

Forage Facts



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DID YOU KNOW?

**We're Hiring
Seasonal Staff?**
**Check out our website
for more details!**

Cover Crop Seminar 2024

On March 10th, in collaboration with Covers & Co, PCBFA hosted a **Cover Crop Seminar** at the Pomeroy Inn in Grande Prairie, Alberta. We enjoyed an informative morning with a diverse group of agricultural enthusiasts who intently listened to three valuable presentations.



We kicked things off with a presentation by Dr. Blasius Azuhnwiri, Peace Country Beef & Forage Association's Research Scientist. Blasius lead the crowd through the basics of Cover Crops and a collection of research data that has been collected and analyzed by PCBFA over the past decade.

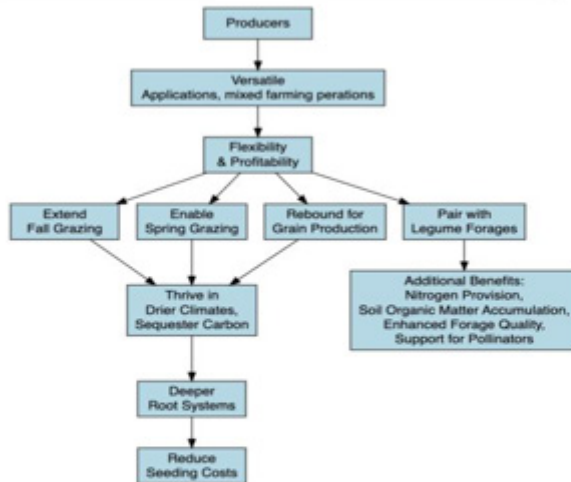
Following Blasius' presentation, Chelsey Hostettler took over the crowd to describe PCBFA's most recent use of Cover Crops, our Crop-Livestock Integration Project in partnership with the Peace Region Living Lab. This project is designed to analyze the benefits of integrating livestock and cover crops to improve soil health over several years. This project was featured in our September & November Forage Facts.



We rounded out the morning with our keynote speaker Joe Gardiner of Covers & Co. PCBFA utilized a Covers & Co blend on our Research Farm and continue to work closely with their organization, striving to help farmers implement the principles of nature into their operation to reduce input costs and improve soil health through diverse blends of crops. Joe conducted the crowd through a fantastic presentation focusing on the symbiotic power of plant diversity.

By Cosmas Ugwu^{1*}, Guillermo Hernandez Ramirez¹, Akim Omokanye^{1,2}, Malinda S. Thilakarathna¹, Chelsey Hostettler²,¹ University of Alberta, Department of Renewable Resources,² Peace Country Beef and Foarge Association, Fairview.

1. Introduction



Study Objectives

- ❖ Evaluate the contribution of legumes to the overall feed value in intercropping in same row and alternate row systems.
- ❖ Investigate the dynamics of nitrogen-fixing legumes and their interaction with nitrogen-utilizing cereals, providing insights for sustainable agricultural practices, optimized crop management and overall farm profitability.

Perennial rye (ACE-1) seeded with sainfoin in the same row



GRO (Westlock, July 11)



PCBFA (Fairview, July 13)



MARA (Fort Vermillion, July 11)

Perennial wheat (Kerros®) seeded with sainfoin in the same row



GRO (Westlock, July 11)



PCBFA (Fairview, July 13)



MARA (Fort Vermillion, July 11)

Site Photos: Establishment of perennial rye with sainfoin at three different sites, July 2022

2. Methodology

Experimental Sites



PCBFA	Fairview
MARA	Fort Vermillion
GRO	Westlock
BRRG	Forestburg
UofA	Breton
CARA	Oyen

Fig. 1 Map showing the experimental sites across Alberta

- ❖ This study employs a factorial design (2 x 4 x 2 x 2) replicated four times. Each replication consists of 5-6 rows (site dependant), each 8 m length.

Table 1. Treatment combinations of legumes and perennial cereal in both same and alternate row cropping system

Treatment	Treatment	Description
Treatment 1	Tmt 1	Perennial Wheat Mono
Treatment 2	Tmt 2	Perennial Wheat - Alfalfa
Treatment 3	Tmt 3	Perennial Wheat - White Clover
Treatment 4	Tmt 4	Perennial Wheat - Sainfoin
Treatment 5	Tmt 5	Perennial Rye Mono
Treatment 6	Tmt 6	Perennial Rye - Alfalfa
Treatment 7	Tmt 7	Perennial Rye - White Clover
Treatment 8	Tmt 8	Perennial Rye - Sainfoin



Fig. 2 Forage clipping for Yield estimation and nutrient analyses.

3. Preliminary Results

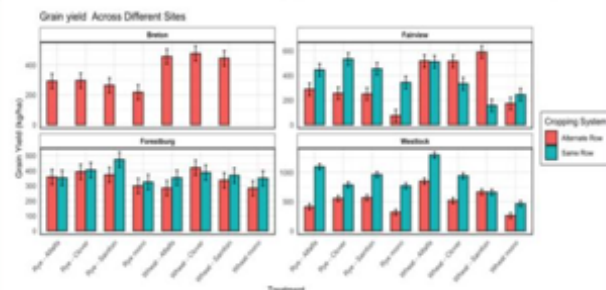


Fig.3 Grain yield (Kg ha^{-1}) across different sites under treatments and in same row (SR) or alternate row (AR) cropping systems.

