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Forage News

Keeping Forage-Livestock producers in Kentucky informed

Dr. S. Ray Smith and Krista Lea, MS.~ Editors

May 2017

Featured Publication: 2016 Annual Grass Report: Warm Season and Cool Season (Cereals) (PR-719)

Summer annual grasses provide an important forage crop option for producers in Kentucky. These grasses can be used as emergency or supplemental hay and pasture crops, but also provide high yielding, high quality forage for annual plantings. The purpose of this publication is to summarize the UK 2013 - 2016 Forage Yield Trials with sudangrass, sorghum/sudangrass, forage sorghum, pearl millet, and teff. There is additional information on the production potential of cereals for fall and spring plantings. The tables at the end provide a summary of variety performance over the last 9 years. For this and all variety reports go to the UK Forage Extension website, www.uky.edu/ag/forage, and look under "Forage Variety Trials."

Alfalfa Weevil Damage — The Next Step

Alfalfa weevils were very damaging in some fields this year (Figure 1). While individual larvae only feed for about 3 weeks, a wide window for egg hatch this year resulted in an extended season. Unfortunately, some additional damage occurred when larvae pupated and adults emerged. If your stand was weakened by weevils this spring before spraying or before your first cutting, then a delayed second cutting will help rebuild root carbohydrates to maintain a healthy stand. The same is true if you experienced significant frost damage this spring. ~Dr. Lee Townsend, Kentucky Pest News



Figure 1. Undamaged weeds are the only green foliage in this alfalfa field following major weevil feeding (M. Baxter).

AFGC Western Hay Tour

We have almost finalized plans for the western hay production education trip August 23-29 for producers and county agents. The full schedule will be on the UK Forage Website the first week of May and the registration details will be posted on the AFGC website by mid-May. Go ahead and mark your calendar and then be ready to register later this month since participation will be on a first-come first-served basis.

Quote of the Month: "It is cut when it is just beginning to flower, and this is repeated as often as it throws out new blossoms" ~ Pliny the Elder

Alfalfa is thought to be the only forage crop cultivated before the development of written languages. Even in the early days of managing alfalfa, it was known that harvesting at an early bloom growth stage would optimize dry matter yield, forage quality and rapid and vigorous regrowth of the plant, a concept that applies to other forage crops as well. Today, harvests may be made at an even earlier growth stage when quality and intake potential are higher in order to meet the nutritional demands of high producing animals. However, such early harvests may occur before carbohydrates, depleted by plant regrowth, are optimally restored, so additional management care is required to ensure plant survival and stand longevity. Purchase Forage-Livestock Quotes and Concepts books for \$5 each by contacting ukforageextension@uky.edu.

Retired Racehorse Farm to Host Equine Field Day

New Vocations at Mereworth Farm will be hosting this year's Equine Field Day on June 8th at 719 Dolan Lane in Lexington. Farm tours and exhibitor booths will be available beginning at 4 pm. The welcome address from UK's new Equine Programs director, Dr. Mick Peterson, will be at 5:00, followed by a meal and educational sessions: Barn Design, Farm Site Planning, Controlling Intake on Pastures and Practical Pasture Management. New Vocations' mission to rehabilitate, retrain and rehome retired racehorses has led to the placement of over 6,000 individuals, with over 450 retirees entering the program each year. See UK Forage Website for detailed program. RSVP to equine@uky.edu. ~ Krista Lea

Got Hot Cows? Consider Silvopasture

Silvopastures are intensively managed tree-forage-livestock systems where trees are either planted into a pasture, or where forages are seeded beneath a thinned tree canopy. There are many environmental and economic benefits to silvopastures, including improving water quality and quantity, boosting biodiversity, providing wildlife habitat, more efficient nutrient cycling, increased aesthetic value and enhanced income stability by integrating long- and short-term revenue streams in the form of timber and livestock production. However, one of the most desirable aspects of silvopasture systems in the south is that they provide shade and

shelter for livestock.

