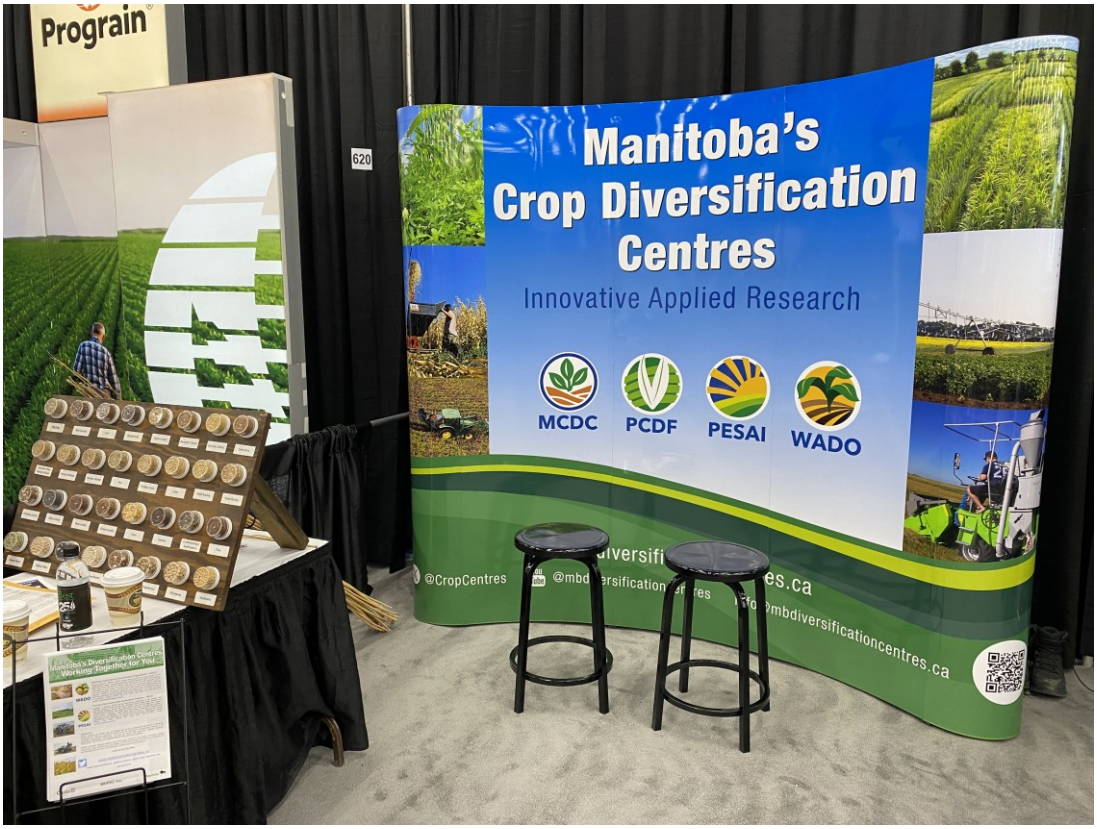
NEWSLETTER

Diversification Centres

February 2025



Manitoba Diversification Centres presented their new booth at MB Ag Days 2025!

Manitoba Diversification Centres Engage with Growers at Key Agricultural Expos in January

The Manitoba Diversification Centres (DCs) participated in two major agricultural events this January: Manitoba Ag Days (January 21-23) and Manitoba Potato Production Days (January 28-30). These gatherings provided a valuable platform for engaging with farmers, researchers, and industry experts to discuss ongoing research and innovative agricultural practices. At Manitoba Ag Days, the DCs participated through a Diversification Centres, allowing visitors to explore a broad spectrum of research initiatives. However, at Manitoba Potato Production Days, the Manitoba Crop Diversification Centre (MCDC) co-hosted its booth with the Manitoba Horticulture Productivity Enhancement Centre (MHPEC), strengthening collaborative efforts in potato research and industry development.

