info Holstein

May/June 2019 issue no. 157

A Holstein Canada publication providing informative, challenging and topical news.

CHARLOTTETOWN, PEI | APRIL 24-27

2019 NATIONAL HOLSTEIN CONVENTION

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On behalf of our committee, and the P.E.I Holstein Branch, we thank you for ***Coming from Away*** to experience the beauty of Charlottetown. A special thank you to all of our sponsors for making this such a great success!

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ABOVE: Young Leader Courtney Blois tells us about working on her diverse family farm on page 8; we're profiling farms that have recently started using Registration services starting on page 10; and Audrey explains the importance of Premise Identification Numbers in Dear Customer Service on page 18!
ON THE COVER: A calf at Ferme Julio enjoys the greenery. Photo credit: Amélie Klaassen, Granby, QC

contents

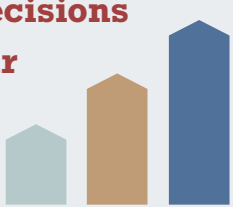
New President's Profile Gerald Schipper, Aylmer, ON

WHY DID YOU BECOME A HOLSTEIN CANADA MEMBER? Growing up a youngster in Brazil (with Dutch-born parents and siblings), my brother and I would study Canadian bull proofs and genetics, and we were deeply impressed with the Canadian Holstein. After moving to Canada and purchasing a grade herd, we couldn't wait to become members, register our cows with Holstein Canada, and work to upgrade our herd.

WHAT MOTIVATED YOU TO BECOME A HOLSTEIN CANADA DIRECTOR? Many reasons! I have greatly benefitted from taking part in various Holstein Canada programs. I was mentored to develop our herd, and am deeply indebted to my fellow producers who accepted me as a newcomer. I also love connecting with these farmers! Before joining the Board, I was asked to sit on a Visioning Committee and, later on, the Breed Advisory Committee. Helping enhance services and develop further efficiencies for our industry opened up a whole new world for me. I am deeply indebted to our Association for granting so many opportunities to me and my family, and it was only right to give back by being a Director.

WHAT IS YOUR VISION FOR HOLSTEIN CANADA? In the current economic environment, it is key to have unbiased information to make important herd management decisions that contribute to your herd's profitability. We need to demonstrate and spread the word that our services are relevant in helping dairy farmers make sound financial decisions to increase efficiencies on their farms. Our core services are important management tools for everyone.

It is key to have unbiased information to make important herd management decisions that contribute to your herd's profitability.



WHAT DO YOU FEEL IS THE MOST VALUABLE HOLSTEIN CANADA SERVICE? It is hard to prioritize value! As a consumer, it is Traceability, the part Holstein Canada does to contribute to food security. However, as a member, it is Classification. We have developed and enhanced the breed and sold livestock and genetics to the rest of the world. This cow has adapted to different climates and environments, and it is versatile enough today to adapt and excel in new automated milking facilities.

Farm overview: Skipwell Farms, Aylmer, Elgin County, Ontario

- 400 cows
- Operated with wife Grace, son Henri and daughter-in-law Katie
- 12 employees
- 1850 acres cropped
- Grace & Gerald have four children and four grandchildren

SPEAKING AS A FATHER OF AN ACTIVE NEXT GENERATION PRODUCER, WHAT ARE YOUR THOUGHTS REGARDING TODAY'S YOUNGER FARM MANAGERS? With the advancement of the breed and technology, we have a very enthusiastic generation of young producers with high expectations for those around them, and that's great! As an Association, we need them to contribute and we need to listen to their views. We constantly strive to do so, whether it be through our Young Leaders Program or welcoming young producers on our various Committees.

WHAT DO YOU THINK THE FUTURE HOLDS? Our members will hold the services Holstein Canada provides to a high standard. This can be positive, as it challenges us to stay sharp. As mentioned previously, we need to position our services as important management tools and as critical sources of information for today's changing world. Classification offers substance to genomics, especially on the male side. Validating genomics with phenotypical information maintains the relevancy and reliability of genomics, another great herd management tool.

A Holstein Canada Perspective on Stature

The Holstein Canada Breed Advisory Committee and the Classification Advisory Committee (made up of producers, an AI rep, and a veterinarian) work to ensure that the Holstein breed continues to evolve. This work is done not only to meet producer's needs, but also to ensure that our great Holstein cow works comfortably and efficiently in all management environments. The national representation of these two committees, combined with Holstein Canada's 30 field staff and the Board of Directors, bring forward suggestions that are considered for beneficial changes to the classification program.

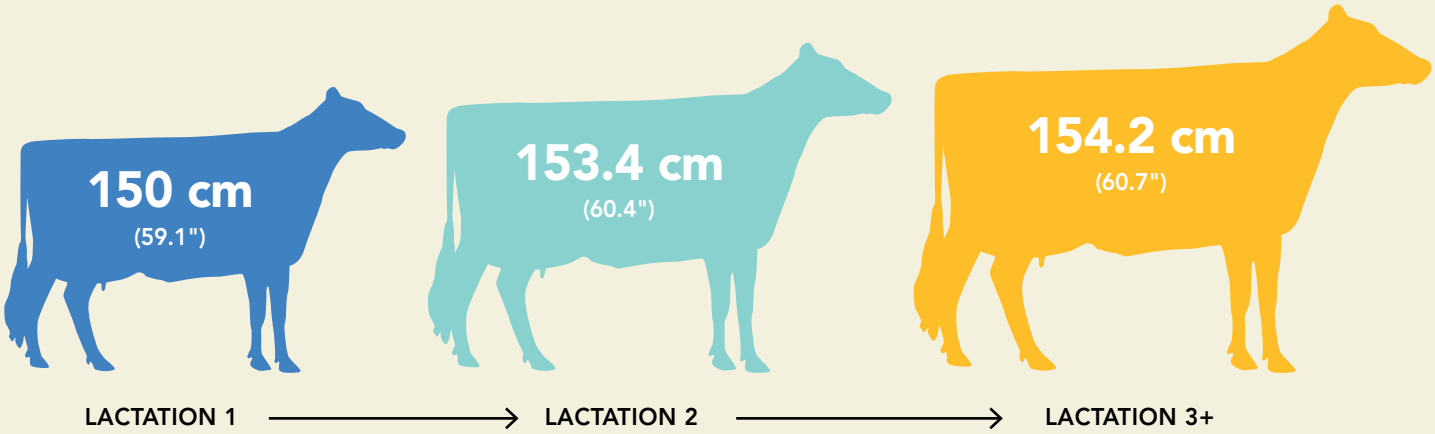
Over the last several years, Stature has become a growing concern in the industry. As producers will attest, cows that are too tall, particularly those that lack the balance of their parts through the rest of their conformation, often become challenges in today's housing environments.

