WESTERN GRAINS
RESEARCH FOUNDATION
ANNUAL REPORT

20 19

ADVANCING AGRICULTURE THROUGH RESEARCH





VISION & MISSION

VISION: Profitable and sustainable western Canadian grain farmers.

MISSION: Producers directing investments into crop research to benefit western Canadian grain farmers.





TABLE OF CONTENTS

2019 ANNUAL REPORT

FOUNDATION OVERVIEW	04
CHAIR MESSAGE	06
EXECUTIVE DIRECTOR MESSAGE	08
2019 BOARD OF DIRECTORS	10
WGRF MEMBER ORGANIZATIONS	10
WGRF STAFF	11
LISTING OF THE PROJECTS COMMENCING IN 2019	13
FINANCIAL STATEMENTS	17
Independent Auditors' Report	18
Statement of Financial Position	20
Statement of Operations and Changes in Fund Balances	21
Statement of Cash Flows	. 22
Schedule 1 - Research Fund Operations and Changes in Fund Balance	23
Schedule 2 - Wheat Fund Operations and Changes in Fund Balance	24
Schedule 3 - Barley Fund Operations and Changes in Fund Balance	. 26
Schedule 4 - Operating and Program Expenditures	27
NOTES TO THE FINANCIAL STATEMENTS	28

LARGEST PRODUCER FUNDER

OF CROP RESEARCH IN CANADA



The Western Grains Research Foundation (WGRF) is a farmer-funded and farmer-directed non-profit organization investing in agricultural research that benefits western Canadian producers. To date, we have invested more than \$196 million to support diverse crop research projects.



invested in research since **1981**

WGRF research priorities

Priority areas for single-crop and whole-farm, integrated, multi-crop research

For eligible crops, WGRF will invest in both single-crop and whole-farm, integrated, multi-crop research in the priority areas of variety development and production. Multi-crop research will address issues from an integrated crop and whole-farm perspective, with emphasis on cross-commodity benefit. Outcomes are expected to have a positive impact on producers' long-term sustainability (economic, environmental and social).



Variety development

e.g. genetics, breeding methods, pre-breeding, breeding, pest resistance development, breeding for crop quality, variety trialing



Production

e.g. cropping systems, crop nutrition, pest (insect, disease, weed) management, production management, water use efficiency, fertilizer use efficiency, adaptation to and mitigation of climate change, crop quality, storage, storage pests, economic analysis

Eligible crops:

Major crops: barley, canola, lentil, pea, wheat

Intermediate crops: canaryseed, chickpea, corn, fababean, flax, mustard, oats, soybean, sunflower, winter cereals



TERRY YOUNG
Board Chair, WGRF

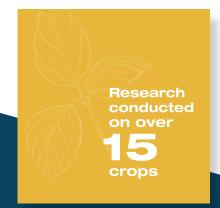
CHAIR MESSAGE

I am pleased to present the 2019 Western Grains Reseach Foundation (WGRF) Annual Report.

In 2019, the WGRF Board approved a new strategic plan that reaffirmed a commitment set out in 1981 – to be a farmer-directed organization focused on funding crop research for western Canadian farmers. The new strategic plan sets forth significant changes based on input from our stakeholders.

Highlights of the plan include:

- Establishment of a Governance Committee to explore ways of increasing WGRF membership while maintaining an appropriately sized Board.
- Expansion of crop-specific and multi-crop funding to 15
 crops including barley, canaryseed, canola, chickpea, corn,
 fababean, flax, lentil, mustard, oats, pea, soybean, sunflower,
 wheat and winter cereals.
- Transformation of the WGRF Endowment Fund to a Research
 Fund for the purpose of sustaining crop research funding over
 the long term. The Fund will be sustained by maintaining
 a minimum balance of \$100 million. Surplus funds will be
 invested in research.
- Consolidation of priority funding areas to variety development and production (agronomy).
- Depletion of the remaining wheat and barley funds over time with key investments into wheat and barley research.
- Completion of WGRF's Phase One and Two Research Capacity initiatives (\$28 million).





With investments of more than \$13 million in 2019, we remain the largest producer funder of crop research in Canada. WGRF is recognized by researchers, governments, producer organizations, industry and funders as a significant funder of crop research.

The WGRF Board has made it a priority to support targeted capacitybuilding initiatives. In April 2019, we launched Phase 2 of this strategic initiative, a \$20-million commitment to build infrastructure and invest in tools to accelerate crop research. These investments are an opportunity to help WGRF deliver on its mission effectively now, and in the future.

Technology transfer is critical to conveying results of research to agronomists and producers. WGRF continues to fund and explore new opportunities to enhance technology transfer tools. We are committed to ensure that research gets to agronomists and farmers who can put it to use.

I am proud to have served as WGRF Board Chair this past year. I would like to thank all the dedicated directors who sit on the Board and the WGRF. staff; their expertise, experience and passion for agriculture research is a real strength for WGRF. I look forward to a very productive 2020 for WGRF.

July J. Young

TERRY YOUNG Board Chair





GARTH PATTERSONM.Sc., PAg
Executive Director, WGRF

With a new strategic plan, a refocused vision and mission, WGRF is ready to embark on the next 40 years of funding vital crop and agronomic research that benefits western Canadian grain farmers.

WGRF is a significant funder in the Canadian Agricultural Partnership (CAP) program. We have committed over \$6.4 million to five agri-science research clusters. The combined value of these clusters is more than \$80 million in integrated crop agronomy, wheat, barley, organic and diverse field crops.

We remain committed to a collaborative approach to funding research through science-based, competitive processes. Through provincial funding calls and the Canola Agronomy Research Program in 2019, WGRF reviewed more than 70 full proposals and approved funding for 41 new projects. More than 500 WGRF-funded research projects are now listed at westerngrains.com in a user-friendly, searchable format. We are working to continually improve the project listing, including the recent addition of reader-friendly project summaries.

We remain committed to a collaborative approach to funding research through science-based, competitive processes.

WGRF successfully completed Phase 1 of our Capacity Building Initiative by establishing a Research Chair in Cropping Systems at the University of Alberta (Dr. Linda Gorim), a Systems Integrated Agronomy Chair at the University of Saskatchewan (Dr. Maryse Bourgault), and two NSERC Industry Research Chairs at the University of Manitoba.



