CMustard **C**rower

Mustard is a Must

Winter Edition 2018

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Another year has come and gone for the mustard industry. Another cycle for growing, marketing, planning, breeding and research has been completed.

2018 was another trying year for much of the mustard growing areas in Saskatchewan. Spotty or nonexistent rainfall led to variable emergence and yields. Ag commodity markets in general seem to be well supplied with no new demand pull and this has led to prices hovering in a tight band on either side of break even with limited profits for growers.

Some things change or progress gradually and others more abruptly until finally we are in a new paradigm. I believe this to be the case for hybrid mustards starting in 2019. After many years of breeding work, farmers can expect improved yields and crop

Chairman's Message by Richard Marleau, Chair SMDC

competitiveness as well as annual seed purchases for hybrid vigour.

The Saskatchewan Mustard Development Commission's main source of revenue is the checkoff which is a function of the mustard price and quantity just like farmer revenues. The lower commodity prices we've experienced in recent years are likely to continue going forward and this makes balancing the annual SMDC budget a bit more of a challenge.

Mustard 21 is the research arm for the Canadian mustard industry. Research funding for M21 is the biggest expenditure for both the Canadian Mustard Association and for SMDC and that allocation has increased dramatically.

As hybrid varieties become commercially available to growers, first in brown mustard and then in oriental and yellow, it's expected that future research efforts will increasingly be supported through seed royalties. However, it's difficult to know exactly how the future will unfold.

Despite deficit budgets in recent years, SMDC still has ample reserves. As a new paradigm emerges for mustard varieties and production practices, funding priorities will need to be closely monitored and regularly re-evaluated.

I want to thank growers, traders, processors, researchers and administrators for their efforts to keep the industry strong, both in the past and going forward.

Best of luck in 2019!

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Richard Marleau Chairman of the Board

Musiard on the Menu

Broccoli Mustard Cheese Crackers

Prep Time: 5 hours | Coking Time: 12 min. Yield: about 100 crackers

1⁄2 cup (125 mL)	broccoli florets, roasted
1/2 cups (375 mL)	butter, softened
1 cup (250 mL)	Applewood smoked cheddar
	cheese, grated
1	egg, large
1/2 cups (625 mL)	yellow mustard sprouts
1⁄4 cup (60 mL)	grainy mustard
2 tbsp (30 mL)	dry mustard powder
1/4 cup (60 mL)	brown mustard seed
1 tsp (5 mL)	fine sea salt
¹ / ₂ cups (375 mL)	bread flour
1/2 cup (125 mL)	pastry flour

INSTRUCTIONS:

- 1. In a food processor, blend together broccoli, butter, cheese, egg and grainy mustard until smooth.
- 2. Add the remaining ingredients and pulse together until just combined.
- Transfer the mixture to a bowl (mixture will be very soft) and cover with plastic wrap. Please in the fridge for approximately 1 hour.
- 4. Dust mixture and working surface lightly with flour. Roll dough into a large log.
- 5. With knife or metal spatula, divide long into five equal pieces.
- 6. Roll each piece of dough into a log approximately 1 inch (2.5 cm) in diameter.
- 7. Wrap each log in plastic wrap and tie each end. The dough should remain a round log shape.
- 8. Place each wrapped log in the fridge for approximately 4 hours, or until firm.
- 9. Preheat oven to 350°F (175°C).

This recipe appears in the

#Spread the Mustard cookbook.

- 10. Unwrap each log and cut with a knife into thin slices (approximately 1/8 inch or 3 mm).
- 11. Place each round cracker on a parchment lined baking sheet.
- Place in preheated oven, bake for approximately 10 to 12 minutes or until golden brown.
- 13. Cool crackers on a wire rack and enjoy!

Per serving: 170 calories, 13 g total fat, 8 g saturated fat, 40 mg cholesterol, 260 mg sodium, 9 g carbohydrates, 1 g fibre, 0 g sugar, 3 g protein



Saskatchewan Mustard Development Commission (Sask Mustard)

Annual General Meeting Thursday, January 17, 2019

Prairieland Park, Hall A

\$20 registration at the door / no charge for registered Mustard producers

8:30	Registration
8:50	Chairman's Address Richard Marleau
9:00	New Mustard Varieties with Improved Yields Bifang Cheng, Mustard Breeder, AAFC
9:30	Seed Production of Hybrid Mustard Scott Horner, HyTech Production Ltd.
10:00	Pre-launch of Hybrid Brown Mustard 2019 Howard Love, Mustard 21 Canada Inc.
10:30	Coffee
10:45	Mustard Research Projects for 2019 and Beyond Pete Desai, Mustard 21 Canada Inc.
11:30	Nitrogen Fertilizer Responses in Yellow and Hybri Brown Mustard Amber Wall, Wheatland Conservation Area
12:00	Lunch
12:45	Annual General Meeting
1:15*	Mustard Market Outlook Chuck Penner, Leftfield Commodity Research
*could b	be earlier or later depending on length of annual meeting

Do you have a story idea for the next newsletter, an opinion on the mustard industry, or a great mustard recipe you want to share?

