

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







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Editor Steven Spriensma

CEO Vincent Landry

Board of Directors

President Gerald Schipper, ON

519-765-4614

GSchipper@holstein.ca

Vice President Nancy Beerwort, ON

613-330-0348

NBeerwort@holstein.ca

2nd Vice President Ben Cuthbert, BC

250-246-6517

BCuthbert@holstein.ca

Willem Vanderlinde, AB

403-302-1527

WVanderlinde@holstein.ca

Harold Sweetnam, SK & MB

204-362-8870

HSweetnam@holstein.ca

Doug Peart, ON 905-768-5163

DPeart@holstein.ca

Dennis Werry, ON 905-213-8228

DWerry@holstein.ca

Elyse Gendron, QC 450-265-3147

EGendron@holstein.ca

Angus MacKinnon, QC

819-570-3891

AMackinnon@holstein.ca

Gilles Côté, QC 418-343-2597

GCote@holstein.ca

Benoît Turmel, QC 418-390-2269

BTurmel@holstein.ca

Karen Versloot, Atlantic 506-363-8902

KVersloot@holstein.ca



Design by Blueprint Agencies Inc. 10 Scott Ave., Paris, ON 519.442.1242

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ABOVE: On page 6, we talk to Young Leaders past and present about how they're farming for the future; on page 8, we continue this theme by talking to four farms who've earned accolades with their environmental plans; and on page 18, the Holstein Canada Customer Service team reveals the behind-the-scenes realities of working from home!

ON THE COVER: Homeland Shadow Sydney of Homeland Holsteins, in Loretto Ontario. Taken by Stephanie Lee Stephenson, Homeland Holsteins | Stephanie Lee Photography

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THE AGRICULTURE INDUSTRY has faced several great challenges in recent years. Most of them relate to the desire to offer consumers the products that correspond to a vision of agriculture that respects the environment and animal welfare. This is not without its difficulties. There is a whole world between consumers' bucolic vision of agriculture and the daily reality faced by producers. How can we bridge this gap and ensure the relevance of our various programs?

First and foremost, let us ensure that we remain involved and in control of the programs that impact and support dairy production. Producer presence on various industry Boards has given a voice to the needs of dairy farmers. So far, our organizations have allowed us to evolve the requirements in a consistent and fair manner.

Next, we must keep educating consumers on what we do and why we do it. Canada is fortunate to have an organization such as Dairy Farmers of Canada dedicated to promotion; however, education is everyone's responsibility. Let's be ambassadors of our practices!

With this in mind, Holstein Canada has taken on roles such as the distribution of ear tags for the national DairyTrace identification program and animal welfare assessment under the proAction® program. These programs are intimately linked to consumer perception of our products.

In this edition of InfoHolstein, we highlight the efforts of producers who have a vision of sustainable agriculture and regard the various programs as tools to do better!

Tincent Gan

Call for National Director Nominations

THERE IS AN OPEN CALL for nominations for National Directors in the Electoral Districts listed to the right. Clubs located in these districts will have received official notification of the call in September, and nominations will close December 4, 2020. Ballots will be mailed out to all voting members in the districts with more than one candidate by January 4, 2021 and voting closes on February 4, 2021. The criteria for the National Director Eligibility can be found in the Association's By-laws on www.holstein. ca; nomination forms can be obtained from your local Holstein Club, Provincial Branch or by contacting Suzanne Jalbert at SJalbert@holstein.ca or 1-855-756-8300 ext. 241.

Electoral Districts 2021

Western Ontario

Quebec at large

British Columbia

Eastern Ontario

Western Quebec

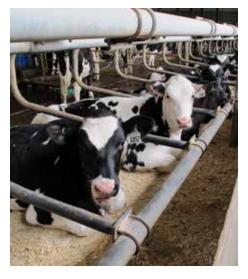


Introducing DairyTrace

As of October 5, 2020, dairy producers can report their traceability data to DairyTrace, the new national dairy cattle traceability program. DairyTrace is administered by Lactanet Canada in collaboration with Dairy Farmers of Canada (DFC). Other affiliates involved in the dairy cattle traceability chain, such as auction facilities, exhibitions and fairgrounds, assembly yards, abattoirs, calf growers, transporters, veterinarians, etc., can also report directly to DairyTrace or continue using their current reporting methods and the dairy data will automatically be transmitted to DairyTrace.

What if you reported traceability data to the Canadian Livestock Tracking System?

After October 5, dairy producers outside of Quebec will no longer submit traceability data to the Canadian Livestock Tracking System (CLTS), but rather to DairyTrace. The CLTS is administered by the Canadian Cattle Identification Agency (CCIA), and before October 5, the CCIA was responsible for traceability information for dairy cattle outside of Quebec, as well as for beef cattle, caprines, ovines, cervids and bison. As the dairy industry has different needs than the beef sector, Lactanet Canada is now the new traceability administrator for dairy cattle. The vision of DairyTrace is that it includes all offspring born on a dairy farm, regardless of their sex, breed composition or end use.



Dual tagging is the standard for dairy cattle traceability in Canada.

The ultimate goal of DairyTrace is to ensure that all male and female dairy animals are double tagged. Dual tag sets include an RFID electronic tag, ideally placed in the right ear of the animal, and a secondary panel tag placed in the left ear. All calves born on dairy farms across Canada use a unique 15-digit ear tag that begins with the numbers "124" for identification. This number meets international ISO standards, is recognized by the Canadian Food Inspection Agency (CFIA), and stays with the animal for its entire life.