AGRI-SCIENCE CLUSTER **FUNDING**

\$6.4 million

INVESTED IN FIVE AGRI-SCIENCE CLUSTERS

The last Wheat and Barley Committee meetings were held in July 2019. These meetings marked the transition of leadership in wheat and barley variety development funding to the Canadian Wheat Research Coalition and the Canadian Barley Research Coalition, respectively.

WGRF increased graduate scholarship funding to \$300,000 per year with each university (Alberta, Saskatchewan and Manitoba) receiving \$100,000 every year. As senior researchers in government and postsecondary institutions near retirement, the need to recruit the best and brightest students into agricultural research will increase. WGRF will create opportunities for new researchers, especially those without a farming background, to interact with farmers.

The desired outcome of WGRF investments in research is the adoption of new technologies or innovations that maintain or enhance farmers' profitability.

WGRF's communications and technology transfer programming is well established and continues to operate at a high level. The Field Heroes initiative won its second award at the 2019 Canadian Agricultural Marketing Awards. WGRF has also been working with the Prairie Pest Monitoring Network (PPMN) to develop a new comprehensive website that is set to launch in the spring of 2020.

I want to express my sincere thanks to the dedicated team of WGRF staff for their contribution to a successful 2019.



A COMBINED VALUE OF MORE THAN

\$80 million



CANADIAN WHEAT CLUSTER



INTEGRATED CROP AGRONOMY CLUSTER



DIVERSE FIELD CROPS CLUSTER



NATIONAL BARLEY RESEARCH CLUSTER



ORGANIC SCIENCE CLUSTER III

2019 BOARD OF DIRECTORS

TERRY YOUNG

Lacombe, AB Chair

DR. KEITH DEGENHARDT

Hughenden, AB Vice Chair

BOB RUGG

Elstow, SK

BRUCE DALGARNO

Newdale, MB

DALE HICKS

Outlook, SK

DAN DANIELSON

Eston, SK

GREG SUNDQUIST

Watrous, SK

JASON SKOTHEIM

Spruce Home, SK

JEFF NIELSEN

Olds, AB

JILL VERWEY

Portage la Prairie, MB

KENTON POSSBERG

Humboldt, SK

MALCOLM ODERMATT

Fort St. John, BC

MIKE AMMETER

Sylvan Lake, AB

RAURI QUALLY

Dacotah, MB

RICK JENSEN

Webb, SK

STEWART WELLS

Swift Current, SK

TERRY JAMES

Vegreville, AB

WADE HAINSTOCK

Moose Jaw, SK

WGRF MEMBER ORGANIZATIONS

The WGRF Bylaws allow three classes of Members: A, B and C. Class A is for producer organizations while Classes B and C are for government and industry organizations, respectively.

CLASS A MEMBERS

Agricultural Producers Association of Saskatchewan

Alberta Barley

Alberta Federation of Agriculture

Alberta Wheat Commission

BC Grain Producers Association

Canadian Canola Growers Association

Canadian Seed Growers' Association

Keystone Agricultural Producers

Manitoba Wheat and Barley Growers Association

National Farmers Union

Prairie Oat Growers Association

Saskatchewan Barley Development Commission

Saskatchewan Flax Development Commission

Saskatchewan Wheat Development Commission

Western Barley Growers Association

Western Canadian Wheat Growers Association

Western Pulse Growers

Western Winter Cereal Producers

CLASS B MEMBER

Agriculture and Agri-Food Canada

WGRF STAFF



GARTH PATTERSON M.Sc., PAg Executive Director



MIKE ESPESETH B.Comm Communications Manager



PAT FLATEN M.Sc., PAg Research Program Manager



CANDICE LAJEUNESSE Research Program Administrator



BARBARA KAMMERER CPA, CMA Finance Manager



JOELLE HARRIS B.S.A., PAg Research Program Manager



GORD ANDROSOFF M.Sc., PAg Research Program Manager

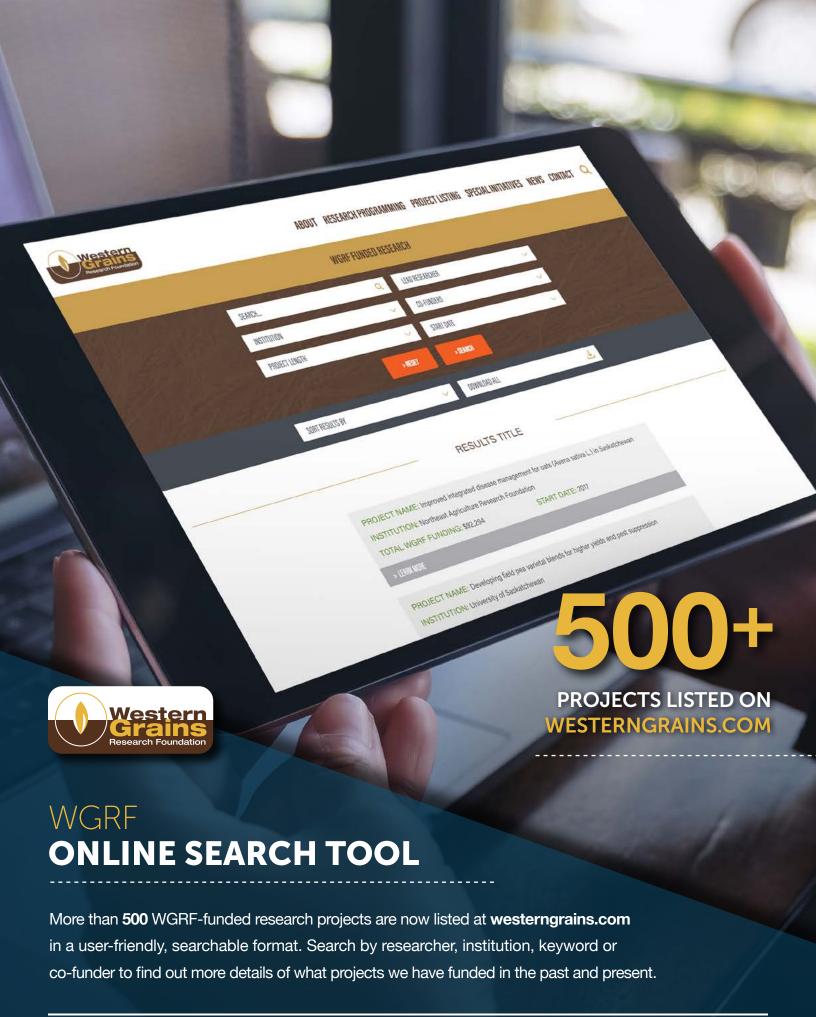


LISTING OF THE PROJECTS **COMMENCING IN 2019**

BELOW IS A LISTING OF THE 33 PROJECTS STARTING IN 2019 FOR WHICH WGRF APPROVED FUNDING:

