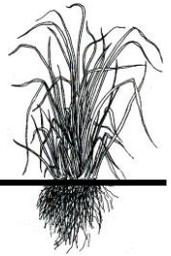




PENNSYLVANIA
FORAGE and GRASSLAND
COUNCIL
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American Forage and
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PENNSYLVANIA FORAGE and GRASSLAND NEWS

Volume 29, No. 3, Summer 2019

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 2019 are listed below.

AgChoice Farm Credit
Corteva AgriScience
Ernst Conservation Seeds
Fulton Bank-AG
Seedway, Inc.
Waypoint Analytical

AMPAC Seed Co.
Delmhorst Inst. Co.
Farmshine Publications
Rohrer Seeds
Timac, USA. Inc.
W-L Alfalfas

2019 Ag Progress Days

Dates and times for Penn State's Ag Progress Days:

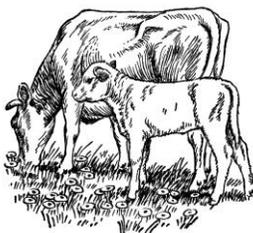
August 13, 9 a.m. – 5 p.m.
August 14, 9 a.m. – 8 p.m.
August 15, 9 a.m. – 4 p.m.

Located at the Russell E. Larson Agricultural Research Center, 2710 W. Pine Grove Rd, Pennsylvania Furnace, PA. **Visit our Hay Show Display in the Harrington Building!**

2020 Forage Conference

Plans are currently underway for the 2020 Forage Conference. The main conference will be held in a new location – the Dauphin County Extension Office on February 19, 2020.

We will be having satellite locations for forage producers all over the state to join the conference via several locations. Keep an eye out for updates and information in the next edition of Pennsylvania Forage and Grassland News!



PFGC is on Social Media!

Find us on Facebook by searching 'Pennsylvania Forage and Grassland Council' to keep up with updates and important links!



Justified Concern for Wet Silages

It's been a wet growing season — one of the wettest in recent memory — and harvest conditions have been less than ideal. Some first crop alfalfa and small grain silages that have been harvested or are starting to come off the fields may be wetter than desired.

In a recent *Vita Plus Forage Foundations* article, Michelle Der Bedrosian, a Vita Plus forage products and dairy technical specialist, warns that wet silages are at risk for the growth of harmful bacteria during storage. "The presence of 'bad bacteria' in silos is inevitable, but their growth is not," she says.

Clostridia, bacteria often found in wet silage, thrive in high-moisture environments, and their activity and growth lead to health issues in cattle such as hemorrhagic bowel syndrome and salmonellosis. Growth of the bad bacteria also degrades the quality of the silage.

"Their activity results in high dry matter (DM) losses and poor-quality silage, and they can also degrade sugars into butyric acid and valuable proteins into biogenic amines and ammonia," Der Bedrosian says.

The most important factor in preventing clostridia bacteria growth and butyric acid formation is to ensure that the crop is ensiled at the right dry matter. Silage that is too wet will be susceptible to clostridia growth, but silage ensiled too dry will be difficult to pack.

Der Bedrosian and Pat Hoffman, a retired University of Wisconsin dairy specialist and current dairy technical

specialist for Vita Plus, suggest chopping small grain silage at half an inch and ensiling at 33 to 36 percent DM. Ensilage alfalfa at an even lower moisture level with 45 to 55 percent DM.

Already in the silo

The best way to deal with bacteria growth is to prevent it; however, sometimes silages are ensiled too wet and high levels of butyric acid are formed. When this happens, there are some options to prevent wasted silage and health issues in cattle.

Der Bedrosian notes, "Clostridia take two to three months to grow, and if you can feed the silage before the bacteria have a chance to grow, you can get more milk per acre from that same feed." She advises to have suspect silage tested before feeding to ensure it is safe. Many labs can do a profile test for volatile fatty acid (VFA) concentrations.

Once butyric acid concentrations are higher than 0.5 percent DM, avoid feeding the silage to transition cows. Heifers and late-lactation cows can better tolerate silages that are high in butyric acid.

The specialists also recommend lowering the butyric content by airing out the silage. "Because butyric acid is volatile, and these silages are very stable, laying out the feed in a thin layer prior to feeding can volatilize a lot of the butyric acid," they say.