New with DairyTrace is the availability of a white single-button RFID tag for dairy animals born outside the province of Quebec. This new tag is allowable under proAction® requirements as an exception for identifying calves born on a dairy farm that are destined to leave the farm at a young age for the beef sector.

The white single button tag is designed to replace the current allowable use of yellow button tags and keeps those animals within the DairyTrace system. All other animals on dairy farms across Canada must be double tagged. Only dairy animals with approved dual dairy tags in their ears are eligible for registration with their breed associations. The HDX RFID button panel tag (single dairy tag for beef-destined animals) will be sold in sets of 30 at a cost of \$3.25 per tag, which includes shipping costs but not applicable taxes.

Order Dairy Tags by phone, mail, fax or through your Holstein Canada Web Account.

For additional information, contact NLID by phone at 1-877-771-6543 or email: order@nlid.org *OR* DairyTrace Phone: 1-866-55-TRACE Fax: 519-756-3502

Web: www.DairyTrace.ca

Producers residing in Quebec can order tags from Agri-Traçabilité Québec (ATQ) through their SimpliTRACE Account at simplitrace.atq.qc.ca or calling ATQ Customer Service at 1-866-270-4319.

Refer to the new DairyTrace website www.DairyTrace.ca for more details and how to get started.

Questions?

Call DairyTrace Customer Service at 1-866-55-TRACE (1-866-558-7223) or send an email to info@DairyTrace.ca.







Joel Huizing milks 260 cows on Country Charm Farms Ltd. in Abbotsford, B.C.



The methods Ariane and Ben use on their farm in Bromont, Quebec, signal a future for mixed operations!

Farming For The Future: Talking with Young Leaders Joel Huizing and Ariane France

Holstein Canada knows the future of dairy is in good hands. The dedicated Young Leader Advisory Committee, the enthusiastic Junior Members, our representatives at international events like EYBS – the list goes on and on! But there's another way young dairy farmers are creating a brighter future: many are committed to producing milk with the environment in mind. Farmland is one of Canada's most important resources, and production that considers its needs and those of the surrounding land is crucial.

To learn more about what they're doing, we sat down with Joel Huizing and Ariane France, two young farmers who are making eco-friendly practices a key part of their everyday operations! Joel Huizing's operation is a part of B.C.'s Environmental Farm Plan (EFP) Program, which supports farm operations in completing agri-environmental risk assessments.

Tell us about your operation. What is special about the land, water, area and/or environment in your part of the country?

Our area is definitely unique! Farming anywhere in the Fraser Valley means you have some of the highest land prices in the country, as well as steep competition for expanding your land base. In our situation, that means maximizing crop production for every acre we farm. We have a nutrient management plan in place to manage inputs and, when harvest time comes, we track yields and often compare plant varieties to decide what to plant next year.

What sustainable agriculture practices do you use to help curb impacts on the environment?

Cover crops play a big part in our ability to produce maximum tonnage per acre. After the corn comes off, we will plant a mix of rye grass and winter wheat (weather permitting). With cover crops established, we can protect against wind erosion over winter and have a place to spread manure in the spring.

Does your operation put any land-use tactics or plans into action to help the local environment?

The impacts on farmland from building projects are always considered and we will try to use the least amount of field space necessary to build. We have also been enrolled in the Environmental Farm Plan for the last seven years.

We view our ground water as a limited resource and consider water usage when looking to purchase new equipment. We are always looking to decrease the amount of fresh water used daily on the farm.

How do you use technology to improve sustainability on your

Wherever it makes sense in our barns, we have installed electric alley scrapers and pumps to handle manure.

Former Young Leader Coordinator Ariane France, agr, and her partner Ben have also committed to sustainable agriculture. A fixture at Holstein events and in the show ring, Ariane doesn't have any dairy cows

on her operation right now; however, the methods she and Ben use on their farm in Bromont, Quebec, signal a future for mixed operations!

Ariane and Ben work 137 acres of mixed forest and fields, with a 4,000-tap organic maple syrup set-up and 1,000 blueberry bushes. They sell their products in local grocery stores and at a kiosk on their farm. "Our land is mostly rocky, which makes field production difficult but not impossible," says Ariane. "We are fortunate enough to be in one of the warmest climates in Quebec, which greatly extends our production period and allows us to grow a wide variety of fruits and vegetables. Currently, we are working on converting our entire operation to organic production to help reduce the impact of pesticide and herbicide use on the environment.

"This is particularly important to us for the sustainability of our soil use, which we hope to improve by using a combination of manure from our animals, green manure and crop rotation to increase soil texture, organic matter content and beneficial insect life. We also use sustainable practices in our maple bush by keeping 18% or more indigenous tree species that are non-maple, and only tapping trees greater than 9 inches in diameter, following the organic and sustainable production regulations. The operation is currently locally certified for no pesticide and no herbicide in the Townships region, and we are proud of that!"

Their farm also includes 20,000 square feet of greenhouses for vegetable production. Ariane and Ben heat their greenhouses with wood pellets, keeping the use of fossil fuels to a minimum while making the most out of a resource abundant in Quebec: wood! "We also strive to decrease heat and water losses in the greenhouses by installing thermal sheets and recycling water through a filtration system. Our greenhouses are equipped with a high-end climate control system, which allows for the optimization of the outside temperatures, humidity and oxygen to produce our vegetables without

heating too much or using excessive amounts of fertilizers."

