NEWSLETTER Diversification Centres

WCD.







September 2024



A glimpse of harvesting activities at Westman Agricultural Diversification Organization (WADO)

Diversification Centres Make Steady Harvest Progress

Harvest activities are well underway at Diversification Centres (DCs) across Manitoba, with significant progress being made despite the challenges posed by this year's weather conditions. The first crops to be harvested were annual forages, fall rye, and winter wheat. Despite the adverse weather, early yield reports are promising, showing 90 to 120 bushels per acre for fall rye and 40 to 110 bushels per acre for winter wheat.

Most spring cereals have reached hard dough to physiological maturity stages, while corn is progressing from silking to milk stage, with some fields already at tasseling. Some centres are also swathing and applying preharvest treatments to canola, where the earliest seeded canola is now at seed color change. Harvesting of the earliest peas has begun, while soybeans are advancing from beginning pod to beginning seed stages, with majority now at full pod.

UPCOMING EVENTS*

September 11

Assiniboine College Students Field Tour Carberry, MB

September 13

Soybeans Production Workshop Beausejour, MB

September 19

Corn and Sunflower Production Workshop Beausejour, MB

October 30

Manitoba Beef & Forage Conference*

Portage la Prairie, MB

November 7

Agriculture Enlightened Conference* Winnipeg, MB

*Click event's link for more details.

MCDC Hosts Successful Annual Field Day in Carberry



MCDC Field Day 2024 - Main Site (file photo)

The Manitoba Crop Diversification Centre (MCDC) hosted its annual Field Day on August 7 in Carberry, drawing over 150 participants who engaged with ongoing research projects and received early insights into preliminary results. The event, featuring a variety of presentations and interactive sessions, highlighted MCDC's recent research advancements and innovations. The day began with registration and coffee. Opening remarks were delivered by MCDC Board Chair Susan Ainsworth and Minister of Agriculture Ron Kostyshyn, who emphasized the critical role of research in boosting both profitability and environmental sustainability in agriculture.

Leanne Koroscil from the Enterprise Machine Intelligence and Learning Initiative (EMILI) kicked off the presentations, showcasing how digital tools are transforming farm management and decision-making. Dr. Mario Tenuta from the University of Manitoba provided a comprehensive overview of greenhouse gas (GHG) management in agriculture, stressing the significance of precise measurement for effective management. Dr. Joanne T. Martens, also from the University of Manitoba, explored the advantages of incorporating legumes into crop rotations to improve soil fertility. Laura Schmidt from Manitoba Pulses and Soybeans Growers discussed the potential and challenges of cultivating lupins. Shawn Cabak from Manitoba Agriculture reviewed the benefits and drawbacks of annual forages and cover crops, offering valuable advice for optimizing crop systems. Morgan Cott from Manitoba Crop Alliance presented on diverse crop rotation strategies, guiding farmers on how to enhance yields and sustainability through crop diversification.

The afternoon session, led by the Manitoba Horticulture Productivity Enhancement Centre (MHPEC), focused on potato research. The afternoon presentation topics included pest management, fertilizer trials, and the impact of digital agriculture on potato fertility. Dr. Mohamed Elshetehy, MHPEC Agronomist, shared insights on optimizing nitrogen use in potato production. Dr. Tracy Shinners-Carnelley from Peak of the Market discussed managing leaf spot disease in potatoes. Scott Graham from Simplot Canada examined how row orientation affects potato growth and yield. Scott Wolfe from McCain Foods Canada explored the benefits and challenges of intercropping barley with potatoes. Ehsan Abadi from the University of Manitoba demonstrated how digital tools can improve fertility management in potato crops. Vikram Bisht from Manitoba Agriculture provided an update on current challenges and advancements in Manitoba's potato industry.

MCDC stands out as one of the four diversification centres in the province due to its unique ownership structure, consisting of the Keystone Potato Producers Association (KPPA), McCain Foods Canada, and Simplot Canada. The centre focuses on potato research while also conducting crop diversification studies to enhance potato production and improve crop rotations.

Since its inception in 1993, the Field Day has been a cornerstone for advancing agricultural production research and sustainability practices. The next Field Day is scheduled for August 6, 2025.



Dr. Mohamed Elshetehy, MHPEC Agronomist, sharing insights on optimizing nitrogen use in potato production.



WADO Reports Record Yields

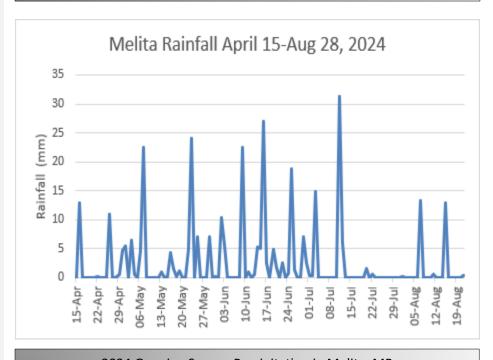
Harvesting is in full swing at WADO, and the results are extraordinary. This year, winter cereals, spring cereals, peas, and mustard have all been harvested, with peas, oats, and winter wheat setting new records for yield. Peas reached an impressive 90 bu/ac, oats 170 bu/ac, and winter wheat 100 bu/ac. These yields surpass any achieved in the 21 years of research conducted at WADO, with trial averages of many varieties exceeding these benchmarks.

The record-breaking performance can be attributed to the near-ideal weather conditions in Melita. Despite rainfall and heat units aligning closely with the 30-year normals, the timing and distribution of rainfall events have been exceptional this year. Between April 15 and August 18, Melita experienced 19 significant rainfall events (defined as 5 mm or more), with an average interval of just 7.1 days between rains. This even distribution of rainfall has perfectly matched crop demands, contributing to the remarkable yields.