RESEARCHER	INSTITUTION	LENGTH	AMOUNT	RESEARCH PROJECT TITLE
Aaron Beattie	University of Saskatchewan	5 years	\$1,166,675	Breeding milling oat varieties with improved agronomic, quality and disease traits for Saskatchewan oat producers
Aaron Beattie	University of Saskatchewan	4 years	\$212,400	Development of markers linked to oat crown rust resistance to help breed improved oat varieties for Saskatchewan producers
Aaron Beattie	University of Saskatchewan	5 years	\$178,286	Breeding two-row malt, feed and food barley varieties
Ana Badea	Agriculture & Agri-Food Canada	5 years	\$277,394	Breeding malting and food barley cultivars for Western Canada assisted by new technologies
Bobbi Helgason	Agriculture & Agri-Food Canada	5 years	\$32,500	The right balance: management strategies for plugging organic soil health constraints and moving forward
Charles Geddes	Agriculture & Agri-Food Canada	5 years	\$619,850	Development of an integrated weed management (IWM) package to mitigate and manage glyphosate-resistance weeds in soybean
Christian Willenborg	University of Saskatchewan	5 years	\$219,507	Improving weed management for Saskatchewan growers
Christiane Catellier	Indian Head Agricultural Research Foundation	2 years	\$34,500	Evaluating the interaction of management and environment on crop production in Western Canada using producer-reported data
Christopher Yost	University of Regina	2 years	\$80,500	Improving on-seed survival and performance of legume inoculants using genome shuffling
Diane Knight	University of Saskatchewan	2 years	\$113,933	Microbial efficiency of crop residue decomposition
Diane Knight	University of Saskatchewan	3 years	\$64,992	Advanced N management for canola and soybean: evaluation of a new biological for N-fixation in non-legumes
Fouad Daayf	University of Manitoba	3 years	\$88,172	Defining pathogen-related soil quality targets for annual legumes to pursue through crop rotation
Harold Aukema	University of Manitoba	2 years	\$28,448	Cost-benefit analysis of the anti-inflammatory effects of flax oil
Henry Wilson	Agriculture & Agri-Food Canada	3 years	\$21,203	The effects on soil biology, soil chemistry, and water quality of amending organically managed soils with struvite
Hossein Borhan	Agriculture & Agri-Food Canada	3 years	\$104,500	Priming plant defense: a broad spectrum defense response that protects crops that have no genetic resistance or effective chemical treatment

(CONTINUED)



LISTING OF THE PROJECTS **COMMENCING IN 2019**

(CONTINUED)

RESEARCHER	INSTITUTION	LENGTH	AMOUNT	RESEARCH PROJECT TITLE
Istvan Rajcan	University of Guelph	4 years	\$64,000	Development of breeding strategies for organic soybean production systems in Canada
James House	University of Manitoba	2 years	\$48,875	Overcoming the discount for low protein in Manitoba soybean
James Tucker	Agriculture & Agri-Food Canada	5 years	\$230,740	Developing barley germplasm with improved resistance to Fusarium Head Blight for Western Canada
Jamie Larsen	Agriculture & Agri-Food Canada	5 years	\$27,775	Breeding of winter cereals to benefit no-till organic production systems
Jason Gibbs	University of Manitoba	5 years	\$93,288	Increasing pollination, biological control and beneficial insect diversity on farms using flowering habitats
Jeff Schoeneau	University of Saskatchewan	3 years	\$54,521	Intercropping of pulse and oilseeds to enhance nutrient use efficiency and nitrogen fixation
Martin Entz	University of Manitoba	3 years	\$13,333	Evaluation of farmer-selected wheat, oat and potato genotypes under organic production in Eastern and Western Canada
Martin Entz	University of Manitoba	1 year	\$13,570	CombCut control of herbicide escapes in soybean
Myriam Fernandez	Agriculture & Agri-Food Canada	5 years	\$91,328	Diversified cropping strategies to improve sustainability of organic crop production in the brown soil zone
Olalekan Oluwole Akinremi	University of Manitoba	3 years	\$112,080	Enhancing N use efficiency of urea fertilizer
Ravindra Chibbar	University of Saskatchewan	3 years	\$480,615	Genomic strategies to enhance winter field survival and stabilized yield in fall-seeded cereals - Phase 2
Rob Graf	Agriculture & Agri-Food Canada	2 years	\$274,500	Premium quality hard red winter wheat for Western Canada
Robert Gulden	University of Manitoba	2 years	\$14,302	Developing rapid molecular diagnostic tools for detecting herbicide-resistant weed biotypes
Scott Chalmers	Westman Agricultural Diversification Organization	3 years	\$23,004	Inter-cropping practices for yellow pea
Sean Prager	University of Saskatchewan	3 years	\$116,150	Improved management of pea aphid and aphid- transmitted viruses in Saskatchewan pulse crops
Steven Shirtliffe	University of Saskatchewan	5 years	\$115,615	Optimizing tillage and competitive green manures for Canada thistle control
Steven Shirtliffe	University of Saskatchewan	5 years	\$98,670	Optimizing yield and resilience of organically grown milling oat
William May	Agriculture & Agri-Food Canada	3 years	\$86,200	The effect of flax seeding rate, crop placement, and N rate on the development and yield of chickpea and flax

