

## Research Director's Corner

**Garry Hnatowich, Research Director**  
Irrigation Crop Diversification Corporation



It's our Spring Edition of the Irrigator so I once again take the opportunity to recap the past year. It's been a busy one and your ICDC staff has certainly been engaged.

For the second year in a row much of the province experienced a severe shortage of rainfall during the growing season.

Though our focus is on irrigation production we all recognize that few, if any, producers have their entire land base devoted to irrigation production. It's highly probable that the majority of irrigator's land in Saskatchewan is devoted to dryland production. One of the common comments I heard during harvest was how much better the dryland yield was considering the lack of rain. This speaks volumes to the efforts and energy that plant breeders have put into developing new varieties. It speaks volumes to the equipment industry that have developed technologies that allow us to get these varieties started under often harsh conditions. And it speaks volumes to the time and effort producers have put into adopting not only these varieties, but agronomic practices, that best allow the varieties to do what they do. In general this "yield stability" also expresses itself to irrigation production. This year for example our wheat variety evaluation trials looked decent, possibly a little shorter, but generally okay. At harvest I was pleasantly surprised at how well they yielded, visually they didn't look as good as what we got! This was also mentioned to me by a number of irrigation producers within the Outlook region. That being said – all was not always rosy. Our grain corn performed dismally with yields far below typical. Corn certainly appeared to thrive in the heat

we received this summer along coupled with the many cloudless days. They seemed to have the potential of some very high yields right up until the end of August. And then came September, a month I hope is never repeated! A light frost on September 5 was enough to "bronze off" the leaves which interfered with grain fill. Further the heat turned off. Corn loves heat and does like warm fall days to finish. This wasn't to be. Looking at our environmental data, specifically at corn heat units (CHU), we had been accumulating approximately 600 CHU per month up to September. During September our total accumulation was only 165. September was cool and damp. Damp not wet. Our total rainfall during the month was less than an inch. However it came in dribs and drabs that effectively shut down harvest because the cool temperatures prevented drying. End result was corn cobs with kernel's rotting on standing plants. It wasn't pretty and the yields reflected it, on average 32 bu/ac.

The 2018 field program was once again large and diverse (if I've counted correctly we had 69 individual trials in 2018). We internally divide the program into two categories – Field Crops and Horticulture. The Field Crops program was a mixture of variety evaluation and agronomy. As you the membership have previously expressed, variety selection and performance is of top priority for your irrigated acres. So your levy dollars are typically spent on evaluating potential and newly released varieties of cereals, oilseeds and pulses. Within the agronomy component we explored such things as 4R Nutrient Management in Canola, Contribution of Differing Inputs to Wheat Yield, Fusarium Head Blight in Durum, Influence of Seed



Size and Seeding Rate with Canola, and Controlling Glyphosate Resistant Canola in Glyphosate Resistant Soybean. In total we had 23 agronomic trials.

The Horticulture program also consisted of two categories – Vegetables and Fruit. The vegetable program in 2018 involved

*continued on page 2*

March 2019

Published by the Irrigation Crop  
Diversification Corporation (ICDC) and the  
Saskatchewan Ministry of Agriculture.  
Available online: [www.irrigationsaskatchewan.com](http://www.irrigationsaskatchewan.com)



Box 1460, 901 McKenzie Street South  
Outlook, SK S0L 2N0

### In this Issue:

Research Director's Corner	1
Horticulture Trial Ventures into Value added Processing	2
Nitrogen Efficiency Enhancer Fertilizer for Irrigation	3
Upcoming Events	4
Greetings from the Board	5
Irrigated Corn for Silage or Grazing	6
Irrigated Wheat Survey Results and Going Forward	7
Saskatchewan Agriculture Hall of Fame	8

## Research Director's Corner

*continued from page 1*

evaluating cucumbers, carrots, green bean and cabbage under overhead irrigation production compared to drip irrigation. This project was conducted in cooperation with Dr. Kate Congreves at U of S. We also looked at varieties of carrots, pickling cucumbers and cabbage. The fruit program involved strawberry, raspberry, Saskatoon berry, Haskap and Sour Cherry production. ICDC wishes to express our gratitude and thanks to Connie Achtymichuk, Provincial Specialist, Vegetable Crops and Forrest Scharf, Provincial Specialist, Fruit Crops, without whose help and assistance we would be unable to evaluate this increasingly important aspect of irrigation production.

