

NEWSLETTER

Diversification Centres

November 2024



Combining Teff Grain. Source: PCDF

PCDF Delivers Teff Grain to Market

Since 2020, Parkland Crop Diversification Foundation (PCDF) has explored the potential of teff, initially as a forage crop and more recently as a grain crop. Small-plot research, focusing on optimal seeding rates and herbicide tolerance, laid the groundwork for a larger trial in 2024, during which PCDF expanded to an eight-acre planting. The key features of teff production are summarized here. Fertilization application was handled with a Valmar granular applicator,

targeting a fertility rate of 100 lb/ac of nitrogen and 15 lb/ac of phosphorus. To control weeds before planting, glyphosate was applied. On May 31, seeding was completed at a rate of 5 lb/ac using a 15-foot Great Plains drill equipped with a small-seed attachment, placing seeds close to the soil surface. This drill's packer wheel helped ensure good soil contact; however, we took care to avoid excessive downward pressure, as this could create deep furrows that might fill with soil and cover

UPCOMING EVENTS*

November 7

**Agriculture Enlightened
Conference**
Winnipeg, MB

November 12-13

**2024 MFGA Regenerative
Ag Conference**
Brandon, MB

November 27

**Westman Winter
Agronomy School**
Brandon, MB

December 2-4

**Manitoba Watersheds
Conference**
Brandon, MB

December 11-12

**Manitoba Agronomists'
Conference**
Winnipeg, MB

Click event's link for more details.

seeds during heavy rain. Herbicide application on July 18 consisted of Dicamba (0.117 L/ac) and Bromoxynil (0.4 L/ac), which effectively managed broadleaf weeds but had limited impact on grassy weeds like barnyard grass and wild oats. The teff crop was swathed on September 26 using an 18-foot swather, despite being moderately to severely lodged due to extreme wind events. While another intense wind event with 90 kph gusts occurred while the crop lay in swaths, the swaths remained largely intact. It was suggested by the combine operator that a 25-foot swather might have produced larger, more combine-suitable swaths.

Harvesting on October 3 used a John Deere S680 combine (with settings: rotor 700, concave 8, fan 620, chaffer 13, sieve 2), which easily threshed the crop and left straw intact. Approximately 1400 lb/ac of seed was gathered, although a yield closer to 2000 lb/ac was estimated based on small-plot harvests. Refining combine settings to better capture the tiny teff seed is an area identified for improvement. Afterward, the straw was baled, yielding three bales per acre. The cleaned seed resulted in a final yield of 1200 lb/ac, which was sent to a milling facility in Headingley specializing in teff flour. Millers will assess the grain's suitability for milling and for creating injera, a traditional bread.

In summary, PCDF's trial successfully demonstrated that teff grain can be produced in Manitoba. Despite a delayed seeding due to wet spring conditions, the crop matured within a shortened growing season and yielded promising results. Future research by PCDF will focus on refining combine techniques to increase seed capture, enhancing the viability of teff as a grain crop in the region.

Arborg Grain Information Day is Scheduled for January 29

Arborg Grain Day is a significant extension event that provides producers from the North Interlake region with the opportunity to learn about the latest crop research, market trends, and agricultural funding programs. This event has not taken place since 2019 due to the COVID-19 pandemic and staff changes within Manitoba Agriculture. During the summer, Prairies East Sustainable Agriculture Initiative (PESAI) staff met with Veronica Owusu, Crop Production Extension Specialist at Manitoba Agriculture, to discuss the possibility of organizing Grain Day in 2025. We are pleased to announce that Veronica is now coordinating the event, scheduled for January 29, 2025, at the Arborg Bifrost Community Centre (341 Ingolfs St, Arborg). The event will feature presentations from several Manitoba Agriculture staff members, including Darren Bond, Sonia Wilson, Anne Kirk, Alison Sass, and Marla Riekman, who will cover various topics related to crop production, farm management, and soil health. Additionally, Neil Townsend, Senior Market Analyst from Farm Link Marketing Solutions, will provide insights through his latest market analysis.



