

NPFA UPDATE

WINTER '24

A QUARTERLY NEWSLETTER FROM THE
NORTHERN PLAINS FORAGE ASSOCIATION

WHO ARE WE?

NPFA is a grassroots association open to forage growers, buyers, industry partners, and anyone with an interest in forages. We are creating a networking and education group focused on annual forages/cover crops, alfalfa, silage, grazing systems, and more!

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WHERE TO FIND US



@npforage

Email: npforage@gmail.com

Membership Sign-Up:

<https://sdstate.questionpro.com/NPFA>



2024 IN REVIEW: A FORAGE PRODUCER'S PERSPECTIVE

By David Elliot, Drumgoon Dairy

As 2024 comes to a close, forage producers across the Northern Plains can look back on a year of challenges and opportunities. Extreme weather events such as the Missouri Rivers rapid flow this spring tested the resilience of our operations, but advancements in technology and management practices offered reasons for optimism. Let's delve into the key takeaways from this year, supported by scientific research.

Weathering the Volatility

Unpredictable weather patterns, including record rainfall and prolonged drought, dominated 2024 in our area. These conditions highlighted the need for adaptive forage management strategies to mitigate risk and ensure long-term productivity.

* Diversification for Stability: Research consistently demonstrates the benefits of diverse forage mixtures in enhancing resilience to environmental stressors. A study published in Crop Science found that diverse pastures, incorporating a mix of grasses and legumes, exhibited greater stability in yield and quality across varying rainfall patterns (Tilman et al., 1996). This finding was echoed in a 2024 study in Agronomy Journal, which showed that diverse forage stands had greater drought tolerance and recovery compared to monocultures (Fick et al., 2024).

A NEW YEAR! ...TIME FOR DUES RENEWAL



Wishing you and yours a Happy New Year from all of us at NPFA! Here's to a new year of forage production, networking, and learning! A new year means it's time to renew your membership! Please visit <https://sdstate.questionpro.com/NPFA> to renew and provide feedback. Your support of this organization is what keeps it going.- we want to hear from you! Thank you for your continued support.

“2024 IN REVIEW: A FORAGE PRODUCES PERSPECTIVE” CONT'D

* Adaptive Grazing Management: Rotational grazing remains a cornerstone of sustainable livestock production. Research published in Grass and Forage Science demonstrated that rotational grazing systems improve plant diversity, enhance soil health, and increase forage utilization compared to continuous grazing (Teague et al., 2011). Furthermore, a 2023 study in Agriculture, Ecosystems & Environment showed that integrating cover crops into grazing systems can improve soil carbon sequestration and nutrient cycling (Poeplau et al., 2023).

* Soil Health – The Foundation of Resilience: Healthy soil is crucial for buffering against weather extremes. A meta-analysis published in Soil Biology & Biochemistry found that no-till farming systems increased soil organic matter content and improved water infiltration compared to conventional tillage (Luo et al., 2010). These benefits translate to greater resilience to both drought and excess moisture.

Technology Empowers Progress

While nature presented challenges, 2024 also witnessed significant advancements in technology that can empower forage producers to manage their resources more effectively:

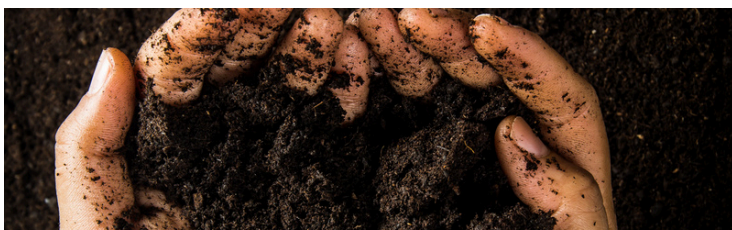
* Precision Agriculture Takes Flight: Drone technology is rapidly transforming agriculture. A study in Remote Sensing demonstrated the effectiveness of drones equipped with multispectral sensors for assessing forage biomass and quality (Hunt et al., 2018). This technology enables producers to make informed decisions about grazing management, fertilization, and irrigation.

* Drought-Tolerant Forages Gain Ground: seed companies continue to develop forage varieties with improved drought tolerance. A 2022 review in Frontiers in Plant Science highlighted the progress in breeding alfalfa varieties with enhanced water use efficiency and drought resistance (Zhang et al., 2022). These advancements offer hope for maintaining forage production in water-limited environments.

