



Beyond BORDERS



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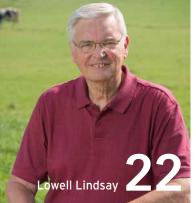












BEYOND BORDERS IS A MAGAZINE DESIGNED TO PROMOTE DAIRY GENETICS, TECHNOLOGY AND MANAGEMENT PUBLISHED BY SEMEX.

Comments or submissions to the editor should be forwarded to Brenda Lee-Turner, Semex, 130 Stone Road West, Guelph, Ontario, Canada NIG 3Z2. tel: 519-821-5060, fax: 519-821-7225; email: bturner@semex.com.

Life begins with a pregnancy.

The top priority on any dairy anywhere in the world begins and ends with getting live calves on the ground.

Genetics for Life is all about reproductive solutions. We're committed to the on-going research & development that developed the world's only international fertility evaluation, Repromax™. Semex's Repromax sires improve your herd's reproductive performance, longevity and profitability, one straw at a time.

2.6%

Higher conception rate

Based on Sire Conception Rates from USDA, December 2012



High fertility Repromax[™] sires provide immediate results that increase your dairy's reproductive performance and profitability.

2.8%
Higher 56-day
non-return rate

Based on Non-Return Rates from CDN, December 2012





HealthSmart[™] sires produce quality daughters that are healthier, more fertile and last longer. They lower costs and add greater profit to the dairy.



Healthy cows are the foundation of a long-lasting, profitable herd.

Semex's Healthsmart™ sires' daughters are productive and thrive. They are proven to last longer and live healthier, which means more money for the dairy.

At Semex, we understand a healthy cow is trouble-free, rarely needs special attention and is long-lasting. And, we know this is key to Genetics for Life.

11%
Fewer difficult births
7%
Fewer stillbirths
USDA, December 2012



Myles Immerkar, Semex Global Beef Manager

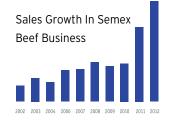
Feeding The World

2003:

6 breeds, 2 countries

2013:

25 breeds, 14 countries



Semex Beef accounted for

30%

of all North American beef genetic exports in 2012

Beef accounts for

25%

of all meat production

worldwide

(www.wikipedia.com)

Largest Beef Producing Countries:

United States, Brazil, China

www.wikipedia.com

The one constant in the beef world is change. The other, is that our market is a global market. In order to meet these changes and feed a growing world, nontraditional beef markets must grow and develop their own beef industry. And, in order for them to provide themselves with a consistent, high quality red meat product, we're spending time with them. We're listening to what they're saying, learning from them and working hard to provide them with the resources they need to be successful.

This change has dictated change in our Semex Beef program, and in just 10 years our program has come a long way. In 2003 we were sourcing genetics for just six breeds from only two countries. Fast forward 10 years, and we're sourcing genetics from 14 countries, produced on five continents for 25 breeds! Our goal, however, remains the same... Provide the highest quality beef genetics to meet our clients' needs worldwide.

GLOBAL GROWTH

Our Argentinian Beef Program was launched in 2011, offering Argentinian producers their domestic breeds including Brangus, Red Brangus and Brafford. At the same time in Brazil, our beef program growth is largely responsible for the growth of the Zebu sector, with Nelore and Gir bulls setting the pace.

In 2012, Semex began sourcing Brafford genetics from out of Australia in order to supply new, elite genetics to our South American market.

That same year, we began domestic beef production in China, importing Simmental, Black Angus and Red Angus genetics.

These initiatives allowed us a stronger presence locally, while growing globally. Additionally, it contributed to us being responsible for 30% of all North American beef exports in 2012. This makes Semex one of the largest and most diverse beef genetic companies in the business.

SEMEX PHILOSOPHY

Semex uses a balanced breeding philosophy when selecting our bulls. This ensures our genetics meet the needs of individual markets, and their diverse environments while excelling in fertility, production and diversity.

And, we're working hard with our clients to help them develop their own genetic strategies. This includes offering selection tools that help them sort through the available bulls in order to find the bulls that best fit their needs. Additionally, we've incorporated strategies to help clients around the world reach their breeding program goals.

In 2012 we launched Beef Solutions™. This program ensures that we're providing breeders worldwide with the necessary tools to breed success. This tool incorporates all the necessary components required to guarantee our customers have the highest quality genetics for their breeding programs.

