Virginia Cooperative Extension
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Extension Ag News

Summer 2016 Volume 2, Issue 1

Editor's Note

This is the summer issue of a four-county agriculture newsletter. Agriculture Extension Agents serving Albemarle, Fluvanna, Greene and Louisa Counties are collaborating to offer in-depth information on a wide variety of topics. ***Extension Ag News*** is published quarterly.

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Inside this issue

Pasture Weeds

The extremely wet spring has kept many farmers out of their pastures so now is the time to control pasture weeds. It may be a little too late at this point in the game to achieve really good control some of our most common weeds; buttercup, wild garlic/wild onion and thistles. However, that should be evaluated on a case by case basis.

Why kill weeds? Weeds are a problem in our pastures for many reasons. They compete with the desirable grasses and legumes for nutrients. They are often unpalatable; livestock will not eat them so less feed is available. Some weeds are toxic to livestock while others can cause injuries.

Mowing, grazing, improving soil fertility and herbicide spraying are among the ways to control weeds. Mow when weeds are in the boot stage before the flowers emerge. Weeds can flower and set seed quickly. Once seeds develop, mowing spreads them further into the pasture.

Some weeds are both palatable and nutritious early in their growth, and livestock will readily graze them. To control weeds by grazing, subdivide weedy pastures and place a high concentration of animals on one paddock. The animals will eat or trample the weeds. The grass can recover after the animals are moved to the next paddock. Grazing should never be used to control toxic weeds.

Tall Thistle: Cirsium altissimum
Photo courtesy of Virginia Tech Weed Identification Guide

Herbicides kill weeds effectively while avoiding damage to desirable forages. But herbicides are not a miracle cure, and more than one application may be needed in combination with other weed control methods. Different herbicides kill different weeds, and some herbicides can damage pasture grasses and legumes if not applied correctly.

Extension publication "Control of Common Pasture and Hayfield Weeds in Virginia and West Virginia," contains herbicide recommendations for pasture weeds.

https://pubs.ext.vt.edu/427/427-002/427-002.html

Source: Virginia Cooperative Extension and the University of Arkansas Cooperative Extension

Contributed by John Thompson, VCE-Fluvanna

Signs, Symptoms, and Management of Boxwood Blight

Many homeowners in the area landscape their yard or gardens with the beautiful green boxwood. While these can be beautiful additions to a landscape, boxwood plants are also very susceptible to boxwood blight. Boxwood blight is caused by a fungus that results in the defoliation and general decline of susceptible boxwood. Once you have the blight on your boxwoods, it is very difficult and costly to control with fungicides. The disease is spread mainly by movement of contaminated plant material, like container or field-grown boxwood or boxwood greenery used for holiday decoration. However, they can also be spread by pruning tools, clothing, equipment, and anything that may have contacted infected plants.

The most characteristic sign of boxwood blight on plants are brown leaf spots that lead to defoliation and black streaking on boxwood stem tissue. Japanese spurge, Allegheny spurge, and sweetbox are all also susceptible to boxwood blight as they are all in the same family as boxwood.

The best way to control boxwood blight is to keep it out of your boxwoods! The most likely entry point for the blight is through accidental introduction of infected plant material and/or contaminated tools, equipment, or other items. If you are looking to purchase new boxwoods, be sure to ask the nursery or garden center personnel if the plants are from producers participating in the Boxwood Blight Cleanliness Program. Be sure that before you purchase the plants you carefully inspect for any signs or symptoms that the plant already has the blight. You also want to be sure to carefully monitor and inspect any plants that you already have for signs of infection.

Boxwood blight leaf spot symptoms. (photo by A. Bordas)

If you are using boxwood for holiday greenery, be aware that this is a way that the blight can be spread. You do not want to use any boxwood greenery that came from an outside source near any boxwood plants that you have in your landscape. When you are disposing of your holiday greenery, you want to be sure to double bag it in plastic bags and dispose of it in the landfill. You do not want to compost boxwood greenery. You also want to be aware that the blight can be spread by any hoses, pruning tools, wheelbarrows, tarps, vehicles, clothing, shoes- anything that the spores of the fungus can attach to. You want to use good hygiene and disinfect any surfaces possible that may come into contact with the fungus spores.

