D's Notes
11/23/20
Rhonda

Ashes in the Garden

You may have heard that using wood ashes on your garden can help make the soil more fertile. Though ashes do contain significant amounts of potash, they contain little phosphate and no nitrogen. Most Kansas soils are naturally high in potash and do not need more. Also, wood ashes will raise the pH of our soils, often a drawback in Kansas where soils tend toward high pH anyway. Therefore, wood ashes add little benefit, and may harm, many Kansas soils. In most cases it is best to get rid of them. (Ward Upham)

Storing Power Equipment for the Winter

Late fall or early winter is a good time to service power equipment such as mowers, tillers and garden tractors. Run the equipment out of gas or treat the existing gas with a stabilizer as untreated gas can deteriorate over time. If using a stabilizer, run the engine long enough for untreated gas in the carburetor bowl to be burned and replaced. This is also a good time to replace the oil (and filter, if present) since the engine is warm. Check and replace the spark plug if necessary. Some gardeners will also apply a light, sprayable oil into the cylinder through the spark plug hole. Check and clean air filters and replace if necessary. Many mowers and tillers will have a foam prefilter that can become filthy with use. If allowed to become too dirty, engines will run poorly or may not run at all.

Sharpen blades, clean tines, tighten screws, replace broken parts and do all the other things needed to keep equipment in good shape. Though such maintenance takes some time and effort, it pays for itself by reducing frustration and lost time due to poorly performing equipment during a hectic spring. (Ward Upham)

Why Do Houseplants Lose Leaves After Being Brought Inside?

Newly bought houseplants or those brought in from outside often lose at least a portion of their leaves. In order to understand why this occurs, we need to look at how these plants are grown and what the plant needs to do to adapt to its new environment. Houseplants are normally produced either under shade outdoors in southern states or in greenhouses. Also, many homeowners move their houseplants outside during the summer. Regardless, the plants receive much more sunlight than they do in an indoor environment. Research done in Florida in the late 1970s revealed that tropical plants grown under high light conditions produce 'sun leaves' while those grown under low light conditions have 'shade leaves.' These leaf types differ structurally in that sun leaves have less chlorophyll (the substance that plants use to convert sunlight to energy) and the chlorophyll that is present is located deeper inside the leaf. Sun leaves also tend to be thick, small and numerous while shade leaves are more thin, larger, and fewer in number. When plants are moved from one light condition to another they need time to adjust. This process is known

as acclimatization. If they are forced to acclimatize too quickly, they will drop their sun leaves and produce a new set of shade leaves. If the acclimatization process is slower and less drastic, the plant can convert their sun leaves to the shade leaves that do better under low light. If going from shade to sun, this process is reversed.

Some houseplants are acclimatized before they are sold but many are not. So how do we help our new houseplants or those moved inside acclimatize to their new home environment? Houseplants should start out in an area of the home that receives plenty of light and then gradually moved to their permanent, darker location. This process should take 4 to 8 weeks depending on the degree of difference in light levels between the initial and final location of the plant. Remember, plants need to be acclimatized whether they are moved from a sunny location to one that receives less light or from shade to sun. Understanding plant processes allows us to anticipate potential problems. Acclimatization gives our houseplants a greater chance of retaining leaves and avoiding the stress of completely replacing them. (Ward Upham)

Dormant Seeding of Turfgrass

The best time to seed cool-season grasses such as tall fescue and Kentucky bluegrass is September because the turf has more time to mature before spring crabgrass germination and the heat stress of summer. Dormant seeding of turfgrass is sometimes used to help fill in bare spots of lawns that weren't overseeded in the fall. Dormant overseeding is done during the winter (December – February) when it is much too cold for germination.

As with any seeding program, good seed-soil contact is vital. Several methods can be used. One method is to seed when there has been a light snowfall of up to an inch. This is shallow enough that bare spots can still be seen. Spread seed by hand on areas that need thickening up. As the snow melts, it brings the seed into good contact with the soil where it will germinate in the spring.

Another method is dependent on the surface of the soil being moist followed by freezing weather. As moist soil freezes and thaws, small pockets are formed on the wet, bare soil that is perfect for catching and holding seed. As the soil dries, the pockets collapse and cover the seed. A third method involves core aerating, verticutting or hand raking and broadcasting seed immediately after. Of course, the soil must be dry enough and unfrozen for this to be practical. With any of the above methods, seed germinates in the spring as early as possible. There will be limitations on what herbicides can be used for weed control. Tupersan (siduron) can be used as a crabgrass preventer on new seedings even before they have come up. Also dithiopyr, found in Hi-Yield Turf and Ornamental Weed and Grass Stopper and Bonide Crabgrass & Weed Preventer, can be used on tall fescue, Kentucky bluegrass, and perennial ryegrass two weeks after germination. Dithiopyr is longer lasting and more effective than siduron. Other

preemergence herbicides available to homeowners require that the turf be well established before application. (Ward Upham)

What is the "Wild" Shrub with the Bright Red Berries?

