

## 2023 ICDC Research Program



Crop	Project Title	Objectives & Justification	Funding Source
Barley	Saskatchewan Variety Performance Group Regional Barley Trials	To evaluate the adaptability of current and newly registered barley varieties (2-row & 6-row) under standard irrigation management for prairie growing conditions. Information developed is used to update ICDC's <i>Crop Varieties for Irrigation</i> and provides producers with criteria for selection of the most appropriate variety for irrigated production conditions on the prairies.	ICDC & SVPG
Barley	Do Barley Varieties Differ in Response N Fertility, PGR, and Fungicide?	The broad objective is to determine if 3 malt and 3 feed barley varieties differ in response to N fertility, PGR and fungicide.	SK Barley
Canola	Demonstrating benefits of seeding date and rate on canola yield and quality	1. Demonstrate how different seeding dates and rates can improve canola yield and quality 2. Provide a backdrop to discuss methods of flea beetle control and proper scouting techniques at Field Days and/or extension activities.	SK Canola
Canola	Demonstrating the Efficacy of Foliar-Applied Nitrogen Fixing Bacteria for Canola	The project objective is to demonstrate the effects of commercially available foliar-applied nitrogen (N) fixing bacteria products on the yield and seed quality of canola grown under varying fertility levels and contrasting environments.	SK Canola
Canola	Canola Variety Trial	To evaluate the adaptability of current and newly registered varieties under standard irrigation management for prairie growing conditions. Information developed is used to update ICDC's <i>Crop Varieties for Irrigation</i> .	ICDC
Canola / Flax	Response of Canola and Flax to Humic acid coated P fertilizer (MAP) rates	The study aims to demonstrate if humic acid-coated MAP (Monoammonium phosphate) fertilizer can promote phosphorus absorption by plants and enhance fertilizer utilization rates.	SK Canola
Cereals	Fungicide Timing to Mitigate Fusarium Head Blight in Cereal Crops	Effect of fungicide timing on Fusarium head blight (FHB) in winter wheat, spring wheat, durum wheat, and barley.	Sask Wheat Alberta Wheat WGRF ADF U of S
Corn Silage/Grain	Developing Target Yield Nitrogen Fertilizer	To determine nitrogen uptake & nitrogen fertilizer use efficiency for silage and grain corn under irrigated and dryland production.	ADF

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Dry Bean	P Fertilizer Rate Response in Irrigated Dry Bean	Determine phosphorus (P) fertilizer rate, and placement yield responses for small and large market class irrigated dry bean production.	SFP
Dry Bean	Effect of Tillage Management and Seeding Date on Dry Bean Establishment and Yield	The objective of this project is to evaluate the relationship between stubble management and consequently, soil warming and seeding date on the establishment (i.e., emergence and plant stand) and yield of solid seeded dry bean grown under irrigation	SFP
Durum	Saskatchewan Variety Performance Group Regional Durum Trial	To evaluate the adaptability of current and newly registered CWAD wheat varieties under standard irrigation management for prairie growing conditions. Information developed is used to update ICDC's Crop Varieties for Irrigation.	ICDC & SVPG
Fall Rye	Fall Rye Variety Eval for Irrigation vs Dry Land Production	To evaluate the adaptability of current and newly registered Fall rye varieties under standard irrigation and dryland for prairie growing conditions.	SVPG
Flax	Lygus in Flax	Demonstrate the efficacies of products that are currently registered for Lygus spp. control in flax, the importance of insecticide timing, economic thresholds, effect of weather on lygus in flax	SFP
Flax	Saskatchewan Variety Performance Group Regional Flax Trials	To evaluate the adaptability of current and newly registered flax varieties under standard irrigation management for prairie growing conditions. Information developed is used to update ICDC's <i>Crop Varieties for Irrigation</i> and provide producers with criteria for selection of the most appropriate variety for irrigated production conditions on the prairies.	ICDC & SVPG
Flax	Flax Seeding Dates and Seeding Rates	To establish seeding date and rate recommendations for producers growing flax under irrigation in Saskatchewan.	SFP
Forage	Varietal Assessment of Forage Seed Production	To assess seed yield for the forage seed crops commonly grown in Saskatchewan; evaluate forage seed as a possible irrigated cash crop; explore potential turf grass varieties as a possible diversification opportunity for the forage seed sector; and enable the SRP chair for forage breeding to evaluate seed production of new lines and compare to current commercial varieties.	SFP Sask Forage Seed Development
Forage	Demonstration of Barley Under seeded with Ryegrass for Forage Production – Irrigated & Dryland Production.	To demonstrate the forage yield benefit of under seeding ryegrass with spring seeded forage barley as compared to monocropping of each species.	ADOPT