But do cows really need shade? Think about that question as you are standing in the sun wearing a black winter coat in the middle of July, and then answer. Currently, most of the shade on many farms is found near riparian areas, and we know from experience that unrestricted access to these areas can cause environmental damage. Fencing out streams removes the immediate cause of this environmental degradation, but also limits livestock access to shade and the cooling effect of water, which is especially important when their heat stress is aggravated by fescue toxicosis.



This is where silvopastures come in. When managed properly, silvopastures can provide nutritious forages and a comfortable environment for livestock, more efficient resource

utilization, and improved environmental quality.

~Kelly Mercier, UK Forage Graduate Student

Reminder — Managing Tall Fescue Seed Heads

Most producers know that clipping pastures before or after grazing to remove seedheads will improve forage quality by keeping the stands vegetative. In the same way, harvesting grass hay fields at the boot or early heading stage provides a good compromise between quality and yield. Removing seedheads before they mature is also essential when converting a KY-31 toxic tall fescue pasture or hayfield to a novel endophyte or other improved grass stand. If a KY-31 field that is being renovated in the fall “goes to seed” then no amount of herbicide or tillage will prevent the new grass stand from being contaminated with toxic tall fescue. ~Dr. Ray Smith

Potato Leafhopper Management in Alfalfa

Potato leafhoppers are small bright green insects which migrate annually from the gulf coast to Kentucky on wind currents and can cause significant injury to alfalfa if left unmanaged. They do not normally impact the first cutting of established alfalfa stands. Infestations in later cuttings can stunt growth and reduce yields. The most common symptom of leafhopper damage is yellowing of the leaves, commonly referred to as “hopper burn.” Although nutrient deficiencies can also cause yellowing of the leaves, damage from leafhoppers can be distinguished by a characteristic inverted yellow “V” at leaf tip (See page 3).

Scouting and Economic Thresholds

Determining leafhopper populations requires the use of a sweep net with a 16-inch opening and a 3-foot handle. Sampling is accomplished by quickly walking through the stand as 10 sweeps are collected in a back and forth motion that grazes the top of the alfalfa canopy. Adult and nymph leafhoppers should be

immediately counted. Sampling should be conducted in three to five areas of the field and then averaged. Economic thresholds for the application of insecticides can be found in Table 1. In general, if the number of leafhoppers collected in 10 sweeps equals the height of the alfalfa plant in inches, the economic threshold has been reached. For stands that are under high levels of stress, the economic threshold levels are lower. Conversely, stands that are vigorously growing and under lower levels of stress possess higher economic thresholds. If potato leafhopper resistant cultivars were used, economic thresholds are three times higher than those outlined in Table 1.

Insecticides for the Control of Potato Leafhopper

If the alfalfa stand is 7 to 10 days from harvest, treatment is NOT recommended. Following harvest, regrowth should be closely monitored for reinfestation. Insecticide recommendations on Table 2 (page 3).

~Chris Teutsch, Raul Villanueva, UK Princeton Research and Education Center

Overflow grazing school at UK Center in Princeton

Forty eight producers, conservation districts, NRCS, UK agents and industry professionals recently completed a two day grazing school at the UK Grain and Forage Center of Excellence in Princeton. Attendance was the highest in recent years. The grazing school was taught by a team of experts that included UK Extension specialists and agents, NRCS state staff and industry leaders. Attendees received classroom and hands-on field training in grazing systems. The centerpiece of the school was the field exercise where participants allocate one day’s worth of pasture for a group of three heifers and set up a temporary fence and water system to for their ‘system’.

