

Canadian First

With files from Canadian Dairy Network

Canadian dairymen are reaping the rewards of genetic gains which have increased substantially across the board since the implementation of genomics in Canada. Recent analysis by CDN shows that while all traits have benefitted from the increased accuracy the technology provides, this is particularly true for lower heritability functional traits. The increased gain for individual traits translates into a rate of progress that has doubled for both of Canada's national genetic indexes – LPI and Pro\$.

Prior to genomics, which began in 2009 for Holsteins, the average LPI for females was increasing by 50 LPI points per year. Since the introduction of genomics, this rate of genetic progress for LPI has increased gains of 107 points per year - over twice the amount of annual gain prior to genomics. During the same time periods, the annual genetic trend for Pro\$ increased from \$79 before genomics to \$176 per year.

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UpdateJune 2017



We are pleased to accounce that Jesse Tetrault has accepted the position of bilingual dispatcher for EastGen. Jesse will provide bilingual customer service and support to our francophone customers in Eastern Ontario and the Atlantic provinces. Welcome Jesse!



We thank Suzanne Tritton and congratulate her on her retirement and 15 years of service. Suzanne has been the friendly, efficient voice to our customers and technicians in Eastern Ontario and will be missed. Congratulations Suzanne!

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@eastgen_genetics



Changes in insemination fees

With the landscape of the dairy industry changing, EastGen is challenged to offer efficient insemination services in areas of declining cow numbers. To keep service costs as low as possible, EastGen has continued to restructure its business in the field and head office. The result is that in most of the low density areas, the insemination districts have been enlarged to practical limits. However, costs have continued to rise since the last restructuring. As herds exit the industry and there is no one to take their place in the region, the kilometres per service increases which drives up the costs. Costs have increased at a greater rate in low density areas relative to high density cow areas.

The Board of Directors and Delegate body has given direction that insemination fees should be increased when business costs rise. EastGen will continue to explore ways to operate more efficiently as we keep pace in an ever-changing industry. Effective **July 1, 2017,** the following rates will apply:

Location	First Breeding	Additional Breedings	6 + Breedings
New Liskeard/Earlton (District 20)	21.15	12.65	7.00
Desbarats (District 25)	25.00	23.75	7.00
Nippising/Sudbury/ Verner (Districts 23/24)	25.25	15.75	7.00
Chatham/Kent/Essex (District 48)	23.50	15.75	7.00
Ontario High Density	19.50	11.15	7.00
Ontario Low Density	20.90	12.40	7.00
Prince Edward Island	22.25	9.50	7.00
New Brunswick	25.25	11.50	7.00





The Moocall calving sensor monitors your cows contractions and sends you a notification one hour before she is due to calve.

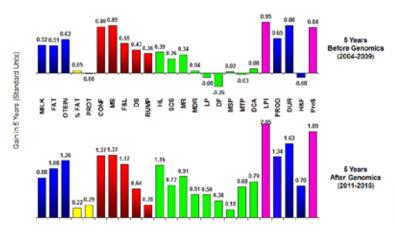
- New 'world first' technology for farming.
- Works in low network coverage areas.
- 30 day fully rechargeable battery.
- Connects to two cell phones of your choice.
- After calving, move to the next cow.
- One sensor per 30 cows on average.
- 12 months service included with purchase
- After 12 months an annual service charge will apply. This covers network connection, unlimited SMS notifications, software and support.

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Genetic Gain for Individual Traits

Similar to our overall Canadian indexes, the assessment for genetic gain for individual traits shows considerable gains due with genomics. Figure 1 shows the relative genetic gain by trait realized during the five years before genomics and during the most recent five years with genomics.

Figure 1: Relative Genetic Gain Pre and Post Genomics - Holstein



When comparing the gains achieved during the two 5-year periods, we can see that:

- Gains achieved with genomics have been positive for all traits including lower heritability functional traits. Prior to genomics, gains for most functional traits were slow and even negative for some traits, such as Daughter Fertility.
- Gains achieved with genomics were doubled for Fat and Protein Yields while also making considerably higher genetic gains for deviations.
- Gains were the highest for overall type traits, especially Conformation and Mammary System.
- Gains achieved with genomics were doubled for Feet and Legs which is the least heritable among the five overall type traits.

