



Irrigation Crop Diversification Corporation

ANNUAL REPORT 2004/05

Delivering “value for money R&D” to Saskatchewan irrigators



Irrigation Crop Diversification Corporation

Objects and Purposes of ICDC – The Irrigation Act, 1996

The objects and purposes of ICDC are the following:

- to research and demonstrate to producers and irrigation districts profitable agronomic practices for irrigated crops;
- to develop or assist in developing varieties of crops suitable for irrigated conditions;
- to provide land, facilities and technical support to researchers to conduct research into irrigation technology, cropping systems and soil and water conservation measures under irrigation and to provide information respecting that research to district consumers, irrigation districts and the public;
- to co-operate with SIPA and the minister in promoting and developing sustainable irrigation in Saskatchewan.

Delivering “value for money R&D” to Saskatchewan irrigators



Irrigation Crop Diversification Corporation

Board of Directors

The following served as Directors of ICDC in 2004/05:

				Election Year (#terms)
Carl Siemens	Chairman	Rush Lake ID	SWDA	'05 (3)
John K6nst	Vice Chair	SSRID	LDDA	'05 (3)
Kelvin Bagshaw	Alt. Vice Chair	Luck Lake ID	SIPA	app. '05 (1)
Kevin Plummer	EMC Co-Chair	Moon Lake ID	NDA	'06 (3)
VACANT	Director	Consul-Nashlyn ID	SWDA	'07 (3)
Rick Swenson	Director	Baildon ID	SEDA	'06 (3)
Randy Bergstrom	Director	Luck Lake ID	LDDA	'07 (3)
Larry Lee	Director	Macrorie ID	SIPA	app. '05 (1)
Francis Kinzie	Director	Pike Lake	Non-District	'06 (3)
Scott Wright	Director		SAF rep.	app.
John Linsley	Director		SAF rep.	app.

The Four Development Areas are: Northern (NDA), South Western (SWDA), South Eastern (SEDA) and Lake Diefenbaker (LDDA) as defined in ICDC's bylaws.

ICDC Directors are elected by District Delegates to the Annual Meeting. Each Irrigation District is entitled to send on ICDC Delegation per 5,000 irrigated acres or part thereof. Two Directors are elected from LDDA, two from SWDA, and one each from NDA and SEDA. The Saskatchewan Irrigation Projects Association (SIPA) and Sask. Ag & Food (SAF) are allowed two directors each on the ICDC board. The ICDC board must, by law, have irrigators in the majority.

Staff 2004/05

By agreement, agrologist and administrative services are seconded to ICDC by SAF.

Les Bohrsen PAg	ICDC Senior Agrologist	Swift Current
Korvin Olfert PAg	ICDC Agrologist	Swift Current
Lana Shaw PAg	ICDC Agrologist	Outlook
Clint Ringdal AAg	ICDC Agrologist	Outlook
Kari Henderson AAg	ICDC Agronomy Assistant	Swift Current
Marlene Knopp	ICDC Administration	Outlook
Janice Bennett	ICDC Administration	Outlook

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Letter of Transmittal

Outlook, Saskatchewan
December 1st 2004
To Her Honour
The Honourable Linda Haverstock
Lieutenant-Governor of the Province of Saskatchewan

Your Honour:

I have the honor to submit herewith the Annual Report of ICDC (Irrigation Crop Diversification Corporation) for the year 2004/05, including the financial statement audited by Lois A. Johnson CMA, all in accordance with *The Irrigation Act, 1996*.

Respectfully submitted by

Carl Siemens
Chairman
ICDC



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2004/05 ICDC Highlights

9th Annual SIPA ICDC Irrigation Conference 2004 in Swift Current

Following 2003's Annual Conference in Outlook with its strong development message, the 9th Annual SIPA ICDC Irrigation Conference featured a speech by Deputy Premier, the Hon. Clay Serby. The Deputy Premier announced that an irrigation strategy was under preparation which includes consultations with the federal government, SIPA and the private sector. Dr Graham Parsons, President of the Organization for Western Economic Cooperation and Vice President of Clifton and Associates, developed a Fifty Year Water Plan for Saskatchewan which includes major implications for irrigation. This plan was presented at the Conference. The International Joint Commission held public consultations in 2004 in response to Montana's claim that it should be entitled to a larger share of the St Mary and Milk rivers than currently provided under the 1921 Order. His topic was explained to conference delegates from both the Alberta and Saskatchewan perspectives. An explanation of The Canada Saskatchewan Water Supply Expansion Program was provided to delegates with particular reference to irrigation. Alberta's Water for Life strategy was presented by the Executive Director of The Alberta Irrigation Projects Association.