At both events, the DCs showcased

UPCOMING EVENTS*

February 4-5

Brokenhead River Annual Ag Conference
Beausejour, MB

February 5

Dry Bean Industry Appreciation Day
Carman, MB

February 5-6

Manitoba Swine Seminar 2025
Winnipeg, MB

February 12-13

Crop Connect Conference 2025
Winnipeg, MB

February 18-21

Central Region Crop Meetings 2025
Carman, Altona, Holland - MB

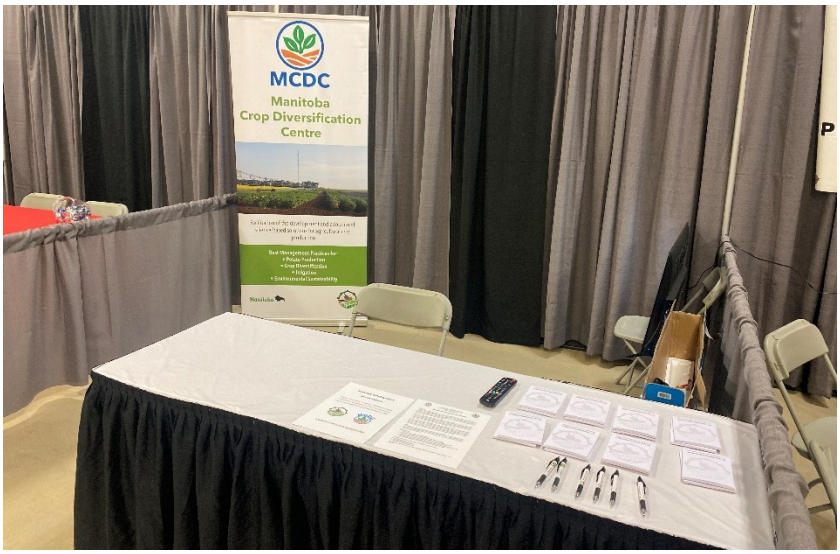
**Click events' names for more details.*

latest research on crop diversification, soil health, water management, and sustainable farming practices. Farmers and industry professionals had the opportunity to visit the DCs' booth, where they engaged in insightful discussions and shared feedback on research initiatives.

Key topics of discussion included the benefits of diversifying crop rotations to enhance economic resilience and environmental sustainability. The growing role of precision agriculture and emerging ag-tech innovations was also highlighted, emphasizing their potential in optimizing resource efficiency and improving farm productivity.

Through participation in these events, the Manitoba Diversification Centres continue their commitment to bridging the gap between scientific research and practical farming applications. By engaging directly with producers, the Diversification Centres strive to support the adoption of research-driven solutions, ensuring the advancement of sustainable and resilient agriculture in Manitoba.

Scott Chalmers (MB Ag) Presenting at MB Ag Days 2025



MCDC & MHPEC Joint Booth at MB Potato Production Days 2025

38th Annual Brokenhead River Agricultural Conference

February 4 & 5, 2025
320 Veterans Lane, Beausejour

The Brokenhead River Ag Conference is held annually the first week in February. The 2025 Conference will feature a 2-day event connecting local producers with industry experts. Day 1 targets Beef and Forages; Day 2 focuses on Grain and Crops. The conference also allows farmers to see the latest innovations in agriculture and to have face-to-face interactions with exhibitors.