People in the eastern third of the state have been reporting shrubs with bright red berries growing wild. The berries are clustered around the stem and the leaves are still a bright green color. These are likely one of two species of bush honeysuckle, (Amur or Tartarian), which can get 6-20 feet tall. This landscape shrub has become a serious understory invasive throughout the midwest from eastern Kansas to Ohio. Many states have it on their noxious weeds list. All of our native honeysuckles are vines, similar to the vining Japanese honeysuckle. Bush honeysuckles are also noticeable in the spring as they put out leaves much earlier than most other trees and shrubs. Leaves also stay green much later into the fall. This long growing season gives it a competitive advantage over other native species, and the vigorous growth can take over a woodland understory, reducing the number of native woodland wildflowers and other shrubs. If you want to promote native species on your property, then controlling bush honeysuckles is needed.

Honeysuckle seedlings can be readily hand pulled when the soil is damp. Chemical control is needed for larger infestations, as cutting alone results in vigorous resprouting. Foliar applications of glyphosate (i.e., Roundup) in late summer and fall works well as does applications of Crossbow (2,4-D + triclopyr).

Treating cut stumps with concentrated (20% - 50%) glyphosate is also quite effective. Several studies have shown basal spraying with triclopyr (Garlon) not to be effective, while basal applications with 2,4-D or picloram products work well, using an oil carrier to penetrate the bark. Cut stump and basal treatments can be done when the areas to be sprayed are dry and not frozen. Please follow all label instructions when using pesticides. (Charlie Barden and Ward Upham)

Compost Pile Maintenance

Compost piles should be turned about once per month even during the winter months. This will ensure the composting process continues and that all materials are equally composted. A compost pile is "turned' when uncomposted material is moved from the sides and tops of the pile to the center where it provides "fuel" for the microorganisms that break it down. Water may need to be added if the material you move to the center is dry. Check the moisture content by squeezing a fistful in your hand. It should feel moist but no excess water should drip out. Compress the material in the pile as best you can as excess air can slow the composting process. (Ward Upham)

Poor Drainage in Garden Areas

Winter is often a good time to fix areas in the garden where water sits and does not drain properly. Such areas often harm plant roots due to poor oxygen levels in the soil. Consider adding good topsoil so water doesn't sit. Be sure to till or spade the area to mix

the new topsoil and the underlying existing soil. Plant roots do not like to cross distinct barriers caused by one type of soil sitting on top of another. Internal drainage can be improved by adding organic matter such as peat moss, rotted hay, cotton burrs, rotted silage, tree leaves or compost. This can be done by adding a 2- to 4- inch layer of organic matter to the surface of the soil and tilling or spading in as deeply as possible. (Ward Upham)

Research Reports Available from the K-State Olathe Horticulture Center

The K-State Olathe Horticulture Center Newsletter is a quarterly compilation of research and activity happening at Center. Situated on 342 acres in rural western Johnson County, the Olathe Horticulture Center is a regional center of excellence providing space for applied research and extension programs serving current and future needs of turfgrass, landscape, fruit, vegetable, and forestry industries as well as the local and regional economies they support. The reports can be accessed at https://www.youtube.com/playlist?list=PLQhVleKE4VXevNUW_NjNytcPrA-8aTWJF. (Kerri Ebert)

Winter Forage Conference, December 10

Mark Your Calendars! The Kansas Forage and Grassland Council and Kansas State University will host their annual Winter Forage Conference from 9 a.m. to 3 p.m. on Thursday, Dec. 10, 2020, at the Great Bend Events Center – 311 10th St., Great Bend, KS 67530. The in-person event will also be available to KSFGC members via ZOOM. **You must request the Zoom link.**

Agricultural specialists will speak on a variety of topics such as pasture management involving weed control, current hay prices and statistics, insects, alfalfa information and research update.

Featured speakers include:

- Kim Nettleton, Kansas Department of Agriculture, market news
- Don Miller, Alforex Seeds
- Romulo Lollato, wheat and forages extension specialist
- Keith Harmoney, range scientist
- Walk Fick, KSU range management specialist

The event is free for current KSFGC members whose memberships extend into 2021, and registration is $25 for non-members, payable at the door. To learn more, go to https://ksfgc.org/upcoming-events/.

Everyone is encouraged to RSVP online at http://bit.ly/KSFGCam, or contact Alicia Boor by e-mail at aboor@ksu.edu or bwalton@ksu.edu, or by calling 620-793-1910. Again, don't forget to specify if you plan on attending in person or would like the ZOOM

link. A fee of $15 will be added for each additional farm member who attends (to assist with meal costs).