Please contact us at 306-975-6629 or email us at info@saskmustard.com.

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Mustard Market Outlook

Chuck Penner, Leftfield Commodity Research

Even though we're still waiting for the final 2018 mustard production estimate from StatsCan, it's fairly clear current supplies are comfortable, or maybe more. In the past few years, the Canadian mustard crop has seen sharp jumps and drops and that has led to considerable price volatility.

The mustard crop in 2017/18 was one of the low points in recent years. The resulting high prices then had their inevitable effect on seeded area in 2018, climbing to just over 500,000 acres, 31% more than the year before.

At the time of writing, StatsCan still hadn't issued its final yield estimate and there's a lot of variability between StatsCan's earlier number and the yield in the final Sask Ag crop report. Compared to the extremely low yield of 709 lb/acre in 2017/18, StatsCan had reported the yield at 780 pounds while Sask Ag's estimate was another 200 pounds higher.

These two yield estimates mean the difference between comfortable and heavy supplies, but in either case,

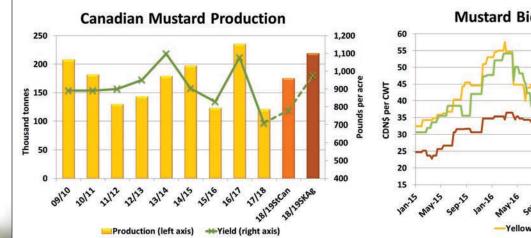
2018/19 is a very different situation than the low supplies of 2017/18. Prices are reflecting that, with bids for all three mustard classes down from last year.

The largest declines are seen in brown mustard, mainly because last year's attractive prices triggered the largest acreage response. Bids for both yellow and oriental are also off the highs but haven't fallen as far because 2018 acreage didn't rise like brown mustard did.

Of course, the size of the Canadian crop is only one part of the picture. The demand side of the market in 2018/19 has been weakened by crops in other countries. Canada's largest customer is the US, primarily for yellow mustard, and it appears the US domestic crop in 2018 is larger again. The past three years in the US have seen a sharp increase in seeded area. In 2018, acreage dipped slightly but was still near those highs. Yields in 2017 were disastrous but bounced back significantly in 2018, although final estimates aren't yet available. This means the US is supplying more of its own mustard needs and requires less from Canada.

The other big market for Canadian mustard (especially brown) is the EU and that's looking weaker too because of a large increase in the Russian crop. According to sources, Russian farmers more than doubled plantings and even though yields were lower than last year, the 2018 mustard crop will likely end up a new record by a wide margin. At least some of that extra production will be headed to western Europe and is competing with Canadian mustard.

These larger mustard crops in Canada and other key areas have made for a discouraging outlook for 2018/19 and that situation may carry on beyond this crop year. Prices in western Canada have declined but disciplined farmer selling is likely keeping them from slipping further. Mustard growers tend to be fairly patient/stubborn which will help limit the downside. And if seeded area in 2019 drops sharply again, the recovery could already begin in the next marketing year.



Mustard Bids - Saskatchewan

Mustard 21 Canada Inc. (M21) Update By Pete Desai

Condiment Mustard

Mustard 21 Canada Inc. (M21) is the research arm of Sask Mustard (SMDC) and the Canadian Mustard Association (CMA). At the end of this year, M21 will have completed ten years of implementing our strategic R & D action plan. I thought it would be fitting to look at how the mustard value chain investment over these years has helped to position Canadian mustard for the future.

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During the decades from 1980-2010, we saw major developments in prairie crop agriculture: the huge success of canola, strong pulse growth, and minimum- or zero-till became a new paradigm. It was new HT technology that drove canola's success to a new level. Mustard, on the other hand, as a small specialty crop, did not keep up with the technological advancement that was driving the competitiveness of many Canadian crops. This lag put pressure on mustard to strategically invest its smaller research investment dollars to close the gap and aim to keep up with the technological advances of the major crops.