I believe it is important that the membership of ICDC also recognise what a unique relationship ICDC has with the Saskatchewan Ministry of Agriculture and specifically with the Crops and Irrigation Branch. ICDC was created by the government of Saskatchewan through the Irrigation Act. We were tasked with conducting agriculture research specifically to irrigation production. This mandate in no way diminishes the Ministry's obligation to irrigation research, but rather enhances it. Irrigation production is of major importance to the Ministry. Producers within established Irrigation Districts have been in discussions for the past year with the Ministry on issues related to asset transfer. Understandably this can be a contentious and emotional issue. However, it should be recognized that at no time has the Ministry ever allowed this to interfere, or reduce, its commitment to irrigation research. ICDC and the Ministry have a symbiotic relationship that is unique with respect to both other Agri-Arm affiliates or with other producer commodity organizations. Brenda and I meet with members of the Outlook Crops and Irrigation Branch every Monday morning to discuss our activities for the past week and coming week. Kelly Farden, Manager, Agronomy Services has assisted ICDC in countless ways. His staff of Irrigation Agriologist's, namely Cara Drury, Joel

Peru and Gary Kruger, not only conduct/coordinate trials under the ICDC banner but bring research ideas to the table. We have access to the Ministry's staff, equipment and dollars. Simply stated ICDC would be a vastly diminished organization without Ministry support.

And diminishing is certainly not our goal. Your Board of Directors has encouraged me to continue exploring means and ways for future growth. We have come to recognise that we are presently operating at capacity and that I am the "bottle-neck" to growth. I don't believe the field research program can expand further without assistance both during the summer in note taking and during the winter in report preparation. To that end the Board has approved of the hiring of a Research Associate to relieve/assist me in my present duties and allow me to explore other growth opportunities. As discussed in prior "Irrigator" editions, land base continues to be an "Achilles heel", our present field program exceeding the land allocation at CSIDC and the additional 12 acres we rent of the town of Outlook. To get by last year we rented an additional 40 acres of land from Roger Pederson. We would like to thank Roger for allowing us access to this land parcel and on behalf of the Board of Directors and the membership of ICDC congratulate him on his upcoming induction into the Saskatchewan Agriculture Hall of Fame. Roger has been an outstanding champion for irrigation development within Saskatchewan and this recognition is justly and richly deserved.

It's amazing considering the insanely cold temperatures being experienced lately that in less than 3 months we'll be putting in 2019's crop. Let's hope for some additional snowpack and just the right amount of April rains. As always should you have any area of irrigation production you'd like to see researched I'd love to hear from you.

## Horticulture trial ventures into Value Added processing

**Cara Drury, PAg**  
Crops and Irrigation, Ministry of Agriculture

An exciting new vegetable trial will be starting at ICDC (Outlook) and Conservation Learning Centre (Prince Albert) research station this year. This two-year trial will take the high valued irrigated crop, cucumbers, and venture into value added processing with a run of commercially produced, Saskatchewan grown, dill pickles.

Currently, the majority of dill pickles on the shelves in Canadian stores are sourced in the United States or India. Local vegetable growers are interested in competing in this market; but the pick-

ling cucumber acreage in Saskatchewan is currently too small. More information is needed in order to recommend cucumber varieties and provide advice for growing in Saskatchewan's climate. This will help scale up production to meet both processing and fresh market demands.



To meet the production needs, these trials will focus on developing best management practices for mechanical harvesting. Mechanical harvesting is the most efficient

*continued on page 5*

# Nitrogen Efficiency Enhancer Fertilizer for Irrigation

**Gary Kruger, PAg, CCA Irrigation Agrologist,  
Saskatchewan Ministry of Agriculture**

Nitrogen is a costly fertilizer input for Saskatchewan producers. Managing this nutrient efficiently not only minimizes fertilizer input costs, but also supports higher crop yields while protecting our environment. Improving nitrogen efficiency focuses on increasing plant uptake of nitrogen by keeping its two available forms, ammonium and nitrate, protected from loss yet available for uptake by plant roots.

