

info **Holstein**

March/April 2017 issue no. 144

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



APRIL 5-8, 2017

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Hosted by York Region, Richmond Hill, Ontario



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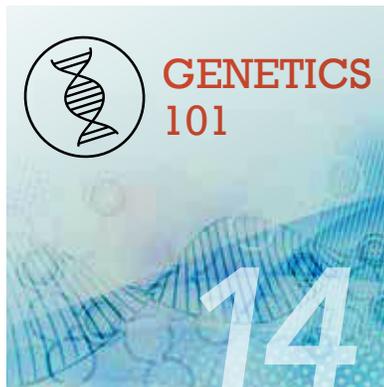
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ABOVE: Be sure to check out the Farm Profiles feature in this edition of InfoHolstein! In this issue we feature four Canadian farms using Genomics as a herd management tool. Have a theme you would like us to cover? Let us know!

ON THE COVER: Our cover photo is one of the four finalists from Theme #8 of the #FrameTheHerd photo contest. "I've got my eye on you!" was submitted by Sue Crest of Skycrest Holsteins in Alberta. Check out the other finalists on page 18.



contents

- 4 **Return your proAction Cattle Assessment Survey**
- 5 **Selection for Increased Resistance to Metabolic Diseases**
- 6 **Proposal of Amendments to By-laws**
- 16 **Meet the 2016 Holstein Canada Education Award Winners**
- 17 **2016 Master Breeders Announced**

Thank You!

By Holstein Canada President, Robert Chabot, Saint-Patrice, Quebec

THE ARRIVAL OF SPRING means that my mandate at Holstein Canada is coming to an end. Being involved in such **a great** organization represents so much: meeting people who are passionate about breeding and the business; participating in the development of all aspects of the **industry**; planning for the future; and putting programs in place to help us reach our goals.

What motivates me most is meeting the members. Touring the clubs and Branches allowed me to speak with many volunteers, as well as with the next generation, who share the same ambitions and objectives as those involved at the national level. It is also an opportunity to be inspired by new ideas which are then analyzed and developed. The bonus: **seeing great and functional cows along the way in your barns!**

Above all, chatting with members across the country is an opportunity to validate if what the Board is proposing is compatible with the needs of our members. On this note, allow me to add your Board makes it a point to put in place

rules and regulations, to be respected by all, to ensure our shows and awards are relevant. I'm sure we can all agree winning an award has no value unless rules are followed and there is a healthy competition.

In closing, I would like to invite you to join us at our annual convention in Richmond Hill, Ontario, from April 5 to 8, 2017. The Convention is a great opportunity to meet breeders from across the country, as well as to participate in enriching activities and interesting farm tours. Attending our Annual Meeting is another opportunity to voice your opinion, to keep on top of the latest developments within our organization, and lastly, to celebrate a brand new crop of the best of the best, our Master Breeders.

I wish you all much success with your herds and many projects in this time of growth for our industry. I look forward to connecting with you again at future industry events. 🇨🇦

Thank you,



proAction



Return your proAction® Cattle Assessment survey

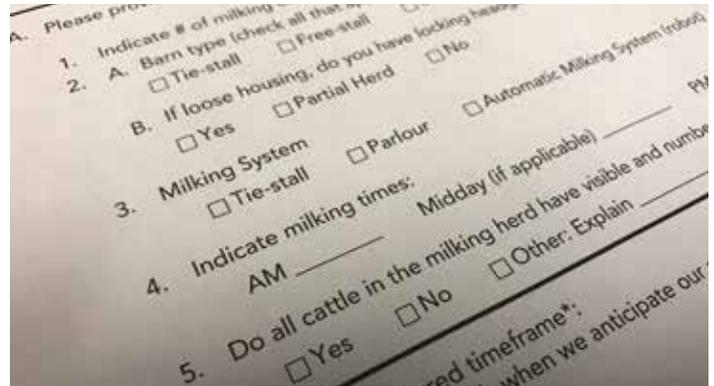
On behalf of Dairy Farmers of Canada (DFC) and your provincial milk board, Holstein Canada is the service provider for the Cattle Assessment portion of the proAction Animal Care pillar.

IN MID-DECEMBER, we began mailing out communication packages. **Though not every producer will have received their package yet, approximately 4,000 producers with the earliest validation dates have.**

Included in this communication package is a letter and infographic on "What to expect from Holstein Canada", a DFC handout and a small survey. This small survey is very important to complete and send back to Holstein Canada via mail, email, fax or phone as soon as possible. It provides important herd information and producer timeframe preferences to help us schedule assessments. It is important to note that when a producer does not respond to the survey and our follow-up communication, it is assumed that they are declining to have their Cattle

Assessment done.

Producers' time preferences will be taken into consideration whenever possible, but note that we may not be able to accommodate everyone. To avoid potential scheduling problems, please be proactive



about completing your survey and we suggest, when possible, to not leave your assessment until the last minute. The assessor will call approximately one week in advance to schedule the assessment. For classifying herds, an assessment will be scheduled in addition to your classification; however it is not standard with each classification. 🇨🇦

Selection for Increased Resistance to Metabolic Diseases



Authors: *Lynsay Beavers, Industry Liaison Coordinator, CDN and Brian Van Doormaal, General Manager, CDN*

EVERY DAIRY PRODUCER has faced metabolic disease in his or her herd. Metabolic diseases are heavily influenced by management; particularly by nutrition through the transition period. As with all diseases, however, a genetic component also exists which means that certain animals are genetically more or less susceptible to metabolic disorders. In December 2016, Canadian Dairy Network (CDN) started publishing genetic evaluations for Metabolic Disease Resistance (MDR) in the Holstein, Ayrshire and Jersey breeds. With this new tool, producers will be able to select for increased resistance to these costly diseases.

Where Does the Data Come From?

A national system for collecting health events has been in place since 2007. Since that time, approximately 40% of all herds enrolled on milk recording have been voluntarily recording the incidence of eight key diseases and reporting this data to their milk recording agency. This accumulation of data has led to the calculation of genetic evaluations for Mastitis Resistance since August 2014. Effective December 2016, this source of data collection has also been used to produce genetic evaluations for Clinical Ketosis (CK) and Displaced Abomasum (DA). In addition, DHI laboratory analysis of milk samples for levels of BHB (i.e.: milk beta-hydroxybutyrate) serves for calculating genetic evaluations for Subclinical Ketosis (SCK).

Metabolic Disease Resistance - The Details

Metabolic Disease Resistance (MDR) combines evaluations for six traits in total, including Subclinical Ketosis, Clinical Ketosis and Displaced Abomasum, each of which are evaluated separately for cows in first lactation compared to later lactations. To improve the accuracy of these evaluations, the genetic evaluation system also includes two indicator traits, specifically the ratio of fat to protein production in early lactation and the Body Condition Score in first lactation. MDR has an estimated heritability of 7% and evaluations are expressed as Relative Breeding Values (RBV) with a scale that averages 100 and generally ranges from 115 for the best animals to 85 for the worst.