Ariane and Ben's plans include their tools and how they use this equipment. They limit the use of heavy machinery to the new vegetable plots and only till when strictly necessary. "We work our land with tools that conserve the soil structure and encourage worms and other beneficial insects to inhabit our soil," says Ariane. "We use a combination of manure and green manure to enrich our soils for the outside crops, without using chemical fertilizers.



"We also leave buffers between plots, with a mix of indigenous trees, shrubs and plants, helping to prevent soil erosion, while simultaneously encouraging birds, pollinators and beneficial insects to remain close to the farm."

What This Work Means To Joel And Ariane

For both Joel and Ariane, these tactics don't just help the environment: they're important for consumers. "We will do school tours once or twice a year," says Joel. "I think that talking about sustainability with farm visitors starts with asking: are my current farming practices going to allow the farm to continue for the next 10, 20 or 50+ years?

"We want to see soil health and productivity improve over time, and I like to talk about not only what practices we do but why we do them. Hopefully it will add a whole different perspective to the dairy products they find on the store shelf."

Ariane agrees. "I hope that one day we will be able to leave our farm to our kids or other passionate people like us, who will do their best to continue our work of growing our business while maintaining our environmental steward practices," she says. "I hope farmers and consumers will be able to work together to build agriculture up into the best it can be, rather than fight and make things worse for our health and for our planet.

"In general I think it's important to remind consumers that ultimately, farmers are trying their best with the technology and knowledge that they have. The best solution is not always the easiest, and some transitions take time. Ultimately, your choice as a consumer is to decide what you think is important to you. Do you want to eat local, or organic, or in season? Do you want bananas in January, or are you ok with eating something grown locally, like an apple or greenhouse strawberries? Food choices are personal, and some people believe that the sustainability of their food sources is more important than others. As farmers, we need to respect that, and keep doing our best to offer safe, healthy and delicious food options that will hopefully encourage people to buy our products.

"Personally, I think the cost of not making an effort is going to be so high we will no longer be able to produce food the way we are currently doing it. The social, environmental and political cost of maintaining a non-sustainable agricultural model is going to be so high that the real cost of food will no longer be what it is today. It would be better to jump into action before it's too late. On that note, every small step counts, even if it's just one small thing at a time, like recycling more, composting more, lowering fossil fuel use, or changing tillage practices. Every little thing counts!"







PEOPLE INVOLVED: Joseph, Brenda, Paul and Erin Kernaleguen

OF COWS MILKED: 100

OF ACRES FARMED: 540

FACILITY TYPE: Lely Robotic Dairy

HERD PRODUCTION AVERAGE (L/

COW): 40-42 L/cow/day

WHAT IS YOUR FEEDING SYSTEM? Vertical Mixer - Drive Through Alleyways

ARE THERE OTHER BREEDS IN YOUR HERD? No.

HOLSTEIN CANADA SERVICES USED: Classification and DairyComp

Sustainable Farming Across Canada

By Morgan Sangster, Holstein Canada Western Field Service Business Partner; Jenna Hedden, Holstein Ontario Eastern Field Representative; Marilie Pelletier, Holstein Québec Advisor for Central Territories; and Natasha McKillop, Holstein Canada Atlantic Field Service Business Partner

Across Canada, you'll find unique ecosystems that support many different species of plants and animals. At the edges of these areas, you'll also find many farmers protecting and preserving the land and water while they grow and produce the food we eat!

Soil and The Land: JBK Farms and Fepro Farms

"The soil is where everything starts," says Erin Kernaleguen of JBK Farms in Birch Hills, Saskatchewan. "When Paul, his parents (Brenda and Joseph), and brother Hugh moved to this farm 10 years ago, they had to completely learn the new land, equipment, barn and systems. This area is heavy clay, overly wet and filled with sloughs, making it difficult to grow traditional barley and corn crops.

"There was no choice but to look at different crop options in order to grow enough feed for the expanding operation. Six years ago, Paul and I started to research regenerative agricultural practices because of this. We were really enthused by what we saw on the initial few acres and we quickly converted the entire farm to these regenerative practices."

The JBK Farms team follows five principles of soil health. "The first is soil armour: we always have a cover on our land, meaning we plant cover crops and maintain plant life all year round," explains Erin. "This helps with weed suppression, soil moisture and temperature, and ensures a lively microbe population. Next, we minimize soil disturbance by planting all of our polyblend crops using a no-till disk drill. Thirdly, plant diversity in our forage crops is achieved by planting anywhere up to 17 different plants together: peas, oats, hairy vetch, sunflowers, clover and so many more. Fourthly, we ensure that there is a continual live plant root which helps to provide carbon exudates, and improves both our water infiltration and soil aggregate formation. Finally, we are working on livestock integration with the soil, which involves a paddock fencing project that will utilize both the hoof impact and the natural dropping of manure of the cows. Presently, we spread manure on to our land for an organic dose of nitrogen."

Their solutions are pretty unique! "About a year ago, we started a red wiggler worm farm which feeds on spoiled silage and our household food waste," says Erin. "We hope to increase the worms to the point where we will have "worm tea" to further enrich our garden and fields. All of our solid manure from the barns is composted and reused as fertilizer for ourselves and neighbours, along with our liquid manure.

"Our newest project is raising pigs, which feed on vegetable scraps and extra milk, while also cleaning up grassy areas in the yard. These ventures are intentional in building a diverse farm where we can use waste and turn it into something that has value."