Urea and anhydrous ammonia are two of agriculture's more common sources of nitrogen fertilizer. Both sources are vulnerable to loss of ammonia from the soil to the atmosphere. Urea is a stable soluble molecule that is transformed to gaseous ammonia in the presence of the soil enzyme urease. Agrotain is applied to urea to inhibit urease activity for about 10 days to allow time for precipitation to dissolve the urea granules and move the soluble nitrogen into the soil. Once in soil, the released ammonium can be captured by the soil cation exchange. Agrotain supplies NBPT (N-(n-butyl) thiophosphoric triamide) to inhibit the urease enzyme. Urea inhibitors prevent loss of nitrogen through volatilization.

Super U contains this urease inhibitor to guard against N losses from volatilization, but in addition contains nitrification inhibitors to limit losses due to denitrification and leaching. Nitrification is a two step process mediated by Nitrosomonas (ammonium conversion to nitrite) and Nitrobacter (nitrite to nitrate). Super U also contains dicyandiamide. Amidas has a lower N analysis than urea because of the sulphur component and contains some N in ureide chemical structure. The lower product pH of Amidas reduces the risk for volatilization losses in the high pH soil environment that prevails when urea dissolves.

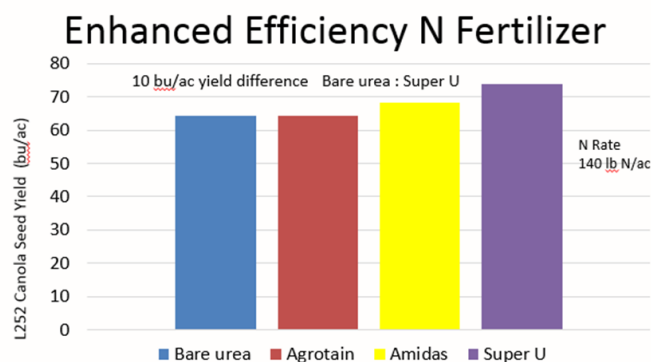
The products reduce nitrogen losses by different processes. Agrotain treated urea contains the compound NBPT (N-(n-butyl) thiophosphoric triamide) to prevent loss of nitrogen from conversion of urea in fertilizer to ammonia gas. The rate of N loss increases with unincorporated surface applications of urea at rates in excess of 100 lb. of nitrogen per acre. Other factors that increase the loss of nitrogen include crop residues on the soil

surface supplying urease, warm and moist but drying soil conditions, neutral to high soil pH and sandy soil.

Another fertilizer source, ammonium thiosulphate, also provides weak but measureable short-term inhibition of the urease enzyme. This fertilizer can be blended with liquid nitrogen fertilizer to slow down conversion of urea to ammonia.

The Irrigation Crop Diversification Corporation conducted a demonstration project with several improved efficiency nitrogen products in spring of 2018. Nitrogen fertilizer was broadcast at the rate of 140 lb N/ac on the soil surface prior to seeding L252 hybrid canola on an irrigated field near Broderick. The nitrogen sources included 1) bare urea, 2) Agrotain treated urea, 3) Amidas, and 4) Super U. Irrigation was applied to move the nitrogen into the soil once the field was sown. Super U provided the best response to nitrogen fertilizer among the products evaluated.

It will take some time for growers and researchers to learn how to manage these new tools to take advantage of the opportunities they provide. They may highlight some nitrogen loss mechanisms that the industry needs to be more alert to. When working with nature, however, predicting weather events which predispose nitrogen to loss may remain a daunting task. Please contact Gary Kruger @ 306-867-5524 with your comments and suggestions.