Forage growers are encouraged to join or renew your KSFGC membership prior to December 1,
at, https://www.afgc.org/i4a/ams/public/member_start.cfm?mbrAppID=9&pageID=3401, and you **MUST be a paid KSFGC member in order to get the ZOOM link.**

A limited number of free KSFGC caps will be available on a first come, first serve basis.

The Kansas Forage and Grassland Council was organized in 1988 to strengthen the forage base for the livestock industry through more efficient production and utilization. KSFGC serves to provide education and programs to strengthen the forage industry in Kansas.

2020 Crop Pest Management Schools are going virtual

K-State Research and Extension, NW Region counties/districts are hosting two **"Virtual" Crop Pest Management Schools, December 8 and December 10** starting at 7:50 AM with "online check-in" and ending at 5:00 PM.

Join us ONLINE to learn about how to control the latest pests – weeds, insects, and diseases – affecting all crops in central and western Kansas! These schools are entirely online. In order to participate, you must have a computer (desktop or laptop) or tablet with an internet connection.

Commercial Applicators can earn 1 Core Hour & 7 Hours for 1A, certified by Kansas Department of Agriculture. Certified Crop Advisors (CCA) can also earn 8 Pest Management Credits. These schools would also be an excellent educational opportunity for producers!

The cost to participate is $40. Those wishing to participate are asked to **register by Sunday, December 6, by midnight**. Simply go to: http://www.northwest.k-state.edu/events/crop-pest-mangagement-school or to any Extension Office website in the NW region or call:
Craig Dinkel, Midway Extension, 785-483-3157
Cody Miller, Phillips/Rooks Extension, 785-543-6845
Clint Bain, Golden Prairie Extension, 785-743-6361

VIRTUAL CROP PEST MANAGEMENT SCHOOL

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Credits Available:

Commercial Applicators:
1 Core Hour & 7 for 1A

Certified Crop Advisors:
8 Pest Management Credits

For questions please contact:

Craig Dinkel, K-State Midway District Extension Agent
(785) 483-3157 or cadinkel@ksu.edu

Clint Bain, K-State Golden Prairie District Extension Agent
(785) 743-6361 or bainc@ksu.edu

Cody Miller, K-State Phillips-Rooks Extension Agent
(785) 543-6845 or codym@ksu.edu

Sandra Wick, K-State Post Rock Extension District Agent
(785) 282-6823 or swick@ksu.edu

Jeanne Falk Jones, K-State Multi-County Agronomist
(785) 462-6281 or jfalkjones@k-state.edu

7:50 Zoom Open	
8:05 Welcome and Housekeeping	
8:15 Technology Update in Insect Control	Dr. J.P. Michaud
9:10 Those Challenging Weeds - Palmer Amaranth	Dr. Vipan Kumar
10:05 Break	
10:20 Alfalfa Management - Insects & Diseases	Dr. Romulo Lollato
11:15 Technology Update in Weed Control	Dr. Sarah Lancaster
12:10 Lunch	
12:50 Wheat Diseases	Dr. Kelsey Anderson Onofre
1:45 Application Technology	Dr. A.J. Sharda
2:40 Break	
2:55 Diseases of Row Crops (Corn, Soybeans & Grain Sorghum)	Dr. Rodrigo Borba Onofre
3:50 Kansas Regulations (Core Hour)	KDA Representative
4:45 Questions	
5:00 Adjourn	

K-STATE Research and Extension

World of Weeds: Downy brome

Fall is a good time to control weedy brome species, such as downy brome. This article will discuss some identifying characteristics of downy brome, as well as control measures.

Ecology of downy brome

Downy brome (*Bromus tectorum*) is native to the Mediterranean area and was introduced to New York and Pennsylvania during the late 1800's. It can be found throughout Kansas in upland settings, often in over-grazed pastures. Downy brome is a winter annual grass that typically emerges in the fall, but can also emerge in early spring (Figure 1). It produces seeds in late spring and is typically the first of the common weedy bromes to flower in spring.

Figure 1. Downy brome fall growth habit. Photo by Sarah Lancaster, K-State Research and Extension.

Identification

Key identifying features of downy brome and other weedy brome species are shown in Table 1. Seedling leaves have a clockwise twist and are covered with soft hairs (Figure 2). The closed sheath is also covered with soft hairs. The ligule is a fringed membrane (Figure 3). Mature plants can reach up to 2 feet tall with leaves up to 5 inches long. Mature leaves also have long short hairs on both surfaces. Downy brome produces and extensive root system that reaches up to 4 feet deep and is very efficient at withdrawing water from the soil.

Table 1. Identifying features that distinguish among downy brome, Japanese brome, and cheat.