Recognizing the Stature issue, Holstein Canada is working towards maintaining, if not slightly decreasing, the current height of our breed. A lot of work must be done in order to move away from the steady increase of Stature in Holsteins. Stature is a highly heritable trait; in fact, Stature garners the highest heritability of all traits with a significance of 45% heritability. The average Holstein in Canada ranges from 150-154 cm (59 to 61 inches), an increase of over 2.5 cm (or 1 inch) in the past decade.

Holsteins of the extreme nature (too tall) can cause issues on-farm or have a negative impact on health. Some of the issues we see include:

- **Animals not fitting into equipment**
- **Higher maintenance**
- **More prone to injury (due to not fitting properly in stalls or equipment)**
- **Increased calving difficulties due to larger calf size**
- **"Clumsy cow syndrome" (cattle lacking a balance of parts, tall with a narrow chest)**

The average height of animals per lactation code a 6



In 2017, the Breed Advisory Committee forwarded a recommendation to the Classification Advisory Committee to lower the ideals of stature. The reason for this recommendation was two-fold: to slow the progress of stature in the breed today (recognizing its significant heritability); and to voice to the Canadian industry our Association's perspective on Stature. Upon review of the recommendation, the Classification Advisory agreed, with slight modifications. The recommendation was forwarded to the Holstein Canada Board of Directors, who approved the change, and it was implemented in June 2018. The ideals for stature were moved from linears 6, 7, 8 to now be 5, 6, 7 for all lactations. At this time, there was also an increase in discriminations for cows coding 8 and 9.

On February 4, 2019, the Classification program implemented two more changes correlated directly to building a more balanced cow. This was done to work towards continuous improvement of the functionality of our breed and in an effort to better illustrate to producers that balance equates profitability. These changes are a new and automatic defect "TOO TALL", as well as a spread on the discrimination weights for Dairy Capacity, favouring cows of codes 7, 8 & 9 while harshly discriminating cows with codes 1, 2, 3 for first and second lactation cattle.

LACTATION 1

- **Maximum measurement for linear score 8 is 61.5"; any cow measuring over scores a 9.**
- **Any cow that exceeds 62.5" will receive an automatic default of "*TOO TALL*"**
- **Any cow that exceeds 63.5" will receive an automatic double defect "*TOO TALL*"**

LACTATION 2

- **Any cow that exceeds 63.50" will receive an automatic default of "*TOO TALL*"**
- **Any cow that exceeds 64" will receive an automatic double defect "*TOO TALL*"**

LACTATION 3

- **Code conversion measurements have moved down 1 linear score point:**
  - **Linear code 8 now equivalent to 62.5"; any cow over will score a 9**
  - **No auto-defect "*TOO TALL*" for 3rd+ lactation cattle, as these cattle have already proven longevity**

Stature correlates to several conformation traits; these include overall conformation (51%), rump (38%), dairy strength (68%), heel depth (41%), dairy capacity (46%) and durability (35%). Due to these significant correlations, Stature will auto-increase within the breed over time, even when Stature is not a consideration in a breeding program. The traits mentioned above have a large impact on the profitability and functionality of the herd. When looking to improve these traits, it is extremely important to consider Stature and choose bulls for your mating program that excel in these areas but are complemented with a low or negative digit number for Stature.

When tackling the challenges we see with respect to Stature, we all have a part to play. Holstein Canada will continue to work with you and for you, helping you build a functional herd that considers a balance between durability, production and longevity equating to profitability. Work with your semen provider to see which bulls are right for your herd.

Stature Correlations:

51% Overall Conformation

38% Rump

68% Dairy Strength

41% Heel Depth

46% Dairy Capacity

35% Durability

COMPASS: NAVIGATE YOUR HERD'S SUCCESS

Holstein Canada and the Canadian Dairy Network, with support from Zoetis Canada, are proud to introduce Compass, a free online genetic software coming this summer.

Compass will give producers exclusive access to the most up-to-date genetic information, while taking much of the guesswork out of breeding decisions. It will provide a look back at a herd's breeding trends, make projections into the future, and give producers an in-depth view of their current herd's genetics. The program will suggest actions for each animal, such as genotyping or the use of sexed semen. Ultimately, Compass is driven by profit, and is programmed to guide producers towards a genetic strategy that results in the highest return on investment for their herd.

How to get started

All you need to get started is an email address. Compass will be free and available to all dairy producers, raising animals of all breeds. Producers on milk recording and classification, however, will have the most detailed information available.

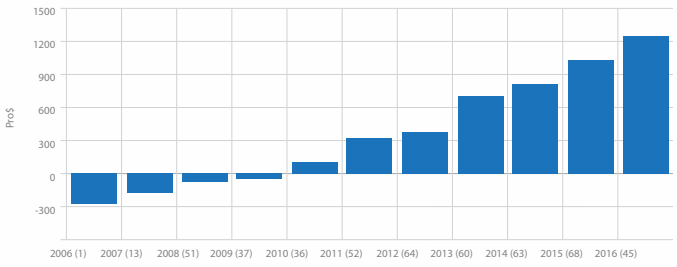
Compass has the ability to view trends for dozens of traits over time. For example, users can view their fat yield or their foot angle scores over the last 10 years. It allows producers to personalize a genetic index that works specifically to meet their goals faster. Compass works with producers' herd data to predict returns on investment for several different breeding strategies and suggests the optimal breeding action for each animal. It also allows for unbiased bull suggestions, which are filterable by semen code to suit the producers' preference.

Compass takes into consideration data provided by CDN, Holstein Canada and Valacta/CanWest DHI. Thanks to this information, producers are getting the most accurate, up-to-date snapshot of their herd's genetics. New dam and sire information that was previously only available from CDN during official proof time will now be updated and made available on a monthly basis through Compass. This will keep it constantly up to date, allowing producers to know their precise herd genetics every month of the year.

Compass can be fully customizable to help meet a producer's individual breeding goals. However, default values and breed averages allow it to function without customizing the inputs, should the user choose not to do so. Compass' predictions will be as accurate as the information that users record. The more information producers provide to Valacta/CanWest DHI and Holstein Canada, the more accurate the information on Compass will be.