The R & D resources required to develop and commercialize a new crop variety, for example, are not that different for a small or a large crop. The average cost to develop and commercialize a crop variety is around one to two million dollars per year—a huge commitment for a small acre crop. Smaller crops thus are at a disadvantage when pursuing the latest technology or innovation for fast tracking R & D commercialization. Crops like mustard must leverage their smaller investment dollar base with funders and strategic partners to establish long-term sustainable R & D programs that deliver economic benefit to the whole value chain.

Our annual mustard value chain funds (2013-2018) of ~\$200K, from SMDC levy and CMA seed royalty, are leveraged to resource strategic R & D priorities. M21, since 2009, has invested a total of ~\$10.0+M from AAFC funding programs, the Western Grains Research Foundation, Saskatchewan Agriculture, and industry partners to execute strategic R & D projects with maximum impact. We have established a solid foundation for success. M21 is now well positioned to continue to strengthen the mustard value proposition for the next decade. Our top strategic priorities were and will continue to be: higher yield, pest management/weed control and new uses of mustard to increase marketing options.

M21's strategy has been and remains to maximize its R&D resources by leveraging grants to secure long-term funding to sustain the development of a very productive and robust product pipeline. Our most important goal was and is to deliver higher yield by establishing a long-term sustainable AAFC mustard breeding program focused on increased yield. The dedicated AAFC R & D team led by Dr. Bifang Cheng, breeder, along with appropriate resource supports, are now very much focused on working diligently to address yield increase. Their efforts are identifying new diverse mustard germplasm, incorporating hybrid technology, and utilizing genomic tools for earlier and faster selection of lines. Staying focused on these top priorities for the past nine years has helped M21, with its collaborators, to deliver newer varieties through traditional breeding (Adagio - yellow, AAC 100 Oriental).

The hybrid technology developed for brown and oriental (B. juncea) over the past GF 2 program is our start to providing double digit percentage yield increases that mustard needs to stay competitive with domestic crops and global exports over the next decade. The first brown mustard hybrid (AAC Brown 18) is set for commercial launch in 2020 with pre-launch testing in 2019. This is the first condiment mustard hybrid developed and, over the next five years, you will see exciting next generation mustard hybrids in the market place. If you are interested in participating in testing these new hybrids, please keep in touch with your mustard certified seed supplier and learn about how to participate in the pre-launch 2019 program.

The pursuit of key strategic R & D priorities was only possible by staying focused and assigning our limited resources to establish a very strong AAFC long-term breeding program. This focus has started to deliver amazing results. The key to future mustard

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breakthroughs will now come from broader diverse germplasm, using hybrid technology, and staying focused on our key strategic priorities (yield, weed management, quality) to ensure that Canadian mustard maintains its global competitiveness and remains a viable business option as a rotational crop for our mustard growers.

M21 is grateful for the excellent support of Agriculture and Agri-Food Canada (AAFC), the Western Grains Research Foundation (WGRF), the Canadian Mustard Association (CMA), the Agriculture Development Fund (ADF) of Saskatchewan Agriculture, the Saskatchewan Mustard Development Commission (SMDC) and Agrisoma Biosciences Inc. for their funding support to implement M21's key strategic R & D projects.

If you have any suggestions, comments or want to discuss any of the above topics, please contact me at 250-248-4590 or E-mail at desaicanada@yahoo.ca.

Hybrid Brown Mustard 2019 Pre-launch

Would you like to grow 80 acres of the new hybrid brown mustard as part of the prelaunch trial in 2019?

Seed of the new Brown Mustard Hybrid (AAC Brown 18) will be available for roughly 2,000 acres for the spring of 2019. This variety has been developed by Dr. Bifang Cheng (Mustard Breeder) and her team at Agriculture and Agri-Food Canada in Saskatoon, as part of the Mustard 21 Canada Inc. (M21) condiment mustard project. AAC Brown 18 has shown significantly higher yields than the check variety, Centennial Brown, in Dr. Cheng's research trials over the past four plus years.

M21 is jointly funded by mustard growers through Sask Mustard and the mustard industry through the Canadian Mustard Association. Through M21, mustard research is funded including the mustard breeding program. M21 has contracted with HyTech based in Alberta for the production of certified seed of AAC Brown 18.

In 2019, available AAC Brown 18 Hybrid seed supply will enable 25 growers to try the new variety on 80 acres each in the upcoming pre-launch year. Growers who want to participate will need to be registered producers with Sask Mustard, meaning they will have paid a mustard levy within the past three years and not received a refund in the past year. Preference will be given to producers who have grown brown mustard in the past two years and who will grow the 80 acres of AAC Brown 18 as part of their larger overall seeded acreage of brown mustard in 2019. Growers will be contacted three to four times during the 2019 growing season to understand how the hybrid is performing on their farm.