Metabolic Disease Resistance - The Impact

Table 1 shows the relative weight that each of the three metabolic diseases has in the index for Metabolic Disease Resistance (MDR), as well as the overall percentage of healthy cows in the Holstein breed for each metabolic disease. As expected, the incidence of each disease generally increases as cows get older.

Table 1: Overall Percentage of Healthy Cows (Holstein) for the Metabolic Diseases in the Metabolic Disease Resistance (MDR) Index

* Cows with a milk BHB level below 0.20 mmol/L on the first test

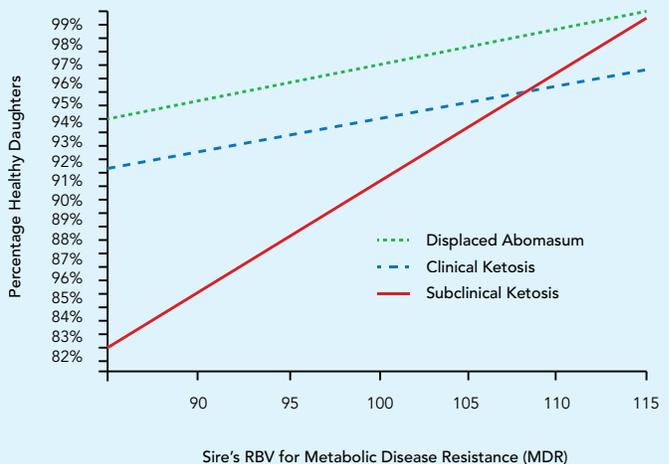
day between 5 and 45 days after calving are considered healthy for subclinical ketosis.

TRAIT	WEIGHT IN MDR INDEX	LACTATION	
		FIRST	LATER
Subclinical Ketosis*	50%	93.7%	89.9%
Clinical Ketosis	25%	95.5%	93.0%
Displaced Abomasum	25%	97.2%	96.0%

As seen in Figure 1, comparing the percentage healthy daughters for sires that are highly or poorly ranked for MDR clearly shows value in genetic evaluation and selection programs based on this index to improve the resistance to all three metabolic diseases. For Holsteins, a 10-point difference between sires for MDR translates to an expected increase of healthy daughters by 5.5% for subclinical ketosis, 2% for clinical ketosis and 2% for displaced abomasum.

Metabolic disease can play a significant role in affecting the profitability of dairy farms. Combining good management practises, especially for cows during the transition period and early lactation,

Figure 1: Expected Percentage Healthy Daughters for Metabolic Diseases by Sire's Proof for Metabolic Disease Resistance - Holstein -



and the Metabolic Disease Resistance (MDR) index for genetic improvement is the ideal approach to minimizing the impact of these diseases in your herd. Given the 20% correlation that MDR has with both Pro\$ and LPI some genetic progress has been achieved for these traits but producers now have the opportunity to make direct selection and mating decisions. 🐄

Proposal of Amendments to By-laws

For 2017 National Convention AGM

HOLSTEIN CANADA BY-LAWS are rules and regulations established to ensure the Association meets its legal obligations. These By-laws provide directives under which the owners determine how the Association operates. Proposed amendments to By-laws can only be approved at the AGM, when members come together to discuss governance issues. The following nine By-law amendments/additions will be presented at the April AGM by the Board of Directors, as printed on the following pages.

1.

Repeal Section 8.2.7 in its entirety, which reads as follows:

Honourary Life Membership 8.2.7 The Board of Directors may award an honorary life membership in the Association. Such award shall carry with it all the privileges of a regular member except the right to vote.

There is no known or recorded case of honorary life membership awarded to a regular member by the Board of Directors. The Board of Directors has and will continue to use the Member Awards programs for honorary recognition. Therefore, this By-law is no longer required.

There will be no change to bylaw 8.2.8 regarding Past President receiving honorary life membership.

2.

Repeal Section 9.15.1, 9.15.2 which reads as follows:

Auditor 9.15.1 A Chartered Accountant shall be appointed annually by the general vote of the Annual General Meeting as auditor, and it shall be that person's duty to examine and audit the accounts of the Association and make a report thereon to the members of the Association at the Annual General Meeting, which report shall include a detailed statement duly audited of receipts and expenditures for the preceding year and of the assets and liabilities.

9.15.2 In the event that the auditor so appointed is unable or unwilling to act and it becomes necessary in any year to appoint a substitute, the Board shall appoint another Chartered Accountant as auditor until the next Annual General Meeting.

And substitute therefor the following:

9.15.1 A Chartered **Professional** Accountant shall be appointed annually by the general vote of the Annual General Meeting as auditor, and it shall be that person's duty to examine and audit the accounts of the Association and make a report thereon to the members of the Association at the Annual General Meeting, which report shall include a detailed statement duly audited of receipts and expenditures for the preceding year and of the assets and liabilities.

9.15.2 In the event that the auditor so appointed is unable or unwilling to act and it becomes necessary in any year to appoint a substitute, the Board shall appoint another Chartered **Professional** Accountant as auditor until the next Annual General Meeting.

This proposed amendment is to replace the term "Chartered Accountant" with "Chartered Professional Accountant" to reflect the amalgamation of the Three (3) Accounting Associations in 2014.

3.

Repeal Section 9.18 in its entirety, which reads as follows:

Buying and Selling of Cattle 9.18 The Association shall not, nor shall any of its full-time employees, engage directly or indirectly in the buying or selling of Holstein cattle, semen or embryos for their own account and no employee shall make use of any information obtained in his capacity as an employee of the Association for profit or gain.

The terms addressed in this By-law are administrative in nature and covered by Holstein Canada's Code of Business Conduct; a policy signed and adhered to by all staff. The Board, through the Governance Committee, ensures this Code is properly administered and reviewed regularly. Any changes to the Code of Business Conduct will be approved by the Board of Directors.

4.

Repeal Section 11.3.1 which reads as follows:

Herd Book 11.3.1 The Association shall provide proof of registration in the form of a certificate of registration or a computer generated record for every animal registered in the herd book which indicates clearly whether the animal is purebred or, if not, its recognized percentage of purity, and such other information as the Board of Directors may determine.

And substitute therefor the following:

11.3.1 The Association shall provide proof of registration in the form of a certificate of registration (**paper or secure electronic version**) or a computer generated record for every animal registered in the herd book which indicates clearly whether the animal is purebred or, if not, its recognized percentage of purity, and such other information as the Board of Directors may determine.

The addition of "paper or secure electronic version" adds clarity to the two methods by which the Association can provide proof of registration.

