

2017 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 ICDCs Crop Varieties for Irrigation and provides producers with criteria for selection of the most appropriate variety for irrigated production conditions on the prairies.	ICDC & SVPG
Canola	Canola Performance Trial	To evaluate the adaptability of current and newly registered herbicide-tolerant canola varieties under standard irrigation management and appropriate herbicides for prairie growing conditions. Information developed is used to update ICDCs Crop Varieties for Irrigation .	ICDC and Canola Council of Canada
Canola	Contans Control of Sclerotinia for Irrigated Canola	Sclerotinia can be difficult to control in irrigated rotations because of the large number of irrigated crops grown that are susceptible to the disease. The project will demonstrate control of sclerotinia using a biological pest that attacks the sclerotia bodies resident in the soil. The advantage for this control mechanism is the labor saving which allows the irrigator to devote his time to other activities during the growing season.	ICDC
Canola	ICDC Irrigated Canola Variety Trial	To evaluate the adaptability of current and newly registered canola varieties under standard irrigation management for prairie growing conditions. Information developed is used to update ICDCs Crop Varieties for Irrigation and provides producers with criteria for selecting the most appropriate variety for irrigated production conditions on the prairies.	ICDC and partial ADF funding
Canola	Western Canada Canola/Rapeseed Recommending Committee Trials * WCCRRC XNL1 Trial * WCCRRC XNL2 Trial	To evaluate the adaptability of new canola varieties under standard irrigation management for prairie growing conditions. Information developed is used to support registration of new canola varieties suited to irrigated conditions on the prairies and to update ICDCs Crop Varieties for Irrigation .	ICDC and Western Canada Canola
Canola	Yield Response of Canola with Foliar Boron Applied at Early Bolting Stage	Demonstrate the impact on canola yield from application of foliar boron fertilizer at early bolting stage	ADOPT
Corn	Corn Variety Demonstration for Grain Production	Demonstrate corn varieties suitable to growing conditions in LDDA for silage yield under irrigation	ICDC

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Corn	Corn Variety Demonstration for Silage	To demonstrate corn varieties with low heat unit requirements, suitable to growing conditions in the Lake Diefenbaker area, for silage yield potential under irrigation.	ICDC
Corn	Defining Agronomic Practices for Forage Corn Production in SK	Develop and refine seeding and fertility recommendations for corn silage production.	ADF (PAMI)
Dry Bean	Demonstration of Narrow vs. Wide Row Dry Bean Production	The objective of this project will be to demonstrate the effect narrow row spacing (10") has versus traditional wide row spacing (20") in irrigated dry bean production.	ADOPT
Dry Bean	Dry Bean Regional Trial	To evaluate the adaptability of current and newly registered dry bean varieties using wide row production under standard irrigation management for prairie growing conditions. Information developed is used to update ICDCs Crop Varieties for Irrigation.	ICDC & SPG
Dry Bean	Irrigated Bean Variety Trial - Narrow Row (IBVTNR)	To evaluate the adaptability of current and newly registered dry bean varieties using narrow row production under standard irrigation management for prairie growing conditions. Information developed is used to update ICDCs Crop Varieties for Irrigation.	ICDC and partial ADF funding
Dry Bean	Irrigated Bean Variety Trial - Wide Row (IBVTWR)	To evaluate the adaptability of current and newly registered dry bean varieties using wide row production under standard irrigation management for prairie growing conditions. Information developed is used to update ICDCs Crop Varieties for Irrigation.	ICDC and partial ADF funding
Dry Bean	Narrow row vs. Wide Row Irrigated Dry Bean Production on a Field Scale at Riverhurst	To demonstrate that narrow row dry bean production is equal or superior to wide row production.	SPG
Durum	Improving Fusarium Head Blight Management in Durum Wheat in SK	To improve fungicide timing in durum wheat for the control of fusarium head blight.	ADF (U of S)
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 ICDCs Crop Varieties for Irrigation.	ICDC & SVPG
Faba Bean	Evaluating Inoculant Options for Faba Beans	Determine the best inoculant option for faba bean grown in various soil/climatic zones of Saskatchewan	SPG