The impact of WGRF really adds up

SCHOLARSHIPS

\$700,000

AWARDED IN SCHOLARSHIPS TO ATTRACT THE BRIGHTEST MINDS IN CROP RESEARCH SINCE 2011

\$

5

\$

\$

5

\$

5 I

\$

RESEARCH

CURRENT RESEARCH PROJECTS & ACTIVITIES

RESEARCH CONDUCTED ON CROPS

OVER

STATE OF THE WEST BOARD

INVESTMENT AT MORE THAN

20

DIFFERENT RESEARCH INSTITUTIONS

MORE THAN 500 PROJECTS LISTED AT

PROJECTS LISTED AT WESTERNGRAINS.COM

WGRF BOARD HAS GIVEN
PRODUCERS A VOICE IN FUNDING
AGRICULTURE RESEARCH SINCE

1981

FINANCIAL STATEMENTS

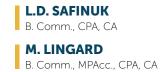
INDEPENDENT AUDITORS' REPORT

TWIGG & COMPANY

CHARTERED PROFESSIONAL ACCOUNTANTS

650 Regency Center 333-25th Street East

T 306-244-0808 **F** 306-244-0004



TO THE DIRECTORS OF WESTERN GRAINS RESEARCH FOUNDATION

QUALIFIED OPINION

We have audited the financial statements of Western Grains Research Foundation, which comprise the statement of financial position as at December 31, 2019, and the statements of operations and changes in fund balances and cash flows for the year then ended, 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, these financial statements present fairly, in all material respects, the financial position of Western Grains Research Foundation as at December 31, 2019, and its financial performance and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

BASIS FOR QUALIFIED OPINION

The Foundation derives part of its earnings from payments from royalties, the completeness of which is not susceptible to satisfactory audit verification. Accordingly, our verification of revenue from these sources was limited to the amounts recorded in the records of the Foundation and we were not able to determine whether any adjustments might be necessary to payments received from royalties, excess of revenue over expenditures, and cash flows from operations for the years ended December 31, 2019, and December 31, 2018, current assets as of December 31, 2019, and December 31, 2018, and fund balances as at January 1 and December 31, for both the 2019 and 2018 years.

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

RESPONSIBILITIES OF MANAGEMENT AND THOSE CHARGED WITH GOVERNANCE FOR THE FINANCIAL STATEMENTS

Management is responsible for the preparation and fair presentation of these 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 financial statements, management is responsible for assessing Western Grains Research Foundation's ability to continue as a going concern, disclosing, as applicable, matters related to the going concern and using the going concern basis of accounting unless management either intends to liquidate Western Grains Research Foundation or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing Western Grains Research Foundation's financial reporting process.

AUDITORS' 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 auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but it 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 misstatements 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 Western Grains Research Foundation'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 Western Grains Research Foundation's ability to continue as a going concern.

If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' 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 auditors' report. However, future events or conditions may cause Western Grains Research Foundation 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.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may be reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Things I Company

CHARTERED PROFESSIONAL ACCOUNTANTS

February 4, 2019 Saskatoon, Saskatchewan

STATEMENT OF FINANCIAL POSITION

AS AT DECEMBER 31, 2019

CURRENT ASSETS	2019	2018
Cash	141,262	288,987
Cash and cash equivalents (Note 3)	13,965,515	12,359,733
Accounts receivable (Note 6)	1,908,346	3,457,619
Prepaid expenses	7,665	7,852
Investments in debt instruments, short-term (Note 7)	27,190,000	31,740,239
Investments in equity securities	100,403,741	93,037,732
Investments in bond exchange traded funds	2,305,823	2,249,949
	\$ 145,922,352	\$ 143,142,111
Investments in debt instruments, long-term (Note 7)	32,529,879	25,369,227
	\$ 178,452,231	\$ 168,511,338
CURRENT LIABILITIES		
Accounts payable and accrued liabilities	66,555	34,406
FUND BALANCES (Notes 4,11)		
Capital Fund	9,066,972	9,066,972
Research Fund (Schedule 1)	139,386,434	128,041,216
Wheat Fund (Schedule 2)	27,767,792	28,911,478
Barley Fund (Schedule 3)	2,164,478	2,457,266
	\$ 178,385,676	\$ 168,476,932
APPROVED BY THE BOARD:	\$ 178,452,231	\$ 168,511,338

Tany J. Young

TERRY YOUNG

Chair

Dr. Keith J. Degenhardt

KEITH DEGENHARDT

Vice Chair

STATEMENT OF OPERATIONS AND CHANGES IN FUND BALANCES

YEAR ENDED DECEMBER 31, 2019

REVENUES	2019	2018
Payments received from producers (Note 4)	8,476	347,452
Unrealized gain (loss) on investments (Note 8)	13,193,741	(7,526,215)
Investment income	3,942,299	3,513,905
Other income (Note 10)	1,186,194	3,614,404
Royalties (Note 9)	2,474,709	2,051,279
Gain on sale of investments (Note 8)	4,050,195	2,353,435
Foreign exchange gain (loss)	(228,798)	401,200
	\$ 24,626,816	\$ 4,755,460
EXPENDITURES		
Research funding	13,001,448	13,835,527
Operating and program expenses (Schedule 4)	1,716,624	1,846,336
Royalty research funding	-	259,756
	\$ 14,718,072	\$ 15,941,619
Excess (deficiency) of revenue over expenditures for the year	9,908,744	(11,186,159)
Fund balances, beginning of year	168,476,932	179,663,091
FUND BALANCES, END OF YEAR	\$ 178,385,676	\$ 168,476,932

See accompanying notes

STATEMENT OF CASH FLOWS

CASH FLOWS FROM (USED IN) OPERATING ACTIVITIES	2019	2018
Excess (deficiency) of revenue over expenditures for the year	9,908,744	(11,186,159)
Items not affecting cash		
Unrealized gain (loss) on investments	(13,193,741)	7,526,215
Amortization of net premiums on bonds	(414)	4,018
Gain on sale of investments	(4,050,195)	(2,353,435)
Changes in non-cash working capital	1,581,609	(1,147,500)
	\$ (5,753,997)	\$ (7,156,861)
CASH FLOWS FROM (USED IN) INVESTING ACTIVITIES		
Purchase of investments	(44,061,055)	(40,377,872)
Proceeds on investments redeemed	51,273,109	37,616,586
	\$ 7,212,054	\$ (2,761,286)
Increase (decrease) in cash during the year	1,458,057	(9,918,147)
Cash position, beginning of year	12,648,720	22,566,867
CASH POSITION, END OF YEAR	\$ 14,106,777	\$ 12,648,720
CASH IS COMPRISED OF	'	
Operating cash	141,262	288,987
Cash and short-term notes held by investment dealer	13,965,515	12,359,733
	\$ 14,106,777	\$ 12,648,720