5.

Repeal Section 11.13, which reads as follows:

Names Refused 11.13 The Secretary shall refuse to register animals under names that are misleading, either as to origin or relationship or otherwise, or under names that are obscene or profane.

And substitute therefor the following:

11.13 The Secretary shall refuse to register animals **by names, words or phrases** that are misleading, either as to origin or relationship or otherwise, or under names that are obscene or profane.

Addition of the "words or phrases" to this By-Law allows for a broader spectrum of word play to be refused.

6.

Repeal Section 11.14.1, which reads as follows:

Prefix Names 11.14.1 The Association will designate for each member upon the Certificate of Membership a unique prefix. Such prefix shall be reserved for the exclusive use of the member and shall be used as the first word of the name of all offspring resulting from a service to a female owned at the time of service by such member.

And substitute therefor the following:

11.14.1 The Association will designate for each member upon the Certificate of Membership a unique prefix. Such prefix shall be reserved for the exclusive use of the member and shall be used as the first word of the name of all offspring resulting from a service to a female owned at the time of service by such member. ***A designated prefix holder may extend the use of the designated prefix to members of the immediate family, for the naming of offspring resulting from a service to a female owned by the family member, when said service takes place while the female was part of the prefix holder's herd. In order to be eligible for designation and extended prefix use, all parties must be members of Holstein Canada. It is the responsibility of the designated prefix holder to advise the Secretary in writing of the extended use of such prefix and to advise when a member of the immediate family no longer qualifies as an authorized user of the prefix.***

This allows junior members on the family farm to have their own prefix or be authorized to use the parents prefix for naming animals resulting from breeding's which take place when their dams are part of the parents herd.

7.

Repeal Section 11.18, which reads as follows:

Transfer of Ownership Duty of Seller 11.18 Upon the sale of an animal as registered or purebred, it is a responsibility of the seller to ensure a duly transferred certificate, issued by the Association, is provided to the buyer. A seller shall initiate the transaction by filing a transfer in approved manner with the Association and ensuring arrangements are complete for the payment of any necessary fees. In the event that the buyer and seller intend for a sale agreement to supersede this protocol, the responsibility for payment of the transfer fee and responsibility for filing a transfer may be established amongst the parties themselves. In such case, proof of the buyer-seller agreement shall be made available to Holstein Canada upon request.

And substitute therefor the following:

11.18 Upon the sale of an animal as registered or purebred, it is a responsibility of the seller to ensure a duly transferred certificate, issued by the Association, is provided to the buyer. A seller shall initiate the transaction by ***submitting*** a transfer in an approved manner with the Association and ensuring arrangements are complete for the payment of any necessary fees. In the event that the buyer and seller intend for a sale agreement to supersede this protocol, the responsibility for payment of the transfer fee and responsibility for ***submitting*** a transfer may be established amongst the parties themselves. In such case, proof of the buyer-seller agreement shall be made available to Holstein Canada upon request.

Replacing the word "filing" to "submitting" better represents the varied submission methods; i.e.; paper, electronic, telephone.

8.

Repeal Section 13.18, which reads as follows:

Definitions 13.18 "Holstein" means a breed of cattle normally Black & White in colour, but carrying a Red & White recessive gene in some strains, known variously in different parts of the world as Friesian, Holstein-Friesian, Schwarzbunte, originating in the lowlands of northern Europe.

And substitute therefor the following:

13.18 "Holstein" means a breed of cattle normally Black & White in colour, but carrying a Red & White recessive gene in some strains, **and tracing ultimately back to foundation stock of the breed** originating in the lowlands of northern Europe.

The change from region based to foundation of the breed is to simplify the definition.

9.

Repeal Section 13.24, which reads as follows:

Definitions 13.24 "Typical of Breed" means compliance with distinct breed criteria, genetic makeup, **physical resemblance and stability for breed characteristics**. Typical of Breed also requires that animals be free of disqualifying genetic defects as may be determined by the Board of Directors from time to time.

And substitute therefor the following:

13.24 "Typical of Breed" means in compliance with distinct breed criteria and genetic makeup. Typical of Breed also requires that animals be free of disqualifying genetic defects as may be determined by the Board of Directors from time to time.

Removing the terms, "physical resemblance" and "stability for breed characteristics", because they can be interpreted to mean the same thing as "distinct breed criteria".

DISCLAIMER:

By-law Sections may be moved to provide clarity and flow and will be renumbered accordingly to accommodate the accepted amendments. These amendments would come into effect following approval by the Federal Minister of Agriculture and in accordance with the Animal Pedigree Act.



FARM PROFILE

Genomic Herds

Wisselview

Pitt Meadows, BC



By Brian Nelson, HC Field Service Business Partner

PREFIX: *Wisselview*

PEOPLE INVOLVED: Wayne & Judy Wisselink, Duane & Shelyse Wisselink, Mark & Nicole Barclay, and Lee, Darlene & Kurtis Severinski

OF YEARS AS A HOLSTEIN CANADA MEMBER: 28 years

OF COWS MILKED: 160 milking cows

OF ACRES FARMED: 500 acres, including rental land

FACILITY TYPE: Deep-bedded free-stall with a double-five milking parlour

WHAT IS YOUR FEEDING SYSTEM? TMR with Computer feeder top-up

ARE THERE OTHER BREEDS IN YOUR HERD? 100% Holstein

HOLSTEIN CANADA SERVICES USED: Registration, Classification and Genomic Testing



WHEN AND WHY DID YOU DECIDE TO START GENOMIC TESTING YOUR HEIFERS? WHAT PERCENTAGE OF THE HEIFERS DO YOU TEST? We started genomic testing heifers soon after testing became available. We decided to focus on high production and high indexing cows, rather than breeding for the show ring. We currently test the top 50% of animals sorted by index values.

HOW DO YOU USE GENOMIC INFORMATION IN THE DAY-TO-DAY MANAGEMENT OF YOUR HERD? Animals are screened and sorted based on LPI / TPI / Conformation, and the top 50% of animals are genomic tested. The top 5% of heifers are flushed to genomic sires, the next 10% of heifers are bred to genomic sires, and the remaining 85% of animals are used as embryo recipients. We want our animals to carry the best possible genetics on the farm.

HOW HAVE YOUR HERD AND YOUR HERD MANAGEMENT CHANGED SINCE IMPLEMENTING GENOMIC TESTING AS A HERD MANAGEMENT TOOL? In the past, we would flush cows after they calved, and now, we are flushing mostly heifers and very few cows. We are also implanting more heifers than ever before including heifers that would have been bred in the past. There are three main cow families we are breeding from, and a couple other families we are developing on the side.