Acknowledgement: Koch Industries, Murray Kasper, The Rack

saskatchewan.ca



**Your input is important.**

Please share your thoughts with us by taking our short survey at:

<http://irrigationsaskatchewan.com/icdc/surveys/>

**Watch for the**

**2018 Research and Demonstration Report**

**available in March 2019.**



## Upcoming Events

### Growing Corn: From Seeding to Feeding

**Thursday, March 21, 2019**

Outlook Heritage Centre  
420 Railway Ave West, Outlook, SK

11:00 a.m. — 5:00 p.m. Lunch provided

To Register:

<https://www.eventbrite.ca/o/icdc-14144484127>

Registration \$15.00/person—(Lunch included)

For more information contact:

Travis Peardon (306) 867-5504



Speakers and Presentations:

- 2018 Silage Corn Variety Trial—Luke Jorgensen, Ministry of Ag
- Agricultural Biosecurity, Protection against Plant Diseases, —Kaeley Kindrachuk, Ministry of Ag
- Enhanced Efficiency Nitrogen Fertilizers—Gary Kruger, Ministry of Ag
- Crop Insurance Programs for Corn—Kim McLean, SCIC
- The Secrets of A Successful Corn Crop—Gina Sentes, Corteva AgriScience
- Managing Whole Plant Corn for Grazing—Dr. Bart Lardner, U of S
- Using Corn Silage in Cow/Calf and Backgrounding Rations—John McKinnon, JJM Nutrition Services Inc.
- The Economics: Silage vs Grazing—Travis Peardon, Ministry of Ag
- Irrigation Scheduling and Crop Water Use of Corn—Joel Peru, Ministry of Ag

### Irrigation Management Workshop

**Wednesday, March 27, 2019**

Outlook Heritage Centre  
420 Railway Ave West, Outlook, SK

10:30 a.m. — 4:00 p.m. Lunch provided

To register call:

Ministry of Agriculture: (306) 867-5500

Morning by Ministry of Agriculture

- Irrigation Development Process
- Irrigation Programs- Canadian Agricultural Partnership
- Irrigation Certification
- Reclamation and Water Management for Saline Soils

Afternoon by Agriculture & Agri-Foods Canada

- Irrigation Scheduling- Methods and Tools
- Introduction to Variable Rate Irrigation



## Greetings from the ICDC Board



**Anthony Eliason,  
Board Chairman**

Greetings to Irrigators, 2019 brings us upon another busy year of research and policy work. Our Research team headed up by Garry Hnatowich has some great projects this year including more crop variety trials that will be used for ICDC's *Crop Varieties for Irrigation* guide published yearly

as well as for the Saskatchewan Seed Guide that is released each year in January.

Over the past two years we have been in talks with Saskatchewan Irrigation Projects Association (SIPA) about potentially merging the two organizations. While talks are still ongoing, some progress has been made, budgets have been reviewed and discussions had defining a new organizational structure. Currently, ICDC membership is mandated by *The Irrigation Act, 1996* while SIPA membership is on a voluntary basis. How the levy would be structured and the allocation of funds between research and policy within the new organization remains a major discussion point. Any merger would likely require more staff to help make Irrigators' voices heard at all levels.

Approximately 20% of ICDC's annual operating budget is generated through the collection of the levy from district irrigators. Over the course of the next couple of years ICDC, in cooperation with the Ministry of Agriculture, will start working towards

collecting the levy from non-district irrigators as well. Part of the levy funding for ICDC is from district located irrigators who have been paying the levy each year as part of their water allocation fees. Non-district irrigators have flown under the radar since 1996 and will soon be sent letters introducing ICDC to, our mandate and information about our program and levy. ICDC hopes that all Saskatchewan irrigation producers will find the same value from our research that district irrigators have been enjoying.

ICDC has been an Irrigation partner at Canada-Saskatchewan Irrigation Diversification Centre (CSIDC) research farm in Outlook for 20 plus years. In 2019 we will be signing an extension to renew the Framework Agreement with our CSIDC partners for an additional 5 year term. The partners include the Government of Canada (AAFC), the Government of Saskatchewan (Ministry of Agriculture), The University of Saskatchewan, SIPA, and ICDC. The partners at CSIDC work collaboratively to research and promote irrigation based economic development and environmental sustainability in Saskatchewan. This research has gone past crop diversification to include greenhouse gases, soil drainage, irrigation technology, remote sensing, and more.