The full yield data will be featured in Seed Manitoba's 2025 Variety Selection & Growers Source Guide, set to be published later this fall. For more details, visit seedmb.ca to view the results.



2024 Field Peas Trial at WADO



2024 Growing Season Precipitation in Melita, MB



PCDF August Roundup: From Field Day to Harvest



PCDF Field Day 2024 - Forage Module

The summer is winding down, but the activities at Parkland Crop Diversification Foundation (PCDF) are in full swing. On August 8, PCDF held its annual Field Day, with fifty people in attendance. The event took a deep dive into five exciting modules:

- Maximizing flax yield, with Ken Jackle (University of Saskatchewan) and Madison Kostal (Manitoba Crop Alliance)
- Best practices for establishing perennial hay, with Alex Griffiths (Ducks Unlimited Canada)
- Hybrid hemp varieties and cultivation, with Clarence Shwaluk (Fresh Hemp Foods)
- Best management practices for peas and fababeans, with Laura Schmidt (Manitoba Pulse and Soybean Growers)
- An introduction to growing lupin, with Scott Chalmers (Manitoba Agriculture)

Participants were able to customize their experience, with those who were more interested in cropping options joining the module about hybrid hemp, and those who were more interested in forage production joining the module about hay establishment practices. As always, lunch was a delicious treat!

The grain harvest officially began at PCDF on August 20, which was slightly later than in the last few years, which were much drier. The winter cereals have performed well, with average-to-good yields for most varieties. The large amounts of rainfall early in the year appear to have increased levels of ergot, especially for fall rye. Pea and barley plots have also been harvested, with average to good yields observed for those crops.

With 1500 plots and lots of site clean up still to go, the crew is hoping for a long, mild fall with plenty of sunshine! A happy and safe harvest to all.





2024 PCDF Team and Harvesting Activities

WADO Investigates Unusual Weed Suspect Near Reston, MB

Reporting from a field near Reston, WADO employees have encountered an unusual weed at one of their sites in Reston, MB. This plant resembles the notorious amaranth family, much like the common red root pigweed found across Manitoba fields, yet it exhibits some distinct differences. The weed in question has darker green leaves and a redder, hairless stem, unlike the typical red root pigweed, which is army green with a greener, finely-haired stem. Suspecting it to be a more troublesome species, the plant has been sent to the Pest Surveillance Initiative laboratory in Winnipeg for genetic testing. The suspect weed is believed to be either water hemp or Palmer amaranth, both of which are known to resist glyphosate control in other regions. Once the genetic testing is complete and the true identity of the weed is confirmed, WADO will provide an update on the findings.



Unusual Weed Found in Reston, MB



Two Crop Tours Scheduled at PESAI Beausejour plots



File Photo of ASCIA Sunflowers Field Day 2023 (Source: PESAI)

Agassiz Soil & Crop Improvement Association (ASCIA) is organizing two crop tours at Beausejour's Prairies East Sustainable Agriculture Initiative (PESAI) site. Terry Buss (Manitoba Agriculture) is coordinating these crop tours. The first tour of soybean production will be on September 13. Provincial Pulse Specialist Dennis Lange and other speakers will interact with participants on:

- Review of the 2024 Soybean Growing Season Challenges and Observations
- Herbicide Tolerant and Conventional Soybeans (MCVET)
- Steps for Selecting a Soybean Variety

The second tour will be on September 19, and it will be related to grain corn and sunflower production. Manitoba Crop Alliance has collaborated on this tour. Speakers from Manitoba Crop Alliance will discuss the following topics during the tour:

- Review of the 2024 Sunflower / Grain Corn Growing Season Challenges and Observations
- 2024 Sunflower / Grain Corn variety trials

Location: The PESAI site is at the intersection of Rd 38E and Hwy 44.

LLC: SE8-13-7E1

GPS: 50.0802, -96.5904



PESAI Tests Mixed Cropping for Forage Production

This study evaluates different seeding rates of oats (O) / Italian ryegrass (IR) / berseem clover (BC) mixed crops for forage yield potential in comparison to their mono-crops. PESAI reports 2024 study results here.

All three crops established well during the 2024 crop season due to above-normal precipitation in the spring / early summer. Oats mono-crop had the highest forage yield, and it was significantly greater than all IR – BC mixtures as well as monocrops of IR and BC (Table 1). Oats added in the mixtures even at 25% of the seeding rate produced similar to oats mono crop. However, the mixtures might have better crude protein content due to the addition of BC. It looks like oats is essential for greater forage yield in the first cut, whereas both IR and BC might be crucial for second cut forage yield. The full project report will be published in the 2024 PESAI Annual Report.



Mixed Cropping Plot for Forage Production at PESAI

Table 1. First cut forage yield from different cropping treatments in the test at Arborg site.

Cropping treatment	Seeding rate used (lbs/acre)	Dry Matter Forage Yield (Mt/ha)
Oats mono (100)	100	9.99a
O (75) – BC (25)	75-3	8.15ab
O (50) – BC (50)	50-6	7.95abc
O (25) – BC (75)	25-9	7.84abc
O (25) – IR (25) – BC (50)	25-5-6	7.63abcd
O (33) – IR (33) – BC (33)	33-6.7-4	7.59abcd
IR (75) – BC (25)	15-3	5.59bcde
IR (50) – BC (50)	10-6	5.36bcde
IR (25) – BC (75)	5-9	4.71cde
IR mono	20	4.36de
BC mono		2.75e
P		<0.0001
Significant Difference		YES