DID YOU FIND THERE WAS A LEARNING CURVE TO USING YOUR HERD'S GENOMIC INFORMATION FOR MANAGEMENT PURPOSES? Honestly, no. The way we interpret genetic information on heifers is the same as before genomics, but now with higher reliability. The hardest thing is to believe what you see on a piece of paper before you see it with your own eyes. We put a lot of faith into genomics at the start, and fortunately it has worked out well for us.

HOW MUCH WOULD YOU SAY YOU RELY ON AN ANIMAL'S GENOMIC NUMBERS VS THEIR PERFORMANCE, COW FAMILY, ETC.? All of these criteria are important to us. We like to see genomic bulls that come out of a balanced pedigree, including type on the dam side. For flush candidates, we look for strong numbers and families whose performance consistently matches the genomic predictions.

WHAT HAS BEEN THE BIGGEST BENEFIT TO GENOMIC TESTING YOUR HERD? WHAT HAS BEEN THE BIGGEST CHALLENGE? The biggest benefits have been finding a few surprisingly good cows since we started testing; being able to identify the elite cows on farm has reduced the number of cows flushed; and genomics allows us to sort beyond Parent Average and focus on the best animal from a flush where you will see the highest index gains. The biggest challenge has been keeping pace in the index game when genetics are moving so fast. The milk in the tank still pays the bills.

WOULD YOU SAY GENOMICS HAVE HELPED TO IMPROVE THE PROFITABILITY OF YOUR HERD? Yes. We have been able to improve the genetics in the herd more rapidly. We are able to breed for production and adjust selection for components on heifers before seeing the cow's first DHI test. The profitability of genomics is in the genetic improvement within the herd. The icing on the cake would be to put bulls into AI.

WHAT IS THE BREEDING STRATEGY FOR YOUR HERD? HAS GENOMICS CHANGED YOUR CRITERIA FOR SIRE SELECTION? We breed for a high index, balanced cow that is going to put milk in the tank and last many lactations. Since we have focused on the indexes, our proven vs young sire usage has completely changed. We now use 95% genomic young sires and older bulls in the tank are used as cleanup bulls to use up inventory. In the past, young sires were used as cleanup bulls.

WHAT ADVICE DO YOU HAVE FOR SOMEONE THAT IS CONSIDERING THE ADDITION OF GENOMICS TO THEIR HERD MANAGEMENT TOOLS? Genomics is a tool along with pedigrees, cow families, classification, and DHI. Genomics is not a replacement for the traditional tools. Traditional tools validate if genomics is working on farm and if you are reaching your genetic potential. Genomics is a tool to help with your breeding goals BUT you need to have defined goals and stay the course.

AND, FINALLY, WHAT DOES THE IDEAL COW LOOK LIKE ON YOUR FARM? She's a high index, balanced cow with big production. We like big strong cows that are built to last in a free-stall. A current herd favourite is *Wisselview Enforcer Dixie* - 3003 GPA LPI, VG-2YR-Old with a projected BCA of 355-339-387 and five high index daughters. 🐄

WHEN AND WHY DID YOU DECIDE TO START GENOMIC TESTING YOUR HEIFERS? WHAT PERCENTAGE OF THE HEIFERS DO YOU TEST? We started genomic testing our heifers about five years ago, and test 100% of our heifers. Our veterinarian was a great help to make this decision. We can make better mating decisions for the next generation of replacements for the herd.

HOW DO YOU USE GENOMIC INFORMATION IN THE DAY-TO-DAY MANAGEMENT OF YOUR HERD? On a day-to-day basis we use genomic information to determine which animals we want to sell when we have too much milk, while the genomic evaluations give us greater accuracy in ranking our heifers to meet our herd breeding goals.

HOW HAVE YOUR HERD AND YOUR HERD MANAGEMENT CHANGED SINCE IMPLEMENTING GENOMIC TESTING AS A HERD MANAGEMENT TOOL? Since we began genomic testing, we have identified animals that are extremely high to use for embryo transfer. Additionally, we also discovered animals that are low, which has resulted in certain cow families being reduced in our herd. It is an extra tool to help us make better decisions.

DID YOU FIND THERE WAS A LEARNING CURVE TO USING YOUR HERD'S GENOMIC INFORMATION FOR MANAGEMENT PURPOSES? There was certainly a learning curve when we began using genomic information. We now look at the numbers differently than we did five years ago. It is an ever-changing process, in particular with the introduction of pro\$ and other health traits that we consider important to our dairy.

HOW MUCH WOULD YOU SAY YOU RELY ON AN ANIMAL'S GENOMIC NUMBERS VS THEIR PERFORMANCE, COW FAMILY, ETC.? In reality, it is the combination of information; we take all of the information into account to get the most accurate picture of the animal's potential and her performance.

WHAT HAS BEEN THE BIGGEST BENEFIT TO GENOMIC TESTING YOUR HERD? IN CONTRAST, WHAT HAS BEEN THE



BIGGEST CHALLENGE? The biggest benefit of genomic testing is that we can select the bottom 10% of our heifers and manage them accordingly. The challenge is to believe or trust in the 70% accuracy of genomics; whereas before it was based more on cow families. Also this extra tool does come with a cost.

WOULD YOU SAY GENOMICS HAVE HELPED TO IMPROVE THE PROFITABILITY OF YOUR HERD? The profitability of our herd has not yet improved, because currently our heifer facility is overfull. Once we have more space, we would like to start using sexed semen on the top 25% of our heifers.

WHAT IS THE BREEDING STRATEGY FOR YOUR HERD? HAS GENOMICS CHANGED YOUR CRITERIA FOR SIRE SELECTION? Our breeding strategy is that when we make a new mating program, we choose high genomic bulls, especially for the high performing cows. Our strategy has not changed a lot. We still look at all the other strengths and weaknesses of the bulls. Again, genomics is simply another tool for us to use to help make our decisions.

WHAT ADVICE DO YOU HAVE FOR SOMEONE THAT IS CONSIDERING THE ADDITION OF GENOMICS TO THEIR HERD MANAGEMENT TOOLS? If we had to give advice to someone considering genomic testing, it would be: Know your numbers. Only then can you make the right decisions. So, when genomic numbers are available, use them. To make it pay, you can either raise fewer heifers with a better potential, or you can change your current breeding strategy.

