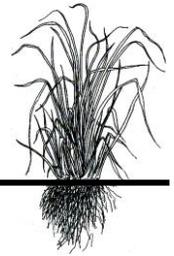




PENNSYLVANIA
FORAGE and GRASSLAND
COUNCIL
<http://www.afgc.org/pennsylvania.php>

American Forage and
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PENNSYLVANIA FORAGE and GRASSLAND NEWS

Volume 27, No. 4, Fall 2017

Supporting Members of PFGC

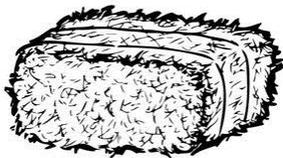
Many businesses support the PFGC through their membership and involvement in many of the PFGC sponsored activities. Our supporting members for 2016 are:

AgChoice Farm Credit
Barenbrug, USA
Delmhorst Inst.Co.
Ernst Conservation Seeds
Fulton Bank-AG
Lancaster Farming
Northampton County Seeds
Seedway, Inc.
W-L Research

Ampac Seed Co.
Chemgo Seeds
Dow AgroSciences
Farmshine Publications
Kings Agriseeds
New Holland N.A. Inc.
Rohrer Seeds
Timac, USA. Inc.

2017 PFGC Hay Show

Thank you to everyone who participated in the Hay Show at Penn State's Ag Progress Days, sponsored by the PFGC. The results, awards, and premiums are being organized to send to participants. Overall, it was a great Hay Show with excellent participation.



Passersby enjoying stopping and viewing the hay. Hay for the Hay Show is judged based on visual and chemical characteristics. The 2017 Hay Show had different classes, rules, and premiums than in previous years – participants

should be on the lookout for a survey coming in the mail asking for you thoughts and opinions on the changes so we can continue to improve the show and the participation into the future. A full list of Hay Show class winners can be found online at <http://www.afgc.org/pennsylvania.php>

Congratulations to Grand Champion award winners in each section! (See more Hay Show details on pg. 3)

Section I – Field Cured

- Ray Mack; Pen Argyl, PA – Alfalfa, Later Cutting

Section II – Partially Field Cured plus Heat Dried

- Dennis Newhard; Nazareth, PA – Alfalfa, Later Cutting

Forage Variety Trials Report Available

The 2016 Penn State "Forage Variety Trials Report" is available, at your county extension office. It can also be downloaded from the web at: <https://extension.psu.edu/forage-variety-trials-reports-1>

2018 PA Forage Conferences

This year the PFGC will sponsor two forages conferences in different regions of the state. Mark your calendar!

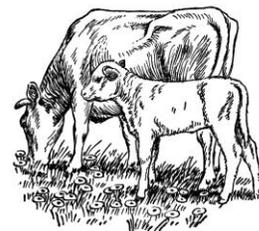
Tuesday, February 27, 2018

Park Inn by Radisson
1395 Wayne Avenue
Indiana, PA

Wednesday February 28, 2018

Grantville Holiday Inn
604 Station Rd
Grantville, PA

Our keynote address will be delivered by Dan Undersander, Forage Specialist at University of Wisconsin. Visit with industry professionals and farmers and enjoy the day listening and learning about educational topics pertaining to forage production from industry leaders! Further details are underway. For more information, contact Terri Breon at 814-355-2467 or paforagegrassland@gmail.com. The conference is sponsored by the Pennsylvania Forage and Grassland Council in collaboration with Penn State Extension.



“Like” PFGC on Facebook!

Find us on Facebook by searching ‘Pennsylvania Forage and Grassland Council’ to keep up with



updates and important links! Stop by and see pictures of the Hay Show, view dates of upcoming events, and read relevant industry articles. Don’t forget to click the thumbs up “Like” button before you leave the page!

PFGC Picnic at Ag Progress Days

The Annual PFGC picnic was held at the Penn State Agronomy Research farm at Rock Springs on Wednesday, August 16, the week of Ag Progress Days. Attendees enjoyed a tour of the forage research trials prior to dinner, followed by a nice barbeque meal and fellowship before ending the evening with PSU Creamery ice cream!

