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# PENNSYLVANIA FORAGE and GRASSLAND NEWS

Volume 28, No. 2, Spring 2018

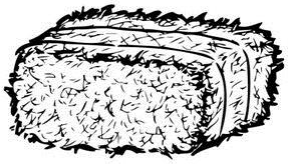
## Supporting Members of PFGC

Many businesses support the PFGC through their membership and involvement in many of the PFGC sponsored activities. Our supporting members for 2018 are listed below.

AgChoice Farm Credit
Barenbrug, USA
Delmhorst Inst. Co.
Ernst Conservation Seeds
Fulton Bank-AG
New Holland N.A. Inc.
Timac, USA. Inc.
W-L Alfalfas
AMPAC Seed Co.
Chemgro Seeds
Dow AgroSciences, LLC
Farmshine Publications
King's AgriSeeds
Seedway, Inc.
Waypoint Analytical

## Save Your Hay Samples for the Ag Progress Days Hay Show

As you make hay this year, pull a couple of your best bales and store them in a dry spot so that when APD rolls around you will have easy access to them. Hay Show entry forms will be sent with the Summer PFGC News. *PLEASE TAKE NOTE that the 2017 classes and rule changes will continue to be implemented for the 2018 Hay Show.* Rules will be carefully outlined in the Hay Show brochure, as well as in Lancaster Farming press releases.



## Forage Conferences held in February

This past February, the PFGC held the annual Forage Conferences in two locations across the state instead of their usual one location. The 2018 Forage Conferences were held on Tuesday, February 27, 2018 at the Park Inn by Raddisson in Indiana, PA and on Wednesday, February 28, 2018 at the Grantsville Holiday Inn. Industry professionals and farmers had a full day of educational topics from industry-leading speakers!

The conference is sponsored by the Pennsylvania Forage and Grassland Council in cooperation with Penn State Extension. The PFGC hopes to continue this multi-location model, so keep an eye out for the 2019 dates and locations!

## PSU Forage Team National Champions

*Louisville, KY.* For the second year in a row, representatives from the Penn State Agronomy Club, a student organization in the College of Agricultural Sciences, took first place in the National Forage Bowl competition at the American Forage and Grassland Council annual conference, held Jan. 15-16 in Louisville, Kentucky.

The Forage Bowl competition requires students to identify forage and weed species and answer questions about many aspects of forages, from seeds to animal health. The format is similar to the popular game show "Jeopardy!" in that, in addition to correctness, contestants' speed in answering is a factor, according to Marvin Hall, professor of forage management in the Department of Plant Science and team adviser.

*Congratulations, Penn State Forage Team!*


The Penn State 2018 American Forage Bowl team includes, from left, Glenn Travis, Casey Baxter, Jonathan Stephens, Zachary Curtis, Cullen Dixon, Taylor O'Guinn, Ben Crusan and Sunnie Liggett. Standing is Marvin Hall, professor of forage management in the Department of Plant Sciences and team adviser.

# Plan for Drought…NOW!

This time of the year most of us are waiting for winter to end, looking forward to warmer temperatures and greener pastures. Very few people woke up this morning thinking about drought.

That topic won't enter our minds for another few months. By that time, however, drought might become one of the dominant topics on everyone's mind. The problem is that if we wait until June or July to start thinking about how to deal with a drought, we have missed out on several management tools to reduce its impact.

A drought during the summer will always be a threat. In fact, I could argue that summer drought is normal. The only variation will be in the length and intensity of the drought. In order to reduce the impact of these droughts, there are several things we can focus on over the next few months.

**Correct soil fertility issues:** In order to survive periods of limited moisture, plants need to be vigorous with a healthy root system. If plant nutrients are limiting, or soil pH is low, there is the potential for plant growth to be reduced, limiting the plant's ability to survive drought.

Often producers think that hayfield stands last longer because they aren't grazed. That is partially true, but it is often also due to higher soil fertility in hayfields versus pastures. Go ahead and soil test your fields now so that you can have results in time to fertilize. If the results don't arrive in time, it provides information needed to topdress with additional nutrients if needed.