Dr. Chris Teutsch, new Extension forage specialist in Princeton, recapped the lessons learned from the field exercise, “Livestock clearly grazed more uniformly in the grazing paddocks, especially those designed for higher utilization.” Teutsch noted that they readily consumed the johnsongrass and even the leaves off the stalks of curly dock. The skills learned at the school will allow producers to put this practice to work on their home farms. The grazing school was part of the UK Master Grazer Educational Program (<http://www2.ca.uky.edu/grazer/>), supported by Kentucky Ag Development Funds and the Kentucky Beef Network. The next school is scheduled for the fall in Woodford County for Sept. 27-28, 2017. Details will be posted soon on the UK Forage Website. ~ Dr. Jimmy Henning, UK Forage Extension

Upcoming Events

List of upcoming events at www.uky.edu/Ag/Forage
JUNE 8 Equine Farm and Facilities Expo, Lexington, KY
AUG 23-29 Western Hay Trip, Pacific Northwest
SEPT 27-28 KY Grazing School, Versailles, KY
OCT 17 KY Grazing Conference, Lexington, KY
JAN 14-17 AFGC Annual Meetings, Louisville, KY

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see blue.

Table 1. Economic thresholds for the control of potato leafhopper in non-potato leafhopper resistant alfalfa.

Alfalfa Height	Alfalfa Stress Level		
	High	Medium	Low
inches	number of potato leafhoppers per 10 sweeps		
6	3	6	9
8	4	8	12
10	5	10	15
12	6	12	18
14	7	14	21
16	8	16	24
18	9	18	27
20+	10	20	30



Figure 1. Adult potato leafhopper (upper left), characteristic leaf burn (upper right), and inverted yellow “V” damage at leaf tip (left).

Table 2. Insecticide recommendations potato leafhopper control in alfalfa.

Potato leafhopper Insecticides	Harvest or Graze Interval (days) and REI (hours)
Carbaryl - Sevin 80 S, etc. Sevin 4F, etc.	May temporarily bleach tender foliage. 7 / (12 hrs)
Methomyl - Lannate SP	7 / (48 hrs)
Chlorpyrifos - Lorsban 4E, Chlorpyrifos 4E	Some temporary yellowing may occur. 1 pt - 14 d / (24); more than 1 pt - 21d
Dimethoate - Dimethoate 400, Dimethoate 2.67, Dimate 4 EC,	10 / (2 days)
Phosmet - Imidan 70 W	7 / (5 days)
b-Cyfluthrin - Baythroid XL	7 / (12 hrs)
g-Cyhalothrin - Bolton, Declare, Proaxis 0.5 EC	Apply only to planted pure stands. 1 day forage, 7 day harvest (24 hrs)
I-Cyhalothrin - Warrior II	1 d - forage, 7d – hay / (24 hrs)
z-Cypermethrin - Mustang Maxx	3 / (12 hrs)
Permethrin - Ambush, Pounce 25 WP, etc.	Do not apply to intentionally mixed stands of grasses or legumes (more than 4 fl oz/a - 14 d) / (12 hrs)
Pyrethrins - PyGanic	0 / (12 hrs)
Idoxcarb - Steward 1.25 SC	7 / (12 hrs)
Azadirachtin (26) - Aza-Direct, etc.	0 days (4 hrs)
Chlorpyrifos + I-cyhalothrin - Cobalt EC	7 / (24 hrs)
z-cypermethrin + chlorpyrifos -Stallion	7 / (24 hrs)
I-Cyhalpthrin + Chlorantraniliprole - Besiege	1-forage, 7-hay / (24 hrs)

Always follow label recommendations.

Adapted from L. Townsend. 2017. *INSECTICIDE RECOMMENDATIONS FOR ALFALFA, CLOVER, AND PASTURES – 2017. ENT-17, University of Kentucky Extension, Lexington.* (<http://pest.ca.uky.edu/EXT/Recs/ENT17-Alfalfa.pdf>) For a more information on the management of insects in alfalfa, contact your local extension office or visit <https://entomology.ca.uky.edu/fieldcrop>. Potato Leafhoppers (<https://entomology.ca.uky.edu/ef115>)