As your chairman of ICDC I hope to bring the farmers' voice to this research and help guide ICDC to being a world class level research company while still being the voice for Saskatchewan Irrigators.

Here's to green fields and blue skies.

## Horticulture trial ventures into Value Added processing

*continued from page 2*

way to harvest large scale cucumber production, but it is a destructive process that allows for only a single harvest. To maximize a single harvest, the trials will look to identify a cucumber cultivar that is both high yielding and processes well. The trials will also look at determining optimal harvest dates based on heat units or growing degree day calculations. This is a standard practice for determining cucumber harvest dates that has been developed by researchers at North Carolina State University, although typically used in areas with much shorter warmer days than in Saskatchewan.



At the conclusion of these trials there will be data available to help producers make informed decisions about the numbers of acres required to meet production goals and the efficiency of mechanical vs manual harvesting. This will in turn, help to expand into larger, more efficient production and provide more opportunities for new and existing Saskatchewan irrigated vegetable producers to export both fresh and processed products.

# Irrigated Corn for Silage or Grazing

**Travis Peardon**  
**Livestock and Feed Extension Specialist**  
**Saskatchewan Ministry of Agriculture**

Corn has become an important forage crop in Saskatchewan. High yields combined with exceptional energy levels have made corn popular with beef producers. While this crop can be successful without irrigation, dry summers such as the one we faced in 2018 have made it clear why irrigation is so important with a crop like corn. In many areas, non-irrigated corn yielded fifty percent or less than neighboring irrigated fields.



While corn has proven itself to be the yield king among forage crops it does not come cheap. Expenses per acre can be as high as \$800 for corn silage when all costs are added up (see ICDC's *Agronomics and Economics* publication). This high

price tag does come with a lot of benefits that outweigh other crops. No other crop has yield potential like corn. Corn can typically yield 1.5 to 2 times barley for forage. When one does the math, the cost per pound of dry matter is comparable with other crops.

Corn silage fits well into beef cow rations. In most cases, the limiting factor in beef cattle diets is energy reflected as Total Digestible Nutrients (TDN). We typically see TDN levels in corn ranging from 68 to 72%. This would be a comparable energy level to what you would find in a typical screenings pellet. Beef cow energy requirements vary from 55% TDN in early gestation to 65% at calving. The high TDN level of corn allows producers to blend feeds such as poor quality hay or straw with corn which can reduce overall feed costs. Corn also works well for back-grounding rations. Very little grain is needed to hit an average daily gain of 2 lbs with corn silage based rations.

Winter grazing of corn is another popular option. Grazing will eliminate harvest costs and can provide very reasonably priced winter feeding. Producers are cautioned to only allow cows access to a three to five day allotment at one time. This will keep the ration fairly consistent for the cows. It is important to choose a variety with higher heat units that will not mature if corn is going to be grazed. Wrecks have occurred where cows have been turned out on mature corn as the cows will eat the

cobs first. If the grain is well developed digestive issues can occur.

Two considerations to keep in mind if using corn in your ration is calcium levels and protein. Corn is low in calcium and therefore it must be supplemented. Typically, a mineral with three parts calcium to one part phosphorous works well in corn rations. Protein supplementation may be needed with cattle depending on the protein levels of the corn and the class of cattle.

In 2018, ICDC conducted a Corn Variety Demonstrator for Silage and Grazing. In this trial sixteen different varieties from six different seed companies were grown. Dry matter yields ranged from 4.08 to 6.06 T/acre. (See table 1)

Each year more producers are choosing corn as a base for their winter rations. Although expensive to grow, the volume and quality of feed produced make it an affordable method of feed production. Ministry Livestock and Feed Extension Specialists can assist with calculating costs of growing corn and also with building balanced rations that maximize the energy corn provides. For more information on corn for forage production please contact Travis Peardon at (306) 867-5504.

