler cooking method commonly used for cooking more than one turkey is roasting them in the oven. Cooking two turkeys of about the same weight does not double the roasting time. Be sure to leave enough oven space for proper heat circulation and to measure the internal temperature of the turkey before consuming it.

For more questions concerning food safety, cooking turkey or other food preparation questions, contact Cindy at 785-863-2212. You can email her at [csw@ksu.edu](mailto:csw@ksu.edu).