

2021/22

ANNUAL REPORT



TABLE OF CONTENTS

About Us	1
Chair Message	3
Executive Director Report	4
2021/2022 Research Investments	5
2021/2022 Advocacy Highlights	7
2022 Scholarship Recipients	8
Partner Updates	9
Barley Council of Canada	9
Canadian Malting Barley Technical Centre	11
Canadian Barley Research Coalition	13
Canadian Food Focus Barley Campaign	14
Extension	15
Barley Bin Initiatives Highlights	15
Communications	16
Financials	17

ABOUT US



The Saskatchewan Barley Development Commission (SaskBarley) was established in 2013 and is led by a producer-elected Board of Directors from across Saskatchewan. SaskBarley delivers value to registered producers through management and investment in research, market development, communications and advisory and advocacy activities.

VISION STATEMENT

Barley is a long-term, profitable and internationally competitive crop choice for Saskatchewan producers.

MISSION STATEMENT

To identify, develop and support research, market development, and extension initiatives that establish long-term, profitable and sustainable barley production for Saskatchewan producers.

BOARD OF DIRECTORS



Keith Rueve,
Chair

306.231.7420



Matt Enns,
Vice-Chair

306.717.6099

GUIDING PRINCIPLES

- Advocating on behalf of registered producers as it relates to our mission and vision
- Maintaining and enhancing Saskatchewan's brand for quality
- Communicating best management practices for barley production
- Demonstrating transparency and good governance
- Building and sustaining collaborative relationships with organizations that share common objectives
- Identifying and leveraging available resources
- Maintaining an organization that is nimble and responsive to issues affecting Saskatchewan barley producers



Maurice Berry,
Director

306.452.7504



Zenneth Faye,
Director

306.272.7080



Cody Glenn,
Director

306.293.7525



Glenn Wright,
Director

306.493.3023

STAFF



Jillian McDonald

Executive Director

306.370.7237



Cole Christensen

Communications Manager

306.250.1099



Mitchell Japp

Research and Extension Manager

306.535.4536



CHAIR MESSAGE

The 2021-2022 crop year had many challenges, most significantly the severe drought that plagued Saskatchewan in 2021. As this year comes to an end, I have to say that I am very pleased with the work our organization has accomplished on behalf of Saskatchewan's barley producers.

The widespread drought conditions in 2021 produced a very small crop of just under seven million tonnes of barley in Canada. For those producers that did have some barley to sell, this small crop also meant very high prices for both malt and feed barley. Pricing has continued to be strong into 2022.

One of the most significant advancements within the industry is the acceptance of new malting varieties by the value chain. Since 2015, levy dollars from Saskatchewan barley farmers have been invested in the breeding programs at the Crop Development Centre (CDC) and Agriculture and Agri-Food Canada (AAFC) Brandon. Long-time dominant malting variety, CDC Copeland, continues to decline in acres capturing 36% of malting barley acres in Saskatchewan in 2022 – almost equivalent to AAC Synergy at 32% of malting barley acres.

New varieties such as AAC Connect, CDC Bow and CDC Fraser have gained acceptance by maltsters and are also capturing acres. The new variety CDC Churchill looks very promising. The focused effort of producer commissions and the value chain for an increased rate of turnover in malting varieties is paying off, with farmers benefiting from higher yields and better agronomic packages in these new varieties.

This past year we leveraged our voice through collaboration with six Saskatchewan crop commissions, namely SaskPulse, Sask Wheat, SaskCanola, SaskBarley, SaskFlax, and SaskOats. As "SaskCrops", we were able to advocate to policymakers at a provincial and federal level on grain contract improvements and environment and climate change policy.

The challenges of the 2021 drought highlighted the need for improvements to grain contracts. In cooperation with the SaksCrops groups and the Agricultural Producers Association of Saskatchewan (APAS), we commissioned a report by Mercantile Consulting to review grain contracts. In July 2022, we released the results of the report and illustrated the wide scale and rising concerns amongst Saskatchewan farmers. The report found that grain purchase contracts are heavily tilted in favour of the grain buyer, leaving Saskatchewan farmers at a disadvantage, with only 46 per cent of prairie grain farmers feeling that they receive fair contracts. We are currently involved in discussions with stakeholders and government bodies and hope to see more progress for farmers in the coming twelve months.

SaskCrop's recent submission, with the added support of APAS to the federal government, was on the timely topic of the Fertilizer Emission Reduction Target. SaskBarley also made its own submission to the consultation, and we will continue to keep this critical consultation top of mind in this current crop year.

Investments in research have been and will continue to be paramount in SaskBarley's mission. Within our strategic plan, we have a goal of investing 65% of our annual budget in research. This past year, 73% of our expenses were invested in SaskBarley's research activities, a trend that will continue as we move forward to 2023.

One of the significant projects underway is research into how barley is best managed when subject to intensive management practices. Growing barley in Saskatchewan is not a "one size fits all" prospect, and through our partnership with several Agriculture Applied Research Management (Agri-ARM) sites, we evaluated barley's response to additional inputs and how it related to environmental conditions throughout the province. This research breaks down into three projects examining variety response to nitrogen fertilizer rates, fungicide application and to plant growth regulator application. More information on our research findings in this area will be on SaskBarley.com as they are made available.

Seeing familiar and new faces at our in-person events this summer was a particular highlight. I thoroughly enjoyed spending a few days at Ag in Motion this past July, representing our commission and connecting with barley farmers from across Canada. SaskBarley was also proud to support and participate in the Western Canada 2022 Barley Crop Tour, which was spearheaded by our partners at the Canadian Malting Barley Technical Centre (CMBTC). It was great to continue connections with farmers and our end users.

Thank you for your investment in our provincial barley commission, and, as always, please reach out if you have questions or want to become more involved in the work we do.

Regards,

Keith Rueve
Chair

EXECUTIVE DIRECTOR REPORT

When I reflect on the past year, I think the one word that can sum it up is “collaboration.”

This spirit defined our year and how we approached the opportunities and challenges that faced our sector.

