

The Jersey Advantage



Efficiency Profitability Opportunity

trends

Quality management decisions are most effective when farm managers understand the pedigree behind a specific animal.

For that reason, it is important that every Jersey sold in Canada is transferred, and that every Jersey heifer born is registered in the Canadian herd book.

Did you know ...

First lactation Jersey cows can produce well above 8,000 kgs from as young as 21 months.

**DESPRESVERTS
DIGNITARY JAZZ Et
GP-83**

1-10 / 305 days

Milk: 9,448 kg

Fat: 470 kg @ 4.97%

Protein: 364 kg @ 3.85%

BCA: 377-353-383

What makes some farms more profitable?

**fat/protein ratio
and the
cost of production**

"Milk revenue accounts for approximately 85% of the total revenue on most dairy farms. Therefore, price can vary greatly from one farm to the next. Altering the protein/fat ratio can influence returns/kg of quota. Tighter profit margins plus high quota values will allow producers to maximize returns from their quota holdings.

There is a tremendous range in the cost of production to produce a litre of milk.

It is important to track the performance of dairy, herd replacements, and crops to determine what segment of the operation performs best.

Well managed operations will be in a better position to compete in the future."

Author: Brian Lang - Dairy Cattle Production System Specialist, 2011, Ontario Ministry of Agriculture and Rural Affairs (OMAFRA); <http://www.omafra.gov.on.ca/english/livestock/dairy/facts/challeng.htm>

efficiency = profitability

"No matter the scale or size of Canada's dairy operation, a focus on operational efficiency will generate the most profits", states the 2016 FCC Ag Economic Report titled *The Canadian Dairy Sector Looking Forward*. The report concludes that pursuing efficiency through better management, modernization, and higher productivity can be achieved by dairy operations of all sizes, but in many cases, efficiency can only be improved through the careful learning of on-farm technologies.

Dairy farmers are looking for efficiencies that help control the cost of food and Jerseys have a natural ability to convert feed to milk with less investment and lower expenses. Although Jerseys are smaller dairy cows it doesn't necessarily mean that dairy farmers need more Jersey cows to compensate for less fluid milk. Food science tells us that nutrient-rich milk produces the products that today's consumer wants, even with less volume. The growth in butter, specialty cheeses and yogurt consumption presents an advantage to Canadian producers with Jersey cows.

breed progress

Over 60% of Canadian dairy cattle are registered. In 2015, Jersey Canada recorded over 9,000 animals and has not seen this level of registry activity in the Jersey breed for nearly half a century. The little brown cow continues to be the fastest growing dairy breed in the world and, over the past 10 years, registrations have increased 24% and Jersey Canada memberships grew 19%.

| 2015 | Jersey Registrations | % of Jerseys in the Dairy Market | Jersey A.I. Market Share |
|--------|-------------------------|----------------------------------|-----------------------------------------------------------|
| Canada | 2.4% increase over 2014 | 4% | *6.9% increase over 2014 (Holstein 3.3% increase) |
| **USA | 8.2% inc over 2014 | 12% | 12.8% market share of domestic semen sales (7.6% in 2006) |

*Canadian Dairy Network, National AI Market Share, 2015 & 2014

**Source: American Jersey Cattle Association

advancement of genotyping

Genomic testing can be used as an effective and practical management tool. It can do so much more for your herd than simply help you find that super-high GLPI cow. Genomic testing is used to predict economically important traits, such as milk production, milk composition, female fertility, productive life, calving ability, disease resistance, and physical conformation. It can save you money by identifying the unprofitable females much sooner.

The cost of genotyping has dropped to the point where it is opening up all sorts of opportunities. A genomic estimated breeding value (GEBVs) can be determined for a calf shortly after birth as a result of genomic testing combined with parent average. Further information is then added as cows create records in their own right.

Genotyping is the best way for all breeds to make genetic progress and a much higher reliability can be achieved than previously possible. As more and more females are tested, we cast a wider net which will springboard the Jersey breed ahead. A.I. centres now have the ability to screen young sire entries from a larger group of bulls which will improve the accuracy of mating selections and sample a wider variety of bloodlines.

sexed semen

Sexed semen has become commercially available from all North American A.I. studs on a select basis at a premium price. Although this semen greatly improves your odds of producing a heifer calf, it is fair to ask whether the extra cost is worth it.

