



# Research Projects & Seed Variety Update

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RICK MITZEL, PRESIDENT  
MUSTARD 21 CANADA INC.

# Research Projects

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- The past 5 years had Mustard 21 and Sask Mustard involved in the Canadian Agricultural Partnership program.
- The big wins that came out of that for mustard growers was Hybrid Brown 18 and Yellow 80.
- Advancement was also made on clubroot resistance in mustard, herbicide tolerance and disease resistance.
- Testing for new hybrids has also begun to continue to build on the yield advantage.

# Research Projects - SCAP

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- SCAP refers to the next round of funding for research and it stand for Sustainable Canadian Agricultural Partnership.
- The priorities for AAFC in the SCAP program are:
  - Climate Change and Environment – Green House Gas Reduction
  - Economic Growth and Development
  - Sector Resilience and Societal Challenges

# SCAP Program

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Projects for next round of funding are:

## **Project 1**

- Greenhouse Gas Study
- Objective is to study baseline nitrous oxide emission measurements from the following crops: mustard, camelina, hemp, flax and sunflower.
- The study will vary the rates of nitrogen and trace the flow of the nitrogen to get a better understanding of the flow of nitrogen.

# SCAP Program

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## Project 2

- Mustard Breeding Program.
- Climate Smart condiment mustard for crop productivity and resilience.
- Objective is to develop brown and oriental mustard hybrids and yellow mustard composite varieties with herbicide tolerance.
- In addition, screening of brown mustard germplasm for low cadmium content to meet the EU standards. Also work to develop clubroot mustard lines as well as lines with saline tolerance.

# SCAP Program

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## Project 3

- Bio Pellets
- Production of coal-like pellets from agricultural residues using bio-based binders
- Objective produce coal like pellets from a range of crop residues.
- This research activity was explained earlier by Dr Ajay Dalai.

# SCAP Program

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## Project 4

- Developing Carinata as a low-carbon intensity biofuel feedstock
- This project is a continuation of work done under the previous CAP program.
- Developing hybrids for the production of biofuels with characteristics like herbicide tolerance, super high erucic acid and low glucosinolate content.

# SCAP Program

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## Project 5

- Sterile Hybrid for bio fumigation
- Objective is to work closely with the industry to develop best management
- Male sterile hybrid mustard as a multi-function service crop in potato production



# New Varieties – AAC Hybrid Brown 18



- M21 launched Hybrid Brown 18 in 2019
- This was the first hybrid brown mustard in the world
- The thanks for this needs to go to Bifang Chang and her staff at AAFC
- This variety has proven to be a top performer in spite of the last three years of drought we had
- Hybrid Brown 18 is showing yield advantage over Centennial Brown of 18% to 20%
- This year a significant number of brown mustard acres will be Hybrid Brown 18

# New Varieties - AAC Yellow 80

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- AAC Yellow 80 is a composite variety
- It yields 10% higher than the OP variety Andante
- This year I had several calls from growers saying how good it looks in the field and the same was said about the research plots
- Call our mustard line and let us know what you think

# What's next?

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- Advancement in clubroot resistance in mustard
- Herbicide tolerance
- Greater disease resistance.
- Testing for new hybrids has also began to continue to build on the yield advantage.
- Hybrid Oriental mustard is the closest to be announced

# Acknowledgements

**Mustard 21 thanks the following organizations for their support:**

Agriculture and Agri-food Canada (AAFC)  
and its funding programs

Diverse Field Crops Cluster (DFCC)

Agriculture Development Fund

Results Driven Agriculture Research (RDAR)

**Our Industry Partners:**

Western Grains Research Foundation (WGRF)

Saskatchewan Mustard Development Commission (Sask Mustard)

Canadian Mustard Association (CMA)



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Thank you! Questions?





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**INDEPENDENT PRACTITIONER'S REASONABLE ASSURANCE REPORT ON COMPLIANCE**

To the Board of Directors of Saskatchewan Mustard Development Commission  
(continued from previous page)

**Our Independence and Quality Control**

We have complied with the relevant rules of professional conduct/code of ethics applicable to the practice of public accounting and related to assurance engagements, issued by various professional accounting bodies, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentially and professional behavior.

The firm applies the Canadian Standard on Quality Control 1, *Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance Engagements* and, accordingly, maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

**Qualified Conclusion**

Based on the procedures performed and the evidence obtained, except for the effect of the matter described in the Basis for Qualified Conclusion section of our report, Saskatchewan Mustard Development Commission has complied with the specified requirements established in the Agreements during the period of August 1, 2021 to July 31, 2022, in all significant respects. We do not provide a legal opinion on Saskatchewan Mustard Development Commission's compliance with the specified requirements.