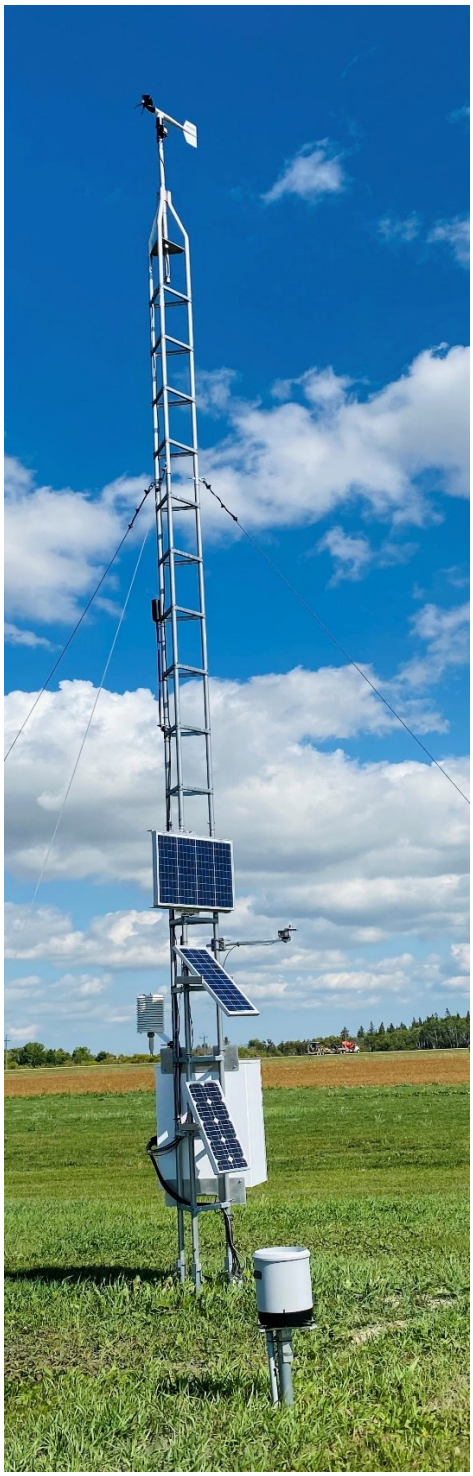
View our videos on YouTube: https://www.youtube.com/@mbdiversificationcentres

How Variable Precipitation Measurements Might Be Within Two Miles?

Weather plays a crucial role in farming, and it has a direct impact on crop growth, yield, and many farm management decisions. Manitoba Agriculture operates a network of over 100 weather stations across the province which provide hourly information on many weather parameters including precipitation and temperature. Weather parameters like precipitation, sometimes vary greatly over short distances. In the current study, the Prairies East Sustainable Agriculture Initiative (PESAI) measured average daily temperature and precipitation with an Automatic Weather Station (AWS) and compared this data with nearby Manitoba Ag Weather Station (MAWS). AWS was stationed almost two miles away from MAWS, which was located at PESAI site in Arborg, MB. Pearson correlation coefficient (r) was used to assess the strength of association between the measurements from both weather stations. The values of r range between +1 and −1, with 1 showing that there is a perfect/positive linear correlation, 0 showing no linear correlation, and −1 showing there is a negative linear correlation. We also analyzed daily differences in average daily temperature and precipitation between both weather stations.

Results:

The average daily temperature from May 24 to September 26 was measured slightly higher by AWS (17.63°C) than MAWS (17.52°C), however, the differences were insignificant. A highly positive correlation coefficient ($r = 0.974$, $p<0.0001$) depicted agreement between both weather stations for temperature measurement. Daily differences were less than 1°C for most days with only five days when the differences were more than 1.5°C. The highest difference was 1.7°C on September 23. There were 57 days during May 24 – September 26, when at least one weather station recorded precipitation (a minimum of 0.1mm). Overall, precipitation measurement was similar by both types of weather stations with a positive correlation coefficient ($r = 0.757$, $p<0.0001$). However, there were six days when the rainfall measurements differed by 5 mm or more between both weather stations. The maximum difference was 16.8 mm on September 14. These differences were significant during the months of May and September (Figure 1).



MB Ag Weather Station Installed in Arborg, MB

Conclusions:

1. Both weather stations were quite consistent in measuring average daily temperature.
2. However, precipitation estimates seem to be unrelatable on few days even when weather stations were only two miles apart. During the entire season, AWS recorded almost two inches of more rainfall than by MAWS.
3. This emphasizes the need for more localized weather stations to be installed for correlating weather parameters with research plots.