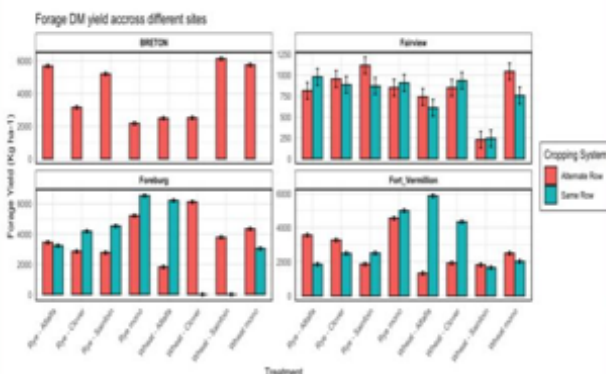


Fig.4 Forage yield (Kg ha^{-1}) across different sites under treatments and in SR or AR cropping systems.

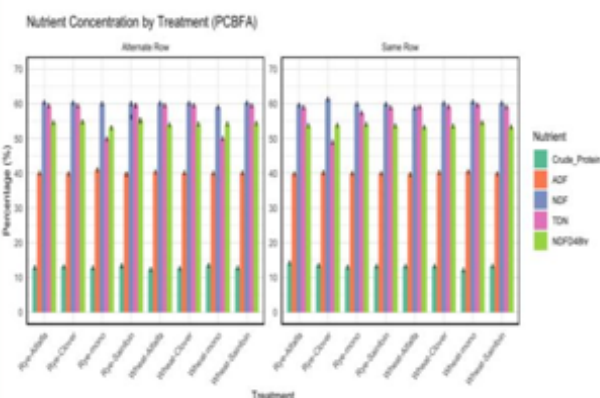


Fig .5 Forage (DM) Nutrient Quality measured in both AR and SR cropping systems.

4. Discussion

- ❖ Intercropping perennials and legumes across the five (5) experimental sites in Alberta shows maintained forage yield and grain production, supporting a sustainable system.
- ❖ Forage quality analysis confirms nutritional adequacy for grazing animals, enhancing the feasibility of mixed operations with PCGC.
- ❖ Wide range of variability between sites, indicating climate has major impact in forage yields.

5. Future Research

- ✓ Investigate N-fixation contribution on yield by legumes (sainfoin, white clover, and alfalfa).
- ✓ Explore the role of legumes in improving soil health for enhanced productivity of perennial cereals and forages.



GRO (Westlock) alternate rows of Kernza* and clover



UofA (Breton) alternate rows of Kernza* and clover



GRO (Westlock) alternate rows of ACE-1 and sainfoin



UofA (Breton) alternate rows of ACE-1 and alfalfa

Site Photos: Treatment combinations of legumes and perennial cereal in AR, taken August 2022.

Funding Agency



Partner Sites



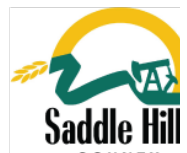
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Upcoming Trade Shows We'll Be Attending!



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AGRICULTURE, SPORT AND HOME SHOW

Fairview, AB
April 4-6, 2024



Hosted by:



Clear Hills County Invites You To The 27th Annual Agricultural Trade Show

Saturday, April 13, 2024

Dave Shaw Memorial Complex

Hines Creek, Alberta

Our 2023-24 Needs Assessment is READY! We value your feedback, please hover the camera of your Smartphone over the image below to take our Annual Needs Assessment Survey OR type the link below into your browser. Alternatively, the link will be sent to members via e-mail.

<https://www.surveymonkey.com/r/93HWVJX>



Funding for Farms

Government Grants, Loans & Tax Breaks

Environmental Farm Plan's can be completed online and are required for most common funding streams

Want more info about EFP's?
Contact Katie McLachlan at:
Kaitlin.McLachlan@mdfairview.ab.ca
or, 1-780-834-7017

**Resilient Agricultural Landscape Program (RALP)
... is OPEN!**

Want more info about RALP?
Contact Christine Campbell at:
christine@RALP.ca
or, 1-866-310-RALP

**On-Farm Climate Action Fund (OFCAP)
& Sustainable Canadian Agricultural Partnership (S-CAP)
... is OPEN!**



Need to consult an Agrologist for your application?

Ken Jones - Fairview, Alberta
1 (780) 835-0734



Member Information

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Member Feed Testing Service

PCBFA Members receive 2 free basic feed tests with their membership.

All feed tests are sent to Central Testing Labs in Winnipeg. Nutrients and minerals are tested by wet chemistry.

Nitrate, Mold, and Mycotoxin tests can be added and will be invoiced at lab cost.

Feed Test Pricing:

Feed Tests for Members (after 2 free)
OR Non-Members

Billed at Lab Cost

Rush Shipping

\$50

Hay Probe Deposit

\$200

Feed Test Drop Off Sites:

Fairview Research Farm, County of Grande Prairie's Clairmont Office, MD of Greenview's Valleyview Office, Saddle Hills County Office, Big Lakes County Office.

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