The goal behind Compass is to provide producers with a free tool, right in their own hands, that helps them be as profitable as possible by making the most out of their herd's genetics. With all the information in one place, it will be the most efficient and accurate way to manage your breeding decisions.

Average Pro$ per Birth Year



young LEADER PROGRAM

Young Leader Profile: Courtney Blois

Courtney Blois was raised on a family farm in Hants County, Nova Scotia. Her two uncles and dad took over the farm from her grandparents, and she and her brother, as well her cousins, all grew up working alongside them.

After high school, she attended Dalhousie Agricultural Campus and studied International Food Business, which included a year of studying in the Netherlands and two work terms, the second of which she did at a dairy consulting company in New Zealand.

After university, Courtney started working for Scotsburn Ice Cream Company as a production supervisor. The plant is now a part of the Agropur Cooperative. In addition to this, she still works in a part-time capacity on the farm, as well as doing some bookkeeping for the biogas company Courthouse Hill Energy.

In 2018, she had the opportunity to go to Quebec City as a Young Leader delegate at the National Holstein Convention. It was a great experience to network and meet other dairy farmers from across the country, and she was able to tour some fantastic farms!

Aside from the dairy operation, what are your other sources of income? Why did you choose to diversify into those areas? Is there one business that funds the other areas, or are they self-sustainable?

In addition to our dairy herd, we farm lowbush blueberries and have recently started operation of our on-farm biogas plant, which uses methane gas to create renewable energy. The businesses are mostly self-sustainable. The biogas plant functions as a separate business from the dairy and blueberry operations.

Has the farm always been a diversified operation?

The first acre of land was granted to our ancestor, a disbanded English soldier named Abraham Blois, in the 1780s. My brother, cousins, and I are the eighth generation of the Blois' on our farm. Prior to supply management, my grandparents grew crops like turnips and kept some chickens in addition to the dairy herd. Our community and surrounding area is full of lowbush blueberry fields, so in the mid-1950s my grandparents Clyde and Hilda purchased blueberry land and started harvesting berries.

When my grandparents decided to take a step back, my uncles Paul and Barron and my dad Greg took over. Today, all three remain full-time on the farm, along with my brother Morgan. I work off-farm as well as part-time on the farm. Some of my cousins still pitch in during busy times, and we do some work alongside one of my cousins who now has a beef farm about a half-hour away. Today Courthouse Hill Farms Ltd milks approximately 145 Holstein cattle under the BloisGlade prefix.

What are the daily challenges of having more than one business to manage? Do you have delegated team leaders?

Having multiple operations can be challenging at times. Of course, summer months are busy for the dairy operation as we are completing cropping for winter feed during this season. We usually start harvesting blueberries in mid-August, depending on the weather, but the weather can add to that conflict if it causes other cropping to overlap with berry picking.

Different members of the family take the lead in different areas: my uncle Paul does all of our AI and manages herd health; my uncle Barron handles most of the blueberry operation and is also a board member for Wild Blueberry Producers Association of Nova Scotia; and my dad Greg oversaw the construction and implementation of the biogas plant, and now operates it with the help of my brother Morgan.

With the different types of operations, do you have more employees to manage or is it all family oriented? How do you find a diverse number of employees to help with each different part of the farm?

Due to the nature of the blueberry harvest, all of which happens within a few weeks, extra employees are necessary during August. We also have a couple of part-time milkers who work with us all year.

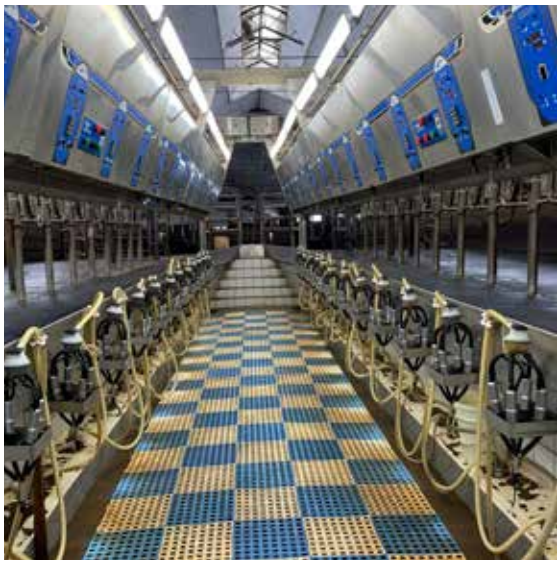
What made your farm want to start an energy operation? Is it something very common in Canada? Were there any environmental steps you had to follow to start the operation? What is the fuel source for a biogas plant?

In searching for another constant revenue source for the farm, my dad and uncles started exploring the possibility of an on-farm biodigester. When the COMFIT program with the Nova Scotia Department of Energy became available for renewable energy projects, and having already done some research on the topic, it seemed like the logical choice. My dad visited several plants in Canada and Europe to learn more about how the process could work for us. While I was in the Netherlands for school, my parents and brother came to visit and we drove to Germany to tour an on-farm digester plant.

Our plant is in the beginning processes of running; we are not yet at full capacity. The main fuel is a slurry created from food waste, which creates methane. Biogas plants aren't overly common in Canada; there are only something like 40 in the country, only three of which are in Nova Scotia.

There was a lot of environmental work beforehand, including permits for bringing off-farm organic waste (compost waste) to the farm to feed the plant. At full capacity, the plant can create enough energy to power 300 homes as well as supply the heat for our milking parlour wash system.

The digestate, which comes from the digester after the anaerobic process is completed, is a great input on the farm's cropland, cutting back on the need for purchased chemical inputs. The two operations really tie in nicely together.



How big is your blueberry operation? How is it measured (plants/acre/hectare), and how would you compare your operation to other farms?

We have about 500 acres of blueberry land. Blueberries are harvested bi-annually and in the off year are either mowed or burnt back. We're a large-sized blueberry operation for our area; a majority in our area are small farms or hobby properties which are 100 acres or less. In recent years, the blueberry market hasn't been as strong as previously, which was a factor in the decision to further diversify into renewable energy.

Who is your target market? Do you want to reach the consumer directly, go through a third party, or touch just the raw product?

We used to do a lot of fresh market blueberry production from the farm, as well as wholesaling to Oxford Frozen Foods, who are a large processor. This process is more efficient, especially as we've grown larger. Staffing for doing on-farm processing is a large challenge as the season is so short.

What are your mid- to long-term goals for the three operations? Will there be a farm transfer or new facilities? Does it look like one side will take priority in the short term?