SCHEDULE 1 - RESEARCH FUND OPERATIONS AND CHANGES IN FUND BALANCE

YEAR ENDED DECEMBER 31, 2019

REVENUES	2019	2018
Investment income	3,260,520	2,825,959
Other income (Note 10)	1,086,194	2,915,913
Gain on sale of investments (Note 8)	2,403,920	1,421,688
Unrealized gain (loss) on investments (Note 8)	11,709,531	(5,541,261)
Foreign exchange gain (loss)	(199,314)	307,215
	\$ 18,260,851	\$ 1,929,514
EXPENDITURES		
RESEARCH FUNDING		
Variety Development	1,786,609	1,854,449
Agronomy	3,721,193	2,455,999
Post Harvest Management	134,181	194,802
Minor Crop Development	-	60,158
Agronomy Capacity	201,072	75,000
	\$ 5,843,055	\$ 4,640,408
Operating and program expenses (Schedule 4)	1,072,578	1,104,420
	\$ 6,915,633	\$ 5,744,828
Excess (deficiency) of revenue over expenditures for the year	11,345,218	(3,815,314)
Research fund, beginning of year (Note 4)	128,041,216	131,856,530
RESEARCH FUND, END OF YEAR	\$ 139,386,434	\$ 128,041,216

See accompanying notes

SCHEDULE 2 - WHEAT FUND OPERATIONS AND CHANGES IN FUND BALANCE

OPERATING ACCOUNT	2019	2018
REVENUES		
Payments received from producers (Note 4)	5,010	314,334
Royalties (Note 9)	2,139,913	1,874,358
Other income (Note 10)	-	598,491
Investment income	3,603	2,994
	\$ 2,148,526	\$ 2,790,177
EXPENDITURES		
RESEARCH FUNDING		
Agriculture and Agri-Food Canada	4,186,000	4,724,830
University of Saskatchewan	853,548	1,552,261
University of Manitoba	441,565	873,883
Canadian Wheat Research Coalition	504,214	457,522
CEROM	-	328,277
University of Alberta	178,928	321,660
University of Guelph	-	76,009
National Research Council	40,597	25,742
Alberta Agriculture and Rural Development	-	32,412
	\$ 6,204,852	\$ 8,392,596
Operating and program expenses (Schedule 4)	572,067	661,562
	\$ 6,776,919	\$ 9,054,158
Deficiency of revenue over expenditures for the year	(4,628,393)	(6,263,981)
Transfer from wheat reserve account	5,343,987	5,639,367
Operating account, beginning of year	283,459	908,073
OPERATING ACCOUNT, END OF YEAR	\$ 999,053	\$ 283,459
See accompanying notes		(CONTINUED)

SCHEDULE 2 - WHEAT FUND OPERATIONS AND CHANGES IN FUND BALANCE (CONTINUED)

YEAR ENDED DECEMBER 31, 2019

RESERVE ACCOUNT	2019	2018
Investment income	627,794	630,507
Gain on sale of investments (Note 8)	1,485,666	877,493
Unrealized gain (loss) on investments (Note 8)	1,397,373	(1,845,627)
Foreign exchange gain (loss)	(26,126)	80,332
RESERVE INCOME (LOSS) FOR THE YEAR	\$ 3,484,707	\$ (257,295)
Transfer to wheat operating account	(5,343,987)	(5,639,367)
Reserve account, beginning of year	28,628,019	34,524,681
RESERVE ACCOUNT, END OF YEAR	\$ 26,768,739	\$ 28,628,019
WHEAT FUND, END OF YEAR	\$ 27,767,792	\$ 28,911,478

See accompanying notes

SCHEDULE 3 - BARLEY FUND OPERATIONS AND CHANGES IN FUND BALANCE

OPERATING ACCOUNT	2019	2018
REVENUES		
Payments received from producers (Note 4)	3,466	33,118
Other income (Note 10)	100,000	100,000
Royalties (Note 9)	334,796	176,921
Investment income	515	428
	\$ 438,777	\$ 310,467
EXPENDITURES		
RESEARCH FUNDING		
Barley Council of Canada	289,043	-
Agriculture and Agri-Food Canada	283,230	277,680
University of Saskatchewan	378,106	515,356
University of Manitoba	3,162	9,487
	\$ 953,541	\$ 802,523
Royalty fund donation to University of Saskatchewan	-	259,756
Operating and program expenses (Schedule 4)	71,979	80,354
	\$ 1,025,520	\$ 1,142,633
Excess (deficiency) of expenditures over revenue for the year	(586,743)	(832,166)
Transfer from barley reserve account	605,420	813,473
Operating account, beginning of year	33,644	52,337
OPERATING ACCOUNT, END OF YEAR	\$ 52,321	\$ 33,644
See accompanying notes		(CONTINUED)

SCHEDULE 3 - BARLEY FUND OPERATIONS AND CHANGES IN FUND BALANCE (CONTINUED)

YEAR ENDED DECEMBER 31, 2019

RESERVE ACCOUNT	2019	2018
Investment income	49,867	54,017
Gain on sale of investments (Note 8)	160,609	54,254
Unrealized gain (loss) on investments (Note 8)	86,837	(139,327)
Foreign exchange gain (loss)	(3,358)	13,653
RESERVE INCOME (LOSS) FOR THE YEAR	\$ 293,955	\$ (17,403)
Transfer to barley operating account	(605,420)	(813,473)
Reserve account, beginning of year	2,423,622	3,254,498
RESERVE ACCOUNT, END OF YEAR	\$ 2,112,157	\$ 2,423,622
BARLEY FUND, END OF YEAR	\$ 2,164,478	\$ 2,457,266