Using sexed semen to breed replacement heifers increases the power of genotyping due to the increased opportunity for selecting the best replacements for the herd. As well, you get more heifers to sell which provides additional income.

Source: B. Murray, *Improving the Odds with Sex-Sorted Semen*, 2009, www.omafra.gov.on.ca/english/livestock/dairy/facts/sexsorted.htm

carbon footprint

Your nutrient management program and the conservation of our natural resources is important to protect our precious planet. An article in the *Journal of Dairy Science* compared the environmental impact of Jersey to Holstein milk for cheese production. It concluded that producing cheddar cheese from Jersey milk consumes fewer natural resources and has a lower environmental impact compared with using milk from Holstein cows. For Jerseys and Holsteins to produce the same amount of protein, milkfat and other solids, the Jersey population requires 32% LESS water, uses 11% LESS land and substantially LESS fossil fuels, and produces LESS waste. The research claimed a 20% reduction in the total carbon footprint. Source: J. L. Capper and R. A. Cady, "A comparison of the environmental impact of Jersey compared with Holstein milk for cheese production", *J. Dairy Sci.* 95:165-176, doi:10.3168/jds.2011-4360, © American Dairy Science Association, 2012

all weather cow

There are no climate or geographic barriers for Jerseys as they are very resilient animals and thrive in the heat of Brazil as well as the frigid winter of northern Canada.

Average first-service conception rates using sex-sorted semen
53% for Jersey heifers
47% for industry average heifers



size matters

the right fit

"We were ready to expand but barn renovations are expensive and we only had so much space. With Jerseys being about 75% the size of our Holsteins, they were the perfect fit for our existing stalls. We then added an extra row of stalls to make our larger dairy cows more comfortable without the investment of new barn construction. It is a solution that will allow us to grow and keep our component ratio in line."

Michael Risebrough
Maplebrough Farm

The Jerseys small body size and impressive metabolic system is something we must emphasize. It's an attribute that makes the breed economically viable.

feed factor

Jerseys are incredibly efficient feed converters compared with other breeds. Studies claim that Jerseys save 13-18% in total feed expenses as they have the unique biological ability to utilize the energy in feed for milk production, rather than expelling it as waste. With feed costs representing approximately 55% of the input in your dairy operation, this can be a significant savings.

domino effect

Decreased feed requirements result in less land base and fewer costs required to harvest and store feed. With the Jerseys early calving capability, it also means that you need less feed to get them to first calving than larger breeds.

less feed, more milk solids

When a Jersey is in production, she will ingest up to 4.5% of her total body weight in dry matter. For the average 450 kg Jersey cow, this works out to 20.25 kg of dry matter per day in her ration. In comparison, larger dairy breeds consume 4.0% of their total body weight in dry matter and a 700 kg cow would eat 28 kg of dry matter per day. Going one step further, if you look at the kilograms of milk solids produced per kilogram of body weight in 305 days, the 450 kg Jersey comes in at 1.23 solids/kg, while the 700 kg cow would produce 0.97 solids/kg.

they mix well with others

Our producers report that Jerseys coexist well with larger breeds in a freestall environment. In fact, they tell us that their assertive yet well-balanced character brings them first to the feed-bunk.

housing

Regardless of your barn style and type of milking equipment, the Jersey breed thrives in any dairy environment. Part of the Jerseys success stems from a smaller body size as they take up less square footage than larger breeds.

Jersey's require 80% of the space that a mature Holstein cow requires



Source: ProAction, Animal Care Reference Manual, July 2015, p 7

manure storage

Research tells us that Jerseys require 24% less manure storage than larger breeds. Less manure output also means less manure to spread.

Source: E. Curry, The Economic Analysis of Dairy Breeds, 2014, p 8, University of Guelph

Farmers work diligently to maintain effective nutrient management programs while maximizing herd size. A milking Jersey cow produces 55% LESS phosphorus (P2O5) in her manure than larger dairy breeds, which greatly benefits the environment. Source: Schedule VII; Agricultural Operations Regulation, Environment Quality Act; Ch Q-2, a.31, 53.30, 70, 109.1 & 124.1

robot ready

As dairy producers look for solutions to overcome labour challenges, robotic milking systems continue to grow and represented 6.8% of Canadian dairy barns (2015) - and this number is growing rapidly! Jersey cows adapt quickly to robots due to their curious nature. They set a great example and are often leaders when transitioning a herd to a robotic environment.