For dairy producers, a lot of this work starts with creating an environmental farm plan (EFP). These are voluntary assessments prepared by farm families to increase their environmental awareness. Elias Klaesi, co-owner of Fepro Farms Inc. in Renfrew County, Ontario, has used the farm's EFP to make some creative additions to their operation. "We have an anaerobic digester which captures the methane from the cow manure to make electricity," he says. "We use a drag hose to apply our manure and all manure is injected not applied on top. We also recycle our manure through a screw press and use dried manure as bedding for milking cows and young stalk."

Their efforts haven't gone unnoticed! Fepro has received local honours and two major awards: a 2006 Minister's Award for Agri-Food Innovation Excellence and the inaugural Canadian Biogas Industry Award.

EFPs in Ontario, like in other provinces, started within the farm community and maintained through the dedication of farmers like Elias. The program to which Elias, his co-owners, and the rest of the Fepro team belong now includes more than 35,000 participants since the founding in 1993. It's one way farms are finding how they impact the immediate ecosystems around them, and many are using the results to make major changes.

"We inject our manure," says Elias, rather than spreading it over the surface. Injecting manure helps Fepro ensure that they don't have excess phosphorous run off and into water ways. "This virtually eliminated runoff," he says. Injection also prevents the risk of ammonia nitrogen in field and can alleviate odor issues.

One bit of advice Elias has? Get an anaerobic digester. "It's a great tool to have on the farm!"

Protecting Waterways: Ferme Bois Mou 2001 Inc. And **Winding River Farms**

Ferme Bois Mou 2001 Inc. is located 30 minutes from Drummondville, Quebec. The climate is increasingly favourable for the production of field crops. Their corporate mission is "to develop the company in an environmentally friendly and animal friendly way and by ensuring a pleasant and stimulating work environment for those who work there."

For their work following this mission, Ferme Bois Mou 2001 was awarded the Dairy Sustainability Award from Dairy Farmers of Canada in 2015, and the Coop Fédérée Award for Agrienvironment (Ordre national du mérite agricole) the following year.

"Our future projects are focused on reducing our environmental footprint and profitability," says Patricia Lefebvre, one of the owners. "Since 2006, we have been using direct seeding, which we combine with the use of green manure and cover crops. We rarely leave the soil bare after a harvest; this way, we keep the good soil in our fields instead of it ending up in the streams. In addition, by using green manure in combination with our cattle slurry and pig manure that is available nearby, we significantly reduce the use of chemical fertilizers."

Many farms are near bodies of water lakes, rivers, even oceans - and these ecosystems are especially sensitive to what runs off from the fields. Protecting these is very important to Patricia and the Ferme Bois Mou 2001 team. "All streams bordering our fields are protected by buffer strips, which reduce bank erosion and filter the water flowing from the fields. When milking, the water used to cool the milk is reused to water. the animals. We have a water metering system, so if the flow is too high due to a break in the barn, the pumping stops hence there is no waste of water."







OF ACRES: 800 acres

FACILITY TYPE: Robotic

HERD PRODUCTION AVERAGE (L/COW): 36

WHAT IS YOUR FEEDING SYSTEM? Rovibec automatic feeding

ARE THERE OTHER BREEDS IN YOUR **HERD?** No

HOLSTEIN CANADA SERVICES USED: Classification, Registration, Genotyping







They also time their crops optimally to reduce the levels of chemicals spread over the fields. "The majority of our cereals are harvested in the fall. We do not use any herbicides or fungicides as these crops are very aggressive in the spring and overtake the weeds. Another advantage to cultivating fall cereals is that we can sow our green manure earlier in the season and then harvest our crops in October of the same year to feed our heifers. We double harvest the same field within the same year."

Our final subject, Winding River Farms, is located along the Stewiacke River in Nova Scotia. This river is the breeding ground for a variety of fish species, including the endangered Inner Bay of Fundy Atlantic Salmon. In 2010, the Stewiacke River was one of 10 rivers in Nova Scotia and New Brunswick identified as a critical habitat for this species of salmon under the Species at Risk Act. The river is also tidal, and Winding River experiences flooding during the spring and times of peak tide activity.

"All of our pastures are fenced to prevent access to the river and riparian zone," says Bert Harbers, who owns and operates Winding River with his father Leo and Chris and John Vissers. Riparian zones are the lands along rivers and streams, and they are very vulnerable to environmental changes. "We also leave a large buffer zone of vegetation around the river and ditches to help slow the flow of run-off and prevent erosion and to provide cover and shade to the river." Overhead cover not only helps to provide cover for fish from predators, but also lowers the river temperature.

"We also have a parcel of land in Musquodoboit that borders McNutt Brook and the Musquodoboit River, which is breeding grounds for the endangered wood turtle," says Bert. "For our land parcel in Musquodoboit we leave a 10 meter buffer of vegetation around the

riparian zone as the wood turtles lay eggs in the vegetation around the river. We also have a holding pond at the farm. It was originally designed to treat our milk house wastewater, but now it catches yard runoff, preventing it from entering the river."

In 2015, Winding River received the NSFA Farm Environmental Stewardship Award; they are currently recognized by Wood Turtle Strides, a farmer-focused program that helps farmers in Nova Scotia, like Bert, implement management practices that benefit wood turtles on farms.

"Our breeding strategy has also improved our sustainability," says Bert. "Through genomics we are easily able to identify our animals with the most genetic potential, and classification and milk production data allows us to identify our top performers. This allows us to focus on our top animals and breed them to sexed or conventional semen, while the rest are bred to beef. This ensures that we get exactly the amount of replacements we need, and not have to spend time and resources on animals we don't require.