	Downy Brome	Japanese Brome	Cheat
Leaf surface	Soft, short hairs on both surfaces	Soft hairs on both surfaces	Occasional hairs
Sheath	Hairy	Hairy	Hairless to occasional hairs
Ligule	Fringed membrane	Fringed membrane, slightly pointed	Fringed membrane
Spikelet	Long awns (0.75 inches)	Awns slightly bent	Short awns (.4 inches)

Figure 2. Downy brome leaf – note the clockwise twist and hairs. Photo by Sarah Lancaster, K-State Research and Extension.

Figure 3. Downy brome ligule. Photo by Sarah Lancaster, K-State Research and Extension.

The inflorescence in an open, droopy panicle about 7 inches long. Each spikelet contains 4-8 seeds. Spikelets are tipped with an awn approximately 0.75 inches long. The awns facilitate seed dispersal by attaching to animals' coats and may cause injury to the mouths and eyes of grazing animals.

Management

There is some evidence that once established in a native area, downy brome cannot be dislodged. However, it is possible to control downy brome in winter annual crops such as wheat or canola. Control in wheat is critical, as data suggest that downy brome infestations of approximately 9 plants per square foot can reduce wheat yields 20 to 40%.

Few herbicides labeled for winter wheat will provide excellent control of downy brome. However, fall applications of herbicides such as Olympus, Outrider, or PowerFlex generally provide greater suppression than spring applications. Acceptable control of downy brome can be achieved by planting Clearfield or CoAxium varieties and applying Beyond or Aggressor, respectively.

Controlling downy brome in rotational crops is an excellent integrated management strategy. For example, grass weeds are more easily controlled in winter canola or with fall or early spring applications of glyphosate before planting a summer crop.

Sarah Lancaster, Extension Weed Scientist Specialist

Control of mustards in wheat - Timely treatment is important

Too often producers do not notice mustard weeds in their wheat fields until the mustards start to bloom in the spring. As a result, producers often do not think about control until that time. Although it is still possible to get some control at that time with herbicides, mustards are much more difficult to control at that stage and often have already reduced wheat yields by then.

To minimize yield losses, mustards should be controlled by late winter or very early spring, before the stems begin to elongate (bolt; Figure 1). If mustards are present in the fall, they can be controlled with ALS-inhibiting herbicides such as Ally, Amber, Finesse, Affinity, Rave, Olympus, or PowerFlex. Huskie, Talinor, Quelex, 2,4-D, and MCPA can also provide good control of most mustards if the weeds are at the right stage of growth and actively growing, and if the wheat is at the correct growth stage. However, wheat should be fully tillered before applying 2,4-D or tillering will be inhibited. Dicamba and Starane are not very effective for mustard control.

In the late winter or early spring, blue mustard is perhaps the most difficult of the winter annual broadleaf weeds to control because it bolts very early. To be effective on blue mustard, herbicides typically need to be applied in late February or early March. Blue mustard is more difficult to control than tansy mustard with 2,4-D because blue mustard has often already bolted by the time 2,4-D can be safely applied to wheat. Thus, 2,4-D often is applied too late to be effective on blue mustard.

Figure 1. Effect of timing of blue mustard control in wheat: K-State research, 2014. Photos by Dallas Peterson, K-State Research and Extension.

Flixweed and tansy mustard should be treated when they are no larger than two to three inches across and two to three inches tall. As these plants become larger, the control decreases dramatically. Ester formulations of 2,4-D and MCPA are more effective on

tansy mustard and flixweed than amine formulations. Field pennycress is easier to control than tansy mustard or flixweed. Herbicide applications made before the pennycress bolts are usually effective.

Most ALS-inhibiting herbicides control winter annual mustards very well, although there are populations of bushy wall flower (treacle mustard) and flixweed in Kansas that are ALS-resistant and cannot be controlled by these products. Alternative measures will be needed to control these populations. The best approach to control ALS-resistant broadleaf weeds is to use other herbicides or tank-mixes with 2,4-D, MCPA, Huskie, or Talinor. None of these herbicides have much residual control, so the majority of weeds need to be emerged and actively growing at the time of treatment.

Some producers commonly apply ALS herbicides with fertilizer in January or February. Unfortunately, MCPA, 2,4-D, and Huskie are most effective when applied to actively growing weeds, so application when weeds are dormant may not provide good control. As a result, if an ALS-inhibitor tank-mix with one of these herbicides is applied to dormant ALS-resistant mustards in the winter, poor control could occur.

Crop rotation with corn, grain sorghum, soybeans, cotton, or sunflowers is a good way of managing mustards as long as they are controlled in the spring prior to producing seed. Crop rotation will usually result in a gradual reduction of mustard populations in the future as the seedbank in the soil decreases.

Sarah Lancaster, Weed Management Specialist