A particular highlight was the continued expansion of our research portfolio. Our Research and Extension Manager, Mitchell Japp, has been working collaboratively with other commissions and research organizations to ensure we are providing high-quality barley-specific research at a rate of return that you, our members, would expect. In fact, we have documented that for every one dollar of SaskBarley check-off invested in variety development research, over \$26.09 has been returned to producers through improved varieties and increased yields. Currently, there are 49 active research projects in our portfolio, making SaskBarley the leader in Canadian barley research.

Included in this portfolio is the continued support of The National Barley Cluster, led by the Barley Council of Canada. Not only has this investment delivered new varieties with improved agronomics, but it has also resulted in increased knowledge about crop management practices that will improve input efficiency and sustainability. While this current cluster will conclude in 2023, we have been actively involved in the development of the application for the next Barley Cluster for 2023-2028.

We remained a major financial supporter and partner of the Canadian Malting Barley Technical Centre (CMBTC) throughout the past year. The important work of the CMBTC on market development support is unique worldwide. They offer an extremely valuable service to value chain members and export customers with their cargo quality analysis, micro malting and brewing processes. Our strong involvement with them and significant investment are critical to the continued strength of the Canadian barley industry.

We are particularly proud of our joint work with SaskCrops in 2022. Policy issues such as environment and climate change policy, alongside direct farmgate concerns regarding grain contracts, dominated our policy portfolio. A strong and unified Saskatchewan voice is essential to advocating for producers at all levels of government. The SaskCrops group has become a valuable and trusted source of information and will continue

to build on that reputation. By leveraging our voice with our fellow crop commissions, we believe we have carried an even stronger voice on behalf of the Saskatchewan grain farmer.

As you may have read on Twitter, watched on YouTube, heard on a podcast, seen in your mailbox or attended in person, we kicked our communications portfolio up a notch this year. Our main goal throughout our communication initiatives has been to provide barley farmers with easily accessible information including timely agronomic articles, barley market reports, industry updates and more. This is housed in the “Barley Bin” on our website and is also part of our new in-person events called Barley Bin Live. If you have not seen any of our resources, or are not on our mailing list, head to SaskBarley.com and subscribe today.

In partnership with Canadian Food Focus (CFF), we also launched an initiative to reach out directly to consumers on barley. Specific barley content created by CFF included 21 pieces of content with over 971,000 individual impressions by Canadian consumers. Food barley, while still a small portion of overall barley sales, is still an important part of the value chain and is a potential growth area for Canadian barley. SaskBarley will continue to explore opportunities in support of this emerging market.

Our commitment to farmers, above all else, is to deliver value for their levy dollars. With a small dedicated staff, collaboration is key to maximizing those dollars and improving the profitability of barley for Saskatchewan producers.

Regards,



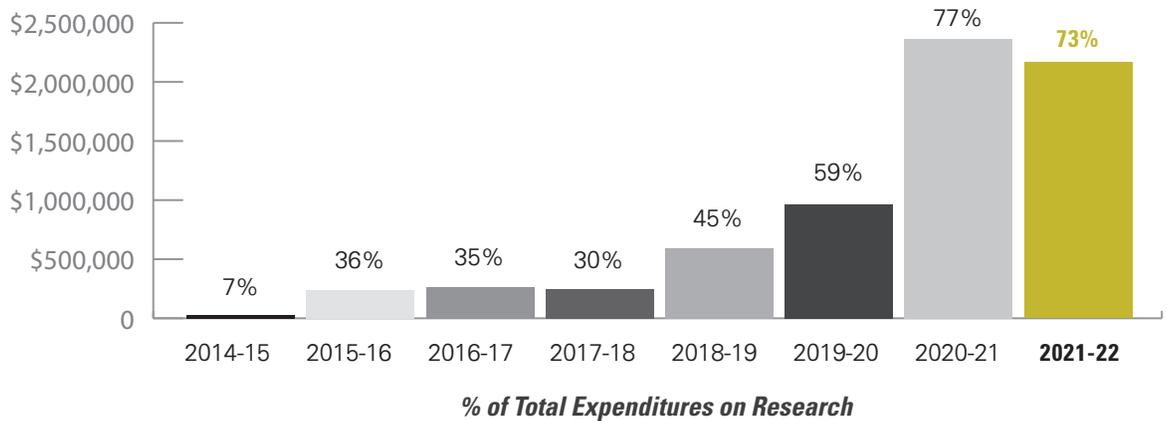
Jill McDonald
Executive Director



2021/2022 RESEARCH INVESTMENTS

2021/2022 Research Investments			
Title	Principal Investigator	SaskBarley Total Commitment	Projected End Date
Next generation of barley traceability	Rory O'Sullivan	\$ 90,000	2023
Growth chambers	Dr. Gurcharn Singh Brar	\$ 70,000	2022
Can winter barley be grown in central Saskatchewan?	Garry Hnatowich	\$ 2,995	2022
Enhanced agronomy trials - N fertility, fungicide, PGR	Mike Hall and Brianne McInnes	\$ 123,075	2023
Tracing C and N during crop residue decomposition to optimize C sequestration and predict N transfer credit	Dr. Bobbi Helgason	\$ 48,302	2025
Enhancing capacity of barley breeding programs in western Canada: establishing disease nurseries and a pre-breeding platform	Dr. Gurcharn Singh Brar	\$ 70,725	2024
Alternate analytical methods for evaluating environment-specific varietal performance of various crops in Saskatchewan	Christiane Catellier	\$ 5,104	2023
Maximizing feed barley yield while minimizing lodging	Laurel Thompson	\$ 7,200	2025
Mitigating the risk of preharvest sprouting in Canadian malting barley	Dr. Belay Ayele	\$ 99,425	2025

Total Research Expenditures



Leverage ratio for projects funded in 2021-22: 7:1
 (total project costs of \$3,732,078)



SaskBarley's new research investment for 2021/2022 was:

\$536,826

YOUR BARLEY CHECK-OFF DOLLARS
=
A Sound Investment!

