ORGANIC AGRICULTURE: A GROWING INDUSTRY

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ORGANIC IS HEAVILY REGULATED

- 2011 Federal Organic Products Regulations (OPR)
- 2013 Manitoba Organic Agricultural Product Act & Regulations (OAPA, OAPR)
- 2018 OPR now Part 13 of Safe Foods for Canadians
Equivalency = paperwork = trade
CANADA ORGANIC STANDARDS

- CAN-CGSB 32.310 – General Principals and Management
- CAN-CGSB 32.311- Permitted Substances List
- CAN-CGSB 32.312 - Aquaculture
SCOPE

- Food
- Animal feed
- Seeds
- Plants for propagation
- Products of aquaculture (in SFFC)
GLOBAL ORGANIC FARMLAND AND SALES

Development of global organic farmland and market
2000-2015

Source: Organic Monitor (market) and FiBL survey 2002-2017 (farmland)

Million hectares – Billion USD

- Organic retail sales (in billion USD)
- Organic farmland (in million hectares)

Year       | Organic Retail Sales | Organic Farmland
-----------|----------------------|-------------------
2000       | 14.9                 | 17.9
2005       | 29.2                 | 33.2
2010       | 35.7                 | 59.1
2015       | 50.9                 | 81.6
CANADIAN ORGANIC MARKET

Canada's Top Weekly Organic Buyers of 2017

- Millennials: 83%
- University Graduates: 78%
- Albertans: 74%
- Families: 72%
- Men: 67%

$4.4 BILLION
Size of the organic food and beverage market
Market share of organic food & beverages within mainstream retailers has grown from 1.7% in 2012 to 2.6% in 2017.

66 PERCENT
The percent of Canadian shoppers who are purchasing organic items weekly
-Up 10% from 2016

41 PERCENT
The percent of Canadians who are very or somewhat familiar with the Canada Organic logo
-Up 12% from 2016

48 PERCENT
The percent of Canadians who rate the Canada Organic logo as trustworthy
-Up 9% from 2016

$637 MILLION
The value of Canadian organic imports in 2016
Unroasted coffee, bananas and olive oil are the top organic imports, expected to be an estimated $216 million for 2017.

$607 MILLION
The value of Canadian organic exports expected by year end 2017
Green and red lentils, and red spring wheat account for approximately two thirds of organic exports.
CANADIAN ORGANIC PRODUCTION

According COTA's* estimates, there were 5,053 organic operations** in Canada in 2015, including:

- **4,045** primary producers
  + **294** in-transition
- **618** livestock operations
- **1,542** processors, manufacturers & retailers

*Canada Organic Trade Association (COTA)

**The number of organic operations is not an aggregate of the other categories since many operations fall into multiple categories (e.g., an operation may be a primary producer and a livestock operation).

Manitoba remains the humblest organic sector in the Prairies, with 207 operations and 111,705 acres recorded in 2016. Organic acreage expanded by over 20,000 acres, reaching 111,705 - a 22% increase since 2015.

75% of this growth was in the field crops category, notably among barley, oats, wheat and hemp.

ACREAGE BREAKDOWN

- **Pasture & Forage** (58,765 acres)
- **Field Crops** (51,311 acres)
- **Fruit & Vegetables** (1,629 acres)

GROWTH

- 153 Primary Producers
- 48 Processors, etc.
- 33 Livestock Operators
### Table 14 – Manitoba Acreage, 2015 & 2016