In the short-term, the focus is on getting the biogas plant running at its full capacity while maintaining the dairy and blueberry businesses. Long-term goals are to remain efficient and functioning, of course; once the biogas plant is fully functioning on its own, the focus can return to longer-term goals and options.

FARM PROFILE

From not registered to registered

Bonnie Doone Dairy Inc.

Harrison Mills, British Columbia

By Morgan Sangster, Holstein Canada Field Service Business Partner

PREFIX: Boonemill

PEOPLE INVOLVED: Mike & Brad Duncan

 # OF YEARS AS A HOLSTEIN CANADA MEMBER: One year, but have been milking Holsteins here since 1890.

 # OF COWS MILKED: 80

 # OF ACRES FARMED: 300

FACILITY TYPE: Free-stall Robotic

HERD PRODUCTION AVERAGE (L/cow): 38 kg

HERD CLASSIFICATION: 82.7

WHAT IS YOUR FEEDING SYSTEM? PMR

ARE THERE OTHER BREEDS IN YOUR HERD? HoJo

HOLSTEIN CANADA SERVICES USED (OTHER THAN REGISTRATION): Traceability & Transfers

WHAT MADE YOU REGISTER YOUR HERD? Our main reason was for the opportunity to add genetic value to our herd and gain genetic info through registration.

WHAT BENEFITS DO YOU SEE FROM HERD REGISTRATION? The ability to see our cow families and getting our herd classified. Through classifying our herd, we get a firmer grip on our strong points, weak points, and get suggestions from the classifier. This, combined with other info provided through registration, allows us to sit down with our genetic advisor and establish our genetic plan to advance our herd.

HAVE YOU USED ANY OF THE REGISTRATION FEATURES TO MAKE MAJOR HERD DECISIONS? We sure have! It has shown us some weak points in which we did not see prior to registering.

WHO HAVE BEEN YOUR BEST MENTORS ALONG THE WAY, OR THE PEOPLE WHO HAVE GIVEN YOU MEMORABLE ADVICE FOR FARM MANAGEMENT?

The best advice was from a retired dairyman of 70 years: "Keep your head out of the sand and keep looking at the horizon."

WHAT ARE SOME OTHER SERVICES YOU FIND BENEFICIAL FOR YOUR OPERATION? Traceability is a big one for us; with proAction in full effect, this service really makes life easier for us.

DO YOU HAVE ANY PLANS FOR EXPANSION OR MODIFICATION IN YOUR HERD IN THE FUTURE? We are looking forward to years of continued growth, genetic advancements, and new technology and innovations.

WHAT DO YOU LIKE AND DISLIKE ABOUT YOUR CURRENT OPERATION, AND WHAT WOULD YOU LIKE TO CHANGE IF YOU COULD? We are very pleased with the current setup. The cows are thriving in a relaxing and calm environment.

WHAT MADE YOU REGISTER YOUR HERD? We thought it would be easier to do proAction® assessments for the herd. It's easier to manage genetics for the herd, we get more information on the herd, and better organization on the records.

WHAT BENEFITS DO YOU SEE FROM HERD REGISTRATION? The more information we have per cow makes decisions a lot easier, and easier to manage. We can minimize inbreeding and better our herd with more records.

HAVE YOU USED ANY OF THE REGISTRATION FEATURES TO MAKE MAJOR HERD DECISIONS? Although we had previously registered our animals, we let it go for a number of years. It was just recently that we utilized the assistance of the Ontario Branch Field Service to register our herd and have just started to register again within the last few months. At this point we have not had the opportunity to see the lasting benefits of registration but we are hoping to use this data to maximize our herd AI mating programs.

WHO HAVE BEEN YOUR BEST MENTORS ALONG THE WAY, OR THE PEOPLE WHO HAVE GIVEN YOU MEMORABLE ADVICE FOR FARM MANAGEMENT? Parents, family members, and salespeople.

WHAT ARE SOME OTHER SERVICES YOU FIND BENEFICIAL FOR YOUR OPERATION? Haas Nutrition, custom operators, Darrell Wade at Farm Life.

DO YOU HAVE ANY PLANS FOR EXPANSION OR MODIFICATION IN YOUR HERD IN THE FUTURE? Yes, all the time. We are a very progressive dairy always looking to expand. We have a new free-stall barn on the way right now. We would like to split into separate farms, as all of us here have different ways to manage a dairy.

FARM PROFILE

From not registered to registered

Concrete Holsteins

Kirkton, ON

By Angela Howard, Ontario Holstein Field Service Representative

PREFIX: Vinkhaven

PEOPLE INVOLVED: Stacie Vink and her husband Cody lead a team of 10

 # OF YEARS AS A HOLSTEIN CANADA MEMBER: 31

 # OF COWS MILKED: 480

 # OF ACRES FARMED: 1270

FACILITY TYPE: Parlour and Free-stall

HERD PRODUCTION AVERAGE (L/cow): 36 L/day

HERD CLASSIFICATION: Not done

WHAT IS YOUR FEEDING SYSTEM? Self-propelled mixer and bunkers

ARE THERE OTHER BREEDS IN YOUR HERD? No

HOLSTEIN CANADA SERVICES USED (OTHER THAN REGISTRATION): None

FARM PROFILE

From not registered to registered

Ferme Durigolet SENC

Sainte-Marie de Beauce, Quebec

By Valérie Bolduc, East Territory Advisor, Holstein Québec

PREFIX: Durigolet

PEOPLE INVOLVED ON THE FARM: Antonin Marcoux, Carole Caux as well as all the other members of the family

NUMBER OF YEARS AS A HOLSTEIN CANADA MEMBER: Since 1989

NUMBER OF MILKING COWS: 40 cows

NUMBER OF ACRES FARMED: Approximately 65 ha

FACILITY TYPE: Milking cows, dry cows and pregnant animals are housed in a tie-stall facility. As for heifers, they are in free-stall until the age of 14-15 months. As far as the calves are concerned, they are fed with an automatic feeder / a robotic feeder

HERD PRODUCTION AVERAGE: 10,500 kg

HERD CLASSIFICATION: 2 EX, 19 VG, 20 GP, 2 G

WHAT FEEDING TYPE FOR THE COWS? The animals are fed with rotocut round bales and corn silage. An automatic feeder distributes the various concentrates such as corn, soybeans, supplements and minerals.

ARE THERE OTHER BREEDS? A few Brown Swiss.

HOLSTEIN CANADA SERVICES USED: Registration, Classification and genotyping in some cases.