\$1.06
per tonne **OR** **\$0.02**
per bu **= SaskBarley check-off**

\$26.09
CDN **=** Rate of return for producers
(through improved varieties) for
every \$1 of SaskBarley check-off
invested in research

73% **=** Percentage of SaskBarley
expenses invested
in research (2021/22)

65% **=** Minimum percentage of
SaskBarley's budget to be
invested in research annually

49 **=** Number of research
projects SaskBarley is
currently funding

SASKATCHEWAN BARLEY FARMERS:
INVESTING IN THE FUTURE

AAC Connect, CDC Fraser,
CDC Bow and CDC Churchill



New varieties developed with SaskBarley check-off dollars

AAC Connect, CDC Fraser,
CDC Bow and CDC Churchill



Accepted by domestic maltsters in Canada, as a direct result of SaskBarley market development initiatives

AAC Connect, CDC Bow
and CDC Fraser



New varieties currently being accepted by Chinese malting companies, due to international market development work supported by SaskBarley



2021/2022 ADVOCACY HIGHLIGHTS

SASKCROPS COLLABORATION

In 2021/22 SaskBarley began working collaboratively with other Saskatchewan crop development commissions to advocate on behalf of growers on broad policy issues under the group name SaskCrops which includes SaskPulse (SPG), Sask Wheat, SaskCanola, SaskBarley, SaskFlax, and SaskOats. Environment and climate change policy was a primary topic of focus this year, along with grain contracts and other broad policy issues of importance to all growers.

GRAIN CONTRACTS

A number of Saskatchewan groups commissioned a review of grain contracts through Mercantile Consulting Venture which highlighted the elements of grain contracts that lack balance for growers. The review was used and will continue to be used as a discussion starter to meet with the grain handling sector to raise concerns regarding this lack of balance and transparency in grain contracts on behalf of growers in hopes to urge a more equitable structure in the future.

ENVIRONMENT AND CLIMATE CHANGE

SaskCrops jointly submitted recommendations to the federal government on several occasions, including the government's fertilizer emissions reduction target consultations. Twelve meetings with federal and provincial government officials to advocate on behalf of growers on ongoing environmental and climate change policy were executed this past year and will continue in order to advocate for growers' concerns. SaskBarley also did its own submission to this important consultation.

2022 SCHOLARSHIP RECIPIENTS

Each year, SaskBarley offers scholarships as an investment in promising university students who are carrying out university-level research focused on barley. The scholarship program also encourages and supports new research to benefit Canadian barley. Meet our 2022 recipients.

Michael Taylor

M. Sc. Student – University of SK



Lodging: the great fall of barley

My project is called “Lodging: the great fall of barley”. The goal is to get to the root of the lodging problem in barley. This consists of 2 main investigations. One being imaging of the barley root system in both 2D and 3D systems. These images then have detailed root trait data extracted and the influence of these traits on lodging is examined. The second half of the project consists of collecting field data like stem strength, root anchorage failure, stem cross-section diameter and more, with a similar goal to the root imaging – to find their relationship and influence on lodging.

My research has 3 primary goals, the first is to assess and characterize barley root system architecture in 2D and 3D hydroponic systems. The second goal is to examine both root and stem characteristics in relation to lodging resistance in the field and lastly, which of these traits have the most influence on lodging resistance. The intention of the project is to give barley breeders the tools and potentially even breeding targets to assess lines more easily for lodging resistance, especially in years where lodging does not occur.

Jonathan Beutler

PhD student – University of BC



Monitoring and characterization of necrotrophic cereal fungi: applying nanopore sequencing for improved *Pyrenophora teres* surveillance

This research will focus on the development of a real-time and point-of-care pathogen characterization and surveillance platform using portable Oxford Nanopore DNA sequencers and a custom-designed bioinformatic analysis pipeline targeting *Pyrenophora teres*, a necrotrophic fungus that causes net blotch disease in barley. We will conduct a global population structure analysis including isolate collections from western Canada. The analysis pipeline will allow us to genomically characterize pathogen lineages and races and assess spatial and temporal prevalence patterns of unique lineages. We will validate the pipeline using <100 Canadian *P. teres* samples collected over 3 years.

A second goal of the project is focused on resistance breeding. We will phenotype two geographically, phenologically, and genetically diverse panels of barley genotypes/accessions with the most predominant lineages and races of the pathogen in greenhouse and field nurseries to identify resistant genotypes. With available sequence/genotypic data on the panels and the phenotypic data we collect, we will conduct a genome-wide association study (GWAS) to identify genomic regions controlling resistance and associated molecular markers. The resistant accessions, molecular markers, and genes we identify will help barley breeders to develop net blotch resistant pre-breeding germplasm, and ultimately lead to the development of resistant varieties for Canadian growers.

Dilini Adihetty

PhD student – University of AB



Variation in virulence, host resistance and fungicide sensitivity in the western Canadian *Cochliobolus sativus* population

Canadian barley, grown mainly on the western Prairies, is known for its high quality. Unfortunately, foliar diseases such as spot blotch, caused by the fungus *Cochliobolus sativus*, can limit the plant’s ability to set yield and fill grain, resulting in significant yield and quality losses. The aim of my research is to help to reduce these deleterious effects by improving understanding of the variability in the current western Canadian spot blotch population in terms of virulence, host resistance and fungicide sensitivity.

Preliminary testing of randomly selected isolates from Alberta, Saskatchewan and Manitoba on three Canadian barley cultivars (‘AAC Synergy’, ‘CDC Fraser’, and ‘Revanche’) showed that the *C. sativus* population in the Prairies may be able to partially or completely overcome host resistance. Furthermore, an ongoing study of the sensitivity of representative isolates from western Canada to three commonly used fungicides also indicated that they are at risk for the development of fungicide resistance. Collectively, the knowledge generated from this research will allow us to target spot blotch more effectively, by developing improved spot blotch management practices. This will in turn enable more profitable barley production, and thus help to secure barley as a viable long-term option for farmers.



BARLEY COUNCIL OF CANADA

2021/22 HIGHLIGHTS

By: Zenneth Faye, Chair

The Barley Council of Canada (BCC) is a unique organization formed to be the national voice of barley. It represents members across the country and its membership includes both grower and industry organizations. SaskBarley is the largest funder of BCC; nevertheless, all members are committed to the success of the barley value chain.

BCC collaborates with and contributes to Canada Grains Council, the Brewing and Malting Barley Research Institute (BMBRI), the Canadian Malting Barley Technical Centre (CMBTC) and the Canadian Barley Research Coalition (CBRC), among other groups focused on research, sustainability, communication and marketing.