ICDC & SIPA support 2nd Saskatchewan Agrivision "Water" Conference, Water: Droughtproofing the Economy

ICDC was a partner for Water: Droughtproofing the Economy a conference put on by Saskatchewan Agrivision Corporation Inc in Regina on November 4th. ICDC & SIPA were both represented on the conference steering committee and participated in a series of workshops held around the province.

This conference was the follow-up to Water: Economic Driver of the Future held in March 2003 in which ICDC also partnered. The follow-up was a presentation of The Fifty Year Plan for Water in Saskatchewan by Dr Graham Parsons and Wayne Clifton. This plan was developed with CARDS funding. Summaries of the full document are available on www.droughtproofing.com. The implications for irrigation in this plan are huge.

Optimizing Livestock Feeding Systems

Silage Corn

In 2004 ICDC added a further 34 irrigated corn fields to its already large agronomic database. 2004 was the "one year in ten" as opposed to the "nine out of ten" described in the Corn Heat Unit map that ICDC Agrologists compiled and is published on SAF's website www.agr.gov.sk.ca under /Crops/Irrigation.

Corn variety testing (both grain and silage) continued in its second year under The Alberta Corn Committee at CSIDC, Outlook. After topping all sites in 2003, Outlook was in the middle of the pack in 2004. Check www.albertacorn.com for the results.

A Minor Use Registration Initiative – Liberty 200SN for corn was hosted at CSIDC under the

coordination of SAF.

ICDC is also distributing Corn Production in Manitoba, revised by The Manitoba Corn Growers Association.

Sweet Corn

ICDC contributed to the update of SAF's Sweet Corn in Saskatchewan and assisted in establishing variety trials at CSIDC, Outlook.

Osler Dairy Forage Centre

Two ICDC intensively managed irrigated forage trials were established in 2003 at Osler in the heart of Saskatchewan's dairy country. The purpose of these trials is to highlight the potential production and variety responses of irrigated forages under intensive management.

Swift Current Alfalfa Demonstration

Irrigation is intensifying forage production for the beef industry in south west Saskatchewan. The ICDC demonstration, located just outside Swift Current, shows the production capacity of two-cut irrigated alfalfa destined for the beef market.

SeCan Cereal Forage Demonstration

The goal of this demonstration is maximizing cereal silage production under irrigation. SeCan & ICDC cooperated on two sites: Osler and Maple Creek. ICDC was able to show 400% increases in water use efficiency by converting land from flood to sprinkler irrigation at Maple Creek. This demonstration takes intensification under sprinkler irrigation to the next level.

Forage Digestibility

ICDC analysed thirty one irrigated forage samples for 48 hour in-vivo digestibility. Samples included ryegrass, timothy and cereal silage. Here is an example of ICDC taking the irrigated crop product into the "processor", the animal.

Can Irrigation Support a 10,000 Head Feedlot in Saskatchewan?

ICDC collaborated with The University of Saskatchewan, Animal Sciences Dept and with SAF specialists to compile the data to answer this question in published form.

Using Irrigation to Feed a Large Dairy

ICDC compiled and published the data relating irrigated forage yields and quality to the specialized requirements of dairy cattle.

Increasing Crop Profits

Timothy Hay

ICDC is following the lead of the processed timothy industry to assist it with its R&D priorities. Field trials include a Phosphorus rate trial and a harvest timing trial. ICDC is also an industry partner in a Matching Investments Initiative irrigated timothy project with AAFC.

Bean Disease Research for Bean Seed Production

ICDC is following up on its irrigated dry bean seed initiative by collaborating in a national research effort to test the effectiveness of bacterial blight resistance under artificially produced disease pressure.