**Basis for Qualified Conclusion**

In accordance with *The Saskatchewan Mustard Development Plan Regulations* refunds of levies paid between August 1<sup>st</sup> and January 31<sup>st</sup> are to be refunded to the producer no later than April 30<sup>th</sup> subject to the Commission receiving and verifying a written request from a producer.

During the performance of our procedures, we encountered two written and verified requests from producers of levies paid between August 1 and January 31 that were not refunded to the producers prior to April 30<sup>th</sup> in accordance with *The Saskatchewan Mustard Development Plan Regulations*. These refund requests were paid to the producers prior to October 31<sup>st</sup>.

Saskatoon, Saskatchewan  
December 19, 2022

*Lingard + Dreger*

Chartered Professional Accountants



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**INDEPENDENT PRACTITIONER'S REASONABLE ASSURANCE REPORT ON COMPLIANCE**

To the Board of Directors of Saskatchewan Mustard Development Commission

We have undertaken a reasonable assurance engagement of Saskatchewan Mustard Development Commission's compliance during the period August 1, 2021 to July 31, 2022, with the provisions of the following legislative and related authorities ("the Agreements") pertaining to its financial reporting, safeguarding agency resources, spending, revenue raising, borrowing and investing activities.

- The Agri-Food Act, 2004
- The Saskatchewan Mustard Development Plan Regulations
- Commission Orders No. 07/14 to 12/14

**Management's Responsibility**

Management is responsible for Saskatchewan Mustard Development Commission's compliance with the specified requirements of the Agreements. Management is also responsible for such internal control as management determines necessary to enable Saskatchewan Mustard Development Commission's compliance with the specified requirements.

**Our Responsibility**

Our responsibility is to express a reasonable assurance opinion on Saskatchewan Mustard Development Commission's compliance based on the evidence we have obtained. We conducted our reasonable assurance engagement in accordance with the Canadian Standard on Assurance Engagements 3531, *Direct Engagements to Report on Compliance*. This standard requires that we plan and perform this engagement to obtain reasonable assurance about whether the entity complied with the specified requirements, in all significant respects.

Reasonable assurance is a high level of assurance, but it is not a guarantee that an engagement conducted in accordance with this standard will always detect a significant instance of non-compliance with specified requirements when it exists. Instances of non-compliance can arise from fraud or error and are considered significant if, individually or in the aggregate, they could reasonably be expected to influence the decisions of users of our report. A reasonable assurance compliance reporting engagement involves performing procedures to obtain evidence about the entity's compliance with the specified requirements.

The nature, timing and extent of procedures selected depends on our professional judgement, including an assessment of the risks of significant non-compliance, whether due to fraud or error.

We believe that the evidence we obtained is sufficient and appropriate to provide a basis for our opinion.

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**INDEPENDENT AUDITORS' REPORT**

To the Board of Directors of Saskatchewan Mustard Development Commission

We have audited Saskatchewan Mustard Development Commission's ("the Commission") control as of July 31, 2022, to express an opinion as to the effectiveness of its control related to the following objectives:

- (1) To safeguard agency resources. That is, to ensure its assets are not lost or used inappropriately; to ensure it does not inappropriately incur obligations; to establish a financial plan for the purposes of achieving its financial goals; and to monitor and react to its progress towards the objectives established in its financial plan.
- (2) To prepare reliable financial statements.
- (3) To conduct its activities following laws, regulations and policies related to financial reporting, safeguarding agency resources, revenue raising, spending, borrowing and investing.

**Management's Responsibility**

The Commission's management is responsible for maintaining effective control over the objectives stated above.

**Auditors' Responsibility**

Our responsibility is to express an opinion based on our audit as to the effectiveness of its control related to the following objectives:

- (1) To safeguard agency resources. That is, to ensure its assets are not lost or used inappropriately; to ensure it does not inappropriately incur obligations; to establish a financial plan for the purposes of achieving its financial goals; and to monitor and react to its progress towards the objectives established in its financial plan.
- (2) To prepare reliable financial statements.
- (3) To conduct its activities following laws, regulations and policies related to financial reporting, safeguarding agency resources, revenue raising, spending, borrowing and investing.

We used the control framework developed by The Chartered Professional Accountants of Canada ("CPA Canada") to make our judgments about the effectiveness of the Commission's control. We did not audit certain aspects of control concerning the effectiveness, economy and efficiency of certain management decision-making processes.

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**INDEPENDENT AUDITORS' REPORT**

To the Board of Directors of Saskatchewan Mustard Development Commission

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The CPA Canada defines controls as comprising those elements of an organization that, taken together, support people in the achievement of the organization's objectives. Control is effective to the extent that it provides reasonable assurance that the organization will achieve its objectives.