<table>
<thead>
<tr>
<th>Field Crops</th>
<th>2015</th>
<th>2016</th>
<th>Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cereals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barley</td>
<td>2,582</td>
<td>4,487</td>
<td>1,905</td>
<td>74%</td>
</tr>
<tr>
<td>Kamut</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mixed Grain</td>
<td>1,739</td>
<td>1,479</td>
<td>(260)</td>
<td>(15%)</td>
</tr>
<tr>
<td>Oats</td>
<td>5,129</td>
<td>15,056</td>
<td>9,927</td>
<td>194%</td>
</tr>
<tr>
<td>Rye</td>
<td>3,509</td>
<td>3,126</td>
<td>(383)</td>
<td>(11%)</td>
</tr>
<tr>
<td>Wheat</td>
<td>10,883</td>
<td>15,276</td>
<td>4,393</td>
<td>40%</td>
</tr>
<tr>
<td>Other Cereals</td>
<td>682</td>
<td>569</td>
<td>(113)</td>
<td>(17%)</td>
</tr>
<tr>
<td><strong>Pulses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beans</td>
<td>387</td>
<td>969</td>
<td>582</td>
<td>150%</td>
</tr>
<tr>
<td>Lentils</td>
<td>650</td>
<td>38</td>
<td>(612)</td>
<td>(94%)</td>
</tr>
<tr>
<td>Peas</td>
<td>1,306</td>
<td>1,449</td>
<td>143</td>
<td>11%</td>
</tr>
<tr>
<td>Other Pulses and Protein Crops</td>
<td>437</td>
<td>-</td>
<td>(437)</td>
<td>(100%)</td>
</tr>
<tr>
<td><strong>Oilseeds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canola</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Flax</td>
<td>3,249</td>
<td>3,948</td>
<td>699</td>
<td>21%</td>
</tr>
<tr>
<td>Mustard</td>
<td>1,473</td>
<td>521</td>
<td>(952)</td>
<td>(65%)</td>
</tr>
<tr>
<td>Soybeans</td>
<td>1,339</td>
<td>460</td>
<td>(879)</td>
<td>(66%)</td>
</tr>
<tr>
<td>Other Oilseeds</td>
<td>463</td>
<td>320</td>
<td>(143)</td>
<td>(31%)</td>
</tr>
<tr>
<td><strong>Other Field Crops</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hemp</td>
<td>267</td>
<td>2,210</td>
<td>1,943</td>
<td>728%</td>
</tr>
<tr>
<td>Corn</td>
<td>146</td>
<td>442</td>
<td>296</td>
<td>203%</td>
</tr>
<tr>
<td>Buckwheat</td>
<td>319</td>
<td>961</td>
<td>642</td>
<td>201%</td>
</tr>
<tr>
<td>Other Field Crops</td>
<td>10</td>
<td>-</td>
<td>(10)</td>
<td>(100%)</td>
</tr>
<tr>
<td><strong>Pasture, Forage and Natural areas</strong></td>
<td>56,215</td>
<td>58,765</td>
<td>2,551</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Fruits and Vegetables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Uncategorized</strong></td>
<td>n/a</td>
<td>-</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>91,618</td>
<td>111,705</td>
<td>20,087</td>
<td>22%</td>
</tr>
</tbody>
</table>
EXPORT CODES CANADA 2017
(MILLION $ CAN)

$218 M of an estimated $617 M
EXPORT CODES MANITOBA 2017 (MILLION $CAN)

$5.8 Million

- Peas - yellow: 0.05
- Barley: 0.2
- Flax: 0.3
- Soy beans: 0.3
- Oats: 2.1
- HRSW: 2.8
IMPORT CODES CANADA 2017 (MILLION $CAN)

Total tracked imports: $672 million
ORGANIC GROSS FARM RECEIPTS

Total: $1.5 billion

Source: Census of Agriculture 2016.
Compiled by Adam Cull, AAFC
GROSS FARM RECEIPTS

- Quebec: $63.4 million
- Ontario: 32%
- British Columbia: 17%
- Saskatchewan: 13%
- Alberta: 9%
- Manitoba: 4%
- Atlantic Provinces: 2%

Source: Census of Agriculture 2016. Compiled by Adam Cull, AAFC
Gross Farm Receipts = $1.5 B (Stats Can) [adjusted to $1.2 B]