* Forage Analysis Goes Digital: Near-infrared reflectance spectroscopy (NIRS) technology is revolutionizing forage analysis. A study in Journal of Animal Science demonstrated the accuracy of NIRS for predicting the nutritional value of forages, enabling producers to optimize livestock diets and improve animal performance (Shenk & Westerhaus, 1991).

Looking Ahead to 2025

As we enter 2025, forage producers must continue to adapt to a changing climate and evolving market demands. By embracing science-based management practices, harnessing technological advancements, and prioritizing soil health, we can ensure a sustainable and productive future for our operations.



NPFA BOARD MEMBERS



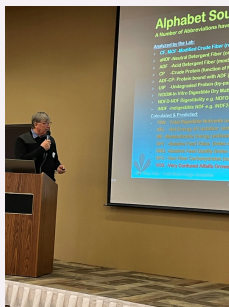
- President: David Elliot, Drumgoon Dairy, Lake Norden, SD
- Vice President: Jeff Jackson, Croplan Alfalfa and Forage Specialist/ forage producer
- Treasurer: Mark Rogen, Boadwine Farms, Baltic, SD
- Mike Bettel, Dellait Forage Consultant & Dairy Nutritionist
- Justin Fruechte, Renovo Seed, Director of Sales/ forage producer
- Paul Hahn, Simplot Sales Representative
- Eric Tieszen, producer, Canistota, SD
- Al Lenhart, KWS Cereals Regional Sales Rep/forage producer
- David Skaggs, Agrovive Biologicals, Dairy Product Manager
- Aaron Swanson, Forage Producer, Lake Norden, SD

2024 NPFA ANNUAL MEETING A SUCCESS

Thank you to all who attended the NPFA annual meeting on December 6th at Brandon, SD! We had over 65 attendees with an excellent program from our speakers!

A huge thank you to our partners at SD Soil Health Coalition, Cindy Zenk and Austin Carlson as well as Kathy Stern (SDSU Extension) for stepping up and assisting to run the program in Sara's absence. Also, a big thanks to our intern Jada Nakai, the NPFA board, and our speakers and sponsors for making the meeting possible. Most importantly, thanks for our members and associate members for your support throughout this past year. These events are driven by your interest and support of the forage industry in this region!

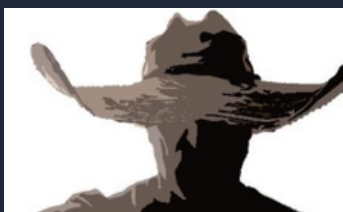
This year's meeting focused on understanding feed tests, using annual forages as cover crops, farm transitioning, forage rye, and utilizing manure nutrients. We aim to make every event different and interesting to our members and guests- please let us know if you have ideas or suggestions for next year. If you attended and have not yet filled out the evaluation, click here to do so: <https://sdstate.questionpro.com/NPFA24>.



BOARD SPOTLIGHT

Mr. Jeff Jackson is affectionately known to many as the "ForageFanAddict" in the world of forage information. He loves to spend time "teaching and enterataing" forage growers and agronomy staff the ins and outs of forages from the soil to the human consumable product. Jeff was a founding member of the Northern Plains Forage Association and a driver behind the early success to get this group off the ground and going full steam ahead. Beginning as an organizer and advocate, he has now served 1.5 years as the Vice President on the board of directors.

Jeff Jackson grew up on a moderate sized livestock/row crop operation in NW Iowa with corn, soybeans, oats, alfalfa, cattle, hogs, sheep and horses. South Dakota State University was the next destination where he earned a BS in Animal Science and a MS in Plant Science before going back to the country. Starting his Ag career as an applicator/feed guy/agronomist/jack of all trades at the local coop opened many doors and enhanced the academic career. An opportunity in 2005 led Jeff to CROPLAN as a Seed District Sales Manager. Working in a heavy dairy area of I-29 in eastern SD led to his current position in 2010 with WinField United as an Alfalfa & Forage Specialist. Over the last 10 years he has expanded his role to include: alfalfa tech support, National Product Manager for Forage Sorghums, Grain Sorghums/MILO and Triticale. In these roles he continues to focus on alfalfa, corn silage, grain sorghum/MILO, Triticale and forage sorghum technical support and training opportunities for industry professionals, agronomists and growers alike. Jeff's time primarily focuses on work with customers in Western MN, Eastern SD & ND, NE & KS, but also makes rounds in MO& IA and occasional visit to larger herds in TX, NM & AZ. He loves hunting, woodworking and ATV'ing with family.