Jersey Growth Chart

| Age (months) | Weight (kg) | Hip Height (cm) |
|--------------|-------------|-----------------|
| 1 | 48 | 78 |
| 2 | 66 | 83 |
| 3 | 83 | 89 |
| 4 | 100 | 93 |
| 5 | 117 | 97 |
| 6 | 135 | 101 |
| 7 | 152 | 104 |
| 8 | 169 | 107 |
| 9 | 187 | 110 |
| 10 | 204 | 113 |
| 11 | 221 | 115 |
| 12 | 239 | 117 |
| 13 | 256 | 118 |
| 14 | 273 | 120 |
| 15 | 290 | 121 |
| 16 | 308 | 122 |
| 17 | 325 | 123 |
| 18 | 342 | 124 |
| 19 | 360 | 125 |
| 20 | 377 | 125 |
| 21 | 394 | 126 |
| 22 | 411 | 127 |

| Province | # of Farms | Robotic Milking Systems in Canada |
|----------|------------|-----------------------------------|
| BC | 39 | 12.8% |
| AB | 44 | 11.1% |
| SK | 8 | 8.7% |
| MB | 30 | 17.2% |
| ON | 198 | 7.0% |
| QC | 238 | 5.5% |
| Atlantic | 17 | 5.3% |

Source: Types of Dairy Barns, Canadian Dairy Information Center, 2015, <http://www.dairyinfo.gc.ca>

influencing quota values

"Our herd's higher fat and protein percentages make up for the lower milk volume we ship while filling our quota. In the first six months of 2016 we were paid an average of \$88.90/hl, and our butterfat premium averaged over \$44. Our Jersey herd SNF:F ratio sits at 1.85, far below the provincial benchmark. Quality output fits with the profit model for our fourth-generation farm."

John & Andrea Nixon
Rosalea Jerseys



component queen

SNF challenge

In Canada, each dairy component is sold at different prices for processing into different products. The challenge comes from the fact that milk has two components: butterfat (F) and non-fat milk solids (SNF), which includes proteins and other solids. More demand for butterfat (used to make butter, cheese and yogurt) means more SNF is also produced, which is needed much less.

The Jersey breed continues to be the champion in the production of milk with high percentages of fat and protein - the components that the producer is paid on. The Jerseys milk composition translates into the efficient manufacturing of the products that consumers want. Jersey milk will yield 31% more butter and 25% more cheese at a lower cost per pound of product.

Source: J. L. Capper and R. A. Cady, "A comparison of the environmental impact of Jersey compared with Holstein milk for cheese production"; J. Dairy Sci. 95 :165-176, doi:10.3168/jds.2011-4360, © American Dairy Science Association, 2012

further savings

Since transportation to the processor is charged per hectolitre, a more nutrient-rich condensed product also results in lower transporting costs, which affects your monthly milk cheque. This also means that on-farm bulk tanks for new or expanding operations needn't be as large and this reduces building and equipment costs.

biological difference

Compared to average pooled milk, a glass of Jersey milk has 18% more protein, 29% more milkfat and 20% more calcium. It is also especially rich in vitamins.



The Jersey Advantage

just add Jerseys

Perhaps the Jersey cow isn't your breed of choice. It still might make sense to add a few to the herd to enhance the number of kgs of fat and protein delivered to get paid the optimum component price.

National Average Production by Breed

| Breed | Milk (kg) | Fat % | Protein % |
|-------------------|--------------|-------------|------------|
| Ayrshire | 7,842 | 4.13 | 3.36 |
| Brown Swiss | 8,496 | 4.19 | 3.49 |
| Canadienne | 5,998 | 4.32 | 3.56 |
| Guernsey | 6,730 | 4.67 | 3.4 |
| Holstein | 10,257 | 3.9 | 3.2 |
| Jersey | 6,699 | 5.02 | 3.8 |
| Milking Shorthorn | 6,886 | 3.94 | 3.28 |

Source: Canadian Dairy Information Center, <http://www.dairyinfo.gc.ca>, 2015

quality matters

Producer Milk Price
May 2016
(per kg of milk component)



QUÉBEC
Butterfat \$10.3689
Protein \$7.8019
Other Solids \$1.5970
Butterfat Premium \$0.0259

Consult your provincial milk board for prices in your area.