The picnic is held on an annual basis the Wednesday evening of Ag Progress Days. If you have not attended for a while or have never been, make plans to join us next year for food, fun, and fellowship!

Nominate Someone You Know for a PFGC Award!

The PFGC sponsors several awards to acknowledge outstanding performance by forage producers and persons who work with forage producers. These awards are described in the enclosed awards brochure (peach colored). We invite you to look over the different awards and nominate qualified persons (you can nominate yourself) to be considered for an award. Jessica Williamson serves as the contact person for the awards committee and would welcome inquiries for more details on any of these awards. Jessica can be reached at jaw67@psu.edu or (814) 865-9552.

Here Come the Reduced Lignin Numbers

The push to improve alfalfa forage quality through lowering lignin content and, more importantly, improving fiber digestibility is in full-throttle mode. You’d have to be living under a rock to think otherwise.

With marketing campaigns now in full swing and many company offerings to choose from, it can be difficult to sort out fact from fiction.

To be sure, most legitimate marketers have their own developmental research to share with prospective buyers, and this research is often both valid and helpful; however, it’s also research that comes from a source that has “skin in the game.” Most companies, if they want to stay in business, aren’t going to release research results that make their product look inferior.

To overcome the problem of perceived bias, many companies will sanction third-party, independent sources such as universities to verify company results. It’s also common that public researchers may take it upon themselves with outside grant money to investigate certain products or management strategies centered on those products.

That’s where we are with reduced-lignin alfalfa, and the initial onslaught of research results is now starting to be made available and in some cases published in peer-reviewed scientific journals.

Seeding-year data has value, but it doesn’t offer the more relevant information that comes with subsequent production years. Alfalfa is not a “one and done” deal. Data from consecutive full production years is ultimately what will validate or raise concerns about previously released company research. In the past, we’ve seen it go both ways.

Research from multiple university sources coupled with grower experiences will ultimately determine a product’s future fate in the marketplace.

University research results pertaining to reduced-lignin alfalfa have recently become a common topic at forage field days and conferences. That will continue through the next several years as an additional production year and more environments are added to the body of knowledge. One such university trial that was recently submitted for journal publication comes from the University of Minnesota.

The Minnesota study compared a HarvXtra variety, 54HVX41, with three other fall dormancy 4 conventional varieties at three locations/environments. During the first production year, first cutting was taken in late May for all of the varieties. A subsequent cutting interval of 30, 35, 40, or 45 days was then compared. A late-fall cutting was also taken for all cutting regimes in early October.

Some of the more significant results from this trial were as follows:

- Averaged across cutting schedules, total-season yield differences between the four varieties were minimal. The only statistically significant difference occurred at one of the locations where the HarvXtra variety yielded 0.4 ton per acre less than the conventional varieties.
- Total-season yield was lowest with the 30-day cutting interval (five cuttings) and highest with the 40-day cutting interval (four cuttings). Yields declined with the 45-day cutting interval.
- Neutral detergent fiber digestibility (NDFD) was 11 to 18 percent higher for the HarvXtra variety at two of the locations. At the third location, alfalfa maturity was

delayed compared to the others and no significant difference in NDFD was detected.

- The HarvXtra variety exhibited an advantage in relative forage quality (RFQ) throughout its growth cycle when regressed across accumulated growing degree days (GDD) from 772 to 1,248.

- Under the cutting regimes imposed in this experiment, a 35-day cutting interval resulted in a 21 percent gain in yield and a 3 percent reduction in RFQ compared to conventional varieties harvested on a 30-day harvest interval. The researchers suggested that this would allow for greater harvest timing flexibility while still maintaining higher forage nutritive value.

The Minnesota study is just one example of many to come, not just with HarvXtra-traited varieties, but also with varieties bred conventionally for reduced lignin content and/or high fiber digestibility. Look for the knowledge base to rise exponentially over the next few years as a multitude of cutting strategies and varieties continue to be evaluated by public sector researchers.