The National Barley Cluster was launched in 2018 and concludes in 2023. It represents \$10.2 million invested in barley research across the prairie provinces with \$6.3 million coming from the Agriculture and Agri-Food Council and \$3.9 million coming from the Canadian barley industry. The ultimate objective of the Cluster – and BCC – is to ensure that the Canadian barley value chain remains competitive and profitable. To this end, funding has been allocated to the development of barley varieties, breeding and genetics, crop management, agronomy, technology and the investigation and development of market applications.

The Barley Council of Canada website hosts a series of interesting and informative videos pertaining to varietal development, disease management and malting and brewing. (www.barleycouncil.ca/research) They were developed in conjunction with CBRC.

Agriculture is a competitive business and BCC works with stakeholders to protect and promote the Canadian reputation for growing premium malting barley as well as high-quality feed barley. While feed barley accounts for its largest use, there is potential for barley as a greater component in human diets. Canada is among the top barley-producing countries worldwide and the second largest malt exporter. BCC is committed to developing a focused and informed vision to help the barley value chain maximize its potential.

In efforts to provide value and distinct services, BCC has been working with an independent consultant on developing a pathway forward for

the Canadian barley industry and the outcome will also help with a strategy for BCC. The purpose is to:

- ✓ ensure barley is an economically viable crop in the future and, for Canada's barley value chain to be profitable, the industry must ensure it identifies key challenges and opportunities.
- ✓ ultimately develop approaches that will allow it to thrive in a world where change is constant and the competitive environment is evolving.
- ✓ develop a vision in which all members of the barley value chain can see themselves and their interests represented.

The vision document remains in development and drafts have been shared with members. When finalized as the new year unfolds, it will be presented in a broader scope.

DID YOU KNOW?

SaskBarley directors and/or staff represented Saskatchewan barley producers on these groups throughout 2021/22:

- ✓ Barley Council of Canada
- ✓ Canadian Malting Barley Technical Centre
- ✓ Western Grains Research Foundation
- ✓ Brewing and Malting Barley Research Institute Technical Committee
- ✓ Sask Soil Conservation Association Carbon Advisory Committee
- ✓ Farm and Food Care Saskatchewan
- ✓ Canadian Barley Research Coalition
- ✓ Saskatchewan Advisory Council on Grain Crops
- ✓ Cereals Canada – Market Assessment Committee
- ✓ Prairie Recommending Committee for Oats and Barley

DID YOU KNOW?

SaskBarley sponsored the following initiatives in 2021/22:

- ✓ Canadian Food Focus
- ✓ Ag in the Classroom
- ✓ Crop Diagnostic School
- ✓ Soils and Crops
- ✓ Agribition
- ✓ Prairie Beer Awards
- ✓ AgriARM research sites
- ✓ Grade School
- ✓ Malt Academy – Saskatchewan
- ✓ Ag in Motion

CANADIAN MALTING BARLEY TECHNICAL CENTRE

2021/22 ANNUAL REPORT HIGHLIGHTS

BY PETER WATTS, MANAGING DIRECTOR



The 2021-22 marketing year was a challenging one for the CMBTC and its members. After one of the worst droughts on record, the quantity and quality of the 2021 barley crop were severely compromised. Coming into the summer of 2021 with already tight supplies and strong prices, the punishing drought pushed average barley yields down to 43 bushels per acre, 35% below the 5-year national average of 69 bu/acre, resulting in a 6.6 mln tonne barley crop in western Canada, the smallest since the late 1960s.

Harvest rains compounded problems. Ultimately Canada's malting and grain companies struggled to find sufficient quantities of malting barley to meet their needs. The malting sector was forced to import barley for the first time in many years, and Canada's grain exporters had difficulty covering export sales commitments made before the extent of the drought was realized.

With record-high barley prices, malting company margins were squeezed while the livestock sector struggled to find an adequate supply of feed and forage and the high costs of rations pushed margins into the red. Ultimately Canada imported over 6 million tonnes of US corn to supplement the requirements of the livestock sector.

With a limited crop to market, the CMBTC's focus in 2021-22 was on helping end-users understand and manage the quality of the barley they would be receiving. In addition, the challenges stemming from the drought and small barley crop created an opportunity to encourage producers who required new seed supply to test out new varieties in 2022 and to press buyers to recognize the importance of accepting new varieties with better agronomics to support future supply.

Helping Customers Optimize the Processing of 2021 Crop Barley

The first order of the day after harvest in 2021 was to understand the quality of the malting barley crop and communicate that information to customers and

end-users of Canadian barley. Historically high protein content meant that malsters and brewers would have to adjust their recipes and processing protocols. Typically, the malting and brewing industries prefer barley protein between 10-12.5%, on the lower end for malt destined to craft brewers, on the higher end for malt destined for the macro brewing industry that uses adjuncts such as corn and rice as supplemental sources of fermentable sugars. The average protein content in the 2021 malt barley crop in western Canada was well over 13%. As a result, Canada's malting companies had a significant challenge on their hands to produce high-quality malt that met end-use customer requirements, both in the domestic and international markets.



In December of 2021, in collaboration with Boortmalt, Great Western Brewing and Waterloo Brewing, the CMBTC held a webinar to help maltsters and brewers understand and address the challenges they would be facing with Canada's 2021 barley crop. Entitled "Collaborating to Make Great Beer" the webinar attracted over 250 registrants from Canada and around the world.

Western Canadian Field Trials

The 2021 growing season was also the second year of the CMBTC's Western Canadian Field Trials (WCFT). Initiated in 2020, the WCFTs work with existing provincial regional variety trials (RVTs) to source malting barley varieties from approximately 25 locations across the Prairies and evaluate them for malt quality and processing performance. This program allows the CMBTC to compare the performance of new varieties against checks across the Prairies and from year to year, creating a robust data set used to market the quality characteristics of new malting barley varieties to domestic and international maltsters and brewers. In 2021, 10 varieties were included in the



program including AC Metcalfe, CDC Copeland, AAC Synergy (all 3 checks), AAC Connect, CDC Bow, CDC Fraser, CDC Copper, Lowe, AB BrewNet and CDC Churchill.

Training & Education

Despite ongoing pandemic restrictions, the CMBTC was able to resume its Malt Academy courses in 2021-22 holding its flagship, 1-week intensive malting course in December, and 3 producer Malt Academies, one in each of Alberta, Manitoba and Saskatchewan.

