

NEWSLETTER

Diversification Centres

January 2025



January 21-23 | 9:00 am to 5:00 pm | See you there

File Photo: Diversification Centres Booth at Manitoba Ag Days 2024

Diversification Centres to Showcase Innovations at Manitoba's Winter Extension Events

The Diversification Centres (DCs) are preparing to participate in the upcoming Manitoba Ag Days, taking place from January 21-23. This event will serve as a dynamic platform for engaging with growers, researchers, and industry stakeholders, highlighting advancements in agricultural research and innovation. At Manitoba Ag Days, the DCs will showcase ongoing research activities focused on crop diversification, soil health, water management, and

sustainable farming practices. Attendees are encouraged to visit the DCs' booth to engage in discussions and provide feedback, fostering a collaborative environment that connects scientific research with practical farming. The discussions will emphasize the economic and environmental benefits of crop diversification, the integration of precision agriculture techniques, and the role of digital agriculture in optimizing farming efficiency.

UPCOMING EVENTS*

January 7 & 21

Connecting Women in Agriculture
Virtual Event

January 16

StockTalk 2024-2025
Virtual Event

January 21-23

Manitoba Ag Days
Brandon, MB

January 28-30

Manitoba Potato Production Days
Brandon, MB

February 12-13

Crop Connect Conference 2025
Winnipeg, MB

*Click events' names for more details.

Similarly, Manitoba Potato Production Days (January 28-30, 2025), spearheaded by the Manitoba Horticulture Productivity Enhancement Centre (MHPEC) alongside the Manitoba Crop Diversification Centre (MCDC), will focus on the potato industry's unique challenges and opportunities. This event will provide an excellent opportunity for growers and industry professionals to connect with researchers and explore innovative solutions to enhance productivity and sustainability within the sector. The DCs will collaborate through a joint booth at the event, showcasing their contributions to research and innovation. These events continue to be vital forums for exchanging knowledge, exploring emerging technologies, and advancing sustainable agriculture in Manitoba. The DCs remain committed to fostering collaboration and driving resilience in the agricultural sector through their active participation in such gatherings.



CANADA'S *Largest* INDOOR FARM SHOW

Photo Source: Manitoba Ag Days Website (<https://www.agdays.com/>)

For the **Manitoba Ag Days 2025 Program** and the Diversification Centres Booth Location, please click [here](#).

For the **Manitoba Potato Production Days 2025 Program** and the MHPEC/MCDC Booth Location, please click [here](#).



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

Tile Drainage and Seeding Rate Effects on Field Peas

The harvested acreage of field peas in Manitoba increased significantly, from 67,000 acres in 2015 to 224,000 acres in 2021 (Manitoba Agriculture, 2021), with most of the production concentrated in the western part of the province. Field peas thrive in relatively dry soil conditions but are highly susceptible to root rot in wet soils. For optimal growth, it is recommended to select well-drained, coarse-textured soils that are not prone to waterlogging (Manitoba Pulse & Soybean Growers, 2021). In contrast, the eastern and Interlake regions of Manitoba face challenges due to higher clay content and poor sub-surface drainage. Tile drainage has been successfully implemented in many agricultural soils to address these issues. At the PESAI site, tile drainage systems have been installed at 30-foot intervals, with tiles placed approximately three feet deep. These plots allow for the evaluation of tile drainage as a potential solution for cultivating peas in the heavy clay soils of the Interlake region.



Field Peas Grown on Tile-Drained Land at Arborg, 2024

Field peas are recommended to be seeded at a rate of 7-8 plants per square foot in Manitoba (Manitoba Pulse & Soybean Growers, 2021). Additionally, trials have been conducted to assess the performance of peas under reduced seeding rates. The Arborg site experienced unusually high rainfall, receiving 135% and 148% of the normal precipitation during May and June. The site remained extremely wet after seeding. Although peas are typically susceptible to excess moisture during their growth stages, this susceptibility was not evident in the current test. Peas grown on non-tiled land showed no symptoms of moisture stress, likely due to the presence of effective surface drainage.



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In previous years, tile drainage positively impacted pea yields. Pea plots grown over tilled land consistently produced higher grain yields, regardless of the seeding rate (2023 data). In the current test, peas seeded at 75% of the recommended rate yielded comparably to those seeded at the full recommended rate. This aligns with the findings from the 2023 trials, further supporting the potential for optimizing seeding rates without compromising yield.