AND, FINALLY, WHAT DOES THE IDEAL COW LOOK LIKE ON YOUR FARM? The ideal cow on our farm is a medium size, functional cow, with strong feet & legs and a good udder, so she can produce a lot of milk over multiple lactations. 🐄



FARM PROFILE

Genomic Herds

van Stee Holsteins Inc (VSD)

Moorefield, Ontario

By Jennifer Kyle, HC Communications Coordinator

PREFIX: van Stee Holsteins Inc (VSD)

PEOPLE INVOLVED: Nico & Marian van Stee; their son Niek; their herd manager, David Wall; and four part-time milkers

OF YEARS AS A HOLSTEIN CANADA MEMBER: 24 years – since immigrating to Canada from the Netherlands

OF COWS MILKED: 230 milking cows

OF ACRES FARMED: 500 acres workable

FACILITY TYPE: Free-stall barn with a parlour

WHAT IS YOUR FEEDING SYSTEM? TMR

ARE THERE OTHER BREEDS IN YOUR HERD? No, just Holsteins

HOLSTEIN CANADA SERVICES USED: Registration and Genotesting





FARM PROFILE

Genomic Herds

Ferme Fabel (FABEL)



Grand-St-Esprit, Quebec

By Olivier Roy-Tanguay T.P., Holstein Quebec Advisor

PREFIX: Ferme Fabel (FABEL)

PEOPLE INVOLVED: Maxime Béliveau, Sylvain Béliveau, Catherine Fleurent and Lorianne Alix

OF YEARS AS A HOLSTEIN CANADA MEMBER:

Six years for Fabel, but the farm was previously operated under the Sytomax and Raymonica prefixes

OF COWS MILKED: 62 cows for 85 kg of quota

OF ACRES FARMED: Ferme Fabel does not own any land. Crops are bought from Sytomax (Maxime's father, Sylvain, and his uncle), 1600 acres

FACILITY TYPE: Tie-stall barn with a rail milking system; heifers are in a free-stall barn

WHAT IS YOUR FEEDING SYSTEM? TMR – one group with high corn silage ration (36 kg) and haylage (22 kg)

ARE THERE OTHER BREEDS IN YOUR HERD?

All Holstein except one Jersey

HOLSTEIN CANADA SERVICES USED:

Registration, classification and genotyping



WHEN AND WHY DID YOU DECIDE TO START GENOMIC TESTING YOUR HEIFERS?

WHAT PERCENTAGE OF THE HEIFERS

DO YOU TEST? As soon as the service was available, the entire herd was tested. Now, 100% of the heifers are tested at birth.

HOW DO YOU USE GENOMIC INFORMATION IN THE DAY-TO-DAY MANAGEMENT OF YOUR HERD?

Since we know the genomic values of all our animals, we can decide at breeding whether the resulting progeny will be kept for breeding or sold shortly after birth. We want to keep improving our herd's genetic potential and shorten the generation interval; to do so, the heifers are bred and cows with lower potential are used as recipients. Furthermore, genomics are used to identify strengths and weaknesses of the animals at breeding, and special attention is paid to the difference between the animals' GPA and DGV.

HOW HAVE YOUR HERD AND HERD MANAGEMENT CHANGED SINCE IMPLEMENTING GENOMIC TESTING AS A HERD MANAGEMENT TOOL?

Most importantly, breeding has been cut in half! Our production has also increased significantly (+30 Herd BCA). Replacement animals are selected at the time of breeding rather than at 12 months of age, as before. We have the highest LPI daughters of Bingo (2968 LPI), Denim (3256 LPI) and Upright (3266 LPI).

DID YOU FIND THERE WAS A LEARNING CURVE TO USING YOUR HERD'S GENOMIC INFORMATION FOR MANAGEMENT PURPOSES?

Of course! This is why the entire herd was initially tested. We were able to find correlations between the animals' genomic results and phenotype by using other genetic tools such as milk recording and classification. In the early years, there were bigger gaps between their GPA and DGV values, but we have always had a preference for high DGV animals. Today, we are very satisfied with our decision, as those animals have left their mark on the herd.

WHAT HAS BEEN THE BIGGEST BENEFIT TO GENOMIC TESTING YOUR HERD? WHAT HAS BEEN THE BIGGEST CHALLENGE?

The biggest benefit has been improving the reliability of our decisions! Over time, we think we have built the name of our herd around

good index results. The biggest challenge is to keep a balanced approach and to not forget to take everything into account. We strongly believe in the value of cow families with deep pedigrees, and it is important to us to "validate" these breeding values through milk recording and classification.

WOULD YOU SAY GENOMICS HAVE HELPED TO IMPROVE THE PROFITABILITY OF YOUR HERD?

Genomics have allowed us to work more with cow families whose potential was unseen, such as *Sytomax Dorice Bahamas VG-CAN 1** who has five daughters scored GP+ with a combined BCA of 776. In contrast, we have also been able to work less with any overestimated cow families. In addition to working with good conformation animals, one of our priorities is to develop profitable cows that produce the maximum kg of solids (fat and proteins). Profitability also entails an earlier selection of animals we want to work with in the future. The goal is to more quickly identify animals that have the best potential with and work with them sooner.

WHAT IS THE BREEDING STRATEGY FOR YOUR HERD? HAS GENOMICS CHANGED YOUR CRITERIA FOR SIRE SELECTION?

Currently, we only breed the progeny of our herd's best families. Genomics allow us to work with younger animals because we know which ones have the best potential. We choose bulls using the same criteria as before, and genomics have allowed us to use 100% genomic bulls. This allows us to reduce the generation interval without sacrificing reliability too much, translating to a better potential for genetic progress!

WHAT ADVICE DO YOU HAVE FOR SOMEONE THAT IS CONSIDERING THE ADDITION OF GENOMICS TO THEIR HERD MANAGEMENT TOOLS?

Always compare animals by their age. Do not compare a first-calf heifer to a fourth lactation cow. Patience is also a must because the more consecutive generations with genomic values you have, the less variation between PA and GPA there is.

AND, FINALLY, WHAT DOES THE IDEAL COW LOOK LIKE ON YOUR FARM? A cow of medium stature with excellent feet and legs, a great udder to work with and a long-lasting rump, GP 83 or better at first calving with a superior lactation. 🇨🇦

WHEN AND WHY DID YOU DECIDE TO START GENOMIC TESTING YOUR HEIFERS? WHAT PERCENTAGE OF THE HEIFERS DO YOU TEST? In 2013, we started genomic testing, and test 100% of our heifer calves born. In 2005, we moved to our new free-stall, and purchased several unknown animals, along with adding another herd a couple of years later. We noticed the animals looked average in conformation and production, but we just weren't getting the results we felt we should, based on our management. It is expensive to raise replacement heifers, so we need to do it efficiently or we'll just end up "filling stalls". Genomic testing has helped us make more informed management decisions, before too much money has been invested.

HOW DO YOU USE GENOMIC INFORMATION IN THE DAY-TO-DAY MANAGEMENT OF YOUR HERD? We use it to cull the heifers that have lower LPI and Pro\$ values, and lower values for milk, while also keeping an eye on conformation traits. We test every female at birth. When the results arrive, we decide which animals we are going to keep. When we began testing, the cull list was long. Now there seems to only be a few animals each time. There are times where we do not cull any, even having continually raised our standards.