Like his fellow dairy farmer in Quebec, Bert Harbers also chooses to bring in hay at an optimal time for the sake of the fields and the animals that live in them. "We also have fields that Bobolink (a threatened species of small migratory birds) that breed and lay their eggs. So we wait until mid-July once they have left to harvest hay from those fields."

Consumers and Future Generations

Taking environmental concerns seriously is a good way to convince consumers that milk is still a great product. One way of doing that is educating the public. "We have an Instagram and Facebook page where we share information about daily life on our farm," says Erin Kernaleguen. "Both Paul and I are passionate about what we do and we spend a lot of time learning and collaborating with others in order to improve the operation. We have

hosted field days to highlight fencing and watering systems and to demonstrate low-stress handling of animals. Other producers have come to see our crops during the growing season, and Paul has been invited to many other farms to share ideas on low-stress stockmanship, barn design and polyblend crops and how they can positively impact a farm's productivity.

"We want to be part of rebuilding the health of our soil and, in turn, the health of our consumers. Change can be scary, but each step we take leads us to the next discovery, and we have seen enough improvement in our land, feed, livestock and finances to confidently move forward and share our learning with those who are prepared to start."

Patricia Lefebvre agrees, and sees a real benefit to education. "I want consumers to understand that we are not insensitive to environmental issues and that we are often the first witnesses to climate change. We are working to make our industry sustainable. We are always open to hearing consumers' concerns and answering their questions."

Bert Harbers also welcomes the public to his operation. "We strive to make our farm available for tours, because seeing is believing. We feel that the land and animals are here for us to use, but not abuse, and we feel that it's extremely important to showcase this to consumers and answer their questions in an honest and open dialogue. We participate in open farm days, tours for students from elementary, to high school, to university. We've even had human nutrition students come and learn about the farm and how dairy products are produced. It's really important for people to see that their food is being produced in an ethical, sustainable, and responsible way.

"I think what we want consumers to know is that farmers really do care; about animal welfare, the environment, and sustainability. While the benefits

to farmland and waterways can be immediate for the ecosystem, environmental considerations will positively affect the future, too! To Patricia and the team at Ferme Bois Mou 2001 Inc., the work is more than worth the effort. "There are many ways to reduce your environmental footprint," she says. "All you have to do is find the practices that work best for your business. The survival of our farms depends on the land and its environment, it is the raw material of our operations. It is the raw material of our farms, so it is essential to keep it healthy.

"I would like to pass on to our future generations a farm that is financially viable with healthy soils and sustainable practices. That they may feel they are doing what needs to be done to help grow and prosper agriculture."

Bert Harbers believes that today's farmers will see the benefits, too. "Dairy farming isn't all about profit, it's about doing the right thing, and showing that to consumers is good PR for the industry. Often though, doing the right thing is the profitable choice; if you look after your animals and the land, they'll look after you!"

Elias Klaesi of Fepro Farms agrees. "Having open and candid conversations about dairy farming, why and how we do things the way we do. That we were good stewards of the earth that God gave us and therefore allowing future generations to farm the same land we do."







GENETICS

FERTILITY PART 2:

Managing Your Herd to Enhance Profitability

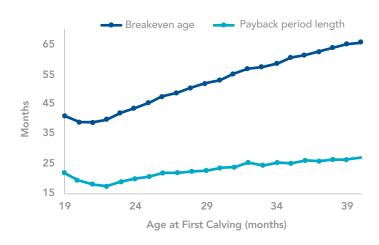
When it comes to using fertility, a number of factors and strategies can improve your herd. These include heifer raising, age at first calving, genetics and mating strategies.

This is the second in our two-part series on using fertility to enhance profitability - see pages 14 - 15 of the September/October InfoHolstein on our website for Part 1!

Calving Heifers Early: Reducing Costs and the Time to Profit

Age at first calving is a hot discussion point for producers, and many dairy farmers and breeders across our country have different opinions! Because feed costs are the most significant of all the costs related to raising cattle, reducing the age at first calving is essential for lowering these costs. A heifer not calving at an optimal age will stay in the heifer barn longer, eating more and not generating income. For every 1-month reduction in the average calving age, the required number of replacement heifers is reduced by about 5%. For a 100-cow herd with a 30% culling rate, you would have to keep three to four fewer heifers.

Average Breakeven Age and Payback Period Length by Age at First Calving for Holsteins



However, the reduction in production that comes with earlier calving has to be balanced! A study done by Lactanet suggests that 22 months is a prime target age for calving in heifers, resulting in the shortest "break-even age" or the best time to calve out a heifer so she can start earning back her rearing costs. However, it is meaningful to say that a heifer must be well-developed so that she can be bred early and calve at that age, illustrating that well-fed, well-managed heifers over a shorter time period results in a higher economical gain.

To achieve that, the heifer should have optimized development from the start to be able to reach puberty and get bred early. Maternity pen management already plays a role, and it is worth prioritizing the importance of keeping a very close eye on the young stock. But fertility again plays a significant role, as fewer inseminations on a heifer results in calving at the desired age. After becoming pregnant, producers must follow a good nutrition plan to make sure the heifers reach their calving age with enough development to deliver a calf with no problems.

A small and underdeveloped heifer can result in significant challenges, which can include calving issues and a whole list of postpartum diseases along with low production and fertility during the first lactation. Noteably, a scenario like this can result in 22 months of rearing cost investments quickly evaporating.

Genetics, Bull Selection, and Optimized Fertility

In the past, you've probably heard something about it being hard to improve fertility through genetics. It's true that the heritability of fertility traits is extremely low, meaning reproduction is heavily influenced by management and the environment; the same can be said about health traits. However, emphasizing selection for fertility, health, and other traits that are related to them can help you achieve better results in the long term. There are tools on the "bull side" that are very important to a successful reproductive program, including semen fertility, inbreeding level, and avoiding recessive haplotypes.