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Faba Bean	Faba Bean Fungicide Product x Timing Study	Investigate the merits of foliar fungicide applications on faba bean in western Canada as a function of stand density and environment	SPG
Faba Bean	Faba Bean Seeding Rate	Provide growers and agronomists with current and unbiased seeding rate recommendations for faba bean production on the prairies.	SPG
Flax	Flax Fungicide Demonstration	Demonstrate the yield benefit of applying foliar fungicide on flax to control PasmO on an irrigated field	ADOPT
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 ICDCs Crop Varieties for Irrigation and provide producers with criteria for selection of the most appropriate variety for irrigated production conditions on the prairies.	ICDC & SVPG
Forage	AC Saltlander Green Wheatgrass Saline Tolerance Study	Determine seeding rate effects under differing salinity levels, determine the effects of time of seeding, compare direct vs. conventional seeding, evaluate flooding tolerance, evaluate nitrogen fertilization of AC Saltlander	ADF (AAFC Swift Current)
Forage	Demonstration of scarification methods for cicer milkvetch seed	The objective of the project is to assess practical methods by which producers can scarify cicer milkvetch seed on-farm. Scarification is a technique used to improve the uniformity of germination in cicer milkvetch by abrading the impermeable seed coats to allow uptake of moisture from the soil.	Sk Forage Council ADOPT
Forage	Hybrid Brome Variety Evaluation	This trial is to evaluate new hybrid brome varieties	ICDC
Forage	The relationship between quality and yield in perennial forages	The objective is to demonstrate the relationship between forage yield/maturity and forage quality.	ADOPT
Forage	P K and Zn Demo at Lodge Creek	To demonstrate the potential for alfalfa production at gravity irrigated alfalfa fields in Southwest Saskatchewan.	ADOPT
Fruit	Strawberry and Raspberry water and fertilizer management demonstration	Proper water and fertilizer application (fertigation and tensiometers) would serve to maximize growth, yield, fruit quality, profitability, and efficient use of fertilizer and water resources will make the industry more sustainable. This project will also demonstrate differences between standard cultivars and newer genotypes under Saskatchewan growing conditions.	Saskatchewan Fruit Growers Association ADOPT

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Fruit	Use of photosensitive netting to improve productivity of dwarf sour cherry, haskap, and Saskatoon berry	Israeli fruit producers have employed the use of photo-selective netting to enhance orchard productivity, increase growth rate, reduce disease and insect pressure, and improve fruit quality. The quality of the light that is modified by the netting enhances various plant metabolic or physiological systems, so plants can grow more vigorously and more productively. In addition; the netting reduces pest pressure (through exclusion), and protects plants from the drying effects of winds, hail, etc.	Saskatchewan Fruit Growers Association ADOPT
Lentil	Irrigated Lentil Production	To evaluate lentil growing practices under irrigation	ICDC
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 ICDCs Crop Varieties for Irrigation.	ICDC & SVPG
Pea	Intercropping Marrowfat Field Pea & Mustard	Demonstrate intercropping of marrowfat field pea & mustard.	ICDC
Pea	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 ICDCs Crop Varieties for Irrigation.	ICDC & SPG
Pea	Yield Response of Pea with Boron Applied as a Foliar Application	To demonstrate boron fertilization of field pea by tank mixing liquid boron with the herbicide and fungicide applications	ICDC
Rye	Demonstration of Fall Rye as an Irrigated Crop (16-17)	Evaluate hybrid rye varieties growing potential and provide producers with a side-by-side comparison between dry land and irrigated production	ADOPT
Rye	Demonstration of Fall Rye as an Irrigated Crop (17-18)	Evaluate hybrid rye varieties growing potential and provide producers with a side-by-side comparison between dry land and irrigated production	ADOPT
Rye	Demonstration of Nitrogen Rate Responses or Irrigated Conventional and Hybrid Fall Rye	The objective is to demonstrate the nitrogen rate response of irrigated fall rye varieties to optimize yield and protein. In addition, to provide information that can be used to create nitrogen fertilizer recommendations for irrigated fall rye production.	ADOPT
Soil	Demonstrating 4R Nitrogen Principles in Canola	Evaluate canola's response to varying rates of Nitrogen (N) along with different combinations of formulations, timing and placement methods relative to side-banded, untreated urea as a control.	ADOPT and Fertilizer Canada
Soil	Demonstrating 4R Phosphorus Principles in Canola	Evaluate 4R principles for phosphorus in canola with a focus on using the right rate, right placement and right timing of application.	ADOPT

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Soil	Specialized N Efficiency Products for Irrigation Cropping Systems	The objective is to demonstrate and promote aspects of the 4R concept of fertilizer stewardship. The project will compare three enhanced nitrogen fertilizer products to untreated urea (Right product). We will attempt to demonstrate fertilizer response (Right rate). We will evaluate treatment effectiveness in two crops - wheat and canola and under two production systems for each crop – dryland and irrigation	ADOPT
Soil	Reclamation of Na Affected Soils	The project will demonstrate several approaches to replacement of sodium on the exchange complex of heavy textured soils at Ponteix and Miry Creek.	ICDC
Soybean	Developing Nitrogen Management Recommendations for Soybean Production in Saskatchewan	The proposed research will determine the best management practices to ensure adequate N supply and maximum economic yields for soybean production in Saskatchewan to help growers grow this crop in the most economically, agronomically and environmentally sustainable manner possible	SPG, AgriARM sites
Soybean	Developing Phosphorus Management Recommendations for Soybean Production in Saskatchewan	Improve P management recommendations for soybeans in Saskatchewan by investigating crop response to monoammonium phosphate (MAP; 11-52-0) rates and placement methods	SPG, AgriARM sites
Soybean	Soybean Regional Variety Trial	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 ICDCs Crop Varieties for Irrigation . Two trials: irrigated vs. dry land.	SPG and partial ADF
Soybean	Soybean Fungicide Demonstration	Demonstrate yield benefit of applying foliar fungicide on soybean to control Sclerotinia on an irrigated field	ADOPT
Specialty	Demonstration of Potential Irrigated Crops (Quinoa, Hemp, Borage, Marrowfat Pea, Niger)	Demonstration to evaluate crop growing potential and provide producers with side-by-side comparison between dryland and irrigated production	ADOPT
Vegetable	Demonstration of Late Blight Resistant Tomatoes	1) demonstrate the potential to produce late blight resistant tomatoes commercially in high tunnels in SK 2) provide opportunities for producers and buyers to see the crops being grown. 3) compare cultivars for suitability in SK conditions and market.	SVGA ADOPT