HOW HAVE YOUR HERD AND YOUR HERD MANAGEMENT CHANGED SINCE IMPLEMENTING GENOMIC TESTING AS A HERD MANAGEMENT TOOL? Our herd's genetic indices have improved significantly, and we're seeing improvements in production, animal health, and reproduction. We keep increasing our standards because we are finding these numbers to be accurate when the heifers calve out and start milking.

DID YOU FIND THERE WAS A LEARNING CURVE TO USING YOUR HERD'S GENOMIC INFORMATION FOR MANAGEMENT PURPOSES? Absolutely! There was a learning curve, as there is with everything new! At first, the largest hurdle for us to get over was to start trusting these numbers that the reports were giving



us. Our farm now relies on the genomic numbers 100%, and it hasn't steered us wrong yet!

WHAT HAS BEEN THE BIGGEST BENEFIT TO GENOMIC TESTING YOUR HERD? WHAT HAS BEEN THE BIGGEST CHALLENGE? The biggest benefit to genomic testing is having more confidence that you are raising the top heifers in your herd. The biggest challenge is seeing a great-looking heifer come back with low numbers. Let her go! We kept a couple like that at first, and they performed exactly how the numbers said they would, so we wasted two years raising them.

WOULD YOU SAY GENOMICS HAVE HELPED TO IMPROVE THE PROFITABILITY OF YOUR HERD? Genomics is one of many management tools we use to be more profitable. We make choices on the numbers that are right in front of us. A few dollars spent at birth for the genomic test is cheaper than putting her on the truck later because she is just not cutting it in the herd! It's easy math to us! Our Herd Trend reports clearly show how our herd LPI and Pro\$ have improved since taking the plunge.

WHAT IS THE BREEDING STRATEGY FOR YOUR HERD? HAS GENOMICS CHANGED YOUR CRITERIA FOR SIRE SELECTION? We have always put strong emphasis on milk production, but now in our sire selections we include criteria that are 51% production, 35% durability or type, including herd life, and 14% on health traits.

continued on page 19



FARM PROFILE

Genomic Herds

Sunrise Dairy Ltd. (Jessie Joe)



Musgravetown, Newfoundland

By Robert Beckwith, HC Field Service Business Partner

PREFIX: Sunrise Dairy Ltd (Jessie Joe)

PEOPLE INVOLVED: Jeff & Olive Greening & Family, along with a team of dedicated employees

OF YEARS AS A HOLSTEIN CANADA MEMBER: Member since 2000

OF COWS MILKED: 200 cows, twice a day

OF ACRES FARMED: 380 acres of corn, grass, and legumes

FACILITY TYPE: Free-stall, double-eight parallel parlour

WHAT IS YOUR FEEDING SYSTEM? TMR

ARE THERE OTHER BREEDS IN YOUR HERD? Just Holstein

HOLSTEIN CANADA SERVICES USED: Genomic testing, registration and classification





GENETIC PROGRESS

Whether you milk 40 cows or 400 cows, for most dairy producers the ultimate goal is to produce quality milk in a sustainable and economical manner. This goal has been made easier over the years by introducing feed additives, new software, new technologies and selective mating, to name a few. Of course, each dairy producer likely has specific herd goals or targets that they are constantly working towards over a specific period of time.

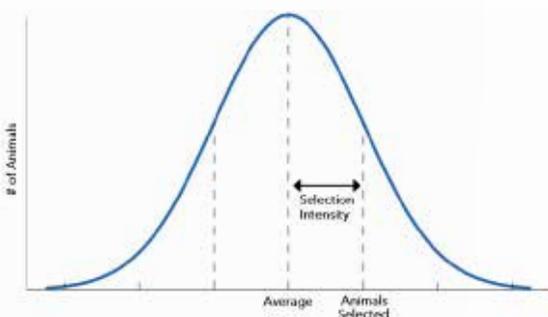
These goals include genetic improvement (genetic progress) in some form. Genetic progress is defined as the progress that is made when the average genetic value of the offspring is higher than the average genetic value of the previous generation. So simply put, increasing the rate of genetic progress is about making better cows, faster.

There are four key factors that influence the rate of genetic progress. These factors can be expressed by the following equation:

$$\text{Genetic Progress} = \frac{\text{Selection Intensity} \times \text{Accuracy} \times \text{Variation}}{\text{Generational Interval}}$$

Some producers may be using this equation every time they breed an animal without even realizing it. For others, these factors help make decisions about which animals stay in the herd or which leave.

FIGURE 1



Selection Intensity

Selection intensity is the intensity with which a subset of animals in a given group is selected to breed the next generation. Breeding every animal in the population is low selection intensity and, on its own, would not contribute to genetic progress in the next generation. Conversely, identifying the top performing 20% of the population and breeding them exclusively would represent high selection intensity and drive genetic progress in subsequent generations. Selection intensity is easily visualized using a bell curve distribution of animals (Image 1). For any given trait, the population has an average genetic metric: the highest point on the curve representing the majority of animals in the population. On either side of the average animal, there are desirable and undesirable extremes, with fewer animals in the population at those extremes. For selection intensity, choosing a group of animals with the above average desirable trait

will drive positive genetic progress, whereas selecting an inferior group of animals for breeding would drive negative genetic progress. The more selective a producer is within the best of their herd, the greater the next generation can be. Selection intensity is prevalent with the use of AI sires, where out of the population of bull calves born, only a small number of them sire the next generation. In female populations, selection intensity varies significantly by producer – some breed all herd females for the next generation while others use grouping strategies within their female breeding program.

Accuracy

Accuracy is the strength of the relationship between a true breeding value and its predicted value being used for selection. For example, the reliability of the genetic evaluations used to make decisions about parents of the next generation can vary significantly trait by trait simply because some are more heritable than others. Reliability is further affected by the completeness of pedigree, genomic testing, and addition of on-farm data like classification and milk recording. The level of accuracy possible in a herd with no herd records is significantly less than the level of accuracy that could be achieved in a herd that keeps track of pedigree, animal performance and industry programs. The second herd's increased accuracy would give them a leg-up on the rate of genetic progress over the herd with no records.

Variation

Variation is the differences that exist among the best animals for a given trait and the worst animals for that same trait. Variation will differ from one herd to another, depending on the herd's goals and past genetic strategies. For example, a herd that has used a mix of herd bulls and AI across their whole herd in the past likely has more genetic variation in their current population than a herd that has intensively worked with their top end genomic females over the past several generations. Though the genomic tested herd likely has a higher average genetic potential currently, the first herd has extra variation that could increase their possible rate of genetic progress over that of the genomic herd, if all other variables were the same.