Tracked imports = $672 M (Stats Can) [adjusted to $1 B]

Exports = $617 M (COTA)

Cost of Goods = $1.58 B

CANADIAN SALES

$4.4 B (COTA)

After farm gate = $2.82 B
Total number of Canadian organic food processors = 1097
31% (347) of these are on-farm processors
The value of processed food sold in Canada is $1.6 B
THE CHALLENGE
1. STABLE FUNDING FOR ORGANIC SECTOR DEVELOPMENT

SOLUTION: PODF

Prairie Organic Development Fund
THE CHALLENGE

2. SUPPLY
### U.S Organic Imports

The U.S. imported 19 million bu of organic grain 2016/2017

#### Organic Corn Imports into the U.S. - Metric Tons

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>% of 2016</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkey</td>
<td>-</td>
<td>15,028</td>
<td>105,739</td>
<td>399,287</td>
<td>72.6%</td>
<td>415.5%</td>
</tr>
<tr>
<td>Romania</td>
<td>918</td>
<td>28,541</td>
<td>148,184</td>
<td>55,928</td>
<td>10.2%</td>
<td>293.5%</td>
</tr>
<tr>
<td>Argentina</td>
<td>86,295</td>
<td>8,214</td>
<td>23,031</td>
<td>53,138</td>
<td>9.7%</td>
<td>-11.4%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>-</td>
<td>12,762</td>
<td>5,146</td>
<td>23,540</td>
<td>4.3%</td>
<td>22.5%</td>
</tr>
<tr>
<td>Canada</td>
<td>3,186</td>
<td>12,260</td>
<td>14,156</td>
<td>16,888</td>
<td>3.1%</td>
<td>11.3%</td>
</tr>
<tr>
<td>U.A.E.</td>
<td>-</td>
<td>-</td>
<td>877</td>
<td>-</td>
<td>0.2%</td>
<td>-</td>
</tr>
<tr>
<td>India</td>
<td>-</td>
<td>1,466</td>
<td>6,647</td>
<td>526</td>
<td>0.1%</td>
<td>-28.9%</td>
</tr>
<tr>
<td>Mexico</td>
<td>-</td>
<td>-</td>
<td>15</td>
<td>17</td>
<td>0.0%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Brazil</td>
<td>50,920</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>-</td>
<td>-</td>
<td>326</td>
<td>-</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td>Greece</td>
<td>-</td>
<td>-</td>
<td>419</td>
<td>-</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td>Grand Total MT</td>
<td>141,319</td>
<td>78,271</td>
<td>303,661</td>
<td>550,201</td>
<td>100.0%</td>
<td>40.5%</td>
</tr>
<tr>
<td>Grand Total BU</td>
<td>5,563,427</td>
<td>3,081,353</td>
<td>11,954,542</td>
<td>21,660,309</td>
<td>100.0%</td>
<td>40.5%</td>
</tr>
</tbody>
</table>

Source: USDA FAS – Global Agricultural Trade System (GATS)