See accompanying notes

SCHEDULE 4 - OPERATING AND PROGRAM EXPENDITURES

EXPENDITURES	RESEARCH FUND	WHEAT FUND	BARLEY FUND	2019	2018
Wages and benefits	498,535	290,812	41,544	830,891	881,765
Communications	234,088	155,128	9,606	398,822	368,405
Scholarships	100,000	-	-	100,000	120,000
Office (Note 12)	108,663	63,393	9,056	181,112	174,925
Professional fees	17,507	6,931	990	25,428	88,951
Consulting fees	3,200	-	-	3,200	31,362
Travel and other	73,648	42,239	8,327	124,214	125,764
Directors per diems	36,937	13,564	2,456	52,957	55,164
OPERATING & PROGRAM EXPENDITURES FOR THE YEAR	\$ 1,072,578	\$ 572,067	\$ 71,979	\$ 1,716,624	\$ 1,846,336

YEAR ENDED DECEMBER 31, 2019

1. DESCRIPTION OF THE FOUNDATION

Western Grains Research Foundation (the "Foundation" or "WGRF") is a farmer funded and directed not-forprofit organization investing in agricultural field crop research to benefit western Canadian producers.

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES 2.

The financial statements have been prepared in accordance with Canadian accounting standards for not-forprofit organizations "NPO accounting standards" and reflect the following significant accounting policies:

REVENUE RECOGNITION

WHEAT AND BARLEY FUNDS A)

Investment income, including any unrealized changes in fair market value in equity securities, is recognized as income in the year earned.

Historically, revenue earned by the wheat and barley funds was primarily comprised of payments received from producers as detailed in Note 4.

The payment from producers is recognized in the operating account of the respective fund as revenue when the amount is known and collection is reasonably assured; some amounts cannot be determined by the Foundation prior to receipt.

Royalties earned by the wheat and barley funds are recognized in the operating accounts of the respective funds when the amount is known and collection is reasonably assured; some amounts cannot be determined by the Foundation prior to receipt.

RESEARCH FUND

Investment income, including any unrealized changes in fair value in equity securities, and Exchange Traded Funds is recognized as income in the year earned.

In some years, WGRF has been awarded funds by the Canadian Transportation Agency ("CTA") as a result of Canadian Pacific Railway Company ("CP") and Canadian National Railway Company ("CN") exceeding their MRE (Maximum Revenue Entitlement) for movement of grain in Western Canada. This revenue is recognized and recorded as other income in the Research Fund operations when the amount is known and collection is reasonably assured. In December 2019, the CTA determined that both CN's and CP's revenues covered by the MRE were below their respective MRE's and consequently no payment was directed to the Foundation for the 2018/9 crop year (Note 10). In 2018 CN paid the Foundation \$1,099,649 (Note 10) and CP paid the Foundation \$1,575,539 as per CTA award for the 2017/8 crop year (Note 10).

RECOGNITION OF CONTRIBUTIONS

WGRF follows the restricted fund method whereby revenues of a specific fund are recognized in the fund corresponding to the purpose for which they were contributed when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured.

(CONTINUED)

YEAR ENDED DECEMBER 31, 2019

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

INVESTMENT INCOME

Investment income includes interest and dividend income earned in the year and realized gains and losses from dispositions of investment assets in the year. Unrealized changes in fair value from year to year are recognized in earnings.

FUND OPERATIONS

Revenue earned, net of operating expenditures, is allocated to designated funds. Research funding paid in the year is charged against the respective fund.

ROYALTIES

The Foundation's share of royalties derived from wheat and/or barley varietal developments are recorded as royalty revenue in the respective wheat and/or barley statement of fund operations. Upon approval of the Board of Directors the royalty funds may be subsequently reinvested with research organizations for the funding of specific projects and recorded as royalty expenditures in the respective statement of fund revenue and expenditures for wheat and/or barley.

FOREIGN CURRENCY TRANSLATION

The Foundation follows the temporal method of accounting for the translation of foreign currency amounts into Canadian dollars. Under this method, monetary assets and liabilities denominated in foreign currencies are translated into Canadian dollars at the exchange rate in effect at the balance sheet date. Non-monetary assets are translated at the historical rate of exchange. Revenue and expenses are translated at the rate of exchange prevailing on the transaction date. Gains and losses on translation are reflected in income.

FINANCIAL INSTRUMENTS

The Foundation initially measures its financial assets and financial liabilities at fair value. It subsequently measures investments in equity securities and Exchange Traded Funds at fair value. Other financial assets and financial liabilities including cash, cash and cash equivalents, accounts receivable, accrued interest receivable, investments in debt instruments and accounts payable and accrued liabilities are subsequently measured at amortized cost.

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 at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. The inherent uncertainty involved in making such estimates and assumptions may impact the actual results reported in future periods.

3. CASH AND CASH EQUIVALENTS

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

YEAR ENDED DECEMBER 31, 2019

4. FUNDS

CAPITAL FUND

The Foundation was funded by the Canadian Ministry of Agriculture on May 2, 1983 by a \$9,066,972 contribution to the Capital Fund. The funding contribution represented an amount equivalent to the balance remaining in the Prairie Farm Emergency Fund, which was derived entirely by deductions from prairie farmer grain sales.

RESEARCH FUND (FORMERLY ENDOWMENT FUND)

In 2019, the Board renamed the Endowment Fund as the Research Fund.

Annual investment revenue earned from the initial Capital Fund contribution and funds awarded by the CTA to the Foundation as a result of CN and CP exceeding their Maximum Revenue Entitlements for the movement of grain in Western Canada, net of operating, program and research funding expenditures, is allocated to the Research Fund. The Research Fund is not externally restricted and can be spent at the discretion of the Foundation's Board of Directors, subject to its own internal Research Fund Policy. In 2019 the Board approved a new Research Fund Policy that provides for maintaining a minimum fund value of \$100 Million, indexed annually for inflation beginning in 2020.

WHEAT FUND AND BARLEY FUND

WGRF is no longer the recipient of any legislated check-off revenue. Provincial wheat and barley commissions have been the recipients of the Western Canadian Deduction beginning August 1, 2017. In 2018 WGRF received residual check-off amounts of \$314,334 for Wheat and \$33,118 for Barley. In 2019, the BC Peace River Grain Industry Development Council (GIDC) directed \$5,010 of its 2017 Wheat Check-off and \$3,466 of its 2017 Barley Check-off to WGRF.