Interested brown mustard growers are asked to fill out the form below and send it to M21 by January 20, 2019. Filling out the form does not guarantee that you'll be able to get seed, nor does it commit you to purchasing seed. Interested growers will be contacted in early 2019 to confirm if they are still interested and committed to purchase the seed for 80 acres at \$7.50 per pound. The purchase price for 80 acres of Hybrid seed will be \$3,600. The 25 growers will be split among distributors and selected from the completed forms submitted. If there are more growers than the available AAC Brown 18 seed, a lottery type system will be used.

For the pre-launch trials in 2019, all the seed will come treated with Helix Vibrance. The seed will be delivered directly to the growers.

Will the extra yield justify the additional seed cost?

In research trials to date, the AAC Brown 18 hybrid variety has generated yields roughly 20 per cent greater than Centennial Brown.

Certified seed of Centennial Brown with the same seed treatment is selling for around \$4 per pound. At a seeding rate of 6 pounds per acre, that's a seed cost of \$24 per acre. The new AAC Brown 18 hybrid at \$7.50 per pound and 6 pounds per acre will cost \$45 per acre. That's an additional cost of \$21 an acre.

Let's assume a brown mustard yield of 900 pounds per acre, which is the long term average. A 20 per cent yield advantage is an additional 180 pounds per acre. Assuming a brown mustard price of 30 cents per pound, the additional production is worth \$54 an acre.

In this example, the net gain of the new hybrid over certified seed of Centennial Brown is (\$54 minus \$21) \$33 an acre.

Of course, if yields are lower than average or if the price of brown mustard is less than 30 cents a pound, the comparison becomes less favourable for the hybrid. On the other hand, higher yields and/or a higher mustard price give the hybrid a greater advantage.

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	Certified Centennial Brown	Certified AAC Brown 18 Hybrid
Seed cost with treatment	\$4.00 per pound	\$7.50 per pound
Seed cost at 6 pounds/ acre	\$24 per acre	\$45 per acre
Expected Production	900 pounds / acre	1080 pounds / acre
Price assumption	30 cents / pound	30 cents / pound
Gross return	\$270 per acre	\$324 per acre
Gross return minus seed cost	\$246 per acre	\$279 per acre (\$33 advantage)

Will the hybrid brown be accepted in the marketplace?

All the quality parameters of the new hybrid brown are very close to those of Centennial Brown. This was extensively evaluated before the new hybrid was approved for registration. It's important to note that the new hybrid brown is not a GMO, nor was it developed through gene editing procedures.

In 2018, three growers each had a small two or three acre demo plot of the new hybrid within fields seeded to Centennial Brown. The hybrid was harvested separately and is being provided to interested processors and customers so they become acquainted with it.

Won't higher yielding mustard varieties just flood the market and decrease the price?

It's true that the market for all condiment mustards is relatively small and that the price drops when production increases. However, farmers in other countries are growing condiment mustard and capturing some of Canada's market share, particularly in Europe. In some cases, they may even be using pirated Canadian varieties. As with any hybrid, growers need to purchase new seed every year. Therefore, with hybrid varieties, it will be much more difficult for other countries to utilize our seed and our higher yields should provide us with the opportunity to win back market share.

In all Canadian crop types, researchers are working towards better yields. Mustard is no exception. In the case of Canadian mustard, the development is being funded by farmers, industry and government for the benefit of the entire sector.

Expression of Interest To Purchase 2019 Pre-Launch Brown Mustard Hybrid (AAC Brown 18)

If you are interested in participating in the 2019 pre-launch AAC Brown 18 campaign which will mean buying seed for 80 acres of the new brown mustard hybrid (AAC Brown 18) to be grown along with Certified Centennial Brown as your regular production, please fill out this form and mail it to:

> Mustard 21 Canada Inc. Bay 6A 3602 Taylor Street East Saskatoon SK S7H 5H9

Filling out this form does not commit you to growing the new variety, nor does it guarantee that you will be able to receive seed for 2019 planting. If there are more interested growers than seed, a lottery type system will be used.