Comparison of Field Pea Growth Parameters and Yields Between Tiled and Non-Tiled Treatments at Arborg

Treatment	Plant establishment (no. of plants / ft²)	Days to maturity	Plant height at harvest (inches)	Grain Yield (bu/acre)
Drainage effects				
Peas on tiles	11.9a	89.8a	33.7a	61.2a
Peas on non-tiled land	13.5a	90.0a	32.4a	60.1a
Significant Difference	NO	NO	NO	NO
P	0.115	0.594	0.152	0.816
Seeding rate effects				
Recommended (100%)	14.2a	89.3a	32.8a	63.6a
Reduced (75%)	11.3b	90.0a	33.3a	57.7a
Significant Difference	YES	NO	NO	NO
P	0.007	0.594	0.625	0.221

References:

Manitoba Pulse & Soybean Growers (2021). Pea Production guidelines. https://www.manitobapulse.ca/wp-content/uploads/2017/04/Pea-Production-Guidelines-June-2018-FINAL_WR.pdf

Manitoba Agriculture (2021) The Manitoba Advantage in Pea Protein. <https://www.gov.mb.ca/agriculture/protein/protein-supply/peas.html>

Growing Field Peas in Manitoba: What You Need to Know

Field peas grow best on well-drained soils and should be rolled before emergence if rocks are present. Early seeding is crucial, with a target of 7–8 plants per square foot for optimal yields. Nitrogen is unnecessary when peas are properly inoculated, but phosphorus, potassium, and sulphur applications should be based on soil tests. Effective weed management includes crop rotation, herbicides, and dense sowing to enhance competitiveness. Peas are vulnerable to pests like aphids and cutworms, requiring regular scouting and control measures. Diseases such as mycosphaerella blight and powdery mildew can be managed with resistant varieties, fungicides, and crop rotation. Harvesting should be done carefully to avoid seed damage, with equipment adjusted for moisture levels of 17–20%. Proper storage at 16% moisture and gentle handling preserve seed quality for consumption or planting. Grading standards require #2 yellow peas for processing, while green peas must meet higher quality standards for export. Variety recommendations can be found in Seed Manitoba, ensuring choices suited to local growing conditions.



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Rachelle McCannell Joins WADO

I am excited to be joining the Westman Agricultural Diversification Organization (WADO) as a research technician! I recently started in this role in November of 2024. It is great to be back at WADO as I worked here as a summer student for three summers from 2019-2021 during my undergrad. In 2022, I graduated from the University of Saskatchewan with a Bachelor of Science in Agriculture. My major was Crop Science and I minored in Soil Science. During my undergrad studies and summers at WADO, I was intrigued by agricultural research and decided to do a master's at the University of Saskatchewan. My Masters project looked at nitrogen use efficiency in a diverse panel of canola breeding lines. My research used ^{15}N -isotope tracing to determine soil and fertilizer N uptake and utilization amongst the different canola lines. I am still writing my thesis and hope to be wrapped up by spring, but I am grateful to be able to work and be back home during this time.



Rachelle McCannell (Research Technician, WADO)

I grew up on a mixed farm outside of Pierson and have since moved east where I am living with my partner on a cattle farm near Deloraine. Outside of work and school, I enjoy riding and spending time with my horses and competing at barrel racing events. Growing up on a farm and enjoying being involved in agriculture, pursuing an education and career in the agricultural sector was a no brainer for me and I am excited to kicking it off at WADO. My research interests surround nitrogen use efficiency, soil fertility and health, and sustainable agriculture. In my role as research technician, I look forward to networking with industry and producers and learning about concerns regarding crop production from different points of view. In my role as research technician, I hope to help in finding solutions towards grower and industry concerns and support the sustainable future of agriculture.

About WADO

WADO, located in Melita, MB, is a multi-stakeholder network and research farm facilitating the development and extension of applied production research focused on specialized crops, companion cropping and innovative crop production practices. Specialty areas of applied production research include fertility trials, reduced tillage and companion cropping systems.



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Diversification Centres Participate in Writing Workshop



Participants at the Writing Workshop at the U of M

Imagine for a moment that you're reading a newsletter about agricultural research. Which of the following statements would best capture your attention?

Seeding of the flax trial was delayed due to unusually high precipitation levels.

With six inches of rain in May, the crew could not seed the flax trial until June 3.

For many reasons, the second option stands out more. Instead of vague statements clothed in technical-sounding jargon, we find concrete details and actions that are being done by specific people. It's easy to understand how that much rain would turn the field into an ocean of mud and get in the way of seeding. As agricultural researchers, it is our primary responsibility to share our findings with the public, including you and your neighbors. Our work is interesting, useful, and relevant; however, if we do not effectively communicate our results, you may never have the opportunity to learn about them.

With this goal in mind, staff from the Manitoba Diversification Centres and some staff from the Research and Innovation Section, Manitoba Agriculture, on December 13 participated in a workshop on effective writing at the University of Manitoba. The workshop, facilitated by the instructors Jocelyn Thorpe and Christine Steward-Nuñez and hosted by the Centre for Creative Writing and Oral Communication, explored ways to blow the dust-off dry writing and make it jump off the page. Everyone had the chance to put pen to paper and stretch their writing muscles.

The DCs believe that knowledge is power. We are committed to delivering our results to you, digitally or at an in-person event, and in a format that really works. We look forward to engaging with you all in 2025.



Contact us: info@mbdiversificationcentres.ca