In 2019 the Board resolved to remove the minimum Wheat Fund reserve amount, which it had set at \$8.8 million in 2009.

5. INCOME TAX STATUS

6.

The Foundation is a registered charity, designated as a public foundation under the Income Tax Act of Canada. As such, it is not subject to income taxes.

ACCOUNTS RECEIVABLE	2019	2018
Accounts receivable include the following:		
Railway Excess Maximum Revenue Entitlement receivable	-	2,675,188
Receivables under joint research funding agreements	86,537	107,530
Accrued interest receivable	749,276	530,244
Royalty receivables	1,041,690	122,330
GST receivable	30,843	22,327
	\$ 1,908,346	\$ 3,457,619

YEAR ENDED DECEMBER 31, 2019

7. INVESTMENT IN DEBT INSTRUMENTS

]	2019		201	18 ———
Investment Type & Maturity	Effective Interest Rates	Amortized Cost	Market Value	Amortized Cost	Market Value
RESEARCH	FUND:				
CORPORATE E	BONDS				
2019	2.37%	-	-	1,000,239	999,300
2021	Floating rates	2,258,800	2,292,720	2,258,800	2,341,500
2026 3.40	% - 3.45% (with conditions)	3,000,000	3,000,000	-	-
CORPORATE L	ONG BOND BEAR NOTE				
2019	0.80%	-	-	5,000,000	4,982,068
PROVINCIAL E	BONDS				
2025	2.30% - 2.38%	2,996,079	3,009,660	2,995,427	2,914,860
GUARANTEED	INVESTMENT CERTIFICA	ATES			
2019	1.55% - 2.85%	-	-	11,140,000	11,140,000
2020	1.65% - 2.85%	13,115,000	13,115,000	8,615,000	8,615,000
2021	2.05% - 3.26%	11,250,000	11,250,000	5,300,000	5,300,000
2022	2.25% - 3.38%	8,700,000	8,700,000	3,000,000	3,000,000
2023	3.05% - 3.30%	1,000,000	1,000,000	1,000,000	1,000,000
Step-Up Note -	various, extendable 2021 t	o 2025. Interest rate	s increase annually	if extended.	
2020	1.75% - 2.75%	9,000,000	8,951,695	9,350,000	9,254,268
TOTAL RESEAR	RCH FUND	\$ 51,319,879	\$ 51,319,075	\$ 49,659,466	\$ 49,546,996

(CONTINUED)

YEAR ENDED DECEMBER 31, 2019

7. INVESTMENT IN DEBT INSTRUMENTS (CONTINUED)

		2019 —		20^	18 ———
Investment Type & Maturity	Effective Interest Rates	Amortized Cost	Market Value	Amortized Cost	Market Value
WHEAT FUI	ND:				
CORPORATE L	ONG BOND BEAR NOTE				
2019	0.80%	-	-	2,000,000	1,992,828
CORPORATE E	BONDS				
2021	Floating rate	200,000	199,598	200,000	198,288
2026	3.45% (with conditions)	500,000	500,000	-	-
GUARANTEED	INVESTMENT CERTIFICA	TES			
2019	1.55% - 2.42%	-	-	1,925,000	1,925,000
2020	2.45% - 3.13%	3,225,000	3,225,000	650,000	650,000
2021	2.45% - 3.10%	1,650,000	1,650,000	400,000	400,000
2022	2.47% - 3.05%	650,000	650,000	-	-
Step-Up Notes	- various, extendable 2021 t	o 2024. Interest rate	s increase annually	if extended.	
2020	1.75 - 2.50%	1,550,000	1,542,340	1,950,000	1,916,951
TOTAL WHEAT	FUND	\$ 7,775,000	\$ 7,766,938	\$ 7,125,000	\$ 7,083,067
BARLEY FU	ND:				
GUARANTEED	INVESTMENT CERTIFICA	TES			
2019	1.71% - 2.42%	-	-	275,000	275,000
2020	1.85% - 2.85%	300,000	300,000	50,000	50,000
2021	2.45% - 2.67%	200,000	200,000	-	-
2022	2.47% - 3.07%	125,000	125,000	-	-
TOTAL BARLEY	Y FUND	\$ 625,000	\$ 625,000	\$ 325,000	\$ 325,000
TOTAL ALL FU	NDS	\$ 59,719,879	\$ 59,711,013	\$ 57,109,466	\$ 56,955,063

ACCUMULATED UNREALIZED GAINS	2019	2018
A) INVESTMENT IN EQUITY SECURITIES		
RESEARCH FUND EQUITIES		
Change in unrealized gain (loss) during the year	14,092,021	(4,102,791)
Recognition of realized gain during the year	(2,403,920)	(1,421,688)
	\$ 11,688,101	\$ (5,524,479)
Unrealized gains in opening fund balance	13,150,303	18,674,782
	\$ 24,838,404	\$ 13,150,303
WHEAT FUND EQUITIES		
Change in unrealized gain (loss) during the year	2,853,350	(948,379)
Recognition of realized gain during the year	(1,485,666)	(877,493)
	\$ 1,367,684	\$ (1,825,872)
Unrealized gains in opening fund balance	2,078,003	3,903,875
	\$ 3,445,687	\$ 2,078,003
BARLEY FUND EQUITIES		
Change in unrealized gain (loss) during the year	246,275	(84,222)
Recognition of realized gain during the year	(160,609)	(54,254)
	\$ 85,666	\$ (138,476)
Unrealized gains in opening fund balance	177,927	316,403
	\$ 263,593	\$ 177,927
TOTAL, ALL FUNDS		
Change in unrealized gain (loss) during the year	17,191,646	(5,135,392)
Recognition of realized gain during the year	(4,050,195)	(2,353,435)
	\$ 13,141,451	\$ (7,488,827)
Unrealized gains in opening fund balance	15,406,233	22,895,060
	\$ 28,547,684	\$ 15,406,233