The low heritability of fertility and health traits doesn't mean that you should ignore them – to gain positive responses, a continuous focus on fertility is important! The good news is that Lifetime Profit Index (LPI) and Pro Dollars (Pro\$) take them into account; LPI has slightly more weight on daughter fertility, mastitis resistance and hoof health, while Pro\$ focuses more on lifetime profitability (which has a strong health and fertility component). Also, selecting for traits that are related to fertility and health, such as body condition score (BCS), lactation persistency (LP) and calving ease (CE) have a positive impact.

- Higher BCS meaning over 100 is desirable because cows that don't lose too much condition in the first third of their lactation are typically healthier and breed more easily. The worst cases of ketosis and associated diseases (metritis, DA, mastitis) occur on cows that have a moderate to severe negative energy balance and, as a consequence, lose too much condition.
- Selecting animals with good LP can help you avoid raising animals that gain too much condition towards the end of the lactation, so you end up with cows that manage to calve again in good condition for the next lactation.

Selecting bulls that deliver easier calvings and pass this trait
 onto their daughters results in fewer health issues, better
 production, and more chances to become pregnant earlier. This
 is particularly important in heifers because they are not fully
 grown by the time of their first calving. As such, extra care when
 mating this group of animals is crucial!

Another aspect that can hurt your reproductive program is recessive haplotypes carriers. It's crucial to know which haplotypes to avoid when breeding each cow, and this is a valuable aspect of Registration! The full pedigree provides information on inbreeding and makes it easier to detect a carrier of genes that will cause pregnancy losses. This topic has been discussed in previous articles and will get more coverage in future issues of *Info*Holstein.

Finally, the CDN/Lactanet website provides an inbreeding calculation tool, where you can receive a progeny inbreeding level by simulating a mating between a specific sire and cow. Remember, you have the most current inbreeding and recessive haplotype information from your herd on your Compass profile, too!

Takeaways

Fertility has a tremendous impact on farm profitability, largely tied to milk production and culling. It is important to keep an eye on heifer fertility to calve them early, reduce raising costs, and shorten the breakeven point. You can also improve fertility through genetics by focusing not only on health and fertility traits themselves, but also by selecting traits that are related to them (such as Body Condition Score, Lactation Persistency, and Calving Ease) and have higher reliability and heritability. Along with proper bull selection, managing haplotypes and inbreeding in your herd can lead to a successful breeding program which enhances gains and makes your herd more profitable!



Navigate Your Herd's Success



It's the First Anniversary of Compass!

HOLSTEIN CANADA, along with Lactanet and Zoetis, is proud to celebrate the first anniversary of Compass. Launched in November 2019, Compass is a free, online software that is an interactive guide to genetics and profitability for producers.

To celebrate the one-year mark, we gathered some of the major updates since the launch, along with feedback from producers, field staff, and active users of the tool. The result is a compilation of the software's highlights and tips for new users!

For those not familiar with Compass yet, the tool is available for every Holstein Canada member at www.compasscan.ca. Once you create your account, you can load your herd information and discover this tool and what it can do for your operation.

New Compass Features

The three companies behind Compass built the platform to help all dairy producers make the best genetic decisions for their respective farms. To achieve that goal, we made it easy to add updates to the platform. Constant enhancement of the tool is paramount because farming, and specifically dairy, is very dynamic!

We designed Compass to be an everevolving tool built to serve every herd from every breed across Canada, and many of these evolutions came from user suggestions! After hearing the feedback,

we added a few features to enhance the experience, including:

- Addition of Beta Casein (A2) testing information – you can find information on which animals have been tested and their result under Herd Genetics
- Creation of "My Bulls" list you can tag favourite bulls and create your own shortlist
- Addition and changing traits for bull list - pick and change the traits you would like to visualize in your bull list
- Addition of Verify Metrics to the main page - now you adjust your herd and economics metrics before moving forward to any other step

Compass Highlights

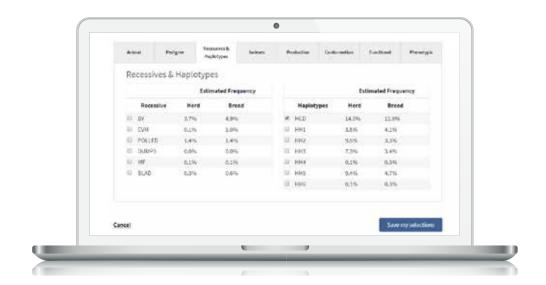
Users have highlighted many parts of Compass, including:

The Layout and Accessibility

Compass's simple layout makes the program very user-friendly. "It is nice to have a tool where everything is gathered, so no need to jump from one website to another to find specific information," says one user. "We use the Herd Genetics section as a database of our herd and to rank the herd in different ways. It has links to both Holstein Canada and Lactanet. so the benefit is all the information is easily accessible." That allows different abilities when navigating through the software, which is in line with the goal of providing added value to every producer.

Easy-to-Manage Lists

Producers aren't the only ones using Compass - Al companies are also seeing the value in the vast information provided so they can deliver even



better service. "The haplotypes frequencies tool allows us to get a big picture of the herd to find out which haplotypes need attention, so we can filter for bulls that do not carry those haplotypes," noted an AI representative.