The CMBTC's Malt Academy was also the 2022 recipient of the Soles of Malt award granted by the US Craft Brewers Association each year to the person or organization who has contributed significantly to the craft malting industry over the years.

2022 New Crop Tour

After a two-year hiatus, the CMBTC was able to resume its annual new crop tour. From August 10 to 12, approximately 50 representatives from the barley value chain including maltsters and brewers, Canadian producers and grain companies, as well as buyers of Canadian barley and malt from around the world gathered in central Saskatchewan. This year's tour included several representatives from Japan, one of Canada's largest malt markets with technical and purchasing staff from Asahi and Sapporo Breweries.

The day-and-a-half tour included visits to two Saskatchewan farm operations, Wylie Seed Farm near Biggar and the Enns family farm near Rosthern.

Demonstration plots on both farms consisted of many existing commercial malt varieties alongside several newly registered ones. This allowed participants to see these varieties in the field as they heard from farmers, seed company spokespeople and a breeder about the agronomic and quality characteristics of the various lines. Day two of the tour included a visit to the Crop Development Centre (CDC) at the University of Saskatchewan in Saskatoon. It was led by barley and oat breeder Dr. Aaron Beattie.

Ultimately, these tours serve to reinforce the quality proposition of Canadian barley and are important in promoting new variety acceptance. All of this benefits Canadian farmers and the industry as a whole.

As one of the world's largest exporters of barley and malt, Canada must work to ensure new barley varieties with better agronomics and disease resistance gain acceptance in the international market. This will ensure farmers benefit from improved genetics and barley remains a competitive crop within the western Canadian farm rotation. The tours also facilitate long-term business relationships between Canada's barley and malt value chain and its customers. This is key to maintaining Canada's position as the world's premier supplier of high-quality barley and malt to the global brewing industry.

CANADIAN BARLEY RESEARCH COALITION

2021/22 HIGHLIGHTS

BY GINA FEIST, MANAGER



The Canadian Barley Research Coalition (CBRC) was established in 2020 and is positioned to be the leader, and point of contact, for barley research in Canada.

Over the past year the CBRC took on a new role of facilitating the development of the next Barley Cluster submission under the Sustainable Canadian Agricultural Partnership (SCAP) program. The barley value chain has benefited from AgriScience Barley Clusters since 2010 with research investment exceeding \$25M. The outputs from the Barley Clusters have shaped the industry through the development of new barley varieties grown by farmers today to development of best management practices to maximize varietal profitability and sustainability. Funding under the Barley Clusters also supports end use applications to enhance the whole barley value chain related to feed, forage, malting and brewing, and food uses.

The current Barley Cluster program will end March 31st, 2023 and the CBRC has been busy preparing the submission for the next program. Over the past year the CBRC has communicated the priorities of the barley industry and the AgriScience Program, facilitated a call for Letters of Intent (LOI) and Full Proposals, and completed a thorough review of each activity by the Science Advisory

Body, independent peer reviewers, and funders.

The SCAP program, starting in 2023, has some notable changes to the requirements for submission, including a reduced Government cost share ratio and research priority areas dedicated to Climate Change and the Environment, Economic Growth and Sector Resilience. CBRC has been working hard to ensure that new requirements for the program are met while not comprising on funding research that is of the highest priority to producers and the barley industry.

In addition to leading the next Barley Cluster, the CBRC manages the funding under the Core Breeding Agreements (CBA). In 2020 CBRC signed CBAs with Agriculture and Agri-Food Canada (AAFC) and the University of Saskatchewan's Crop Development Centre (CDC) for \$1.5 M and \$2.7 M over five years, respectively. Progress towards breeding targets under the CBAs will bring significant benefits to the whole value chain as the new varieties are registered and grown by farmers in the coming years.

On July 18th, 2022 the CBRC Barley Committee met to review the progress of the barley breeding programs under the CBAs and to provide feedback to the breeders on the needs of the industry. The in-person Barley Committee meeting was well attended and a great opportunity for breeders, producers, maltsters and brewers, the livestock industry and food manufacturers to discuss their barley varietal needs. The full day meeting included presentations from the value chain and, of course, an opportunity to share a beer with friends in the industry.

The goal of the CBRC is to continue to maximize Canadian barley research investment that provides a significant return on investment for funders. An important part of the work is the communication of research outputs to ensure adoption of new technology and knowledge. The CBRC continues to build its communication presence through the CBRC website, Twitter and in person events. Check out the CBRC at <https://barleyresearch.ca/>.

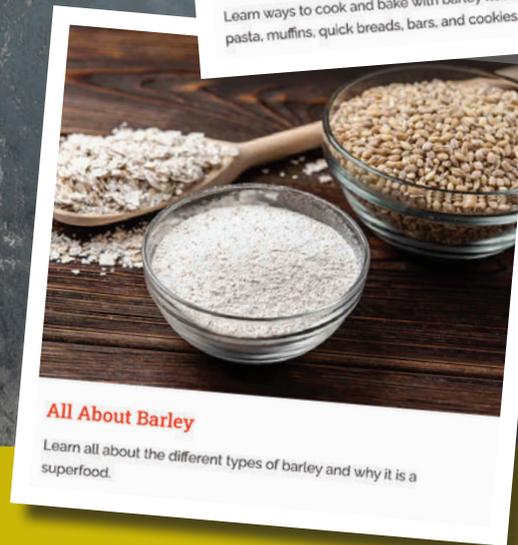
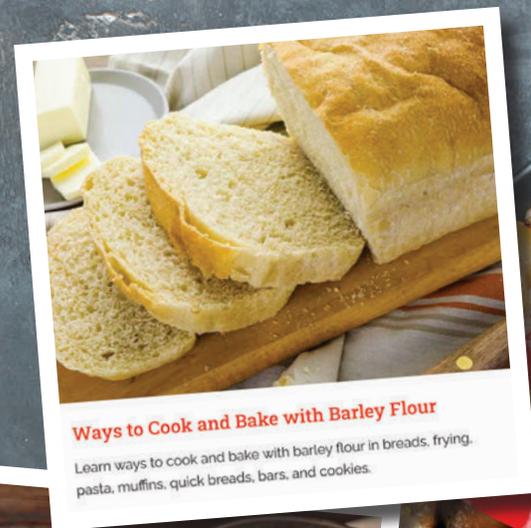
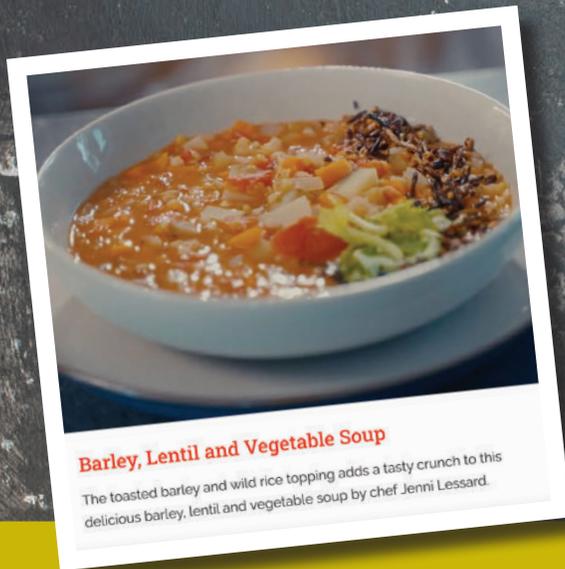
CANADIAN FOOD FOCUS BARLEY CAMPAIGN