Dark streaks on stems (photo by M.A. Hansen).

If you think you have boxwood blight, take a sample of your plant into the local extension office. They can then send that sample to the plant clinic at Virginia Tech for confirmation. This is important because the plant clinic can monitor any possible boxwood blight outbreaks across the state.

If boxwood blight is then diagnosed in your landscape, you will want to remove any diseased boxwood as quickly as possible to help prevent the spread to healthy plants. Even if you remove the immediate diseased plants and leaf debris, it will not immediately eradicate the blight in your landscape as the pathogen can live in the soil for 5 to 6 years. You want to be sure that if you replant boxwood, you want to plant a variety that is partially resistant to the boxwood blight fungus and you will need to apply a fungicide on a regular basis to protect any of the other plants in your landscape.

While a boxwood blight diagnosis can be disappointing at first, there are management techniques that can help you through the problem.

For more information, contact your local Extension office or visit http://www.pubs.ext.vt.edu/PPWS/PPWS-29/PPWS-29-pdf.pdf

Contributed by Sarah Weaver Sharpe, VCE-Greene

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This Year's Hay Crop and What It Means for Horses

The major determiner in hay quality is stage of maturity (the stage of growth the plant was in when it was cut). Mature hay will have more seed heads and a lower leaf-to-stem ratio. The more mature the plant is, the more lignin accumulates in the stem, and the less digestible the plant is. The lower the digestibility, the less energy and nutrients an animal is going to be able to glean from it.

Hay producers want to cut hay before it goes to seed, for this reason. Mother Nature, however, doesn't always cooperate. In order to put up hay that doesn't mold, it needs to be sufficiently dry (10-15% moisture). To do this, the fields must first be dry enough to drive equipment on, and once cut, that hay will generally need a minimum of 2-3 days of drying time before it can be baled.

If you were paying attention to our weather this Spring, you probably noticed that our typical "April Showers" didn't really come until May…and then they didn't let up, at least not long enough to bale hay. Bottom line, a good percentage of our local first cutting hay is a little on the mature side.

The good news is that many, if not most horses, don't need premium hay. Mature horses need a diet with about 8-10% crude protein, and a more mature hay means the horse can munch all day long (as they were designed to), with less likelihood of gaining too much weight (a common problem with pleasure horses). Hay that's too stemmy can cause problems, especially with older horses that have poor teeth. You'll want higher protein and more energy for lactating mares, young growing horses and those in intense work…so choose the right hay for your particular horse.

The best way to know if a particular hay will meet your horse's nutritional needs is to have a forage analysis done…some hay producers routinely test all of their hay and can provide this information. Some additional advice: Always choose hay with as few weeds as possible – remember, these weeds will end up in *your* pasture (not to mention some are also toxic)! If you want a reliable source of hay, be a good, loyal customer…be willing to pay more for higher quality, remember the farmer can't control the weather, and not every horse needs the greenest, leafiest hay.

Contributed by Carrie Swanson, Senior Extension Agent, Albemarle County

Photo by Carrie Swanson

Late Blight on Tomato and Potato Plants

Late Blight on tomato and potato plants can be devastating to growers. Unfortunately, due to our wet and cool temperatures that we have had for the past month, this blight can develop rapidly. Late blight has already been found on tomatoes in Maryland and potatoes on the Eastern Shore of Virginia.

Interestingly, late blight is actually what caused the Irish potato famine in the 1840s. Late blight is caused by *Phytophthora infestans*- commonly called "water molds" because of their affinity and adaptations to water. *Phytophthora* produce spores called "zoospores" which are chemically attracted to plant tissue and able to swim through water (like soil, drainage ditches, etc.) toward plant tissue where they can then form an infective cyst. They are well adapted for long-distance transport in wind currents or for splash dispersal from diseased plant tissue onto new tissue or soil.

