Canadian Dairy Industry Overview

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About Canada

- 2nd largest land mass in the world (9.88M km², ≈7% is arable)
- 20% of world's freshwater resources
- Population: 38.3M (ranked 37th)
- 10 provinces and 3 territories
- 6 time zones
- Official languages: English and French
- 18% of people are foreign born
- 1.4M are Indigenous
- Largest cities: Toronto, Montreal, Calgary, Ottawa
Importance of **Agriculture**

- Agriculture and agri-food sector employs 2.1M people = 1 in 9 jobs in Canada
- Generates $140B of Canada’s GDP
- Crops: $34.4B GDP
  
  **Top 3:** Canola, Wheat, Corn

- Livestock: $5.4B GDP
  
  **Beef / Veal** (12.3M head, 72,985 farms/ranches)
  **Swine** (14.0M head, 7,635 farms)
  **Dairy** (**1.4M head, 9,952 farms**)  
  **Sheep** (796K head, 9,390 farms)  
  **Goats** (230K head, 5,627 farms)  
  **Bison** (119K head, 975 farms)
Top Commodities by Province

Top three crop and livestock commodities by average 2016-2020 farm cash receipts.

Source: Government of Canada
Canadian Dairy Herd

Number of Farms with Milk Shipments: 9,952
Number of Dairy Cows: 977,800
Number of Dairy Heifers: 427,700

Canada has a supply management system for dairy, poultry and eggs.

Steady trend to fewer dairy farms, but the demand and production levels continue to increase.
Dairy Industry Partners

- Farmer funded
- Farmer run
- Representing 10,000 dairy farmers
- Industry voice to government(s)
- Invests and coordinates national dairy research, both animal and human nutrition
- “Blue Cow” logo
DFC’s proAction® Initiative

Milk Quality

Food Safety

Traceability

Animal Care

Biosecurity

Environment
Key Partners in Genetic Improvement

Breed Associations:
- Holstein Canada (94.2%)
- Jersey Canada (3.7%)
- Ayrshire Canada (1.4%)
- Brown Swiss, Guernsey Milking Shorthorn and Canadienne (0.7%)

A.I. (>5% market share):
- Semex Alliance
  Canadian farmer-owned via CIAQ, EastGen & WestGen
- Select Sires GenerVations
- Alta Genetics / Urus
- ABS Global
- STgenetics Canada
Lactanet: Dairy Excellence

- Established in June 2019
- Partnership to integrate Canada’s milk recording organizations (Valacta and CanWest DHI) with national dairy cattle genetic evaluation centre (CDN)
- Farmer-led Board of Directors
- Team of ≈450 employees
- Located in Montreal, Québec and Guelph, Ontario
Canadian Network for Dairy Excellence

Milk Recording
Improve the profitability of your dairy farm and ensure its sustainability.

Genetic Services
Discover the latest in dairy genetics and genetic evaluations for all dairy breeds in Canada.

Lab Analysis
Our labs test your samples and offer you key information to help manage your herd.

Advisory Services
On-farm consulting to help you make the best business decisions.

Centre of Expertise
Explore the latest trends and developments in dairy production.

Traceability
Report dairy cattle traceability events and order animal tags.
Milk Recording Activities

**DHI** – *milk recording services*

- Traditional milk sampling
- eDHI remote data collection
- Herd management software
  *(DairyComp, Lac-T, etc.)*
<table>
<thead>
<tr>
<th>Region</th>
<th>Total Herds</th>
<th>DHI Herds</th>
<th>% DHI</th>
<th>Average Herd Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC</td>
<td>472</td>
<td>228</td>
<td>48.3%</td>
<td>185</td>
</tr>
<tr>
<td>AB</td>
<td>493</td>
<td>302</td>
<td>61.3%</td>
<td>166</td>
</tr>
<tr>
<td>SK</td>
<td>156</td>
<td>79</td>
<td>50.6%</td>
<td>201</td>
</tr>
<tr>
<td>MB</td>
<td>251</td>
<td>140</td>
<td>55.8%</td>
<td>190</td>
</tr>
<tr>
<td>ON</td>
<td>3,326</td>
<td>2,253</td>
<td>67.7%</td>
<td>92</td>
</tr>
<tr>
<td>QC</td>
<td>4,668</td>
<td>3,078</td>
<td>65.9%</td>
<td>82</td>
</tr>
<tr>
<td>Atlantic</td>
<td>552</td>
<td>289</td>
<td>52.4%</td>
<td>106</td>
</tr>
<tr>
<td><strong>Lactanet Canada</strong></td>
<td><strong>9,918</strong></td>
<td><strong>6,369</strong></td>
<td><strong>64.2%</strong></td>
<td><strong>98</strong></td>
</tr>
</tbody>
</table>
Robotic Milking Systems

- 948 DHI herds with robots ➔ 14.9%
- 121,500 DHI cows milking with robots ➔ 19.4%
- Conversion rate of 2 barns/week
- Robot average of 128 cows, approximately 2 boxes
- Ranges by province: 4.7% in PEI to 44.3% in Manitoba
Adapting to Technology

• **Electronic DHI (eDHI)**
  Novel service with only remote data access

• **Founding Partner of iDDEN**
  International collaboration to facilitate authorized data access from on-farm systems

• **Collaborations with CDCB**
  Genetics related data and services
For the Canadian dairy cattle industry

• Nearly 100 traits evaluated for >25M males and females
• Data exchange services for industry partners: breeds, A.I. and DHI
DHI, Payment/Quality, Reference Lab

- Components and Somatic Cell Count
  - BHB, Fatty acid profiles, MUN
  - MIR Spectra
- Quality: Bactoscan, Inhibitors
- Reference and calibration standards
- ELISA: Johne’s Disease, Leukosis, BVD, Pregnancy
- PCR: Mastitis4, BVD
Advisory Services

- Québec and Atlantic Provinces
- Hourly consulting services – 33% of Québec customers

Centre of Expertise

- Innovation team for herd management located in Québec
- $1.5M/year funded by Québec Provincial Government (MAPAQ)
National dairy cattle traceability system launched in October 2020
Canada’s Vibrant AG Culture

• Agriculture is at the core of Canada
• The dairy cattle industry is strong, organized and highly collaborative
• Lactanet was created for the benefit of dairy farmers
  ➔ Vertical integration advantage
  ➔ Economies of scale
  ➔ Talent attraction and opportunities
  ➔ National delivery of diversified products and services
  ➔ Integrated R&D innovation for herd management and genetics
  ➔ Single vision and strategic planning