#### Organic Soybean Imports into the U.S. - Metric Tons

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>% of 2016</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkey</td>
<td>239</td>
<td>437</td>
<td>14,267</td>
<td>19,458</td>
<td>165,189</td>
<td>43.9%</td>
<td>413.0%</td>
</tr>
<tr>
<td>India</td>
<td>18,166</td>
<td>35,615</td>
<td>93,640</td>
<td>107,482</td>
<td>81,701</td>
<td>21.7%</td>
<td>45.6%</td>
</tr>
<tr>
<td>Argentina</td>
<td>10,177</td>
<td>10,242</td>
<td>36,547</td>
<td>29,667</td>
<td>48,620</td>
<td>12.9%</td>
<td>47.8%</td>
</tr>
<tr>
<td>Ukraine</td>
<td>-</td>
<td>20,084</td>
<td>37,976</td>
<td>31,235</td>
<td>8.3%</td>
<td>24.7%</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>34,023</td>
<td>18,394</td>
<td>36,665</td>
<td>19,591</td>
<td>12,708</td>
<td>4.7%</td>
<td>-15.1%</td>
</tr>
<tr>
<td>China</td>
<td>49,896</td>
<td>56,504</td>
<td>45,997</td>
<td>27,125</td>
<td>14,280</td>
<td>3.8%</td>
<td>-26.7%</td>
</tr>
<tr>
<td>Russia</td>
<td>-</td>
<td>40</td>
<td>330</td>
<td>4,106</td>
<td>6,677</td>
<td>1.8%</td>
<td>451.1%</td>
</tr>
<tr>
<td>Uganda</td>
<td>-</td>
<td>-</td>
<td>353</td>
<td>880</td>
<td>5,577</td>
<td>1.5%</td>
<td>297.3%</td>
</tr>
<tr>
<td>Uruguay</td>
<td>-</td>
<td>347</td>
<td>147</td>
<td>902</td>
<td>4,702</td>
<td>1.3%</td>
<td>105.0%</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>335</td>
<td>-</td>
<td>0.1%</td>
<td>-</td>
</tr>
<tr>
<td>Lithuania</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>110</td>
<td>-</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td>Netherlands</td>
<td>901</td>
<td>-</td>
<td>2,167</td>
<td>1,324</td>
<td>8</td>
<td>0.0%</td>
<td>-69.4%</td>
</tr>
<tr>
<td>U.A.E.</td>
<td>-</td>
<td>-</td>
<td>376</td>
<td>-</td>
<td>-</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td>Brazil</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>806</td>
<td>-</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>-</td>
<td>-</td>
<td>112</td>
<td>32</td>
<td>-</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>501</td>
<td>986</td>
<td>8,562</td>
<td>-</td>
<td>-</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td>Latvia</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>102</td>
<td>-</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td>Romania</td>
<td>102</td>
<td>3,262</td>
<td>-</td>
<td>6,851</td>
<td>-</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td>Spain</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>279</td>
<td>-</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td>Grand Total - MT</td>
<td>113,504</td>
<td>126,025</td>
<td>218,827</td>
<td>316,581</td>
<td>376,069</td>
<td>100.0%</td>
<td>34.9%</td>
</tr>
<tr>
<td>Grand Total - BU</td>
<td>4,170,148</td>
<td>4,630,166</td>
<td>8,039,704</td>
<td>11,631,168</td>
<td>13,816,771</td>
<td>100.0%</td>
<td>34.9%</td>
</tr>
</tbody>
</table>
SOLUTION

ARTICULATING THE BUSINESS CASE FOR ORGANIC

Source: Manitoba Agriculture, 2018 Cost of Production
SOLUTION

ATTRACTING NEW ENTRANTS

Prairie Organic Grain Initiative
Funded in part by the PODF Innovation Fund

Transition Stream Farmer Engagement Model
THE CHALLENGE
3. THE YIELD GAP

Conventional

Grain production in Canada
SOLUTION

TRANSFERRING PRODUCTION SKILLS

Prairie Organic Grain Initiative
Funded in part by the PODEF Innovation Fund

Optimization Stream
Knowledge Transfer

Priority areas of focus

• Building soil fertility
• Managing weeds
• Designing crop rotations for weed and fertility management
• Maximizing grain quality

Extension formats

• Peer-to-peer learning networks
• In-depth training & education
• In-person, multi-farmer formats:
THE CHALLENGE

4. INSUFFICIENT DATA

SOLUTION: DATA STRATEGY

• Benchmarking data
• Price transparency
• Regional cost of production
• Regional average grain yields
• Acreage by field crop
• Total value of organic field crops
The Next Phase...

Expansion:

- Builds off of Prairie Organic Grain Initiative
- Expand scope to include all major organic field crop regions in Canada
- Increase reach to mainstream growers
- $4.5 Million