We conducted our audit in accordance with the standard for audits of internal control over financial reporting set out in the CPA Canada Handbook - Assurance. This standard requires that we plan and perform the audit to obtain reasonable assurance as to effectiveness of the Commission's control related to the objectives stated above. An audit includes obtaining an understanding of the significant risks related to these objectives, the key control elements and control activities to manage these risks and examining, on a test basis, evidence relating to control.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Control can provide only reasonable and not absolute assurance of achieving objectives reliably for the following reasons. There are inherent limitations in control including judgement in decision-making, human error, collusion to circumvent control activities and management overriding control. Cost/benefit decisions are made when designing control in organizations. Because control can be expected to provide only reasonable assurance, and not absolute assurance, the objectives referred to above may become ineffective because of changes in internal and external conditions, or that the degree of compliance with control activities may deteriorate.

**Opinion**

In our opinion, based on the limitations noted above, the Commission's control was effective, in all material respects, to meet the objectives stated above as of July 31, 2022 based on the CPA Canada criteria of control framework.

We have also audited, in accordance with Canadian generally accepted auditing standards, the financial statements of the Commission, which comprise the statement of financial position as at July 31, 2022, and the statements of operations, change in net assets, cash flows, and a summary of significant accounting policies and other explanatory information. We have issued our report date December 19, 2022 which is the same date as the date of the report on the effectiveness of internal controls.

*Lingard + Dreger*

Saskatoon, Saskatchewan  
 December 19, 2022

Chartered Professional Accountants

**SASKATCHEWAN MUSTARD DEVELOPMENT COMMISSION**

**Statement of Financial Position**

As at July 31, 2022

	2022	2021
<b>ASSETS</b>		
<b>CURRENT</b>		
Cash	\$ 345,427	\$ 109,564
Short-term investments <i>(Note 3)</i>	432,506	320,653
Short-term internally restricted investments <i>(Note 3)</i>	307,540	151,754
Accounts receivable <i>(Note 4)</i>	93,837	47,173
Prepaid expenses	815	815
	<b>1,180,125</b>	629,959
<b>LONG-TERM INVESTMENTS</b> <i>(Note 3)</i>	-	108,258
<b>INTERNALLY RESTRICTED INVESTMENTS</b> <i>(Note 3)</i>	<b>155,544</b>	302,602
	<b>\$ 1,335,669</b>	\$ 1,040,819
<b>LIABILITIES</b>		
<b>CURRENT</b>		
Accounts payable and accrued liabilities <i>(Note 5)</i>	\$ 46,671	\$ 20,277
<b>NET ASSETS</b>		
<b>UNRESTRICTED</b>	<b>825,914</b>	566,186
<b>INTERNALLY RESTRICTED</b> <i>(Note 6)</i>	<b>463,084</b>	454,356
	<b>1,288,998</b>	1,020,542
	<b>\$ 1,335,669</b>	\$ 1,040,819



**SASKATCHEWAN MUSTARD DEVELOPMENT COMMISSION**

**Statement of Operations**

**For the Year Ended July 31, 2022**

	Budget (Note 11) 2022	2022	2021
<b>REVENUE</b>			
Producer check-offs (Note 7)			
Fees	\$ 325,000	\$ 575,381	\$ 321,928
Refunds	(12,000)	(18,017)	(7,377)
	313,000	557,364	314,551
Interest	6,000	12,826	14,896
Agriculture Marketing Program (AMP) funding	-	-	5,249
	319,000	570,190	334,696
<b>EXPENSES</b>			
Research contributions Mustard 21 Canada Inc. (Note 8)	200,000	150,000	200,000
Administration contracts (Note 9)	72,000	69,707	77,903
Communications	14,000	31,567	27,709
General and administration	27,150	27,072	28,559
Board of directors	25,000	18,192	9,759
Market development	-	3,506	10,639
Annual meeting	10,000	855	1,634
Election	7,000	835	170
	355,150	301,734	356,373
<b>EXCESS (DEFICIENCY) OF REVENUE OVER EXPENSES FOR THE YEAR</b>	\$ (36,150)	\$ 268,456	\$ (21,677)

**SASKATCHEWAN MUSTARD DEVELOPMENT COMMISSION**  
**Statement of Changes in Net Assets**  
**For the Year Ended July 31, 2022**

	Unrestricted	Internally restricted	<b>2022</b>	2021
<b>NET ASSETS - BEGINNING OF YEAR</b>	\$ 566,186	\$ 454,356	<b>\$ 1,020,542</b>	\$ 1,042,219
Excess of revenue over expenses	268,456	-	<b>268,456</b>	(21,677)
Transfers <i>(Note 6)</i>	(8,728)	8,728	-	-
<b>NET ASSETS - END OF YEAR</b>	<b>\$ 825,914</b>	<b>\$ 463,084</b>	<b>\$ 1,288,998</b>	<b>\$ 1,020,542</b>