Producer Name:	
Name of farming entity if differe	nt than producer's name:
Are you a registered mustard gro	ower with Sask Mustard? 🗌 Yes 🗌 No
Have you been growing brown n	nustard in the past two years? 🗌 Yes 🗌 No
Producer Address:	
	Coll #
	Cell #
Email:	
Farm location if different from a	ddress:
How do you normally get your b	rown mustard seed?
	Certified see that has not been treated
Common seed from a supp	lier Certified seed that has been treated
If you have been buying certified	
what supplier(s) have you purch	ased from?

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Mustard Buyers List

1309497 AB Ltd PO Box 6345 Innisfail AB T4G 1T1 Tel: 204-582-2774 Fax: 306-582-2766

Agricom International Inc 213-828 Harbourside Drive North Vancouver BC V7P 3R9 Tel: 604-983-6922 Fax: 604-983-6923

All Commodities (AC) Trading Ltd 1600 2 Mile Road Winnipeg MB R2N 4K1 Tel: 204-339-8001 Fax: 204-339-8002

Alliance Pulse Processors Inc O/A A G T Foods 6200 E Primrose Green Dr Regina SK S7V 3L7 Tel: 306-525-4490 Fax: 306-525-4463

Besco Grain Ltd PO Box 1390

Carman MB ROG 0J0 Tel: 204-745-3662 Fax: 204-745-2965

Broadgrain Commodities Inc 900 - 18 King St E Toronto ON M5C 1C4 Tel: 416-504-0070 ext. 326 Fax: 416-504-0080

Canpulse Foods Ltd 100 - 318 Wellman Lane Saskatoon SK S7T 0J1 Tel: 306-931-7775 Fax: 306-931-7850

Fax: 306-644-4706

Diefenbaker Seed Processors Ltd O/A Diefenbaker Spice & Pulse PO Box 69 Elbow SK SOH 1J0 Tel: 306-644-4704

Farmer Direct Co-Operative Ltd

1024 Winnipeg St Regina SK S4R 8P8 Tel: 306-352-2444 Fax: 306-352-2443

Grain Millers Inc 301 - 10400 Viking Drive Eden Prairie MN 55344 Tel: 800-328-5188 Fax: 952-983-1339

Hanse Seed Canada Corp Suite 2300 Bentall 5 550 Burrard St PO Box 30 Vancouver BC V6C 2B5 Tel: 954-217-0964 jt@hanseseed.com

Ilta Grain Inc

8427 160th St Surrey BC V4N 0V6 Tel: 604-597-5060 Fax: 604-597-4933

Montana Specialty Mills

701 2nd St S Great Falls MT 59403 Tel: 406-761-2024 / 406-761-2338 Fax: 406-761-7926

Mountain States Oilseeds L L C PO Box 428 American Falls ID 83211 0428 Tel: 208-226-2041 Fax: 208-226-9916

Olds Products Company of II

10700 88th Ave Pleasant Prairie WI 53405 Tel: 800-233-8064 Fax: 262-947-3517

Paterson Grain

22nd Floor 333 Main St Winnipeg MB R3C 4E2 Tel: 204-956-2090 Fax: 204-947-2386 S S Johnson Seeds Ltd Box 3000 Arborg MB R0C 0A0 Tel: 204-376-5228

Sakai Spice (Canada) Corp 4201 2nd Ave N Lethbridge AB T1H 0C8 Tel: 403-320-9445 Fax: 403-320-9446

Schluter & Maack G M B H PO Box 408 Pilot Butte SK SOG 3Z0 Tel: 306-771-4987 Fax: 306-771-4980

Seaboard Special Crops 201-2595 Quance St E Regina SK S4V 2Y8 Tel: 306-565-3904 Fax: 306-565-3912

Sunrise Foods International Inc 200-306 Queen St Saskatoon SK S7K 0W2 Tel: 306-931-4576 Fax: 306-931-6770

Victoria Pulse Trading Corp 600-850 West Hastings St Vancouver BC V6C 1E1 Tel: 604-733-1094 Fax: 604-733-1097

Viterra Inc 2625 Victoria Ave Regina SK S4T 7T9 Tel: 403-382-3418

Westland Agro Ltd PO Box 551 Gravelbourg SK SOH 1X0 Tel: 306-648-3273 Fax: 306-648-3611

To check whether a buyer is licenced and bonded by the Canadian Grain Commission, go to www.grainscanada.gc.ca.

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The Saskatchewan Mustard Development Commission

The Saskatchewan Mustard Development Commission (Sask Mustard) was established in 2003 to represent the province's mustard growers.

The Sask Mustard vision is "*Investing in the future for mustard grower profitability,"* and the Sask Mustard mission is "*Growing the mustard industry for the benefit of growers through research, communication, and market development programs."*

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