View our videos on YouTube: www.youtube.com/@mbdiversificationcentres

MCDC Engages with Aspiring Ag and Business Professionals at Assiniboine College Networking Day

On October 17, 2024, the Manitoba Crop Diversification Centre (MCDC) participated in Assiniboine College's annual Networking Day at the Victoria Avenue East Campus, connecting with the next generation of agriculture and business professionals. Organized by the Peters School of Business and the Russ Edwards School of Agriculture & Environment, the event brought together students and industry experts to promote knowledge exchange. Students engaged with MCDC representatives, asking questions about applied research methods and the organization's role in helping local producers make data-driven decisions. Discussions covered topics such as irrigation management, novel crop research, and statistical data analysis, providing students a glimpse into the practical applications of their studies.

The diverse student turnout included participants from programs like Advanced Agriculture, Agribusiness, Horticultural Production, Land and Water Management, and Sustainable Food Systems. For MCDC, the event served as a platform to showcase its applied research initiatives and the impact of its work on local producers.



2024 Assiniboine College (AC)
Students Networking Day



MCDC Booth at 2024 AC Students Networking Day



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PESAI Update: Harvesting Completed / GHG Sampling Continues

PESAI has successfully completed the harvest of all 2024 research plots, with the final trial being combined on October 17. Soybean plots were harvested in the first week of October, followed by sunflower plots in the second week. This year, the grain corn plots matured slightly earlier than usual due to a lack of moisture after late July.

The Arborg site, which faced excess moisture during the spring, has experienced minimal precipitation since late July. As a result, the dry soil conditions have adversely impacted the germination of winter cereal plots. Despite these challenges, PESAI staff are actively conducting greenhouse gas (GHG) sampling for two ongoing projects, as the ground has not yet frozen.



2024 Harvest Operations at PESAI Site

PESAI is Testing Faba Beans on Tiled Land



Faba Beans Experiment at PESAI Site

PESAI has conducted trials on faba beans (variety SV6139GR) on tiled land to determine whether sub-surface drainage improves establishment and yield. Preliminary results indicated no significant differences in plant establishment between tiled and non-tiled plots. However, observations revealed that plants in non-tiled plots were taller and matured a few days earlier than those in tiled plots. Yield results were comparable for both tiled and non-tiled plots. A detailed report will be included in the PESAI Annual Report.



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Featured Updates from WADO

Update on Suspect Weed in Reston Area

In the August newsletter, Westman Agricultural Diversification Organization (WADO) reported on a suspect weed in the Reston area, which was thought to be an unknown species from the amaranth family. Samples were sent to the Pest Surveillance Initiative lab in Winnipeg for analysis. The results from the DNA test have confirmed that all four specimens were, in fact, red root pigweed. While these specimens exhibited smooth stems without hairs – characteristics that can be indicative of other problematic amaranth species – they were confirmed not to be waterhemp or Palmer amaranth. Distinguishing between these species can be challenging due to their similar growth habits and appearances. Despite the lack of an immediate threat, producers and agronomists should remain vigilant regarding weed management in their fields, including monitoring weed populations, crop rotations, and herbicide applications. For more information on identifying amaranth species, please visit [NDSU's weed identification resource](#).



Harvest Progress at WADO

WADO completed the harvest of soybeans and dry beans from various trials including studies conducted in collaboration with the University of Manitoba, as well as the Manitoba Crop Variety Evaluation Team (MCVET) trials funded by Manitoba Pulse & Soybean Growers. The results of these trials will be published in Seed Manitoba's 2025 Variety Selection Guide, which is expected to be released before the end of 2024.

Winter Crops Seeding

WADO successfully seeded winter crops trials despite facing rainfall and GPS satellite connectivity issues. Collaborators include Ducks Unlimited Canada and Agriculture and Agri-food Canada, with funding from Manitoba Crop Alliance and MCVET.



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