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Forage	Demonstrating Forage Options in Cropping Rotations	The objective of this project is to create a venue and demonstrate various forage options best suited for inclusion into a cropping rotation and promote the benefits of having forages in rotations.	ADOPT
Fruit	Fall Foliar Application of Low Biuret Urea to Improve Sour Cherry Overwintering Success in Saskatchewan	This project will demonstrate the benefit of foliar split application of low biuret urea applied in early, mid, or late Fall (from late August - September) to University of Saskatchewan sour cherries.	ADOPT & SFGA
Fruit	Containerized Soilless Blueberry Production Grown under Protected Culture in Saskatchewan	This project will demonstrate production of hardy blueberry cultivars in soilless media grown in containers under protected cultivation.	ADOPT & SFGA
Fruit	Training Apples on Trellis Wire to Create a High-density Wall Production System	This project will demonstrate training of high-density dwarf apple trees onto trellis wire for improved apple production in Saskatchewan.	ADOPT & SFGA
Fruit	Determining size profiles of Saskatchewan grown cantaloupe for a retail market	The objective of this project is to demonstrate the potential of growing cantaloupe for Saskatchewan's fresh retail market.	ADOPT & SVGA
Hemp	Seeding Date Demonstration for Grain Production	Demonstrate different seeding dates of 3 varieties of conventional hemp on order to show producers the ideal time for seeding in various Saskatchewan locations	SFP
Lupin	Lupin Trials	Herbicide treatments for crop tolerance on early varieties.	Lupin Platform Inc.
Mustard	Growing hybrid and composite mustard under irrigation in Saskatchewan.	Demonstrate growing hybrid and composite mustard under irrigation in Saskatchewan – year 2.	Mustard21 ADOPT
Oat	Saskatchewan Variety Performance Group Regional Oat Trial	To evaluate the adaptability of current and newly registered oat varieties (feed & forage) under standard irrigation management for prairie growing conditions. Information developed is used to update ICDC's Crop <i>Varieties for Irrigation</i> .	ICDC & SVPG

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Oats	Optimum Management of Oats Can Vary Between Varieties	The objective of this project is to demonstrate how seeding rate and N fertility may need to be managed differently between oat varieties to optimize yield, test weight and lodging resistance.	ADOPT
Oats	Oat N Response	To determine the yield and test weight response of Oats to 15% and 30% reductions in optimum rates of N. The specific rates of soil & fertilizer N tested will be 125 lb/ac, 106 lb/ac, 88 lb/ac and no applied N	Sask Oats
Oats	Demonstrating oat seeding rate as a cultural control method for controlling wild oats in oats	Demonstrate oat seeding rates as an integrated pest management strategy for controlling wild oats populations in tame oats	ADOPT
Oats, Peas, Wheat	Grasshopper control with cultural methods	Demonstrate the efficacies of cultural control methods to reduce grasshopper feeding damage.	SFP
Peas	Efficacy of GWN 9790	To evaluate efficacy of GWN 9790 as a seed treatment for control of Aphanomyces root rot	Gowen
Pulses	Demonstration of Lupin as an Alternative to Field Pea or Lentil	Demonstration to evaluate two varieties, two species as an alternative legume crop to be incorporated into producers' crop rotations.	SPG
Pulses	Adaptation of Novel Pulse Crops	To demonstrate and provide producers with basic economic and agronomic information on non-traditional pulse crops that may be adapted to the various regions in Saskatchewan.	ADOPT SPG
Pulses	Pea Regional Variety Trial	To evaluate the adaptability of current and newly registered Pea varieties under standard irrigation management for prairie growing conditions. Information developed is used to update ICDC's <i>Crop Varieties for Irrigation</i> .	SPG
Pulses	Faba Bean Regional Trial	Agronomy to enhance yield, hasten maturity and reduce disease	SPG
Pulses	When does it pay to apply fungicide to faba bean in SK and what does the weather have to do with it?	To determine the effect of late season fungicide applications and whether or not these applications will improve/preserve faba bean yield quality; when a second fungicide application may be best in order to improve/preserve faba bean yield and quality and if fungicide application timing should be based on visible symptoms and/or weather events rather than growth stage.	ADF – NARF SFP