ALTERNATIVE HIGH PROTEIN FORAGES

By: Justin Fruechte, Product Expert with Renovo

Winter feeding is underway, and our on-farm forage supplies are being analyzed as we pull from haystacks. At this same time, we start to brainstorm ideas for spring planting realizing that low forage supplies need to be recuperated. Couple with low forage inventories is the high cost of protein, so let's take a look at all reasonable options to battle this conundrum.

In order to write about alternative forages with high protein content, I need to first mention the queen of forages with high protein. Alfalfa is without a doubt, the most popular high protein forage used by producers across the country. It is adaptable, high yielding, and consistent. Most all livestock producers should be using some level of alfalfa or alfalfa/grass in their operation for hay.

If you live in the high-country desert Sainfoin may be a more suitable option than alfalfa. Sainfoin is a long lived, drought tolerant, hardy perennial legume. In a two-cut system its yield rivals alfalfa along with its protein content. Its other benefits include being bloat free, and having resistance to alfalfa weevils and leaf hoppers. It tends to have more susceptibility to root pathogens and should not be used on low wet soils. I've seen Sainfoin used best when seeded in a mixture of perennial cool season forage grasses.

Forage Peas will be a popular spring seeded forage utilized this year. It is best to use forage peas in combination with a cereal grain. To optimize protein content use a blend of 60% forage peas with 40% forage Barley. Look to plant this as soon as the field is fit this March/April and you'll allow yourself an opportunity to double crop with a warm season annual forage in June. Yield on pea/barley, pea/oat, or pea/triticale blends will be around 3 ton dry matter per acre. This makes for a hefty windrow to cure correctly, so most growers have a backup plan to make baleage or haylage from these fields. Harvesting as wet feed will also help ensure higher protein and more palatable feed.

When June rolls around and you are searching for another high protein forage option, look to Teff grass. Teff is an annual warm season grass that has proven to make hay as high as 17% crude protein content. This small seeded species needs to be seeded shallow into a firm seed bed, much like you'd plant alfalfa into. Allow for 70 days before the first cutting, and with ample nitrogen and moisture you'll have another cutting 25 days later. We've been extremely impressed with the quality of teff grass and can be used much like alfalfa hay in a diet without the risk of bloat.

The last annual forage that is high in protein to mention is Italian Ryegrass. This is a cool season bi-annual grass with great persistence and quality. In the upper Midwest it should be seeded in the spring and harvested 3-4 times throughout the season. Expect a highly digestible feed with CP levels at 16-18%. Harvest it as wet feed as it has a waxy leaf which inhibits proper dry down for hay. Budget and plan out these options against your protein costs in rations. As fertilizer gets more expensive these nitrogen fixing legumes become even more appealing as a high protein forage options. Take the time this winter to lock in your inputs for spring planting and you'll be ready to roll when we thaw back out.



THANKS TO OUR 2024 ASSOCIATE MEMBERS

Being a new, grassroots organization, we have relied heavily on event sponsorships, goodwill, volunteers, and associate members. We would like to specifically recognize our associate members who have gone above and beyond to support the Northern Plains Forage Association in its infancy! If you would like to see your business or operation listed here in 2025- contact us!



KWS



UPCOMING REGIONAL FORAGE-RELATED EVENTS

- [Feedlot Forum 2025; Jan. 14 @ Sioux Center, IA \(email \[doranb@iastate.edu\]\(mailto:doranb@iastate.edu\)\)](#)
- [MFA Wisconsin Dells Symposium; Feb. 17-19 @ Wisconsin Dells, WI](#)
- [Central Plains Dairy Expo; March 25-27 @ Sioux Falls, SD](#)

*This is the best list available at time of publication- if you would like a forage-related event listed here, please contact Sara Bauder at sara.bauder@sdstate.edu.