Generational Interval

Generational interval refers to the average age of parents when their first offspring is born. Comparatively speaking, cattle have a relatively long generational interval compared to species like swine or poultry. Traditionally, cattle need to reach sexual maturity before they can be bred, carry the calf full term and then calve. With new technologies, the generational interval has decreased. On the sire side, genomic testing has resulted in an industry shift with unproven sires (also known as young sires or genomic sires) having taken over more market shares. While flushing and IVF continue to increase in popularity in young heifers at an earlier stage of life with the intent of implanting these embryos in cows with inferior genetics.

At the end of the day, rates of genetic progress are a balance of these four variables. As any of Selection Intensity, Accuracy or Variability approach zero, so does genetic progress. Meanwhile, shorter generational intervals, while increasing rates of genetic progress, also decrease the levels of accuracy that could be achieved with more time.

It all comes down to current herd situation, goals and targets. Each producer will have to identify what works best for them and meets their needs and resources. 🐄



Meet the 2016 Holstein Canada Education Award Winners

Congratulations to the six outstanding young leaders selected to receive the 2016 Holstein Canada Education Awards:



MARYJE BIKKER – BARRHEAD, ALBERTA

Maryje is enrolled in her second year at Lakeland College in Vermillion, Alberta taking the Animal Science Technology program with aspirations of becoming a veterinarian. She has been involved with various Holstein Clubs and shows throughout Alberta. Maryje was also awarded the Platinum 4-H Award of

Excellence; an elite award that recognizes a member's community and club involvement.



TAYLOR NELSON – ELMVALE, ONTARIO

Taylor is currently enrolled in the Bachelor of Science in Animal Biology program at The University of Guelph. She would like to further her education and become a large animal veterinarian specializing in reproduction of elite cattle using techniques such as embryo transfer and in-vitro, and also educating

owners about animal welfare. Taylor has also been responsible at home for feeding show cattle, heat checks and herd health.



ERICA SAYLES – PARIS, ONTARIO

Erica is in her second year and working towards a Bachelor of Science in Agriculture at The University of Guelph. She has an interest in animal nutrition, however has not yet determined her career path. She has been a very active member in 4-H for nine years, receiving several awards, and

is also an active member in her community including the Paris Agricultural Society. She has been involved in almost all aspects of her family's dairy farm while growing up.



VALÉRIE BOLDUC – SAINT-VICTOR, QUEBEC

Valérie is currently studying General Agronomy at Université Laval. Upon graduation, she would like to become a ruminant/plant consultant or stay in the Holstein industry to give back to breeders. She participates as the publicist for the AJRQ,

and has served as a Director in the past. Valérie has a passion for fitting show cattle and was involved in many clubs throughout high school.



ROSALIE DUBOIS – SAINT-FLAVIEN, QUEBEC

Rosalie attends Université Laval, studying Agronomy. She is currently studying animal, plant and soil production to have a broad spectrum of understanding upon graduating. Rosalie always knew she wanted to be involved in the dairy industry and is passionate about dairy production and showing. One of

her objectives after graduation is to work with dairy animals. She has been President of her AJRQ club for three years.



MICHAEL MYATT-MACDONALD – ANTIGONISH, NOVA SCOTIA

Michael is currently studying Agriculture Business at Dalhousie University Faculty of Agriculture. He is very passionate about farming and the dairy industry, and plans to take over the family farm in the future. He has been involved in all aspects of the

farm, including field crops and milking. He has been an active 4-H member in Antigonish.

For more information on Education Awards, please visit the Young Leader section of the Holstein Canada website.





MASTER BREEDER



The announcement of the Master Breeder recipients has become an annual tradition at Holstein Canada, and this year is certainly no exception. Holstein Canada is pleased to announce the Master Breeders who will be honoured at the 2017 National Holstein Convention Master Breeder Banquet in York Region, Ontario on Saturday, April 8, 2017. Of the 20 breeders who received exciting news 45% (9) are first-time recipients of a Master Breeder shield, while the remaining are previous shield winners with eight breeders receiving their second shield and two receiving their third shield! 11 breeders are from Ontario, and eight are from Québec.

CONGRATULATIONS TO ALL OF THE 2016 WINNERS

BLONDIN

St-Placide, Que.

DONNANVIEW

Stirling, Ont.

HESSHOLM

Kemptville, Ont.

MEADOWBLOOM

Elmwood, Ont.

CARL DOT

Stratford, Ont.

EMBRDALE

Asphodel-Norwood, Ont.

KAKOUNA

St-Alexandre, Que.

MYSTIQUE

Mirabel, Que.

CLAYNOOK

New Hamburg, Ont.

FRADON

Woodstock, Ont.

KINGSWAY

Hastings, Ont.

TINBER

Ste-Cecile de Milton, Que.

COTOPIERRE

Rimouski, Que.

GENO

St-Marc des Carrieres, Que.

LOCHDALE

Alexandria, Ont.

WEBB VIEW

Roseneath, Ont.

DENISTIER

Rimouski, Que.

HAANVIEW

Loretto, Ont.

MACO

St-Vallier, Que.



Please note that while the winners of the 20th shield have been notified, for privacy reasons they have not been included in the above list.

Since its beginning in 1929, the Master Breeder program has become the most coveted Holstein Canada award. 1,007 Master Breeder shields have been handed out in the award's 87-year existence. These "Master" breeders are recognized for having mastered the art of breeding balanced cattle – high production

and outstanding conformation with great reproduction, health and longevity. Congratulations to the 20 2016 Master Breeders who now join the ranks of the most elite breeders across Canada!

Watch for more information on each of the 2016 winners in the May/June edition of *InfoHolstein*, as well as videos of each of the farms that will be made available on social media following the AGM.

#FrameTheHerd Photo Contest

Great photos are still rolling in for the #FrameTheHerd Photo contest! Thank you to everyone for your submissions!

Meet our Top 4 Finalists from Theme #8 - Screen Time!



The heifers enjoying the sunrise at Ferme Swigli – Submitted by Melanie Mair



The cows are loving the winter weather – Submitted by Joel, Hartman



Sundown in the pasture – Submitted by Sue Crest



I've got my eye on you – Submitted by Sue Crest

THEME #10: BOVINE FRIENDS

As dairy producers, you typically spend the majority of your time surrounded by four-legged friends...the bovine kind! We would like to see photos of you with your favourite cows; perhaps it's one special cow, or maybe it's a whole barn full! We want to see you with the cows that get you up in the morning! As always, bonus points if you can sneak a Holstein Canada logo into the photos somehow (hats, jackets, etc.), and we also don't discriminate against colour, so send us those all-breed photos as well!

THE DETAILS:

- Photos should be high-res digital images (300 dpi is preferred)
- There is no limit to the number of entries person
- Any visible animals MUST be properly tagged to be considered

Entries are to be emailed to socialmedia@holstein.ca and should include the names of any people and animals, as well as the prefix when possible. *If you do not have access to email, but wish to participate, call Jennifer at 1-855-756-8300 ext. 234 to make alternate arrangements.