Der Bedrosian and Hoffman conclude that the best way to prevent bacteria growth is good management practices, which are not always easy to achieve. "Unfortunately, at times, dairy farming seems to be more of an art than a science, but at the end of the day, we have to feed what we have available," they note.

Source: Michaela King, *Hay & Forage Grower*; July 2, 2019

PFGC Hay Show at Ag Progress Days

As you make hay this year, pull a couple of your best bales and store them in a dry spot so that when Ag Progress Days rolls around you will have easy access to them. The Hay Show is located inside the Harrington Building at the end of East 5th Street. Hay samples delivered to Ag Progress Days on Tuesday, August 13 should be dropped off at the **Hay Sample Drop-off Point** located along the East entrance to Ag Progress Days. **Deadline for sample delivery is 10:00 a.m. on August 13.**

Please take note

that the hay classes have changed from years past. Section I will include only completely field-cured hay,

and Section II will include heat or mechanical drying, as well as added hay preservatives.

All members of the Pennsylvania Forage and Grassland Council can enter any number of samples without a charge. All other non-member exhibitors will be charged \$10/sample. Entry fees must accompany hay samples. CREDIT CARDS WILL NOT BE ACCEPTED. Must have check or cash.

Checks payable: PA Forage & Grassland Council

If exhibitor is not a member of the PFGC and would like to join, membership brochure can be found at <http://www.afgc.org/pennsylvania.php> or contact Terri Breon at (814)355-2467 to be mailed to the exhibitor or membership can be paid with sample delivery.

The opportunity to become a member will be available at the drop off site at APD, but membership brochures are also available online at the PFGC website.

Rules

1. Entries officially close at 10:00 a.m., Tuesday, August 13, 2019. However, to facilitate handling of samples, exhibitors are urged to deliver their samples to the hay show building on Monday, August 12. Hay shipped or delivered prior to August 1 should be clearly identified as Hay Show Sample and addressed as follows:
**Terri Breon
PA Forage and Grassland Council
174 Crestview Drive
Bellefonte, PA 16823**
2. ***All members of the Pennsylvania Forage and Grassland Council can enter any number of samples without a charge. All other non-member exhibitors will be charged \$10/sample. Entry fees must accompany hay samples.***
3. The hay shown must have been grown by the Exhibitor in Pennsylvania in 2019.
4. Exhibitors may enter in as many classes as they wish, **but no exhibitor shall have more than one entry in a class**, either in his own name, the name of the farm, or the name of some other person.
5. Exhibitors must attach an entry blank, giving name, address, county and class in which the exhibit is to be entered. Exhibitors can secure additional entry blanks at their County Agricultural Extension Office.
6. **LONG HAY FROM ANY BALES** (small square, large round or large square) **THAT HAVE BEEN CURED** (adequately dry) can be entered. **An exhibit must consist of a bale section 4 to 6 inches thick, 12 inches high and 18 inches wide.** Thin or moist samples will be disqualified.
7. **SAMPLES MUST BE TIED WITH TWINE.**

8. Judging will be based on both visual characteristics and forage quality analysis.
9. Unless disapproved by the exhibitor, samples will be stored for exhibit in the Hay Show at the 2020 Pennsylvania Farm Show. To receive cash prizes from the Farm Show you must provide them with your Social Security Number. Mail the attached tear-off tab directly to the Farm Show.

2019 Hay Show brochures are available on the PFGC website:
<http://www.afgc.org/pennsylvania.php>

Wide swathing: What was old is new again

The most fundamental hay and forage fact is that quality losses begin at cutting. It's impossible to preserve all the quality found in a standing crop. Once mown, the impact of metabolic and weathering losses can significantly impact crop quality.

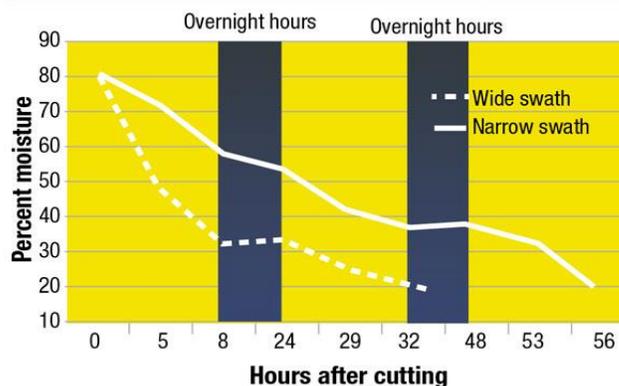
In the most practical terms, what this means for producers is once the hay is cut, the race is on. The faster hay can be cured and put up, the higher the nutritional value.