**Improve grazing management:** Often we think about our grazing management during the drought, trying to not overgraze and kill the plants. We have all seen fields that have to be replanted because they were grazed too hard during a drought. But preventing overgrazing during the spring when plant growth is good is just as important for drought survival.

As mentioned above, root growth is important in a plant's ability to survive drought. Research has shown that overgrazing has a dramatic impact on grass root development. If you graze a plant, root growth will stop for a few days. The more and longer you overgraze, the more dramatic the impact. In fact, if you continuously overgraze a pasture, root growth will essentially stop until you let the plants have a chance to regrow and restore some of their reserve carbohydrates.

The best way to graze a field is to remove all of the forage, then rotate cattle to another field and let the forage regrow. This will create a situation in which the plants can recover both above and below ground. How fast to remove the forage and how long to let the field regrow will depend on your resources and goals. But during spring, a goal should be to graze a field for four to seven days, then allow 21 to 28 days to recover. If you have to graze a field longer or have fewer days for regrowth, it doesn't mean all is lost. Anything you can do to allow more days for rest will help root regrowth and reduce summer drought impact.

**Plant warm-season species to supplement cool-season pastures:** Let's say you have tall fescue pastures that you have tried to manage well during the spring. But a drought hits and you're in a no-win situation. You don't want to overgraze during the drought, but you don't have any pasture growth, so there is no way to prevent overgrazing.

How can you manage this?

One solution is planting a few acres of some warm-season forage species. It might be bermudagrass, crabgrass, sorghum-sudangrass, or one of the native grasses. But the point is to plant a forage species that is more adapted to summer temperatures and more efficient with its water use. These species have a photosynthetic pathway that allows them to conserve water while maintaining productivity. You should be able to continue to graze much longer into a drought using one of these species compared to using tall fescue.

The appropriate species will depend on several things, such as your location, soils, and goals. We are not able to list the pros and cons of each of the various warm-season grasses in this article, but we can say to plan now and determine which species you want to use to provide grazing during the summer.

**Conclusion:** Oftentimes we act as if droughts are unusual and abnormal. In reality, droughts should be expected and planned for. We can't particularly eliminate droughts, but we can reduce their impact. Don't wait until the drought hits to start the planning. Now is the time to develop your drought strategy.

*Gary Bates, Univ. of TN, published in Hay & Forage Grower*

**Don't forget to save some hay for the Pennsylvania Hay Show at Ag Progress Days!**
**August 14-16, 2018**

## Livestock Producers Should Recognize and Manage Poison Hemlock

*This is the time of year when you start to notice poison hemlock. Best management practices should take place before it flowers, produces more seed, and continues to spread.*

Poison hemlock is a biennial plant with a basal rosette of leaves in its first year. Once it overwinters, plants will bolt into an erect branched plant producing conspicuous white flowers generally in June and July (see accompanying image).; Poison hemlock is in the parsley family and the leaves and foliage resemble carrot and parsley. Late April and early May are the time of year when you start to notice it in fallow areas, fence rows, pastures, roadsides and creeks as it begins to bolt and soon will be flowering. Plants can reach up to 6 feet tall and have a smooth, hollow stem with purple spots and a disagreeable odor when the leaves crushed.

Poison hemlock is native to Europe, northern Africa, and western Asia and was introduced to North America as an ornamental garden plant. It is infamous as a poisonous plant and hemlock tea reportedly killed the Greek philosopher Socrates in 399 BC. The plant contains a number of closely related pyridine alkaloids with the main one being coniine, a colorless, volatile and strongly alkaline oil. All parts of the plant are poisonous and some studies have shown toxicosis at 0.25% fresh wt. (of the animal's weight) for horses and 0.5% for cattle. That would be 2.5 to 5 lb. of material per 1000 lb. animal. Mature seeds are the most poisonous. Significant poisoning can result in muscle paralysis and suffocation.