Ranking Animals

The ability to rank the animals based on their genetic potential and identify the best heifers and cows to breed from was cited by many users as an advantageous tool. "It's easy for me to know my 10 best or 10 worst cows, Compass is a great tool to help me sort the animals in-between," commented one producer. Another one pointed that "one thing that Compass has shown us is that we are building on the right animals on our farm - using sexed semen on the right animals and beef semen on the ones that don't fit our breeding objectives increase the gains in profitability at a higher rate."

Visualizing the genetic trends, strengths and weaknesses also providess quality insights when choosing traits that require attention when picking bulls. "I look at past breeding success and find out where we can improve. It also projects the improvement over the next couple of years, which stands as a target for us," noted another user.

It's perfect for Herds of Every Size!

One interesting aspect noted was the very broad range of producers actively using Compass: from 30 to 700 cows in provinces across Canada. "Since we breed very few heifers, we want to make sure we invest in the right ones," said a producer who is currently milking 35 cows. On the other hand, a 600-cow operation manager mentioned that Compass is good to evaluate progress towards



their genetic goals and allows them to evaluate the additional investment in expected future revenues, as they are evaluating their profitability increase due to higher genetic potential.

The Present and Future of Compass

The first year was an exciting time, but we are continuously looking ahead. As the program develops, we want to reach more and more producers. Our contributors even gave a few tips and tricks to help first-time users. "Have fun with the Breeding Profitability Strategies, it makes you think a lot. I didn't see the cost of genetics as an investment, now I have learned that investing well pays off in the long run," stated one producer. Another one mentioned taking it easy." Start slow, learn the program, get familiar and understand the details. After having an understanding, come back later and dig deeper."

To effectively reach many producers, Holstein Canada, Lactanet, and Zoetis designed Compass to be an ever-evolving tool. We've proven this with the updates that have already been completed over the last year. While these changes were put in place following user and field staff suggestions, we aren't done improving! We are always looking for feedback to improve the functionality and usability of the program. The future holds many exciting things for Compass and the producers that use it, so stay tuned for several updates coming!

If you have questions related to Compass, contact Holstein Canada Education and Extension Specialist Murilo Carvalho at 1-855-756-8300 ext. 266, or email is at MCarvalho@Holstein.ca.

How well do you know Registration?

Registration is one of the most important ways Holstein Canada helps the various herds among our membership. In 2019, we processed more than 300,000 registrations through electronic and hard-copy submissions!

But how much do you know about Registration? Match the clues on the left with the answers on the right to see if you're a pro! The answers are below - no cheating!

1.	Animal's genetic and production family history.	A.	Reliability		
2.	Herdbook information is verified and trusted.	В.	Photograph/S		
3.	More registrations means more information	C.	Cost effective		
0.	and greater genetic gain over time.	D.	Standards		
4	Niveles and acceptations are related to make	E.	Pedigree		
4.	Number of generations required to move from base animal to purebred.	F.	Traceability		
_		G.	Base		
5.	Animal with Dam/Sire birthdate unknown. Registration application can be completed	H.	Integrity		
6.	3 11	I.	Inbreeding		
	through Online Services.	J.	Five		
7.	Can be submitted free of charge with initial	K.	Fifteen		
	registration application.	L.	Eleven Dollars		
8.	Member cost for electronic submission of	M	Artificial Inser		
	registration for ET calf under 3 months of age.	N.	Web Account		
9.	A way that Holstein Canada officials can ensure	O.	Twenty one do		
	members are following requirements.	P.	Audit		
10.	Number of years a producer needs to maintain breeding records.	"Reaist	ration is importa		
11.	Member cost for electronic submission of registration for a regular calf under 3 months of age.	to tra	to trace the genetics allows us to better ta		
12.	Animal identification numbers and birthdate information are submitted to DairyTrace/ATQ when registration is processed. our goals. Besides the buy, registration allow profitable production				
13.	92% of all registrations result from this type of service.		desirable crosses. We fo on mastitis resistance ar		
14.	Registration process meets all animal identification requirements of proAction®.	- Pier-	Luc Massicotte, Massi		
15.	Reduces genetic variation and decreases performance.		12 - F		

ketch

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ant for us in order of our herd. It rget and reach animals that we s us to achieve n by managing ocus a lot of effort nd somatic cells."

icotte Holstein Inc.

	12-F	N - 9
	٦-١١	9 - G
J - 91	10 - K	L - 4
15-1	9 - 9	A - E
14-D	O - 8	7 - H
M - E1	8 - 7	3-↓
		ANSWERS:

on investment.

Registration is low cost with high value and return

16.



DFC Fall campaign highlighted Canadian dairy sector's leadership in sustainable dairy farming

DAIRY FARMERS OF CANADA'S (DFC)

fall marketing campaign put real dairy farmers in the spotlight to educate consumers on the rigorous environmental practices behind high-quality Canadian milk. In Hey Dairy Farmer – Online Classroom Edition, actual Canadian dairy farmers discussed their sector's commitment to sustainable dairy farming and preserving our natural resources for generations to come.

Through video interactions with a class of elementary school-aged kids asking honest questions about dairy, farmers showcased the innovative technologies and practices that are being used in Canada to help reduce our sector's environmental footprint.