Mike Rankin, Hay & Forage Grower, 8.22.2017

2017 Hay Show Summary

The visual appearance of the entries showed a wide variation in both leaf content and color, with some samples having excellent visual characteristics and others having bleaching from the sun and a low leaf-to-stem ratio.

Comparing averages over the past 7 years of the hay show (Table 1), you can see average crude protein was much lower for this year compared to 2016. This could be an indicator of weather patterns during first cutting causing a reduction in high quality hay. In all, champion qualities were better in 2017 than 2016, with CP being greater, ADF and NDF lower, and a higher RFV value in 2017. We saw similar trends with champion hay samples in 2016 – indicating that the best hay just keeps getting better! Job well done to all exhibitors – we can't wait to see your entries in 2018!

Table 1. Summary of PFGC Hay Show at Ag Progress Days. Values are average of all entries.

Year	% Crude Protein	% ADF	% NDF
2011	13.7	35.6	56.7
2012	13.3	34.4	52.5
2013	15.7	38.4	55.8
2014	14.7	36.9	55.7
2015	14.7	38.2	56.6
2016	14.1	37.7	55.4
2017	13.0	42.3	61.9
Average	14.2	37.6	56.4

Grazing Corn Residue

In Pennsylvania, it is common for corn residue left after combining grain to be utilized as ground cover throughout the winter, serving to protect the ground and helping to eliminate runoff of nutrients and soil erosion. Another common practice is baling corn stover and utilizing it as bedding for livestock during the cold months of the year. The absorbency helps to keep animals dry and warm during the harsh weather.

However, an often overlooked usage for corn residue is its feeding value – either baled or grazed. Mature, non-lactating, mid-gestation beef cattle require approximately 50% total digestible nutrients (TDN) and 7.1% crude protein (CP). In a spring-calving cow herd, cows will not be lactating and will be in mid-gestation during the winter. Corn stover has a 35-55% TDN and a 4-7% CP, and with a little supplementation, can be utilized effectively as a forage.

When the diet of a ruminant animal drops below 7% CP, rumen function begins to decline, causing a decrease in utilization of consumed forages. Therefore, when feeding corn stover as a forage, it is important to supplement a nutritional protein source so ruminal motility remains optimal and animal production does not decline. This is especially important during the winter when nutrient requirements increase slightly.

Supplementing with a high-quality dry hay with optimum TDN and CP will help fill the void in nutrients left by the corn stover, while the corn residue will provide essential fill and fiber for optimal ruminal fermentation.

Studies have shown that grazing crop residue has no negative impact on subsequent crop yields and can improve soil health through the reapplication of nutrients removed and hoof impact. If corn stover is baled and removed, it is recommended that a winter annual be planted to minimize the risk of soil erosion, nutrient runoff, and to provide ground cover for the winter season, especially if manure will be applied to that field.

Additionally, farmers with a grain operation and no grazing livestock could lease their fields with corn residue to neighboring livestock operations for fall grazing and obtain an additional income source.

Dr. Jessica Williamson, Penn State Extension



**Pennsylvania
Forage &
Grassland
Council**

Terri Breon, PFGC Exec. Secretary
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(814) 355-1912
tgbreon@breonconsulting.net

Save the Date for the Forage Conferences!

**Tuesday, February 27, 2018
Park Inn by Radisson
Indiana, PA**

**Wednesday, February 28, 2018
Grantville Holiday Inn
Grantville, PA**

Upcoming Events:

Hay Production Workshops Penn State Extension

- December 12, 2017
Penn State Extension Office
Lycoming County
542 County Farm Rd.
Montoursville, Pennsylvania 17754

- December 14, 2017
Penn State Extension Office
Perry County
8 S. Carlisle St.
New Bloomfield, Pennsylvania 17068

To register:

<https://extension.psu.edu/hay-production-workshop>

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	Lamar Bomberger	(570) 412-6867
Vice President	Andrew Frankenfield	(610) 489-4315
Exec. Vice-Pres.	Jessica Williamson	(814) 865-9552
Exec. Sec./Treasurer	Terri Breon	(814) 355-1912

Board of Directors

Producer

Jeff Bloss	(570) 954-7327
Jesse Bitler	(610) 944-0541
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