Crop	Project Title	Objectives & Justification	Funding Source
Pulses	Biological Inoculant Trial in Pulses	The objective of this study is to provide a side-by-side comparison of biological treatments that promote an agronomic improvement in the growth of pulse crops.	SPG
Specialty	Demonstration of commercial chicory production	This project will demonstrate the potential to produce chicory for processing in Saskatchewan. This demonstration project will introduce this crop's opportunities to producers.	ADOPT HSSA
Specialty	Efficacy of increased pollinator habitat and forage on pumpkin production	This project will look at the quality of pollination and the handling ease of each pollinator and pollination strategy.	ADOPT SVGA
Vegetable	Brussels Sprout varieties for fresh and processing markets in Saskatchewan	This project will provide an infield example for potential growers to learn about the crop, as well as provide an opportunity to create extension material (report, social media posts and video) regarding production practices.	ADOPT SVGA
Vegetable	Screening Cauliflower and Broccoli Cultivars for Heat Tolerance	The project will evaluate cultivars of broccoli and cauliflower for their suitability to production in Saskatchewan under standard and heat stressed conditions	ADOPT & SVGA
Soil	Strategies to Build Sustainable Phosphorus Levels and Optimize Water Use Efficiencies on Low P Soil.	This project will: 1. Evaluate the benefit of annual P fertilizer versus single large P fertilizer applications over a 4-year irrigated cropping system. 2. Assess whether higher single P applications inhibit Zn availability to plants. 3. Determine total water use and assess water productivity as it relates to P fertilization strategies for irrigated production.	Sk Wheat Sk Canola
Soybean	Short Season Soybean Regional Variety Trial – Herbicide Tolerant	To evaluate the adaptability of new soybean varieties under standard irrigation management for prairie growing conditions. Information developed is used to support the registration of new soybean varieties suited to irrigated conditions on the prairies and to update ICDC's <i>Crop Varieties for Irrigation</i> .	SPG
Soybean	Long Season Soybean Regional Variety Trials - herbicide Tolerant	To evaluate the adaptability of new soybean varieties under standard irrigation management for prairie growing conditions. Information developed is used to support the registration of new soybean varieties suited to irrigated conditions on the prairies and to update ICDC's <i>Crop Varieties for Irrigation</i> .	SPG
Soybean	Conventional Soybean Variety Trial - Irrigated vs dryland	To evaluate the adaptability of new soybean varieties under standard irrigation management for prairie growing conditions. Information developed is used to support the registration of new soybean varieties suited to irrigated conditions on the prairies and to update ICDC's <i>Crop Varieties for Irrigation</i> .	SPG

Crop	Project Title	Objectives & Justification	Funding Source
Spring Wheat	Demonstration of Wireworm Control in Spring Wheat	The objective of the study is to demonstrate and evaluate the effectiveness of seed treatments, particularly Teraxxa F4, on the control of wireworm activity with wheat.	SFP
Wheat	Saskatchewan Variety Performance Group Regional Wheat Trials - Hex 1 Wheat	To evaluate the adaptability of current and newly registered CWRS wheat varieties under standard irrigation management for prairie growing conditions. Information developed is used to update ICDC's <i>Crop Varieties for Irrigation</i> .	ICDC & SVPG
Wheat	Saskatchewan Variety Performance Group Regional Wheat Trials - Hex 2 Wheat	To evaluate the adaptability of current and newly registered CPSR, CWHWS, CWES, CWGP and CWHWS wheat varieties under standard irrigation management for prairie growing conditions. Information developed is used to update ICDC's <i>Crop Varieties for Irrigation</i> .	ICDC & SVPG
Wheat	Efficacy of fungicides active ingredient for fusarium head blight (FHB) and deoxynivalenol (DON) management in wheat.	This study aims to compare the efficacy of various fungicides' active ingredients, which are registered for the management of FHB and mycotoxins suppression, relative to a control.	ADOPT
Wheat	Standing up with your own stalk: Do the plant growth regulators available for spring wheat improve the productivity of current CWRS varieties?	To demonstrate the response of current and common CWRS wheat varieties to plant growth regulators registered for use in spring wheat.	ADOPT
Wheat	Demonstrating the Efficacy of Foliar-Applied Nitrogen Fixing Bacteria for Wheat	The project objective is to demonstrate the effects of commercially available foliar-applied nitrogen (N) fixing bacteria products on the yield and seed quality of wheat grown under varying fertility levels and contrasting environments.	SK Wheat
Wheat, canola	Demonstration of cover crop option following row drop harvest on Irrigated land	Evaluate winter and spring cereals as potential options for cover crops following the harvest of row crops on irrigated land. Specifically, the establishment and growth of potential cover crops will be demonstrated.	ADOPT
Wheat, Canola, Dry Bean	Fertigation Demonstration on Wheat, Canola, and Dry Beans	To demonstrate and compare five different fertigation treatments at two different timings on wheat, canola, and dry beans. The project outcome will be the most beneficial treatment and timing for each individual crop.	ADOPT

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Wheat	Development of Field-Ready Cultivars of Canada Western Soft White Spring Wheat	To performance test for improved productivity, nutrient and water-use efficiency.	AAFC
Winter Wheat	Saskatchewan Variety Performance Group Regional Wheat Trials – Winter Wheat	To evaluate the adaptability of current and newly registered winter wheat (CWRW) varieties under standard irrigation and dryland for prairie growing conditions.	ICDC & SVPG

**Funding Source Abbreviations:**

- AAFC – Agriculture and Agri-Food Canada
- ADF – Agriculture Development Fund
- ADOPT – Agricultural Demonstration of Practices and Technologies
- ICDC – Irrigation Crop Diversification Corporation
- MoA – Ministry of Agriculture
- SCA – Saskatchewan Cattlemen Association
- SPG – Saskatchewan Pulse Growers
- SFP – Strategic Field Plan
- SSPGA – Saskatchewan Seed Potato Growers Association
- SVGA – Saskatchewan Vegetable Growers Association
- SVPG – Saskatchewan Variety Performance Group