Butterfat Utilization: April 2015-April 2016

- ↑ 6.8% for cream
- ↑ 1.5% for fluid milk
- ♥ Butter, yogurt & ice cream remain strong

Over a 12 month period ending April 2016 butterfat requirements grew 3.2%.

Ontario Source: Dairy Farmers of Ontario, <https://www.milk.org/Corporate/Producers/ProdMilkPrices.aspx>, June 2016
Québec Source: Les Producteurs de lait du Québec, <http://lait.org/fichiers/stats/2016/201605PF.pdf>

Source: Canadian Dairy Commission Market Commentary, June 2016



trouble-free

"Reproduction impacts the bottom line in significant ways. In our commercial operation our Jerseys calve early and on their own (88% unassisted, 11% easy, 1% hard pulls in 2015) with a current conception rate of 48% for cows and 44% for heifers. They produce at a high level and breed back to do it all over again (12.5 calving interval). Having more fresh cows more often gives you the ability to fill quota faster and sell more animals for dairy and/or cull harder."

Nick Groot & Jos Heinsbroek
Grobrook Farms

reproductive leader

No matter what size of herd you manage, perhaps the most important management issue is getting cows bred with a minimum of expense or lost production due to unnecessary days open. Numerous studies and reports have been published in recent years showing Jerseys to be an industry leader in various aspects of reproductive performance.

making money sooner

Jersey cows mature earlier than other breeds. This means they can be bred at a younger age and enter the milking herd sooner. Canadian Jerseys have an average age at first service of 15.5 months - that's an entire month younger than the industry average, and many are breeding their Jersey heifers by 13 months of age. Across their lifetime, Jerseys will average 3.3 calvings and experience 3.8 lactations.

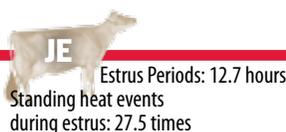
While all breeds can benefit from reducing their average age at first calving, it is reported that \$920 of profit per cow could be realized if Jerseys calved at 22 months instead of the current breed average of 26 months. Of the top three breeds in Canada, Jerseys experienced the largest gain. *Source: Canadian Dairy Network, Age at First Calving and Profitability, 2015*

more fertile

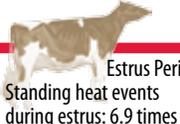
Jerseys require fewer inseminations per pregnancy and have an average of 1.8 breedings per cow - the best value for this trait amongst all Canadian dairy breeds. They have a 56 Day Non-Return Rate of 68% - and that's 7% better than the industry average. *Source: Canadian Dairy Network, 2016*

Studies at Virginia Tech state that purebred Jersey heifers reach puberty eight weeks sooner than the industry average. Jersey heifers also have longer heat periods and more standing heat events and this can help detect estrus or alleviate the misdiagnosis of estrus which can be expensive.

Heifers



After Calving



easy calving

Jerseys have 1/3 fewer difficult births than the industry average, requiring less medical intervention, less worry, and the ability to get back-in-calf quickly. Supporting data from the Canadian Dairy Network indicates a 96% easy calving rate for Jersey heifers and 99% for Jersey cows.

Top 3 Reasons for Culling in Canadian Dairy Herds



Source: Canadian Dairy Information Center, Culling Rates, 2014, <http://www.dairyinfo.gc.ca>

lower vet bills

Whether it be their resilient nature, appealing calving ability or pregnancy success rate, the Jersey breed realizes lower annual veterinary and pharmaceutical expenses than average.

embryo transfer

If your goal is to build a herd of Jerseys with strong production and type traits, purchasing embryos from animals of high genetic merit may be a good option. Embryo transfer can speed up the genetic progress of the herd yielding profitable cows from strong pedigrees with the will to produce.

Embryo transfer also minimizes disease from entering your herd and benefits your biosecurity procedures. To learn more about Jersey Canada's embryo program, visit: <http://www.jerseycanada.com/pages/embryo-program.html>.