Another way to compare the genetic gain achieved pre- and post-genomics is presented in **Figure 2**. Here, gains are expressed in the same units as proofs for each given trait.

Although we are just reporting results for Canadian Holsteins, CDN found that all breeds are making genetic progress for essentially all traits. Significant gains with genomics in Canada will result in dairy cattle that are more productive, more efficient and they can be expected to last longer in the herd due to improved calving and reproductive performance along with higher resistance to disease. Now more than ever, it makes sense to choose **Canadian First!**

Figure 2:

Comparison of Total 5-Year Genetic Gain Realized by Traits Before and After the Introduction of Genomics in Canada

	Total Gain Realized		
Trait	Before Genomics (2004-2009)	Last 5 Years (2011-2016)	
Milk Yield (kg)	355	603	
Fat Yield (kg)	14.0	29.8	
Protein Yield (kg)	11.8	24.0	
Fat Deviation (%)	0.01	0.07	
Protein Deviation (%)	0.00	0.04	
Conformation	3.20	5.06	
Mammary System	3.19	4.94	
Feet & Legs	1.86	3.99	
Dairy Strength	1.78	2.63	
Rump	1.34	1.05	
Herd Life	1.12	3.36	
Somatic Cell Score	0.04	0.12	
Mastitis Resistance	0.92	2.46	
Metabolic Disease	0.10	1.42	
Persistency	-0.22	1.41	
Daughter Fertility	-0.72	1.06	
Milking Speed	0.06	0.51	
Milking Temperament	-0.09	1.89	
Daughter Calving Ability	0.23	2.29	

Catch the action! Join us for EastGen's 2017 Youth Events



Monitoring Cows Calving

Mark Carson MSc. BSc. (Agr.)

Yielding a live calf is the ultimate goal for all breeding programs, whether it's dairy or beef cattle. Although it's a simple goal, sometimes it can be a challenge to get optimal results. Stillbirth rates average 7% in Holstein dairy cows, with first lactation cows being the source of issues for most herds.

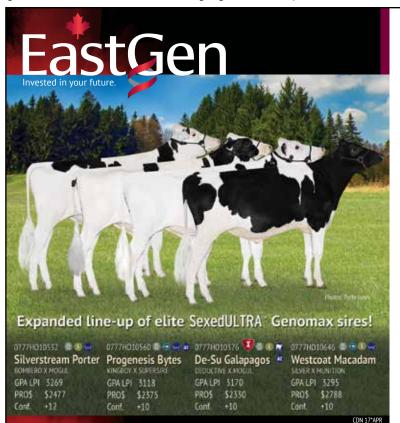
To minimize stillbirth rates, three areas of management must be considered. Age at first calving for heifers and most importantly body condition score for when she calves. First lactation cows calving in fat (BCS higher than 4) have a higher risk of having a stillbirth. Managing weight through nutrition and reproductive protocols will help to reduce the risk of stillbirth rate.

Second, managing sire selection and using ProGen mating program to choose sires will reduce the risk of stillbirth. Making sure calving ease is considered for semen going into heifers, as well using the mating program to protect against genetic recessive combinations coming together will help

your herd. Using sexed semen on heifers is also seen as a benefit, reducing the chances of having a big bull calf.

The third item to minimize stillbirth is calving management. Knowing when the cow is going to calve, and when to intervene is a critical part to keeping the calf alive. Over the last decade many herds have added cameras over the calving pen to monitor cows going to calve. Although cameras provide some benefit, they need to consistently be monitored to be effective. EastGen recently added a tool called <code>MooCall</code> to its product offering to aid our members with calving management. <code>Moocall</code> goes on the tail of the cow up to four days prior to expected calving. When signs of calvings begin, the device sends a signal to your mobile phone. This helps to provide 24 hour coverage, helping to reduce the risk of stillbirth by being able to intervene faster on difficult calvings.

If you're interested in lowering your stillbirth rate, please talk to your EastGen representative on the solutions we can provide.





Using SexedULTRA™



Sexxed[™] semen conception rates are closer to conventional (85%-90%)

EastGen leads the dairy industry with unmatched genetic innovation, leading-edge technology and advanced reproductive solutions.