SaskBarley partnered with Canadian Food Focus to promote barley to Canadian consumers. In 2021-2022, the targeted campaign yielded over 21 pieces of content. This barley content was shared through the Canadian Food Focus website and social media channels, yielding 971,000 impressions and over 90,000 engagements with consumers.

The campaign developed articles, recipes, videos and “learn to cook” sessions to further promote barley as a staple product in Canadian kitchens.

3 most popular content pieces:

- ✓ Ways to Cook & Bake with Barley Flour
- ✓ All About Barley
- ✓ Barley, Lentil and Vegetable Soup



Statistics from campaign



EXTENSION



BARLEY BIN INITIATIVES HIGHLIGHTS

Fall 2021 was the launch of SaskBarley's first magazine edition of the Barley Bin. The semi-annual magazine replaced the Field Notes newsletter. The magazine includes market reports, research project updates, agronomy articles and more. The magazine is direct mailed to every registered barley grower in Saskatchewan, part of fulfilling SaskBarley's mission to communicate all things barley with Saskatchewan farmers. The magazine is also available electronically on barleybin.ca.

SaskBarley launched season 2 of the Barley Bin podcast in 2021-22. The five-episode season covered topics including barley food, history and culture, hydrology in a drought, director experiences, barley markets and barley breeding. Episodes are always available on barleybin.ca and wherever you get your podcasts.

In 2021-22, SaskBarley was ready to get back to meeting live and in person. We launched a format of meetings called Barley Bin Live. The first events were in Saskatoon and Yorkton at Great Western Brewing and Back 40 Brewery. The goal of Barley Bin Live is to encourage discussion and connection between researchers and extension specialists with barley farmers. Presenters focused on engaging topics based on answering questions presented by SaskBarley with lots of room for further questions. Watch our Twitter feed for the opportunity to present your own questions at the next Barley Bin Live.

SaskBarley and Sask Wheat partnered to host a booth at Ag in Motion. We had some barley and wheat demonstration plots to showcase a current project on crop competition. We also set up some presentations each day. SaskBarley staff and directors enjoyed the opportunity to connect with Saskatchewan barley farmers and talk about what the commission does.

COMMUNICATIONS



Communication outlets

- Monthly e-newsletter
- Magazine (bi-annual)
- Social media
- Podcast
- YouTube
- Barley Bin Live



TWITTER



▶ **200+**
NEW FOLLOWERS

▶ **19,859**
PROFILE VISITS

E-NEWSLETTER



▶ **1400+**
SUBSCRIBERS

▶ Readership
rate over
50%

SaskBarley's main goal throughout our communications initiatives has been to provide barley farmers with easily accessible information including timely agronomic articles, barley market reports, industry updates and more. As you may have read on Twitter, watched on YouTube, heard on a podcast, or seen in your mailbox, we have kicked our communication portfolio up a notch this year.

2021|22

FINANCIALS

INDEPENDENT AUDITOR'S REPORT

To the Directors of Saskatchewan Barley Development Commission



Qualified Opinion

We have audited the financial statements of Saskatchewan Barley Development Commission (the Commission), which comprise the statement of financial position as at July 31, 2022, and the statements of operations, changes in net assets and cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, except for the possible effects of the matter described in the *Basis for Qualified Opinion* section of our report, the accompanying financial statements present fairly, in all material respects, the financial position of the Commission as at July 31, 2022, and the results of its operations and cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

Basis for Qualified Opinion

The commission collects a levy from Saskatchewan producers through buyers of barley, the completeness of which is not susceptible of satisfactory audit verification. It was not practical for us to verify whether all buyers of barley produced in Saskatchewan have collected and remitted the required levy to the commission. Accordingly, our verification of these revenues was limited to the amounts recorded in the records of the commission. Therefore, we were not able to determine whether any adjustments might be necessary to revenue, excess of revenues over expenses and cash flows from operations for year ended July 31, 2022, current assets as at July 31, 2022 and July 31, 2021, and net assets at both the beginning and end of the July 31, 2022 and July 31, 2021 years. Our audit opinion on the financial statements for the year ended July 31, 2021 was modified accordingly because of the possible effects of this limitation of scope.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Commission in accordance with ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our qualified audit opinion.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Commission's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Commission or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Commission's financial reporting process.

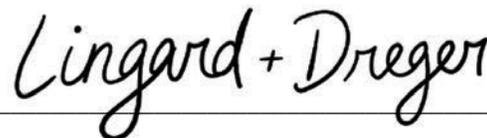
Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Commission's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Commission's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Commission to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.