Source: Department of Dairy Science, Virginia Tech, 2003, <http://www.wcds.ca/proc/2003/Manuscripts/Chapter%201%20-%20Non-Return%20Rate.pdf>

productive life

Dairy producers and the breeding industry have recognized health, well-being and long-term fitness of cattle as economically important. For cows to achieve a productive life, they must calve early and calve often, but they must keep on living. By having the highest rate of 'staying in production' and the lowest rate of 'removal', Jerseys can live up to their owners expectations.

herd health

Attributing to a productive life is the health of the animal. Reproductive performance, clinical mastitis, disease, injury, and feet and leg problems all significantly influence herd longevity and culling.

Numerous reports in both Canada and the United States have shown Jerseys to have superior figures for productive life, meaning lower replacement costs, more calves born on the farm, and greater flexibility to either improve the herd through voluntary culling or to make replacement heifers available for sale.

hoof care

All dairy cattle benefit from hoof care and in many cases, cow lameness is preventable through a carefully managed hoof-trimming program. Jersey Canada has eight video clips available to you on this subject: <http://www.jerseycanada.com/pages/jersey-canada-videos.html>.

breed benchmarks

| | Ayrshire | Brown Swiss | Canadienne | Guernsey | Holstein | Jersey | Milking Shorthorn |
|-----------------------------------------------------------------|----------|-------------|------------|----------|----------|--------|-------------------|
| Age at 1st service (days) | 514 | 509 | 512 | 506 | 498 | 476 | 532 |
| Survival to 1st 120 DIM (1st lact) | 96% | 95% | 97% | 96% | 96% | 97% | 97% |
| Survival to 240 DIM (1st lact) | 88% | 89% | 84% | 87% | 91% | 91% | 91% |
| Survival to 2nd calving | 72% | 74% | 69% | 66% | 70% | 77% | 81% |
| Survival to 3rd calving | 52% | 53% | 44% | 43% | 50% | 61% | 62% |
| Survival to 4th calving | 34% | 39% | 27% | 28% | 31% | 42% | 46% |

Source: Canadian Dairy Network, 2016

feet & legs

Dairy cow lameness causes significant economic loss from reduced production, extra days open, increased veterinary treatments and premature culling. A University of Iowa field study found that while 90% of the Holsteins examined in the trial showed evidence of foot lesions, only 19% of Jerseys had signs of foot problems.

The Jersey's hard black hooves make her less prone to foot infections such as hairy heel warts. Once again, size matters, as her smaller body mass reduces lameness resulting from foot disease.

Although the Jersey Classification Scorecard places the most emphasis on Mammary System (48%), there is now an increased emphasis on Feet & Legs (18%). This is largely due to the fact that sound Feet & Legs and Udder Conformation contribute most significantly to the longevity and profitability of the animal.

Jerseys are also hardy and efficient grazers as their strong feet and legs allow them to move around pastures with ease. Their smaller body size also means less damage to wet pasture fields.

meeting the expectations of their owners

"We haven't always been Jersey, but when we crunched our numbers we realized it was a better option. We may not get as much for our bull calves but we don't have the calving and reproductive problems that we use to have. For our operation Jerseys made the most sense."

*Dominic and Jonathan Hamel
Ferme Hamelon*



add a touch of colour for a better bottom line

There are many advantages to having Jerseys in your herd. But the primary reason is to enhance the quality of your production - protein and fat - and get paid for it.

Jerseys are smaller, use fewer natural resources, convert feed to milk with less investment, and produce a smaller carbon footprint. They have a longer productive life that produces a more nutrient-rich milk that fits perfectly with the type of dairy products that consumers want.

Jerseys are trouble-free, and in increasing numbers, commercial producers are choosing Jerseys because they calve earlier, stay healthier, breed back sooner and produce a higher value product. Jerseys are the perfect breed for these times.





what we do

As gatekeepers of Jersey data and providers of multiple tools and programs, Jersey Canada helps breeders make good decisions.

Our services can support your profit model, assess the breeding value of your Jerseys, improve your stock, build on your investment, and develop the breed as a whole.

Jersey Canada is the non-profit national association for owners and breeders of registered and recorded Jersey cattle. The association is responsible for the management of the Jersey herd book, and its role is to provide tools to increase profitability and develop the Jersey breed in Canada.

we are here for you

Herd book

- Registers, records and transfers ownership of Jersey animals;
- Administers and protects the animal's registered name and the breeder's prefix;
- Facilitates genetic testing and monitors genetic improvement;
- Migrates production, classification and genetic data into each pedigree for a complete picture.