WHAT MADE YOU REGISTER YOUR HERD? One of the main reasons we began registering our animals is that we found it relevant to know the various bloodlines of our herd. This way, we could better select the families that stand out according to their different qualities and establish our sire choices accordingly. To reach long-term objectives, it is important to know where we are today and where we want to go. Registration is therefore the basis for improving a herd. Registration also adds value to an animal as buyers know the purity, the performance, and the depth of the bloodlines.

WHAT BENEFITS DO YOU SEE FROM HERD REGISTRATION? We registered our herd from the bottom up. Thereby, we were able to establish which cow families were working well and eliminate those that did not fit with our long-term breeding objectives. We purchased cows and embryos stemming from deep bloodlines, so that our herd could progress more quickly. As a buyer, registration further validates the performance of various families and determines which ones are more valuable.

HAVE YOU USED ANY OF THE REGISTRATION FEATURES TO MAKE MAJOR HERD DECISIONS? Registration has greatly helped us to detect the qualities and the weaknesses of each of the families present on the farm. Thus, we focused our choice of sires to obtain progeny with as few weaknesses as possible and we even ceased breeding heifers from certain cows. Thanks to registration, we can also use the Canadian Dairy Network tool to guide our choice of semen for each individual.

WHAT ARE SOME OTHER SERVICES YOU FIND BENEFICIAL FOR YOUR OPERATION? We sometimes use genomic testing. For us, it is particularly useful when we purchase an animal and want to validate its true potential. In some cases, it also confirms the animal's parentage.

WHO HAVE BEEN YOUR BEST MENTORS ALONG THE WAY, OR THE PEOPLE WHO HAVE GIVEN YOU MEMORABLE ADVICE FOR FARM MANAGEMENT? I (Antonin) had the opportunity to work for several sales over the last few years. I could then observe the result of several breeding combinations and therefore better determine what type of animal I liked to work with. Some cow families and matings caught my attention, this is how I was able to determine what kind of cows I wanted to use to build my future herd. There is no doubt that all the people who surround me, whether they be friends, family or breeders, greatly contributed to the advancement of our herd.

DO YOU HAVE ANY PLANS FOR EXPANSION OR MODIFICATION IN YOUR HERD IN THE FUTURE? Yes.

WHAT DO YOU LIKE AND DISLIKE ABOUT YOUR CURRENT OPERATION, AND WHAT WOULD YOU LIKE TO CHANGE IF YOU COULD? There is always room for improvement in a farm operation. That is why I would like to work on the feed I use for my herd. I wish to find a balance between good production and realistic production costs. I am aiming for a minimum production average of 11,000 kg but with production costs that allow me to maintain good profitability. I am increasingly selecting sires with the new feed efficiency index to reach that objective.

FARM PROFILE

From not registered to registered

Titus Holsteins

Kingston, New Brunswick

By Natasha McKillop, Holstein Canada Field Service Business Partner

PREFIX: Titus

PEOPLE INVOLVED: Jeff and Reid Titus, as well as our children (who help with bedding and cleaning), employees Jayden, Kirk, and Emylee and our family members during the summer months.

 # OF YEARS AS A HOLSTEIN CANADA MEMBER: Six years

 # OF COWS MILKED: 44

 # OF ACRES FARMED: 150

FACILITY TYPE: Tie-stall

HERD PRODUCTION AVERAGE (L/cow): 29 L/cow, 4.1 BF, 3.4 P

WHAT IS YOUR FEEDING SYSTEM? Round bale silage, 16% dairy ration pellet

ARE THERE OTHER BREEDS IN YOUR HERD? A couple of Jersey/Holstein crosses

HOLSTEIN CANADA SERVICES USED (OTHER THAN REGISTRATION): Classification, NLID

WHAT MADE YOU REGISTER YOUR HERD? When we decided to transition the herd, we needed tools to help improve our genetics, production, and profitability.

WHAT BENEFITS DO YOU SEE FROM HERD REGISTRATION? Registration allows us to have known, recorded birth dates, and also informs our breeding decisions by giving us easy access cow family/pedigree information and parent averages. We can also manage the inbreeding levels in our herd.

HAVE YOU USED ANY OF THE REGISTRATION FEATURES TO MAKE MAJOR HERD DECISIONS? We are now using a mating program, which uses all of the information provided by registration. We want to avoid mating carriers of detrimental recessives and haplotypes. With this information, we determine who to use sexed semen on (top 40% of heifers), and then we use conventional and beef semen on the bottom cows and heifers.

WHO HAVE BEEN YOUR BEST MENTORS ALONG THE WAY, OR THE PEOPLE WHO HAVE GIVEN YOU MEMORABLE ADVICE FOR FARM MANAGEMENT? My father for sure! We grew up in the barn and learned a lot about work ethic and management. Any time that I spend with the vet during herd health is an excellent opportunity to learn as well.

WHAT ARE SOME OTHER SERVICES YOU FIND BENEFICIAL FOR YOUR OPERATION? We really like our AI services and the OptiMATE program. We also like

Valacta's services; we really like the accessibility of their app, so we can have on the spot production information on all our cows, as well as the links to their Holstein Canada and CDN information.

DO YOU HAVE ANY PLANS FOR EXPANSION OR MODIFICATION IN YOUR HERD IN THE FUTURE? We have doubled the size of our herd in the last three years, and we would like to keep increasing our quota as our production increases. We are also going to continue to focus on improving our herd's type and health traits.

WHAT DO YOU LIKE AND DISLIKE ABOUT YOUR CURRENT OPERATION, AND WHAT WOULD YOU LIKE TO CHANGE IF YOU COULD? We recently expanded our barn to accommodate the increase in herd size and to improve cow comfort. We need to improve our manure storage system during the winter months. We would like to improve our feeding system and eventually have an automated feed rail and the ability to chop round bales. All these things will come in due time.

SUSTAINED PROGRESS: ENVIRONMENTAL EFFICIENCY OF CANADIAN MILK PRODUCTION

Preserving the environment is a central value for Canadian dairy farmers. To build on this longstanding commitment, DFC conducted two life cycle assessments (LCA) to measure their environmental impact and identify areas for improvement.

A LIFE-CYCLE ASSESSMENT (LCA) OF THE SECTOR ENVIRONMENTAL PROFILE

This study includes all life-cycle stages that contribute to the environmental footprint of dairy farming, from inputs up to and including transportation of milk from the farm to the processor.