**Table 1: Corn Variety Demonstration for Silage and Grazing**

Company	Variety	Dry Yield (T/ha)	Dry Yield (T/ac)
Dow Agro Sciences	Baxxos RR (check)	13.79	5.58
Thunder Seeds	TH 4126 RR	13.96	5.65
Thunder Seeds	TH 7681 VT2P RIB	13.81	5.59
Dekalb	DKC 27-55 RIB	12.82	5.19
Dekalb	DKC 30-07RIB	13.45	5.45
Dekalb	DKC 30-19RIB	13.40	5.42
Elite	E44H12R	13.54	5.48
Elite	E50P52R	13.55	5.48
Elite	E58L17R	13.04	5.28
Elite	Fusion	14.96	6.06
Legend Seeds	LR 9579	12.73	5.15
Legend Seeds	LR 9583	12.85	5.20
Legend Seeds	LR 9676	12.99	5.26
Legend Seeds	LR 98A84	10.07	4.08
Pioneer	P7527AM	14.58	5.90
Pioneer	P7958AM	14.60	5.91



## Irrigated Wheat Survey Results and Going Forward

Joel Peru, PAg, Provincial Irrigation Agrologist, Outlook  
Saskatchewan Ministry of Agriculture  
joel.peru@gov.sk.ca

In 2018, the Saskatchewan Ministry of Agriculture and ICDC conducted a survey to determine growing practises being used by producers growing irrigated wheat in Saskatchewan. The methodology and purpose of this survey are described in the 2018 November issue of the Irrigator. Now that the results are in, the data collected from producers will help provide observations on what the recipes are for some of the best wheat crops in 2018.

After the 2018 harvest, 10 participants provided sufficient information for this survey. 2018 proved to be an exception year for growing irrigated wheat in Saskatchewan. Spring wheat yields from the participants ranged from 72-107 bu/acre and averaging 91 bu/acre from the 8 responders located in the Lake Diefenbaker Development Area. The 2 responders who grew durum in the Riverhurst Irrigation District yielded 103 and 110 bu/acre. These yields are impressive if compared to the target yields in the 2018 ICDC irrigation Economics and Agronomics guide, which are 80 and 90 bu/acre for wheat and durum respectively. Many factors are responsible for the high yields that were seen this year, including the dry hot weather, which helped to keep disease pressures down and producers setting aggressive yield targets. This has resulted in the numbers being updated in the guide to target yields of 90 and 100 bu/acre for wheat and durum respectively. These numbers reflect what irrigators in Saskatchewan are actually going for and show a more optimistic potential return for this typically lower valued irrigated crop.



Yields in this survey were constantly high despite the many different production practises that were used by each individual irrigator. Seeding dates ranged from May 3<sup>rd</sup> to May 29<sup>th</sup> and did not impact yield. It is important to remember that this was an unscientific 1-year survey and ICDC recommends earlier seeding

dates based on studies conducted at CSDIC. Stand counts also showed no yield benefit and ranged from 124 to 284 plants/m<sup>2</sup>.

Irrigators that were involved in this survey fertilized for high yields. ICDC recommends 120-140 lb of N/acre for an 80-bushel crop and survey participants where fertilizing from 90 to over 200 lb of actual N per acre.

Irrigation was one variable where participants could have benefited from applying more. The 2004-2015 average for ET in wheat is 13.6 inches of water per year using climatic data from the weather station at CSIDC. Total moisture that the crop received in these fields ranged between 7 and 13 inches with most producers applying around 6 inches of effective irrigation. AIMM graphs were created for each field and observations during the growing season showed that for the most part soil profiles were kept above 60% available moistures. AIMM graphs did however show producers struggling to keep the soil moisture above that threshold in August. This was likely a result of producers cautiously managing water to minimize the risk of lodging.

Chemical applications varied significantly among the irrigators in this survey as well. The herbicide regimes were different from every individual and only 7 out of 10 of the responders applied a fungicide. It is recommended to always apply fungicide on your wheat or durum under irrigated conditions although on years like 2018 where there is low disease pressure, the return is minimal.

There were four fields that had a PGR applied in this survey and 3 sites left check strips. Despite seeing large potential yield bumps from past ICDC trials, the fields with check strips showed no advantage. There were apparent height differences between the treated and untreated portions of the field although lodging was not an issue therefore there was no related yield loss. Lodging was an issue for some of the later seeded fields, caused by September snow fall which flattened some of the standing crops.