Dry bean Production Options

As a result of producer interviews, dry Bean Production Options was published and distributed to all irrigators by ICDC.

Fusarium and Leaf Disease Survey

ICDC participated in these SAF's provincial surveys to add irrigated sites and data.

Potato Variety Research

ICDC contributed in-kind support to a Matching Investments Initiative for potato variety research coordinated from AAFC Lethbridge and including a site at CSIDC, Outlook.

Expanding Production Capacity – Water for Food Sufficiency

ICDC staff attended “Confronting Water Scarcity” a conference put on by Alberta Agriculture and Rural Development and Alberta Environment in Lethbridge. Saskatchewan is fortunate to have an abundance of good quality water and this conference underlined what a privilege that is in today's world. ICDC's water use efficiency demonstrations such as Treasure Valley Market Garden and the Gold and Backman projects in water-short south west Saskatchewan were affirmed by presenters at this international event. Saskatchewan has the increasing opportunity to export “virtual water” in value-added crop products such as fruit, vegetables and forage.

Irrigation Management

With the assistance of Alberta Agriculture and Rural Development, SAF & ICDC have been able to set up Outlook meteorological data on Alberta's Irrigation Management Climate Information Network (IMCIN). The meteorological data is used in the Alberta Irrigation Management Model (AIMM) to provide a web-based irrigation scheduling service to irrigators to optimize water use efficiency. A training event was held at CSIDC, Outlook for agri-business field staff and for irrigators. The website is www.imcin.net.

ICDC's Irrigation Education Initiative adds CCA Accredited Irrigation Events

The ICDC Board has been an advocate for improved irrigation education opportunities in Saskatchewan. The Irrigator, July 2002, documented the existing options for irrigation education and training:

School system	Project WET, Ag In The Classroom's Water for Life
SIAS T Moose Jaw	Irrigation course
Green Certificate Farm Training Program	Irrigated Crop Production Technician
ICDC & The Irrigation Centre	Extension, field days, website, newsletters, etc.
University of Saskatchewan	Work Experience (Coop Students), irrigation content.

ICDC has been active in the development of Ag In The Classroom irrigation material. ICDC is working through The Irrigation Centre to promote The Green Certificate Program. ICDC Director John Könst is on the SIAS T Program Advisory Committee. Work by ICDC on irrigation curriculum at the U of S continues. ICDC has mentored eight coop students over five years from the College of Agriculture working on irrigation R&D projects for the past five years. ICDC has been involved in hosting SAF's Dutch consultant in Outlook. Hopes are for an expanded exchange program between students from Holland & Canada.

In 2004 ICDC added support for The Certified Crop Advisor Program (CCA). CCA has over 14,000 certified advisors in the USA and Canada. To become a CCA one must pass two exams, national and local. Once certified, a CCA must complete 40 hours of Continuing Education Units (CEUs) every two years in order to remain certified. Irrigation fits the soil and water

management area of CCA competency. ICDC offered a total of 28 CEUs in 2004: 8 for soil and water management, 3 for integrated pest management, 17 for crop management.

Crop Development Opportunities

Strawberry Crowns

Strawberry Crown production was demonstrated under irrigation at CSIDC in 2004 in cooperation with ICDC, Agri-ARM and The University of Saskatchewan. Saskatchewan-grown Strawberry Crowns are of higher quality than Californian-grown crowns because of Northern Vigor®. Saskatchewan-grown crowns command a premium price. Market access and cultivar work need to continue to commercialize this irrigation opportunity.

Irrigated Crop Survey

ICDC Agrologists carried out a field by field irrigated crop survey of the 75,000 irrigated acres in the major Irrigation Districts around Lake Diefenbaker. The survey showed that Saskatchewan's irrigators have intensified their crop rotations just as Alberta's have.

CROP	SASKATCHEWAN	ALBERTA
Vegetables	7%	*6%
Pulses	7%	4%
Oilseeds	22%	8%
Cereals	27%	30%
Forages	36%	48%
Miscellaneous	1%	4%

*includes sugar beets

The big difference between our two provinces is that Alberta has developed the “critical mass” (1.3 million irrigated acres) to support the value-added food processing sector. This supports the position of the ICDC Board since its inception: that Saskatchewan should develop its irrigation infrastructure (eg. ICDC's submission to Sask Water in April 2000).

www.irrigationsaskatchewan.com

This farmer-friendly gateway to irrigation information and contacts on the prairies and around the world is being developed and upgraded by both SIPA and ICDC. In 2004 the site had over 50,000 hits from over 900 unique visitors. The average number of pages per visit were 4.1 up from 2.6 in 2003. The site has 615 unique links.