CANADIAN DAIRY FARMERS CONTINUOUSLY IMPROVE PRODUCTION PRACTICES

Dairy farms are efficient. Since 2011, the average annual milk production per cow has increased by 13% as a result of improvements in animal nutrition, genetics and housing.

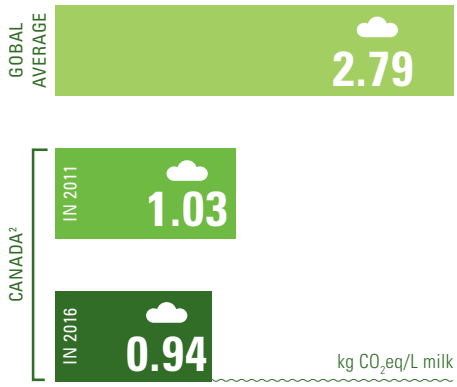
INFORMED BY SCIENCE, FARMERS CONTINUE TO ADOPT PRACTICES THAT BENEFIT THE ENVIRONMENT, SUCH AS:

ACTION	IMPACT
FARMERS EMPTY MANURE STORAGE MORE FREQUENTLY	GHG EMISSIONS (nitrous oxide, methane)
MORE FARMS ADOPT CROP ROTATIONS	LAND USED & WATER CONSUMPTION
INCREASED USE OF PRECISION AGRICULTURE TECHNOLOGIES	YIELD INCREASES

IMPROVED ENVIRONMENTAL IMPACT

AMONG THE LOWEST CARBON FOOTPRINTS FOR DAIRY IN THE WORLD

Producing one litre of milk in Canada emits only **1/3 the greenhouse gas** (GHG) emissions as compared to the global average[1].



Consumers can enjoy their daily dairy products knowing that the footprint of milk produced in Canada has decreased over time. In the past 5 years:

- **7% LOWER** CARBON FOOTPRINT
- **6% LOWER** WATER CONSUMPTION
- **11% LOWER** LAND USE

In 2016, Canadian milk production was responsible for generating or using:

- **1.3%** OF CANADA'S TOTAL GHG EMISSIONS[3]
- **0.02%** OF SOUTHERN CANADA'S FRESHWATER SUPPLY[4]
- **2.9%** OF CANADA'S TOTAL AGRICULTURAL LAND USE[5]

A STUDY CONDUCTED IN 2018 BY

GROUPE AGÉCO

1 FAO (2013). Greenhouse gas emissions from ruminant supply chain – a global life cycle assessment. Available at: http://www.fao.org/docrep/018/i3461e/i3461e.pdf

2 The 2012 report covered milk production in 2011 while the 2018 report covered milk production in 2016.

3 Environment and Climate Change Canada (2016). National Inventory Report 1990-2016: Greenhouse Gas Sources and Sinks in Canada. Available at: https://unfccc.int/process/transparency-and-reporting/reporting-and-review-under-the-convention/greenhouse-gas-inventories-annex-i-parties/national-inventory-submissions-2018

4 Water Canada (2017). Statistics Canada Reports on Canada's Renewable Freshwater and Water Use. Available at: https://www.watercanada.net/statistics-canada-reports-on-canadas-renewable-freshwater-and-water-use/

5 Statistics Canada (2018). Land Use-Table 32-10-0406-01 (formerly CANSIM 004-0203). Available at: https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3210040601

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GREENER CANADIAN MILK

CANADIAN MILK IS GREENER!

Climate change has many people claiming livestock farming is unsustainable, but a new study of the environmental impact of Canada's milk production shows it has about a third of the widely quoted global average carbon footprint. The carbon footprint of a jug of milk has dropped over the last five years, and it's expected to drop further. The footprints for land and water usage have also dropped.

These are the main conclusions of a recently released study of the environmental impact of milk production. Produced by Groupe AGECO for Dairy Farmers of Canada, it compares 2016 figures with an earlier assessment using figures for 2011. Canadian dairy farmers have cut their greenhouse gas emissions 7% - from 1.03 kg down to 0.94 kg of CO_2 per litre of milk.

Dairy cows, like all ruminants, can digest and use plants and parts of plants that humans can't use, like grass, whole corn, and barley. They digest these materials with the help of microbes in the rumen, or paunch, and by chewing cud, but this process generates methane, which makes up much of the carbon footprint of milk.

Canada's dairy farmers use a total of 2.9% of the country's farmland and 0.02% of our freshwater supplies. The land needed for each litre of milk fell by 11%, and water, mostly used to irrigate crops for feed, dropped 6%.

Groupe AGECO calculated life cycle footprints that include every part of producing milk, from the materials used to build barns and equipment to the fuel and electricity used to run the operation and transport milk to a processing plant. It factored in not just growing feed and meeting all the cows' needs, but also those of replacements (calves included).

MORE MILK, LESS IMPACT

Dairy farmers have reduced their environmental impact because milk production per cow has increased.

On average, each cow in Canada in 2016 produced 9,582 kg of milk a year, almost 13% more than the 8,492 kg produced per cow in 2011. A cow needs a certain amount of feed to maintain her body and produce milk, but now, producing more milk takes a relatively small increase in feed. This also means less manure is produced, meaning the environmental footprint of each litre of milk is smaller.

The improvement in milk production per cow from 2011 to 2016 is mainly due to improved cow genetics, especially with the new technology of genomics, which has doubled the annual gain in dairy cow productivity. Scientifically balanced nutrition and comfortable housing keep high performing cows healthy and milking well.

The importance of productivity to the environmental impact of farming is in line with estimates from around the world. Livestock operations with high quality feeds and high productivity have the smallest carbon footprints, despite their use of fossil fuels and fertilizers. Producing more units of milk or meat from the same amount or slightly more resources reduces the impact of each meal.

MORE EFFICIENT CROP PRODUCTION

Shrinking environmental impacts are not entirely due to cows that are more productive. As liquid manure ages in storage, it is affected by microbes that emit greenhouse gases like methane. To reduce greenhouse gas emissions, farmers are emptying their manure storages more often. This and manure incorporation soon after application adds more nutrients to the soil.

Growing crops has become more efficient, with less tillage and crop rotations with different crops improving soil. It's more mellow, with more organic matter, so moisture infiltration and retention improve boosting crop yields.

Precision farming technologies have been adopted very rapidly, especially autosteer, which positions any implement so it's exactly beside the last pass. Every part of the field receives the exact amount of seed, fertilizer or herbicide needed for the best yields. With no double spraying at the edges of the implement, there are no wasted resources. Adding maps of growing conditions and electronic metering of fertilizer allows farmers to change the amounts of fertilizer or herbicide on different parts of the field and increase the yields from the whole field.