This survey was conducted with minimal effort from cooperators and provided observations and interesting information that can be utilized by Saskatchewan irrigators. The final report will be available in March with the intention to provide information to irrigators what the recipe for a higher yielding cereal crop is. Irrigators who attended the 2018 SIPA/ICDC conference provided feedback saying that they would like to see a survey like this done for irrigated canola. The Ministry and ICDC will be collaborating again in 2019 to conduct an irrigated canola survey. If any irrigators are interested in participating, please contact the Crops and Irrigation Branch at its Outlook location at (306) 860-7201.

## Saskatchewan Agriculture Hall of Fame

Congratulations goes out to Roger Pederson as one of six inductees to be welcomed into the Saskatchewan Agriculture Hall of Fame in 2019.

As an irrigation farmer in Lake Diefenbaker region, Roger has been a strong advocate for the growth and development of the irrigation sector in Saskatchewan. He has been an active board member of Saskatchewan Irrigation Projects Association for 12 years, an appointee to the Saskatchewan Water Appeal Board for 6 years and a trustee of South Saskatchewan River Irrigation District Board for 15 years. He has been a strong advocate for producer focused irrigation research and demonstration. In

addition Roger has made numerous other contributions to the irrigation industry in Saskatchewan.

The Saskatchewan Agriculture Hall of Fame induction ceremony will be held on Saturday, April 27, 2019 at the Western Development Museum in Saskatoon.



Visit the ICDC website at:  
<http://saskatchewanirrigation.com>  
 to stay current on our publications and newsletters.

Watch for news and upcoming field days and events.  
 Follow us on twitter: ICDC@ICDC\_SK  
 Like our page on facebook: Irrigation Saskatchewan

### ICDC Staff:

**Garry Hnatowich, PAg**, ICDC Research Director, (306) 867-5405, **Specialty Areas:** Variety Testing and Agronomy

**Damian Lee**, Field Crop Technician, (306) 867-2101

**Brenda Joyes**, ICDC Executive Administrator, (306) 867-5669

### Ministry of Agriculture Crops and Irrigation Branch Staff:

**Kelly Farden PAg**, Manager-Agronomy Services, Crops and Irrigation Branch, (306) 867 5528, Specialty Area: ICDC program and administration

**Gary Kruger, PAg, CCA**, Provincial Irrigation Agrologist, (306) 867-5524, Specialty Areas: SW Program, Forage Crops, Soil Fertility, Agronomy

**Cara Drury, PAg**, Provincial Irrigation Agrologist, (306) 867-5517, Specialty Areas: Horticulture Crops, Soils

**Joel Peru, PAg, CCA**, Provincial Irrigation Agrologist, (306) 860-7201, Specialty Areas: Specialty Crops, Field Crop Agronomy, Production Economics

**Travis Peardon, PAg**, Livestock and Feed Extension Specialist, (306) 867 5504, **Specialty Area:** Forage Crops

### Directors of ICDC

#### Producer Board Members

Anthony Eliason, Chairperson  
 Nigel Oram, Vice-Chairperson  
 Kaitlyn Gifford  
 David Bagshaw  
 Greg Oldhaver  
 Paul Heglund  
 Murray Purcell

#### Irrigation District

Non-District  
 Grainland  
 SSRID  
 Luck Lake  
 Miry Creek  
 Consul-Nashlyn  
 Moonlake

#### Development Area

LDDA  
 LDDA  
 SEDA  
 SWDA  
 SWDA  
 NDA

#### Term Ends

2021  
 2019  
 2020  
 2019  
 2019  
 2020  
 2020

#### Appointed Board Members

Aaron Gray  
 Larry Lee  
 Kelly Farden  
  
 Penny McCall

#### Organization

Saskatchewan Irrigation Projects Association  
 Saskatchewan Irrigation Projects Association  
 Manager, Agronomy Services, Crops & Irrigation Branch  
 Saskatchewan Ministry of Agriculture  
 Executive Director, Crops and Irrigation,  
 Saskatchewan Ministry of Agriculture

#### Term Ends

December 2019  
 December 2019  
  
 January 2021  
  
 January 2021