	2019	2018
B) INVESTMENT IN BOND EXCHANGE TRADED FUNDS		
RESEARCH FUND ETF'S		
Change in unrealized gain (loss) during the year	21,430	(16,78
Recognition of realized gains during the year	-	
	\$ 21,430	\$ (16,782
Unrealized loss in opening fund balance	(37,383)	(20,60
	\$ (15,953)	\$ (37,380
WHEAT FUND ETF'S		
Change in unrealized gain (loss) during the year	29,689	(19,758
Recognition of realized gains during the year	-	
	\$ 29,689	\$ (19,75
Unrealized loss in opening fund balance	(60,254)	(40,499
	\$ (30,565)	\$ (60,254
BARLEY FUND ETF'S		
Change in unrealized gain (loss) during the year	1,171	(85)
Recognition of realized gains during the year	-	
	\$ 1,171	\$ (85
Unrealized loss in opening fund balance	(1,933)	(1,082
	\$ (762)	\$ (1,933
TOTAL, ALL FUNDS		
Change in unrealized gain (loss) during the year	52,290	(37,388
Recognition of realized gain (loss) during the year	-	
	\$ 52,290	\$ (37,388
Unrealized loss in opening fund balance	(99,570)	(62,182
	\$ (47,280)	\$ (99,570
		(CONTINUE

		2019	2018
8.	ACCUMULATED UNREALIZED GAINS (CONTINUED)		
	C) TOTAL ACCUMULATED UNREALIZED GAINS ON EQUITY INVESTMENTS & BOND EXCHANGE TRADED FUNDS		
	TOTAL, ALL FUNDS		
	Change in unrealized gain (loss) during the year	17,243,936	(5,172,780)
	Recognition of realized gain during the year	(4,050,195)	(2,353,435)
		\$ 13,193,741	\$ (7,526,215)
	Unrealized gains in opening fund balance	15,306,663	22,832,878
		\$ 28,500,404	\$ 15,306,663
9.	ROYALTY INCOME	<u>'</u>	
	Royalty Income includes the following:		
	WHEAT FUND		
	Agriculture & Agri-Food Canada	1,823,082	1,630,466
	University of Saskatchewan	315,485	227,255
	University of Alberta	1,346	16,637
		\$ 2,139,913	\$ 1,874,358
	BARLEY FUND		
	Agriculture & Agri-Food Canada	199,078	92,693
	University of Saskatchewan	135,718	84,228
		\$ 334,796	\$ 176,921
	TOTAL, ALL FUNDS		
	Agriculture & Agri-Food Canada	2,022,160	1,723,159
	University of Saskatchewan	451,203	311,483
	University of Alberta	1,346	16,637
		\$ 2,474,709	\$ 2,051,279

OTHER INCOME	2019	2018
OTHER INCOME		
Other income includes the following:		
RESEARCH FUND		
CTA order for CN Rail for exceeding its Maximum Revenue Entitlement for grain movement for 2017-18	-	1,099,649
CTA order for CP Rail for exceeding its Maximum Revenue Entitlement for grain movement for 2017-18	-	1,575,539
Industry Partner funding for research under the Integrated Crop Agronomy Cluster	256,193	149,352
Agriculture & Agri-Food Canada funding for research under the Integrated Crop Agronomy Cluster	668,376	30,704
Agriculture & Agri-Food Canada funding for program expenses under the Integrated Crop Agronomy Cluster	161,625	60,669
	\$ 1,086,194	\$ 2,915,913
WHEAT FUND		
CFCRA Funding returned for research under the National Wheat Improvement Program	-	(55,061)
Agriculture & Agri-Food Canada funding for research under the National Wheat Improvement Plan research program	-	590,159
Recovery from the Canadian Wheat Research Coalition for services	-	63,393
	-	\$ 598,491
BARLEY FUND	-	
Funding was received from the following organizations under a research funding agreement with the U of S:		
Sask Barley Commission	90,000	90,000
Manitoba Wheat & Barley Growers Association	5,000	5,000
Alberta Barley Commission	5,000	5,000
	\$ 100,000	\$ 100,000
	Ψ 100,000	φ 100,000

YEAR ENDED DECEMBER 31, 2019

11. COMMITMENTS

The Foundation has approved and is committed to the following research funding over the next five years as follows:

YEAR	RESEARCH FUND	WHEAT FUND	BARLEY FUND	TOTAL
2020	10,690,113	2,863,255	585,191	14,138,559
2021	13,435,254	1,009,307	338,060	14,782,621
2022	10,226,825	845,592	287,839	11,360,256
2023	6,325,637	228,265	52,456	6,606,358
2024	2,218,770	-	1,740	2,220,510
Thereafter	2,071,430	=	-	2,071,430
	\$ 44,968,029	\$ 4,946,419	\$ 1,265,286	\$ 51,179,734

12. OPERATING LEASE

The lease for the office space occupied by the Foundation in 2019 expires March 31, 2021. The minimum annual lease payment under the agreement is \$124,090 plus Goods and Services tax.

Annual payments due in each of the next two years are as follows:

2020	131,043
2021	33,082

YEAR ENDED DECEMBER 31, 2019

13. FINANCIAL INSTRUMENTS

The Foundation's recognized financial assets and liabilities consist of cash, cash and cash equivalents, accounts receivable, accrued interest receivable, investment in debt instruments, investment in equity securities, and accounts payable and accrued liabilities. The fair values of these items approximate their carrying values except for investments in debt instruments, the fair values of which are disclosed in Note 7.

CREDIT RISK

The Foundation is exposed to credit risk with respect to cash, cash and cash equivalents, accounts receivable and the accrued interest receivable. The Foundation assesses, on a continuous basis, accounts receivable on the basis of amounts it is virtually certain to receive. The credit risk with respect to cash and cash equivalents is insignificant since they are held in large financial institutions and is limited to the carrying amounts reported on the statement of financial position.

INTEREST RATE RISK

The Foundation is exposed to interest rate risk on its fixed and floating interest rate financial instruments. Fixed-rate instruments subject the Foundation to a fair value risk while the floating rate instruments subject it to a cash flow risk. The Foundation is exposed to this type of risk as a result of investments in debt securities.

OTHER PRICE RISK

Other price risk associated with investments in equity securities is the risk that their fair value will fluctuate because of changes in market prices. The Foundation mitigates this risk by regularly rebalancing its portfolio.

14. COMPARATIVE FIGURES

The comparative figures have been reclassified, where applicable, to conform to the presentation used in the current year.