DEADLINE
APRIL 30, 2017

ON SOCIAL MEDIA? SHARE YOUR ENTRY WITH THE WORLD! EMAIL YOUR ENTRY TO US AND THEN SHARE IT ON SOCIAL MEDIA USING #FRAMETHEHERD

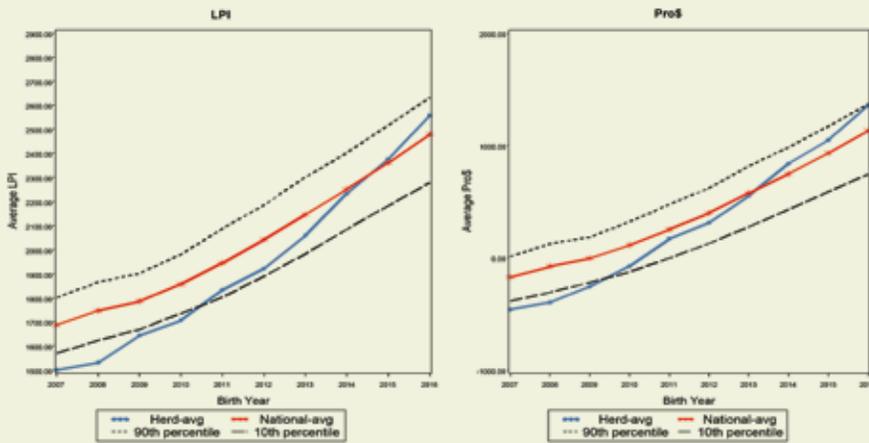
Holstein Celebrates Canada's 150th

In celebration of Canada's 150th birthday in 2017, the Holstein Canada Awards Committee has decided to get in on the festivities by providing listings, recognition and interesting facts on cows and members based on the "150" theme! Watch for these items in the 2017 editions of InfoHolstein, as well as on the website and on social media.

For the second installment of our 150th celebration items, in this edition of InfoHolstein we have researched the most popular 150 cow names of all time. Below we have listed the top 30 names along with the number of times they appear in the herdbook. Want to see how many of your cows' names appear on the list? Check out the full list at Holstein.ca > Awards-Lists

STAR	19,480	LINDA	12,672	LADY	11,113
ROSE	19,338	ANN	12,666	LAURA	11,062
SALLY	17,023	SUE	12,629	DONNA	11,007
MARY	16,457	CANDY	12,271	BONNIE	10,934
JANE	15,591	NANCY	12,205	MOLLY	10,886
ALICE	13,890	MARIE	11,896	ANNA	10,851
BETTY	13,890	CINDY	11,440	ANNIE	10,717
LISA	13,572	JENNY	11,401	PAULA	10,675
JULIE	13,549	AMY	11,317	LUCY	10,605
DAISY	13,335	TINA	11,179	BRENDA	10,431

GENETIC TRENDS FOR JESSIEJOE



WHAT ADVICE DO YOU HAVE FOR SOMEONE THAT IS CONSIDERING THE ADDITION OF GENOMICS TO THEIR HERD MANAGEMENT TOOLS? Don't be afraid to ask questions, trust the numbers and start improving the herd you have. Don't think your herd must fit a certain standard to get started with genomics; this is a management tool for farmers to select the best suited heifers for your future herd. They all cost money to raise them, so put the money towards the best ones! We would also point out that using a mating program and classification along with genomics are also beneficial.

AND, FINALLY, WHAT DOES THE IDEAL COW LOOK LIKE ON YOUR FARM? The ideal cow on our farm is a happy, functional, free-style cow with longevity and a strong emphasis on milk. That's what pays the bills. 🐄

TOP SIRES ACCORDING TO AVERAGE FINAL SCORE OF 1ST LACTATION DAUGHTERS

Based on 1st Lactation Classifications from November/December 2016

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

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

Sire	Daughters Classified	Avg. Daus Score	Avg. Dam Score	Sire	Daughters Classified	Avg. Daus Score	Avg. Dam Score
GOLD CHIP	111	82.41	82.96	SANCHEZ	83	81.93	81.58
MCCUTCHEN	201	81.92	82.35	SEAVER	72	81.72	81.46
DEMPEY	183	81.72	81.88	WINDHAMMER	44	81.50	81.82
REGINALD	104	81.48	81.36	LET IT SNOW	54	81.43	81.17
DOORMAN	208	81.44	81.60	STANLEYCUP	55	81.29	81.60
CHELIOS	322	81.43	80.73	GUTHRIE	63	81.27	80.71
IMPRESSION	384	81.28	80.73	DRAGONHEART	33	81.24	80.18
SAMMY	102	81.17	80.71	LIVING	39	81.18	81.36
FEVER	722	80.93	81.21	ALTARAZOR	65	80.91	80.05
JETT AIR	439	80.69	80.62	KENMORE	30	80.83	79.43

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** FIELD SERVICE **FS**

MARCH

- ON Simcoe, Dufferin, Ontario, Peterborough
- QC Lavolette, Portneuf
- QC **MR** Kamouraska
- MB **MR**

EARLY

- ON Northumberland, Ontario, Lennox & Addington
- QC Roberval, Chicoutimi, Lapointe, Dubuc & Charlevoix, Beauharnois, Vaudreuil and Soulanges
- FS** MB, NB

MID

- ON Hastings, Price Edward, Frontenac, Waterloo
- ON **MR** Oxford
- QC Châteauguay, Huntingdon, Laprairie & Napierville, Iberville, Saint-Jean, Shefford, Richmond, Missisquoi
- FS** MB, NS

LATE

APRIL

- ON Thunder Bay, Nipissing Algoma, Timiskaming-Cochrane
- QC Compton, Brome, Sherbrooke, Stanstead
- QC **MR** Rivière Du Loup & Témiscouata, Matapédia, Matane, Rimouski & Bonaventure

EARLY

- ON Wellington
- QC **MR** Arthabaska & Mégantic
- NS, NB, NFLD, PEI **MR**

MID

- ON Dundas, Glengarry, Stormont
- ON **MR** Perth
- QC **MR** Lotbinière, Nicolet, Yamaska, Drummond

LATE

SK

MAY

- ON Niagara, Wentworth, Brant, Haldimand & Norfolk
- QC Frontenac, Beauce

EARLY

Please note this schedule is tentative and can be subject to changes. For the most up-to-date schedules for Classification and Field Service, please visit the Holstein Canada website.

Be Holstein Proud!



NEW Holstein Gear will be available at the 2017 National Holstein Convention!
Visit us in York Region, ON, Canada on April 5th - 8th.

info **Holstein**

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