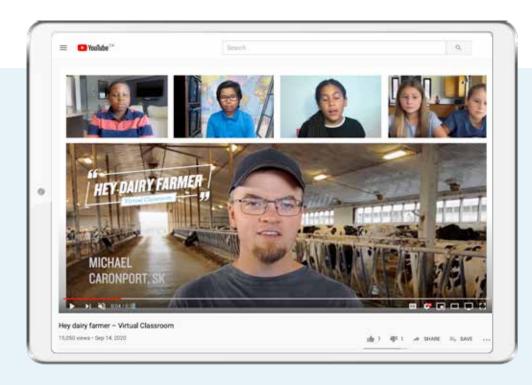
"Canadian dairy farmers are global leaders in sustainable agriculture, because we've made a pledge to lead, not follow," said Pierre Lampron, President of Dairy Farmers of Canada. "The sector works to proactively reduce emissions and our overall environmental footprint by adopting more efficient feeding strategies, investing in new technologies, implementing new farming practices and investing in research and innovation."

The Canadian dairy sector is among the most efficient in the world, with a carbon footprint that is less than half the global average. Dairy farming uses just 0.2% of Canada's total land, just 0.02% of Southern Canada's freshwater resources, and is responsible for just 1% of Canada's total greenhouse gas emissions.

By adopting the latest best practices, between 2011 and 2016, the Canadian dairy farming industry reduced our carbon footprint by more than 7%, our water usage by 6%, and our land usage by 11% (per litre of milk production).

"When consumers buy dairy products made from Canadian milk, they are supporting an industry that is committed to protect the environment for future generations," added Pierre Lampron. "It's quality stewardship in every drop, and we are thrilled to be able to highlight that in this campaign."

All the creative was directed remotely by DDB Canada and was expertly captured without any of the talent needing to leave their homes. The campaign was seen instores, on TV and on digital media across Canada.



Hey Dairy Farmer was launched in June to debunk milk myths for Millennial parents by giving the floor to the experts: real Canadian dairy farmers!



Since March 2020, when the COVID-19 pandemic forced the world to change, we've answered this question most often! Initially, Customer Service transitioned to working remotely from home; we had to do this quickly, which required flexibility, creativity and patience.

In some cases, we found out our home internet was not as strong as we thought, and setting up to work from a home office was a new experience. You may have noticed when on a call with us that it took a bit longer to answer your questions - you may have heard different background noises!

"The train across the road goes by every hour." - Mackayla

"Rural internet... oh gosh... it takes longer to download." – Janice

"My cell number got well known and, even off-hours while I was in the barn milking, calls came through." - Alison

"My dog is not used to me being home and sometimes barks to get in on the conversation!" - Debbie

"Same thing happens to me." - JJ

"Sitting outside on the porch in March to take cell phone calls because that's where the signal is strongest and calls drop once I move inside the house." - Donald

"On a call when the windows are open and all you can hear the grandkids go by on the Gator." - Wendy

In mid-July, our team began rotating their work schedule between working in the office and home as provincial restrictions for businesses changed. Our ability to serve your needs is, for the most part, back to pre-March levels. Keep sending those registrations in!

We have also upgraded our phone system to better handle your calls. Staff can take calls while working remotely just as if they were in the office; the only difference may be the background noise (be it a train, a dog, or a Gator)!

To protect the safety of our staff, customers and public will not be given access in the office. We will provide further updates on the reopening by observing our province guidelines during this pandemic.

We appreciate all your thoughtful comments on our well-being! Know that we are here to assist you, even if "here" is not being in the Brantford office.

Stay healthy, stay safe, and all the best from your Holstein Canada Customer Service Team!



Meet Our Team!







Murilo Carvalho

Pam Charlton

Melissa Marcoux

Holstein Canada's Education and Extension team has three new faces! Murilo, Pam, and Melissa are knowledgeable and well equipped to talk about the dairy industry and Holstein Canada's services.

Each issue, we'll be publishing a selection of the Top Sire charts you can now find on our website. Go to www.holstein.ca to see the full range of reports!

Based on 1st Lactation Classifications August - September 2020

Top 10 Sires for Mammary System with 100+ Daughters Classified in Two-Month **Period**

Top 10 Sires for 305d Fat Production with 100+ Daughters Classified in Two-Month Period

	••					
Sire	Daughters Classified	Avg. Dau Score	Sire	Classified Daughters (100+)	Avg. Final Score	Average 305-Day Fat
CHIEF	227	82.88	DUKE	110	80.8	439.3
SOLOMON	250	82.86	MOGUL	129	81.0	413.1
DELTA-LAMBDA	126	82.71	BREWMASTER	341	80.5	410.5
GOLD CHIP	124	82.60	BYTES	112	80.4	408.0
JACOBY	153	82.49	BLOOMFIELD	134	80.0	407.3
UNIX	861	82.35	MACADAM	111	80.0	396.2
DEMPSEY	208	82.06	LAUTRUST	489	81.0	394.2
LIGHT MY FIRE	218	82.06	ADAGIO-P	106	80.4	393.9
CINDERDOOR	169	81.89	SYMPATICO	145	80.6	392.6
DOORMAN	607	81.81	LIGHT MY FIRE	149	81.4	392.1

NOTE: Daughters are included in the statistics if they had their last milk test in the last three-month period.

CLASSIFICATION SCHEDULE

NOVEMBER

CLASSIFIER CONFERENCE - NOV. 9-13

For the full Field Service schedule, see the Field Services section under Services



Enter your best contender today

www.holstein.ca→awards-lists→cow of the year

Entry Deadline: November 30, 2020



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Return undeliverable Canadian addresses to: Holstein Canada P.O. Box 610, Brantford, ON N3T 5R4

Tel: 519-756-8300 Fax: 519-756-3502

Toll Free: 1-855-756-8300 www.holstein.ca

Editor: Steven Spriensma sspriensma@holstein.ca

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