Chartered Professional Accountants

Saskatoon, Saskatchewan

December 13, 2022

SASKATCHEWAN BARLEY DEVELOPMENT COMMISSION

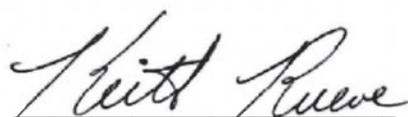
Statement of Financial Position

As at July 31, 2022

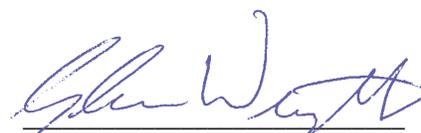
	2022	2021
ASSETS		
CURRENT		
Cash and equivalents	\$ 4,203,823	\$ 3,875,561
Short-term investments (Note 3)	908,730	1,885,374
Accounts receivable (Note 4)	121,841	86,298
Prepaid expenses	201,621	185,935
	5,436,015	6,033,168
LONG-TERM INVESTMENTS (Note 3)	1,010,020	1,001,389
	\$ 6,446,035	\$ 7,034,557
LIABILITIES		
CURRENT		
Accounts payable and accrued liabilities (Note 5)	\$ 715,466	\$ 467,486
NET ASSETS		
RESTRICTED	3,730,569	4,567,071
INTERNALLY RESTRICTED (Note 6)	2,000,000	2,000,000
	5,730,569	6,567,071
	\$ 6,446,035	\$ 7,034,557

COMMITMENTS (Note 7)

APPROVED BY THE BOARD



Director



Director

See notes to the financial statements

SASKATCHEWAN BARLEY DEVELOPMENT COMMISSION

Statement of Operations

For the Year Ended July 31, 2022

	Budget (Note 11) 2022	2022	2021
REVENUE			
Producer check-off fees (Note 8)	\$ 1,954,947	\$ 2,272,147	\$ 3,680,587
Refunds	(195,495)	(195,705)	(324,245)
	1,759,452	2,076,442	3,356,342
Grants	-	43,704	-
Investment income	25,000	73,042	97,656
Interest income	4,000	70,670	62,988
Other	-	33,212	200
Unrealized gain (loss) on investments	-	(125,999)	104,938
	1,788,452	2,171,071	3,622,124
EXPENSES			
Research projects	2,484,300	2,007,375	2,243,509
Research administration	150,000	145,372	122,703
Market development	309,000	304,522	292,010
Communications and advocacy	176,000	200,197	108,133
Service contracts	195,000	195,869	181,513
Board of directors	69,500	72,449	45,018
Election	4,000	5,317	-
General and administrative	52,500	76,472	77,858
	3,440,300	3,007,573	3,070,744
EXCESS (DEFICIENCY) OF REVENUE OVER EXPENSES FOR THE YEAR			
	\$ (1,651,848)	\$ (836,502)	\$ 551,380

SASKATCHEWAN BARLEY DEVELOPMENT COMMISSION

Statement of Changes in Net Assets

For the Year Ended July 31, 2022

	Unrestricted	Internally Restricted	2022	2021
NET ASSETS - BEGINNING OF YEAR	\$ 4,567,071	\$ 2,000,000	\$ 6,567,071	\$ 6,015,691
Excess (deficiency) of revenue over expenses for the year	(836,502)	-	(836,502)	551,380
NET ASSETS - END OF YEAR	\$ 3,730,569	\$ 2,000,000	\$ 5,730,569	\$ 6,567,071

See notes to the financial statements

SASKATCHEWAN BARLEY DEVELOPMENT COMMISSION

Statement of Cash Flows

For the Year Ended July 31, 2022

	2022	2021
OPERATING ACTIVITIES		
Excess (deficiency) of revenue over expenses for the year	\$ 1,514,678	\$ 551,380
Items not affecting cash:		
Gain (loss) on disposition of investments	(41,938)	(63,432)
Unrealized gain (loss) on investments	125,999	(104,938)
	(752,441)	383,010
Changes in non-cash working capital:		
Accounts receivable	(35,543)	154,170
Prepaid expenses	(15,686)	114,003
Accounts payable and accrued liabilities	247,979	113,545
	196,750	381,718
Cash flow from (used by) operating activities	(555,691)	764,728
INVESTING ACTIVITIES		
Proceeds on disposition of investments	1,557,002	1,010,767
Purchase of investments	(577,836)	(539,751)
Reinvested interest	(95,213)	(82,884)
Cash flow from investing activities	883,953	388,132
INCREASE IN CASH	328,262	1,152,860
CASH - BEGINNING OF YEAR	3,875,561	2,722,701
CASH - END OF YEAR	\$ 4,203,823	\$ 3,875,561
CASH CONSIST OF:		
Cash and equivalents	\$ 4,203,823	\$ 3,875,561

See notes to the financial statements

SASKATCHEWAN BARLEY DEVELOPMENT COMMISSION

Notes to the Financial Statements

For the Year Ended July 31, 2022

1. AUTHORITY

The Saskatchewan Barley Development Commission ("the Commission") was established on June 7, 2013, pursuant to *The Saskatchewan Barley Development Plan Regulations* ("Regulations"), under the authority of *The Agriculture and Agri-Food Act, 2004*. The mandate of the Commission is to invest grower's check-off dollars in research and market development initiatives that contribute to profitable and sustainable barley production in Saskatchewan.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The financial statements were prepared in accordance with Canadian accounting standards for not-for-profit organizations in Part III of the *CPA Canada Handbook* and include the following significant accounting policies:

Cash and cash equivalents

Cash and cash equivalents consist of balances with banks and short-term investments with maturities of three months or less.

Revenue recognition

Producer check-off fees are recognized upon receipt of the Buyer's report. Refunds are recognized when refund applications are received from producers and the requested refund has been agreed to check-off records.

The Commission follows the deferral method of accounting for contributions, which include government funding and grants. Restricted contributions are recognized as revenue in the year in which the related expenses are incurred or restrictions met. Unspent amounts are included in deferred contributions. Unrestricted contributions are recognized as revenue when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured.

Interest revenue is recognized as earned on a time proportion basis.

Investment and other revenue is recognized when earned.

Income taxes

The Commission qualifies as a tax exempt organization under section 149 of the *Income Tax Act*.

Use of estimates

The preparation of financial statements in conformity with Canadian accounting standards for not-for-profit organizations requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and reported amount of revenue and expenses during the reporting period. Actual results could differ from these estimates.

Significant estimates include, but are not limited to, the valuation of accounts payable and accruals for certain revenues and expenses.