For many years, prior to the mechanization of haymaking, producers laid hay in wide, unconditioned swaths and made additional passes with conditioners and rakes to gather the hay into harvestable windrows. When haymakers initially began to fully mechanize, harvesting hay crops became faster through greater efficiency. The industry was focused primarily on labor

and time savings. The advent of the mower-conditioner simplified the hay-making process, while forming a windrow provided additional harvesting efficiencies. The influence of swath width from haymaking's early years was overlooked.

However, the arrival of the "hay in a day" concept brought a resurgence of wide-swathing practices. In response, industry has introduced new mower-conditioner designs with wider conditioning systems. The wide design provides a more direct flow of crop through the conditioner, more uniform conditioning and the ability to form faster-drying wide swaths.

FIGURE 1



Source: University of Wisconsin-Extension, Arlington, Wisconsin, July 30 and 31, 2007

To understand the value of a wide swath, it's important to review how a hay crop dries. Most often, the drying process is reflected as having three phases: leaves, surface moisture and stems.

The first phase of moisture loss is through open stomata on the leaves. Stomata are little cells that act as doors to allow the exchange of moisture and gasses between plants and the atmosphere. An important thing to remember about stomata is that they are only open when exposed to sunlight. Laying a wide swath exposes more of the stomata to sunlight so they remain open, permitting more rapid initial drying. That's the first step in achieving faster drying: Lay the crop out wide to "soak up the sun." A University of Wisconsin – Madison study indicates that rapid drying of this initial 15% of moisture can preserve starches and sugars and result in feed with more total digestible nutrients (TDN). Preserving more value in your crop is the first step in producing higher-quality forage.

The second phase of drying is moisture loss from the plant surfaces. At this point, plant moisture is at or below 60%, and the stomata have closed. Mechanical conditioning during this phase creates artificial openings in the plant to allow moisture to escape easily, and that means faster drying.

Plan to join us for our
PFGC Annual Picnic
 during Ag Progress Days
Wednesday, August 15, 2019

at the pavilion at
 Rock Springs Agronomy Farm!

1796 W. Pine Grove Road
Gate D
Pennsylvania Furnace, PA 16865

Forage Tour starts at 4; Dinner starts at 5:30

Adults - \$15
 Children under 10 - \$9
 Children under 4 – FREE

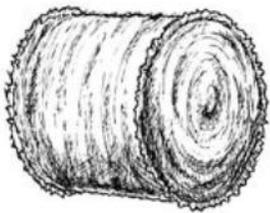
RSVP to Terri @ (814)355-2467 or
paforagegrassland@gmail.com
 prior to August 9



**Pennsylvania
Forage &
Grassland
Council**

Terri Breon, PFGC Exec. Secretary
174 Crestview Dr
Bellefonte, PA 16823
paforagegrassland@gmail.com

The third and most critical drying stage for the production of dry hay is the loss of tightly held moisture. This is moisture trapped in the stems and plant structures. At this stage, mechanical conditioning is essential. Without mechanical conditioning, this moisture would be trapped by the plant structure and drying would slow dramatically. By crimping, cracking and stripping away the cuticle wax layer, tightly held moisture can escape from the stems, continuing the drying process.



In summary, producing quality hay comes down to remembering hay-making fundamentals. The quality of hay and silage crops is determined by what happens immediately after cutting. Swath width and conditioning adjustments are variables that

haymakers can control, whereas weather will always be an uncontrolled variable influencing forage quality. Improved quality comes from taking steps to impact these variables in a positive way. Haymakers should evaluate the advantages of both the wide swath and narrow windrows to better understand how each influences the quality of their crop.

Source: Jordan Milewski, Brand Marketing Mngr., Crop Preparation, New Holland; Published in *Progressive Forage*; June 6, 2019

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.

Officers

President	Ron Hoover	(814)777-4785
Vice President	Michael Kuhns	(570)847-5846
Exec. Vice-Pres.	Jessica Williamson	(814) 865-9552
Secretary/Treasurer	Terri Breon	(814) 355-2467

Board of Directors

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Ron Hoover	Port Matilda, PA
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Sarah Dohle	Delaware Valley University

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Mike Kuhns	Chemgrow Seeds
Kurt Rovenolt	Rovendale Ag & Barn, Inc.

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