Crop	Project Title	Objectives & Justification	Funding Source
Vegetable	Demonstration of Sweet LaRouge Type Red Peppers	<ol style="list-style-type: none"> 1) demonstrate the potential to produce la rouge type red peppers commercially in high tunnels in SK 2) provide opportunities for producers and buyers to see the crops being grown. 3) compare cultivars for suitability in SK conditions and market. 	SVGA ADOPT
Vegetable	Demonstration of shelling peas for mechanical harvest	<ol style="list-style-type: none"> 1) demonstrate the potential to provide season long supply of fresh peas for fresh and processing markets. 2) provide opportunities for producers and buyers to see the crops being grown. 3) compare cultivars for suitability in SK conditions and market. 	SVGA ADOPT
Vegetable	Demonstration of Sui Choy (Napa Cabbage)for season long supply	<ol style="list-style-type: none"> 1) demonstrate the potential to provide season long supply of fresh sui choy for market. 2) provide opportunities for producers and buyers to see the crops being grown. 3) compare cultivars for suitability in SK conditions and market. 	SVGA ADOPT
Vegetable	Demonstration of Cauliflower for season long supply	<ol style="list-style-type: none"> 1) demonstrate the potential to provide season long supply of fresh cauliflower. 2) compare direct seeding versus transplanting for production efficiency. 3) provide opportunities for producers and buyers to see the crops being grown. 4) compare cultivars for suitability in SK conditions and market. 	SVGA ADOPT
Vegetable	Demonstration of Broccoli for season long supply	<ol style="list-style-type: none"> 1) demonstrate the potential to provide season long supply of fresh broccoli for market. 2) compare direct seeding versus transplanting for production efficiency. 3) provide opportunities for producers and buyers to see the crops being grown. 4) compare cultivars for suitability in SK conditions and market. 	SVGA ADOPT
Vegetable	Demonstration of Bok Choy for season long supply	<ol style="list-style-type: none"> 1) demonstrate the potential to provide season long supply of fresh broccoli for market. 2) provide opportunities for producers and buyers to see the crops being grown. 3) compare cultivars for suitability in SK conditions and market. 	SVGA ADOPT

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Wheat	ICDC Irrigated Wheat Variety Trial	To evaluate the adaptability of current and newly registered wheat varieties (CWRS, CWSWS, CWES, CWAD, CPSR) under standard irrigation management for prairie growing conditions. Information developed is used to update ICDCs Crop Varieties for Irrigation and provide producers with criteria for selection of the most appropriate variety for irrigated production conditions on the prairies.	ICDC and ADF Partial
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 ICDCs Crop Varieties for Irrigation .	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 ICDCs Crop Varieties for Irrigation .	ICDC & SVPG
Wheat	Soft White Spring Wheat Coop Trial	To evaluate the adaptability of new soft white wheat and durum germplasm under standard irrigation management for prairie growing conditions. Information developed is used to support the registration of new soft white wheat varieties suited to irrigated conditions on the prairies and to update ICDCs Crop Varieties for Irrigation .	ICDC and partial ADF funding (AAFC Lethbridge)
Winter Wheat	Winter Wheat Variety Evaluation for Irrigation vs Dry Land Production (16-17)	Identify the top producing or best adapted varieties of winter wheat for irrigation production.	ADOPT
Winter Wheat	Winter Wheat Variety Evaluation for Irrigation vs. Dry Land Production (17-18)	Identify the top producing or best adapted varieties of winter wheat for irrigation production.	ADOPT

Funding Source Abbreviations:

- AAFC – Agriculture and Agri-Food Canada
- ADF – Agriculture Development Fund
- ADOPT – Agricultural Demonstration of Practices and Technologies
- AIP – Agri-Innovation Program
- AgriARM – Agriculture-Applied Research Management
- CDC – Crop Development Centre
- ICDC – Irrigation Crop Diversification Corporation
- PAMI – Prairie Agricultural Machinery Institute

- SPG – Saskatchewan Pulse Growers
- SVGA – Saskatchewan Vegetable Growers Association
- SVPG – Saskatchewan Variety Performance Group
- U of S – University of Saskatchewan
- WGRF – Western Grains Research Foundation