PART 2

A Closer Look at Direct Genomic Values (DGV): Part 2

IN THE LAST ISSUE OF INFOHOLSTEIN, CDN reviewed important differences between Direct Genomic Values (DGV) and Genomic Parent Averages (GPA). These differences include:

- **Scale differences**
- **Animal ranking differences**
- **Predictability of future genetic evaluations**
- **DGV superiority (the difference between DGV and PA) as a selection tool**
- **Breeding for the next generation of extremes**

The first two differences were detailed in Part 1, while the final three are covered in this piece. Combined, these explanations should help readers understand the decision to end DGV publication, which will come into effect December 2019.

Predictability of Future Genetic Evaluations

In discussion with some breeders, there was the impression that DGV helped to better identify those genomic young bulls that would end up with the highest proofs once their progeny were milk recorded and type classified. This was the basis for the initial analysis conducted by CDN geneticists earlier this year. The most appropriate way to assess this question is to look at sires that currently have an official progeny proof and see whether their GPA or DGV four years ago, when they were a genomic young sire in A.I., best predicted their current results. The results of the analysis were clear. While GPA is not a perfect predictor of a young bull's future progeny proof, using DGV was consistently a poorer predictor. This can be explained by the fact that DGVs tend to be higher than GPA for elite genomic young bulls so a higher degree of over prediction is expected compared to GPA.

The same question can also be asked for females. Does DGV for genotyped heifers provide a better prediction than GPA of their future performance as a lactating cow in the herd? CDN conducted a specific analysis to examine this question within several herds. In the end, there was no practical difference in the correlation between GPA or DGV for heifers with their resulting 305-day lactation yields and classification scores during first lactation.

DGV Superiority as a Selection Tool

Another strategy used by some breeders when assessing high-end genomic bulls for semen purchase decisions has been to look at the difference of DGV minus GPA. The belief here has been that preference should be given to select genomic bulls for which the superiority of DGV over GPA is the highest.

A CDN analysis looked at this hypothesis by focusing on the Top 100 GPA LPI genomic bulls in 2013, all of which now have an official progeny proof in 2018. The 25 genomic bulls with the highest difference of DGV minus GPA were compared to the 25 bulls with the lowest DGV superiority and results are presented in Figure 2. The 25 bulls with the biggest difference had an average DGV LPI of 3190 and an average GPA LPI of 3027. As expected, this difference was much less at only 60 LPI points (i.e.: 3075 minus 3015) for the other group of 25 genomic bulls in 2013. Once proven, however, it was the 25 bulls with DGV and GPA being closest together that ended up with the higher average LPI, at 2929 compared to 2827 for the 25 bulls with the biggest difference of DGV minus GPA. This overall result stemmed from the fact that the bulls with the biggest difference had significantly lower Parent Average (PA) for LPI at 2622 points, compared to 2773 for the bulls for which DGV and GPA were quite similar.

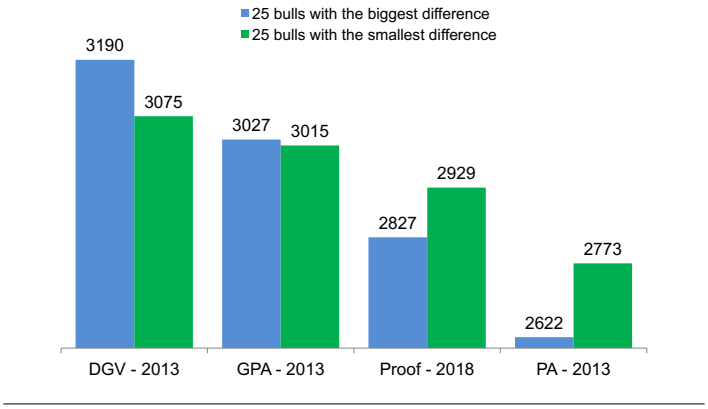

Figure 2: Comparison of Average LPI Values for Two Groups of Genomic Bulls Among Top 100 for GPA LPI Based on the Degree of Difference Between DGV and GPA

Breeding for the Next Generation of Extreme Animals

Breeders aiming to produce young bulls for potential entry into A.I. and/or elite females for marketing and embryo sales tend to have navigated to using DGV as a sire selection tool. The goal from this strategy is to use genomic bulls with the highest DGV for any given trait to increase the chance of producing progeny that also have an extreme DGV in the breed. CDN recently conducted an analysis to assess this strategy compared to using GPA for achieving the same objective. The conclusion from this study was that DGV was not superior to GPA in terms of identifying extreme genomic sires that will have higher chances of producing extreme progeny.

Path Forward

Based on all the analysis conducted and the five differences outlined in parts one and two of this article, no evidence was found to show that DGV provides any information for improved sire selection and/or mating decisions, compared to using the official GPA itself. Based on these results, the Genetic Evaluation Board (GEB) of CDN approved a recommendation to no longer publish DGV in the future, which will come into effect with December 2019 proofs.

Holstein Canada Is Making Traceability Reporting Easier for You!

There are two ways to report animal movement events: call Customer Service, or log in to your Holstein Canada Web Account. All events can be inputted, from move-in and move-out to animals which have died and been disposed of on farm. The best part? On your behalf, Holstein Canada will report the animal movement to Canadian Livestock Tracking System (CLTS) and ATQ (for Quebec).

HERE'S HOW YOU CAN REPORT ANIMAL MOVEMENTS:

1

Traceability Only

We recognize some animals move from herd to herd without actually changing ownership. By logging in to your Holstein Canada online service account or speaking with our Customer Service staff, you are able to report animal movement events without reporting a change of ownership.

2

Transfer Ownership & Traceability

As the buyer or seller, you can transfer animal ownership and include the additional movement information. Holstein Canada will report the move-in or move-out events to the tracking database on your behalf.

Remembering the ProAction® Requirements

All farms receiving animals must have their own premises ID as well as the premises of the farm of departure to report animal movement to CCIA (the CLTS database) and ATQ (SimpliTrace database). When a new herd mate arrives or an old herd mate returns, it is important to document the movement event in your herd records.