This site is seen as vital to ICDC's role of disseminating timely irrigation information.

ICDC Technology Transfer

Jan 13& 14	Western Canada Crop Production Week, Saskatoon, two lectures and display
Jan 14	DeKalb Winter grazing field day, Bradwell, guest speaker.
Jan 29	SPARC Regional Forage & Beef Update Seminar, Swift Current, display
Feb 5, 6 & 7	Canadian Hay Assoc. 2004 National Conference, display
Feb 6	CSIDC/ICDC program meeting, Outlook, agronomy partner
Feb 19	Soils and Crops Workshop, Saskatoon, paper, "Predicting forage nutritive value from height and maturity of alfalfa in Saskatchewan"
Feb 24	Managing Your Costs seminar, Outlook guest speaker.
Feb 25	Regional Rural Opportunities Conference Swift Current, display
Mar 12	Alberta Corn Committee, Lethbridge, guest speaker
Mar 16	Crop and Beef Enterprise, Swift Current, seminar
Mar 16	Crop and Beef Enterprise, Riverhurst, seminar
Mar 22	Crop Production, Economics & Development, Warman, seminar
Mar 22	Timothy Production, Outlook, seminar
Mar 23	Making Irrigation Pay, Outlook, seminar
Mar 24	Making Irrigation Pay, Lucky Lake, seminar
Mar 26	Sask. Seed Potato Grower Assoc. seminar, guest speaker
Mar 31	Water the Economic Driver, Swift Current, display
Apr 29	Timothy Producer Workshop, Lethbridge, display
Jun 10	Irrigation Scheduling Workshop CCA approved
Jun 25	Sask Vegetable Grower's Assoc. Field Day, Outlook, program
Jun 26	Sask Fruit Growers Association Summer Tour, Outlook, program
Jul 8	Annual CSIDC Field Day and Trade Show, Outlook, CCA approved
Jul 13	Irrigated Market Garden and Fruit Crop Field Day, Cadillac, CCA approved
Jul 14 & 15	Confronting Water Scarcity, Lethbridge, display
Jul 19	Dairy Quality Silage and Forage Tour, Osler, CCA approved
Jul 22	PMRA Minor Use Tour, Outlook, guest speaker
Jul 26	SPARC Irrigated Forage and Grazing Tour, Swift Current, CCA approved
Jul 26	Irrigated Crop Performance Field Day, Maple Creek, CCA approved
Aug 5	Bean & Soybean Field Day, Outlook, CCA approved
Aug 12	Sask Seed Potato Grower's Assoc. day, Outlook, program
Aug 28	Animal Science 301 Animal Production Tour, Osler, Guest speaker
Sep 14	Corn Performance, Nutrition, & Sweet Corn Field Day, Outlook, CCA approved
Nov 4	Drought Proofing the Economy, Regina, display
Nov 5	College of Agriculture Career Fair, Saskatoon, display
Nov 16	Timothy Production Seminar, Outlook, demo results
Dec 3	Prairie Seed Grazing Corn Field day, Harris, guest speaker
Dec 6 & 7	SIPA – ICDC AGM and Tradeshow, Swift Current, program

Acknowledgments and Sponsors

Co-operating Producers

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P, R&J Enns
Dale Ewen
Cypress Hutterite Colony
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Gerald and Terry Follick
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Agri-Arm

Sponsors and Contributors

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Midwest Agro

ICDC would like to thank its many collaborators, partners, cooperators and sponsors without whom this “*value for money R&D*” program could not be carried out. Thank you all.

For more information on any of these projects and for a copy of the 2004/05 ICDC Demonstration Program Final Report call ICDC at (306) 867-5500, Outlook or (306) 867-5043, Swift Current. Results are also to be found on www.irrigationsaskatchewan.com.