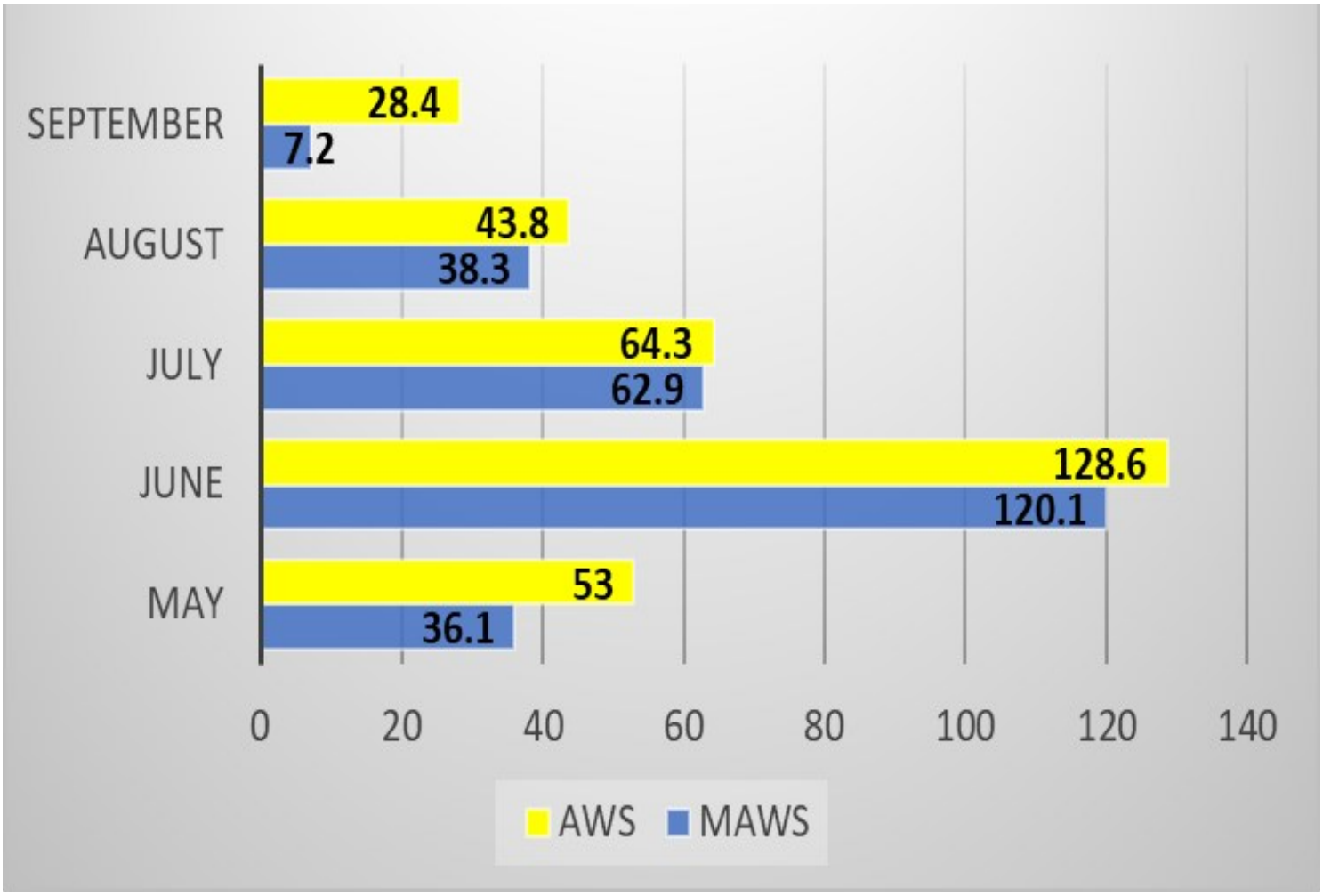


Figure. 1: Monthly Precipitation Recorded by Both Types of Weather Stations

Despite being only two miles apart, weather stations in Arborg showed significant variations in precipitation measurements, highlighting the challenges in accurate data collection for localized farming decisions. This study emphasizes the importance of installing more localized weather stations to better correlate weather data with agricultural research.