When a dairy animal arrives to or leaves your farm, there are important pieces of information required. Please be prepared to have:

- **ANIMAL'S IDENTIFICATION NUMBER** (15 digits in total)
- **DATE** (when animal arrived or left the farm)
- **PREMISES ID NUMBER** (for farm of arrival and farm of departure)
- **VEHICLE LICENSE PLATE NUMBER** (single unit or tandem unit used to transport animals arriving or leaving your farm)

Making it Easier for Our Customers

By using your Holstein Canada Web Account, all you have to do is log your animal movement - we will do the reporting for you! This includes reporting on-farm death events, and we'll submit those details to the tracking database on your behalf.

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Questions?

If you have any questions, please call Customer Service at 1-855-756-8300

Dear Customer Service Team

*Answering this issue's question is **Audrey St-Yves**, Bilingual Customer Service Representative. Audrey is a graduate of McGill University and has worked in the dairy industry for the last five years, both on a farm and in health and fertility research. Audrey brought her background in reproduction and dairy knowledge to the Holstein Canada team in September 2018.*

Why do you contact me for my Premises Identification (PID) numbers?

WHAT IS A PID?
A PID is a unique identifier assigned to a "premises" within a province or territory. Premises is defined as a legal land description of the lot or coordinates. The identification of premises is the responsibility of the provincial government.

You need premises ID to report animal movements to the Canadian Livestock Tracking System (CLTS). The PID number is the only acceptable location identifier used for animal movement reporting.

The main reason why Holstein Canada contacts you for PID numbers is to save you time. When you register animals, we transmit tag activation, age verification and birthdate information, along with the premises identification to the CLTS and Agri-Traçabilité Québec (ATQ).

Since all producers should report tag activation and animal movement, we can do it for you when you register or complete your transfers through Holstein Canada. Why report to two organizations when we can do that for you?

DO YOU KNOW YOUR PID NUMBER?
If we do not have your PID on file, our customer service staff will ask for it the next time we talk. Keep your PID number handy for easy reference.

The national standard for PID numbers is:

- 2 letters for the province (e.g. ON/AB);
- + 6 alpha-numeric characters (e.g. 123456/12FG3W);
- + 1 check digit (e.g. 5/1)

EXAMPLES OF PID: ON1234565 | AB1234561

HOW DO I GET MY PID NUMBER?
Contact your provincial government or department of agriculture directly.

If you need provincial contact information, contact us at customerservice@holstein.ca or 1-855-756-8300.

Providing us with your PID is easy and can be done quickly online through your web account or by calling head office – customerservice@holstein.ca 1-855-756-8300.

Disciplinary Action

Following an investigation, Holstein Canada has suspended two memberships from the Association for one year and imposed fines and penalties in accordance with the Association's bylaws for providing false Herdbook information and infractions of Holstein Show Ethic Rules. Public disclosure of names and specific details are confidential in accordance with Association policy. The suspended members will be subject to ongoing and close scrutiny and monitoring for a period of three years.

TOP SIRES ACCORDING TO AVERAGE FINAL SCORE OF FIRST LACTATION DAUGHTERS

Based on First Lactation Classifications January/February 2019

Top 10 Sires with 100+ Daughters Classified in Two-Month Period

Sire	Daughters Classified	Avg. Daus Score	Avg. Dam Score
JACOBY	149	82.68	82.77
GOLD CHIP	192	82.23	82.17
SOLOMON	204	82.22	83.16
BRADNICK	117	82.15	82.05
DEMPSEY	330	81.88	82.03
KINGPIN	168	81.63	81.70
HIGH OCTANE	334	81.54	81.92
CINDERDOOR	273	81.39	81.97
ALONZO	114	81.34	81.62
ENDURE	175	81.19	81.53

Top 10 Sires with 30-100 Daughters Classified in Two-Month Period

Sire	Daughters Classified	Avg. Daus Score	Avg. Dam Score
AVALANCHE	86	83.38	82.57
G W ATWOOD	66	82.67	83.03
DIAMONDBACK	49	82.22	82.55
MILLENNIUM	35	82.17	82.23
NOVO	65	81.98	82.86
FITZ	81	81.95	81.37
HARVEST	43	81.77	81.42
REGINALD	41	81.68	81.78
DURKO	47	81.66	82.17
CONTROL	73	81.60	81.64

NOTE: Daughters are included in the statistics only if both the daughter and her dam calved for the first time before 30 months and were both first classified within the first six months of lactation. Sires listed must have ≥ 50% of daughters that improve in score over the dam.

CLASSIFICATION SCHEDULE

MID-ROUND MR

MAY

EARLY
- ON Wellington
- QC Laprairie & Napierville, St-Jean, Richmond
- QC MR Montmagny & L'Islet
- SK Yorkton & Prince Albert

MID
- QC Brome, Shefford

LATE
- ON Nipissing & Algoma, Timiskaming & Cochrane, Thunder Bay
- QC Missisquoi, Sherbrooke, Compton, Stanstead
- QC MR Riviere-du-Loup, Temiscouata, Rimouski, Matane, Matapedia, Bonaventure

JUNE

EARLY
- ON Dundas, Stormont
- QC MR Lotbiniere, Nicolet, Yamaska, Drummond
- BC MR

MID
- Classifier Conference June 17-21

LATE
- ON [MR] Stormont
- ON Perth
- QC Frontenac, Beauce
- QC [MR] Abitibi, Temiscamingue, Bagot, St-Hyacinthe, Richelieu, Vercheres, Rouville, Labelle, Papineau, Gatineau, Argenteuil

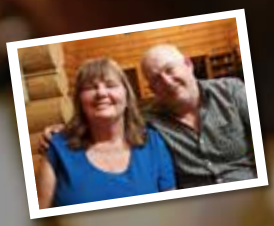
This schedule is subject to change within a 1-2 week period. For the full Field Service schedule, see the Field Services section under Services on our website, holstein.ca.

Web Accounts help your farm's bottom line.

Farmers across Canada are managing their operations with the help of Herd Performance Trend Reports, and if you're a Holstein Canada client, you can too!

The Herd Performance Trend Reports on your Web Account provide a wealth of useful data related to your herd's production, genetic trends, conformation trends, BCA, and so much more.

Log in to your Web Account and click on ***Performance Trends*** to get started!



"The performance trend report has helped us visually identify that we are going in the right direction with our breeding decisions on farm, and this is helping us achieve our future goals for our herd!"

Kevin & Denise Coghill of Vinoridge Farm Ltd., Mclean, Saskatchewan (Prefix Vinoridge)

Don't have a Web Account? Call Customer Service at 1-855-756-8300, or email us at customerservice@holstein.ca and we'll help you get started.

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