Administration contract expense

Administration contract expense is a fee charged by the Agriculture Council of Saskatchewan Inc. ("ACS"), to the Commission for administering the check-off fee program. The fee includes a charge for time spent by ACS staff and a share of ACS's overhead costs. The expense is recognized as the service is received.

Financial instruments

The Commission initially measures its financial assets and financial liabilities at fair value. It subsequently measures all its financial assets and financial liabilities at amortized cost, except for investments in debt and equity instruments that are quoted in an active market, which are measured at fair value. Changes in fair value are recognized in the statements of operations in the period incurred.

Financial assets subsequently measured at amortized cost include cash, and accounts receivable. Financial liabilities subsequently measured at amortized cost include accounts payable and accrued liabilities. The fair value of the cash, accounts receivable, and accounts payable and accrued liabilities approximates their carrying value due to their short-term nature.

Contributions in-kind

Contributions in-kind are recorded at fair value for goods or services only when a fair value can be reasonably estimated and when the goods or services are used in the normal course of operations and would otherwise have been purchased.

Foreign currency translation

At the transaction date, each asset, liability, revenue or expense arising from a foreign currency transaction of the Commission is translated into Canadian dollars using the exchange rate at that date. At each balance sheet date, monetary items denominated in a foreign currency are adjusted to reflect the exchange rate in effect at the balance sheet date. Exchange gains or losses of the Commission that arise on translation or settlement of foreign currency-denominated monetary items are included in the determination of excess of revenue over expenses for the year.

3. INVESTMENTS

	Maturity	2022 Market value	Yield	2021 Market value
Short-term				
Term deposits				
(cost 2022 - \$Nil; 2021 - \$870,216)	-	\$ -	-	\$ 874,100
Equity instruments				
(cost 2022 - \$823,547; 2021 - \$922,764)	-	908,730	-	1,011,274
		908,730		1,885,374
Long-term				
Term deposits				
(cost 2022 - \$1,108,726; 2021 - \$981,309)	2 - 30 years	1,010,020	1.75% - 5.85%	1,001,389
		\$ 1,918,750		\$ 2,886,763

4. ACCOUNTS RECEIVABLE

The accounts receivable balance consists of the following:

	2022	2021
Levy refunds payable	\$ 195,164	\$ 323,551
Research payables	450,481	97,725
Trade payables	69,821	46,210
	\$ 715,466	\$ 467,486

5. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

The accounts payable and accrued liabilities balance consists of the following:

	2022	2021
Levy refunds payable	\$ 195,164	\$ 323,551
Research payables	450,481	97,725
Trade payables	69,821	46,210
	\$ 715,466	\$ 467,486

6. INTERNALLY RESTRICTED NET ASSETS

The Commission has internally restricted net assets totalling \$2,000,000 as a reserve in the event that the Commission is disbanded or there are other unforeseen circumstances. Any income earned or changes in fair value arising from these assets are recognized in unrestricted net assets. During the year the Board authorized a contribution of \$Nil to the internally restricted net assets (2021 - \$200,000).

7. COMMITMENTS

(a) Service contracts:

The Agriculture Council of Saskatchewan Inc. charged the Commission \$43,619 (2021 - \$45,013) for administering the check-off fee program and the business activities of the Commission. During the year the Commission entered into a contract with ACS for administering the check-off fee program and the business activities of the Commission. The Commission agreed to pay a minimum of \$42,770 for levy collection activities for the period August 1, 2022 to July 31, 2023.

The Commission entered into contracts with several corporations and contractors for rent, management and consulting services. Annual payments due in the next year are as follows:

Year ending July 31:	
2023	\$ 357,910
2024	\$ 114,042

(b) Research:

The Commission is committed to funding research and development projects over several years to benefit the barley industry. Annual payments due in each of the next five years are as follows:

Year ending July 31:	
2023	1,452,081
2024	890,589
2025	494,590
2026	54,102
2027	12,500
	2,903,862

8. PRODUCER CHECK-OFF FEES

Under the Regulations, each buyer of barley is required to remit to the Commission a check-off fee of \$1.06/tonne (2021 - \$1.06/tonne) of barley marketed upon final settlement to producers. Producers can request a refund of check-off fees paid from August 1 to July 31 by submitting a refund application by August 31 of the following fiscal year.

9. RELATED PARTY TRANSACTIONS

During the year ended July 31, 2022 members of the Commission's elected Board of Directors received payments for per diems and expenses of \$56,973 (2021 - \$35,921). All related party transactions are measured at carrying amounts.

10. FINANCIAL INSTRUMENTS

The Commission as part of its operations carries a number of financial instruments. It is management's opinion that the Commission is not exposed to significant interest, currency or credit risks arising from these financial instruments except as otherwise disclosed.

Credit risk

The Commission is exposed to credit risk from potential non-payment of accounts receivable. Most of the accounts receivable were collected shortly after year-end. As at July 31, 2022 the largest four customers accounted for 50.74% (2021 - 50.13%) of accounts receivable.

Interest rate risk

Interest rate risk is the risk that the value of a financial instrument might be adversely affected by a change in the interest rates. Changes in market interest rates may have an effect on the cash flows associated with some financial assets and liabilities, known as cash flow risk, and on the fair value of other financial assets or liabilities, known as price risk. The Commission is exposed to interest rate risk on its fixed income investments.

Currency risk

Currency risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The Commission is subject to the risk of foreign exchange fluctuations on certain amounts held in foreign currencies and included on the balance sheet in their Canadian dollar equivalent.

Market risk

Market risk is the risk that financial instrument fair values will fluctuate due to changes in market prices. The significant market risks to which the Commission is exposed are currency risk, interest rate risk and other price risk related to investments.

11. BUDGET

The Board approved the 2021/2022 fiscal year budget at the meeting on October 20, 2021. The budget figures included in the accompanying financial statements are unaudited.



Have you subscribed to the SaskBarley e-Newsletter?

Get the following delivered right to your inbox monthly:

● Barley market reports

● Agronomic articles

● Research updates

● Industry news

● Events

Sign up today at saskbarley.com



T 306.653.7232 | E info@saskbarley.com | saskbarley.com

212-111 Research Drive, Saskatoon, SK S7N 3R2