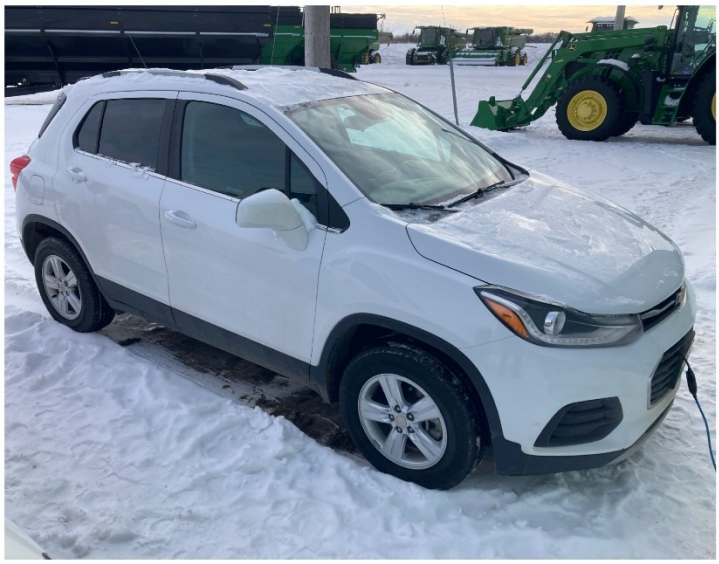
WADO's 2025 Equipment Upgrades

As the Westman Agricultural Diversification Organization (WADO) steps into 2025, the staff is excited for the upcoming growing season with the addition of new equipment and tools aimed at improving soil sampling, seeding, pest control, and travel capabilities. With generous financial support from the Manitoba Crop Alliance (MCA) and Manitoba Pulse and Soybean Growers (MPSG), WADO has acquired a John Deere 5075E tractor, a hydraulic soil sampler, a multi-bang propane cannon, and a Chevrolet Trax SUV. This funding is instrumental in expanding the organization's program and enhancing operational efficiency.

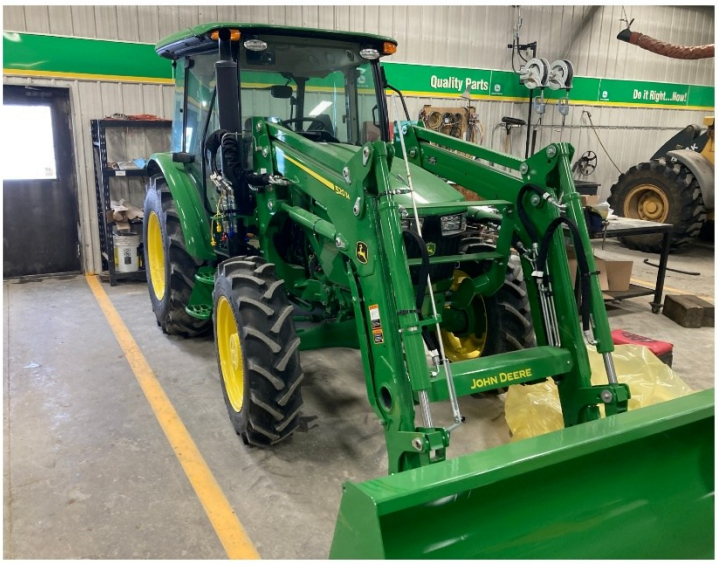
The new tractor will ease the workload on existing equipment during critical tasks such as seeding, spraying, and mowing. Its lighter design will also help reduce soil compaction, promoting better plant emergence and leading to more consistent data collection. The hydraulic soil sampler, mounted on a side-by-side, will allow WADO to access fields earlier in the spring or later into the fall, even through light frost, ensuring continuous and accurate soil data collection year-round.

Currently, WADO employs a single multi-bang propane cannon, which has been successful in deterring birds from sunflower fields. The addition of a second cannon will bolster wildlife protection across multiple sites. Furthermore, the acquisition of the Chevrolet Trax SUV addresses a long-standing challenge related to vehicle availability, enabling the team to operate at multiple locations simultaneously and improve punctuality when collecting site data.

These new resources significantly enhance WADO's capacity to manage research projects efficiently and deliver high-quality results. With these upgrades, the organization is poised for a successful 2025 season and remains committed to advancing agricultural research and innovation in Manitoba.



Chevrolet Trax SUV *(funded by MCA & MPSG)*



John Deere 5075E Tractor *(funded by MCA & MPSG)*