Identification and control of this plant in sensitive areas where livestock could come in contact is important. When managing poison hemlock, be sure to wear protective clothing or PPE as contact with the skin has been known to cause irritation for some people. You can easily dig individual plants out using a shovel or for larger infestations, several herbicides are effective for control. Applications are most effective when made before plants bolt in the spring. Preferred herbicides include 2,4-D + Banvel/Clarity, Crossbow (2,4-D+triclopyr), or glyphosate as a spot treatment.

*Dwight Lingenfelter, Weed Scientist, Penn State*

## Time to Scout for Cereal Rust Mites in Timothy

This cool-season pest has caused headaches for many timothy growers, particularly in Southeastern Pennsylvania where it seems to have spread to the majority of fields, reducing growth and crop quality. To determine whether this pest is active in your timothy fields, scout fields for signs of damage. Look for leaf blades that are rolled up tightly, rather than leaf blades that are flat and normally expanded. The feeding of the mites causes leaves to roll up, presumably to provide the mites with better protection and microclimate. The mites are microscopic and challenging to see even with good magnification.

Treatment is recommended if 25% of tillers show leaf curling within several weeks of green-up. Chemical options are limited, but Sevin XLR PLUS has a supplemental label allowing its use against mites on timothy in Pennsylvania. Spray coverage is important to control this pest. The product label states a range of 10-50 gallons per acre, suggesting the higher water volumes should be used for improved mite control. In general, one application at 2-3 pints per acre should provide control. Do not apply within 30 days of harvest.

*Andrew Frankenfield, Penn State Extension*

## Inoculant Insights

Forage inoculants have always been a “buyer beware” market. Unlike corn hybrids and forage varieties, there is precious little third-party testing of available inoculant products. Fortunately, there has been enough research to guide producers in their general use.

Michelle Windle, Vita Plus forage products and dairy technical specialist, recently offered some research-backed guidelines to aid in silage/haylage inoculant use. Here are some of her insights:

1. Not all bacteria with the same name such as *Lactobacillus plantarum* or *Lactobacillus buchneri* behave exactly the same. It’s the letters or numbers that follow these names that distinguish them. Only research done on a unique strain of bacteria will apply to that specific inoculant.
2. Inoculants are not a replacement for good decision making. For example, silage that is put up too wet may still turn butyric whether an inoculant was used or not.
3. Inoculants only work where they are applied, making it important to apply inoculants uniformly on the crop.
4. Apply inoculants at the recommended rate. There is little to be gained from applying more or less.
5. Inoculants do not detoxify mycotoxins.
6. Inoculants are not effective if applying to an already fermented, ensiled crop when moving that crop to another location.
7. Both granular and liquid inoculants are equally effective if the crop has sufficient moisture. For drier crops (about 45 percent dry matter), there is an advantage to liquid applications.
8. All inoculants, granular and liquid, need to be used within 48 hours of opening the packaging.

*Hay & Forage Grower, April 24, 2018*

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## Upcoming Events in your Area!

- **Penn State's Diagnostic Clinic**
  Rock Springs, PA
  July 18 & 19, 2018
  *https://extension.psu.edu/agronomic-field-diagnostic-clinic*

- **Penn State's Ag Progress Days**
  Rock Springs, PA
  August 14-16, 2018

## *Check out our new website!*

Visit http://www.afgc.org/pennsylvania.php to stay up-to-date with PFGC events and news!

## *"Like" PFGC on Facebook!*

Like Pennsylvania Forage and Grassland Council to keep up with updates and important links! Don't forget to click the thumbs up button before you leave the page!


**Plan to join us for our annual picnic during Ag Progress Days**
**Wednesday, August 15, 2018**
at the pavilion at Rock Springs Agronomy Farm!
*More details and information in the Summer newsletter*

## PFGC Officers and Board

The following is a list of the current officers and Board of Directors of the PFGC. If you have questions, concerns or suggestions on how the PFGC could serve you better, please contact one of these people.

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| Exec. Vice-Pres. | Jessica Williamson | (814) 865-9552 |
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