**SASKATCHEWAN MUSTARD DEVELOPMENT COMMISSION**

**Statement of Cash Flows**

**For the Year Ended July 31, 2022**

	2022	2021
<b>OPERATING ACTIVITIES</b>		
Excess (deficiency) of revenue over expenses for the year	\$ 268,456	\$ (21,677)
Changes in non-cash working capital:		
Accounts receivable	(46,664)	1,512
Accounts payable and accrued liabilities	26,394	5,236
Prepaid expenses	-	(147)
	<b>(20,270)</b>	6,601
Cash flow from (used by) operating activities	<b>248,186</b>	(15,076)
<b>INVESTING ACTIVITIES</b>		
Proceeds on disposal of investments	544,844	118,088
Purchase of investments	(544,980)	(118,000)
Reinvested interest	(12,187)	(14,778)
Cash flow used by investing activities	<b>(12,323)</b>	(14,690)
<b>INCREASE (DECREASE) IN CASH FLOW</b>	<b>235,863</b>	(29,766)
<b>CASH - BEGINNING OF YEAR</b>	<b>109,564</b>	139,330
<b>CASH - END OF YEAR</b>	<b>\$ 345,427</b>	\$ 109,564
<b>CASH CONSISTS OF:</b>		
Cash	\$ 345,427	\$ 109,564

**That the Sask Mustard audited financial statements for the year ending July 31, 2022 be approved as presented.**

Motion #4

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# Budget

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2022-2023 BUDGET

RICK MITZEL, EXECUTIVE DIRECTOR

# 2022-2023 Proposed Budget

## Revenue

AMP FUNDING	\$16,500
ADOPT PROJECTS	\$40,000
CHECK OFF INCOME	\$480,000
LEVY RECEIVABLES YEAR END	
INVESTMENT/INTEREST INCOME	\$6,000
MISCELLANEOUS INCOME	
REFUNDS	-\$25,000
SPONSORSHIP INCOME	
<b>Total Revenue</b>	<b>\$517,500</b>

## Expenses

### Market Development

Market Development AMP	\$33,000
Market Development - Chuck Penner/Spoiled Mustard	\$50,000
Culinary Marketing	
<b>Total Market Development</b>	<b>\$83,000</b>

### Research

Adopt	\$42,000
MUSTARD 21 CANADA INC. -CAPP	\$150,000
<b>Total Research</b>	<b>\$192,000</b>

### Communications

ANNUAL MEETING	\$10,000
MEETINGS, SHOWS, FIELD DAYS	\$3,000
NEW INITIATIVES - COMMUNICATIONS	
NEWSLETTER	\$3,000
SPONSORSHIPS	\$2,000
WEBSITE	\$7,000
<b>TOTAL COMMUNICATIONS</b>	<b>\$25,000</b>

### Director Per Diem and Expenses

DIRECTOR EXPENSES	\$10,000
DIRECTOR PER DIEM	\$25,000
<b>Total Per Diem &amp; Expenses - Board</b>	<b>\$35,000</b>

### Administration

AUDIT AND ACCOUNTING FEES	\$7,000
BANK SERVICE CHARGES	\$700
BOARD MEETING EXPENSE	\$500
ELECTION	\$7,000
INSURANCE	\$1,500
LEGAL FEES	\$2,000
MEMBERSHIPS/SUBSCRIPTIONS	\$2,000
TELEPHONE	\$700
OFFICE EXPENSE	\$5,500
RENT	
SERVICE CONTRACT - BOOKKEEPING	\$10,000
SERVICE CONTRACT - LEVY CENTRAL	\$10,000
SERVICE CONTRACT - MANAGEMENT	\$62,500
STAFF TRAVEL	\$750
<b>Total Administration</b>	<b>\$110,150</b>

### Total Expenses

**\$445,150**

### Net earnings (loss) for period

**\$72,350**

**That the Sask Mustard budget for the 2022-2023 fiscal year be approved as presented.**

Motion #5

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**That Sask Mustard appoint Lingard + Dreger as auditor for the year ending July 31, 2023.**

Motion #6

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**To adjourn the January 12, 2023 Annual  
Business Meeting.**

Motion #7

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*Thank you!*

Please stay on for  
Chuck Penner's  
Mustard Outlook



# Thank you for attending!

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FOLLOW US ON TWITTER @GROWMUSTARD for updates on agronomic projects and production information

FOLLOW US @SPREADTHEMUSTARD for great recipes and cooking tips