Symptoms of late blight usually appear on the leaves first, as water-soaked, oily, pale, dark-green or brown/black, circular or irregular lesions. Typically, younger tissue is affected first. If there has been abundant moisture, sporulation of the pathogen can be seen by the naked eye as a white, cottony growth on the underside of affected leaves and/or on fruit lesions. The disease can progress quickly through the plant canopy resulting in brown, shriveled foliage. Both green and ripe tomatoes are susceptible to severe injury from late blight. The lesions can spread over the surface of the tomato, and while they can remain firm to the touch, secondary decay organisms generally follow closely behind which leads to various fruit rots. The same occurs with potatoes, with the potato beginning to rot.

Stem lesion (top left) and leaf lesion (top right) with sporulation on young tomato leaf and more necrotic lesion (bottom left) and tomato fruit lesion (bottom right) due to late blight. Leaf and stem images courtesy of Meg McGrath, Cornell University and tomato fruit image courtesy of Jean Ristaino, NC State University.

Late blight must have a living host tissue to survive- it cannot overwinter on dead plant tissue, stakes, or in the soil. However, it can be sourced from tomato transplants that may be shipped north from southern states, where freezes don't happen to help kill the spores.

The disease is very prominent when the daytime temperatures are between 70 and 80 degrees and night time temperatures are between 50 and 60, and there is abundant rainfall or moisture present. When the temperature rises above 86, the ability for this disease to sporulate and infect new tissue is diminished.

However, it is possible to avoid late blight! You will want to purchase disease-free transplants and seed tubers, remove and dispose of late-blight-diseased plants (if present), reduce periods of leaf wetness by spacing plants adequately, limiting the size of the plant canopy, avoiding overhead irrigation and morning irrigation, staking plants, and locating plants in areas with good air movement. You will also want to avoid excessive use of nitrogen fertilizer, apply pesticides before the disease is in your garden or field when conditions are moist and cool and late blight is a threat in your area, and apply pesticides so thorough coverage of the plant tissue is achieved.

For more information, visit https://pubs.ext.vt.edu/ANR/ANR-6/ANR-6_pdf.pdf or contact your local Extension Office.

Contributed by Sarah Weaver Sharpe, VCE-Greene

Upcoming Events

July 19, 2016

Twilight Grower Meeting

Miller Farm's Market, 12101 Orange Plank Road, Mine Run (Spotsylvania/Orange County Line)

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August 4-6, 2016

Albemarle County Fair

James Monroe's Highland, 2050 James Monroe Parkway, Charlottesville, VA 22902
http://albemarlecountyfair.com/

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August 9-13, 2016

Greene County Fair

Greene County Fairgrounds, Route 230 (Madison Road) off of Route 33 Business, Stanardsville, VA 22973
www.greenecountyfairvirginia.com/

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August 17-20, 2016

Fluvanna County Fair

Pleasant Grove Park located on Route 53, 2 miles after turning off Route 15.
http://fluvannacounty.org/services/parks-and-recreation/county-fair

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September 6, 2016

Virginia Household Water Quality Program 2016 Drinking Water Clinic

Greene County Kick-off Meeting, September 6; Sample Collection, September 28; Follow-Up Meeting, November 2
For more info: contact the Green County Virginia Cooperative Office, (434) 985-5236 or seweaver@vt.edu

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October 10, 2016

Virginia Pesticide Disposal Program

Orange Madison Coop
13323 James Madison Highway, Orange, VA 22903

October 11th

Virginia Pesticide Disposal Program

Ivy Materials Utilization Center (Old Ivy Landfill), 4576 Dick Woods Road, Charlottesville VA 22903

For info on other Virginia locations, dates and to register:
http://www.vdacs.virginia.gov/pdf/disposalbrochure.pdf

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November 14, 16 & 18, 2016 (4:00-6:00 pm)

Beekeeping Classes

Greene County Extension Office, 10013 Spotswood Trail, Stanardsville, VA 22973
For more info: contact (434) 985-5236 or seweaver@vt.edu

Things to Watch Out For…

- Field Day to highlight research demonstration plot for Foxtail Control in Hayfields, will take place in August in Stony Point, date TBA
- Evening Cattle Program in Albemarle …preparing for Fall Calving, Maximizing Low Quality Hay, Fall Deworming and Lice Treatment, sometime in late August, early September