Client support

- Provides extended pedigrees of registered Canadian Jerseys;
- Verifies if bulls from another country are considered purebred in Canada.

Information

- Answers questions about key indicators of breed profitability;
- Highlights successful Jerseys;
- Maintains an up-to-date website;
- Posts shows results;
- Communicates and connects through eNews & social media;
- Distributes Jersey information kits.

Youth

- Supports regional youth programs;
- Offers awards and scholarships.



Outreach

- Educates new and potential Jersey owners;
- Visits farms and engages with producers;
- Hosts the Royal National Jersey Show;
- Coordinates farm tours, participates in industry events and attends shows/sales.

Member programs

- Recognizes top performing cows and successful breeding programs;
- Hosts the 'All Canadian' and 'Cow of the Year' competitions;
- Acknowledges astute dairy management practices and leadership with awards.

Marketing

- Promotes the Jersey breed and its benefits;
- Publishes and distributes the *Canadian Jersey Breeder* globally;
- Provides print & digital marketing options.

Collaboration

- Supports regional Jersey associations across Canada;
- Partners with experts within the agricultural sector;
- Serves internationally through the World Jersey Cattle Bureau;
- Brings the dairy community together to learn, share, and network.

Governance of the association is entrusted to a board of nine members representing Jersey owners in regions across the country. Animal purity designations are based on the Association's By-laws, herd book regulations, and government legislation.

Can anyone register their Jersey animals?

Although you don't have to be a Jersey Canada member to register your purebred Jerseys or record your percentage animals, our members receive discounts on registrations and transfers - plus there are numerous exclusive benefits and perks.

Registered Jerseys bring in more profit, dominate the Canadian Jersey market, and are highly regarded globally. Selling an animal with proper identification and pedigree information gives buyers more confidence in their selection and increases the value of the animal. It also opens up A.I. incentives and export opportunities.

For more information and to see our fees, visit our membership page at <http://www.jerseycanada.com/pages/membership.html>.

RESOURCES Available to You



The herd book, often referred to as our pedigree database, is an on-line register where an animal's permanent identification, its ancestry, date-of-birth, and ownership is recorded. It also includes breeding and progeny records, genetic markers, classification results and production data from milk recording services for registered cows.

In Canada, the herd book is governed by the Animal Pedigree Act, which supports breed improvement and protects individuals that raise and purchase animals. Accurate pedigree information is essential to the ongoing improvement of the breed.



The Canadian Jersey Breeder magazine and the Jersey Canada website are two primary communication vehicles that we use to inform, educate and connect with members and the dairy community. Both have advertising options for any size budget.

Printed quarterly, *The Breeder* offers news, stories and hard data in every issue and, since 1945, has been the official bilingual publication of Jersey Canada. A subscription is included with membership.



Interested in Jerseys?

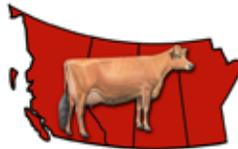
Contact us for your free copy of our Jersey Owners Manual.
tel: (519) 821-1020
email: info@jerseycanada.com

4-H projects & youth programs



Jerseys make ideal 4-H projects and Jersey Canada has a very active youth membership. To find a 4-H Jersey visit our **on-line Breeder Directory**: www.jerseycanada.com/pages/breeder-directory.html or give us a call.

talk to us regionally



JERSEY WEST

Jersey West
www.jerseywest.ca



Jersey Ontario
www.jerseyontario.ca



Jersey Quebec
www.jerseyquebec.ca



Jersey Atlantic
Jersey Atlantic
[www.jerseycanada.com/
jerseyatlantic](http://www.jerseycanada.com/jerseyatlantic)

nationally



Jersey Canada

350 Speedvale Avenue West, Unit #9
Guelph, Ontario, N1H 7M7

 (519) 821-1020

 info@jerseycanada.com



www.jerseycanada.com

Sign up for eNews: <https://confirmsubscription.com/h/t/2E34E46DBEF265D4>

The Jersey Advantage Published August 2016 ©JerseyCanada