Russian Albeef project

In 2013, we began a pilot project in Russia's Lipetsk Region known as the AlBeef Project. This project utilizes the Beef Solutions program from farm to fork. With approximately 20,000 cows, Semex is truly hands-on each and every day, managing all the necessary parts of this growing operation. This includes the cow-calf operation, feedlot, slaughter plant and on to the restaurants and super markets!

Within this pilot project we will implement pasture management, nutrition management, facility design, herd health, traceability, breeding, genetics and staff training among other components vital to the operation. As Semex continues to grow our products and services, it is our goal to become a partner for our clients to ensure their success.

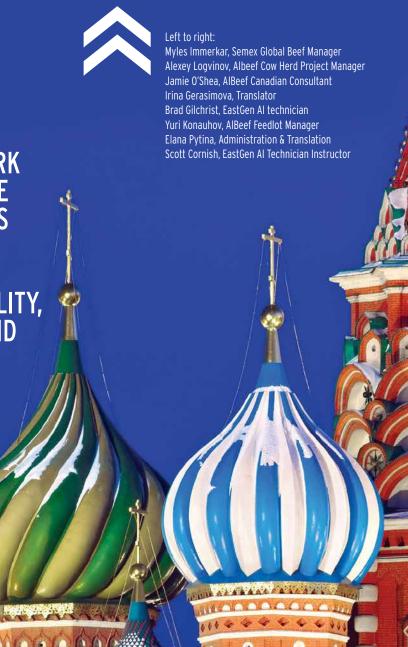


THE SEMEX BEEF PROGRAM
WILL CONTINUE TO ADD NEW
PRODUCTS TO OUR GROWING
LINE-UP, ALLOWING OUR
CLIENTS TO BETTER SELECT
THE GENETICS THAT WILL WORK
FOR THEM. WE WILL CONTINUE
TO DIFFERENTIATE OURSELVES
FROM OUR COMPETITORS
BY ADDING PRODUCTS AND
SERVICES FOCUSED ON FERTILITY,
SUCCESSFUL PRODUCTION AND
SOLUTIONS.

THIS IS GENETICS FOR LIFE.

B Semex Beef™

Building Better Beef





30-50%

Genomax™ usage maximizes genetic gain





Use Genomax™ sires in

groups of 3 Genomax™ sires are the youngest and brightest genomic sires that are available anywhere in the world.

Semex's rigorous genomic young sire standards mean that these bulls are the very best young bulls in the world, proven by their consistent, high rankings in multiple proving systems worldwide.

At Semex, we recommend selecting Genomax sires in groups of three or more. Use Genomax bulls with a mix of sires in their pedigrees, and a 30-50% Genomax sire usage to maximize genetic advancement.



A smart business choice for expanding the number of quality heifers within your dairy.



Healthy heifers are critical in herd replacement strategies.

Having the option to select for gender translates to better control over your herd's future.

Semex's Sexxed™ semen has high conception rates, giving you breeding options, while maintaining genetic integrity. Put yourself in the driver's seat by breeding the heifer you need, when you need her.

Industry standard heifer rate from sexed semen:

90%

Sexxed™ sires: 97%

CDN, December 2012



issa Bowers, Semex International Embryo Sales Manager

⊗ Semex Embryos™

Genetic Advancement

Genetics for Life is about relationships and lifelong partnerships. Putting embryo buyers and sellers together is our mission and guarantees a fast genetic solution that knows no borders.

The Semex Embryo Program has experienced substantial growth since its beginnings, now considered a leader in the industry, exporting 66% of all dairy embryos from Canada in 2012. This represents close to 6000 embryos exported, with some of the main markets being Australia, Brazil and Finland.

Semex Embryos markets Canadian embryos to over 80 countries worldwide and we are proud to be the number one source for Canadian embryos. Our embryo listing is extensive and includes embryos from six dairy breeds and has various beef breeds available at all times.

Semex can also arrange custom collections from a wide range of elite donor dams in Canada. All embryos marketed and exported are collected, processed and handled to the highest standards.

Guaranteed Fast

Genetic Solution

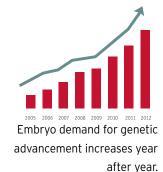
For Canadian breeders looking to market embryos, we have a team dedicated to marketing your embryos via our worldwide distribution network. We encourage Canadian breeders to contact a member of our team regarding embryo availability. We're also ready to discuss any opportunities you may have with upcoming flushes or potential donor dams.

For international breeders looking to invest in embryos, with thousands of embryos in our listing, Semex has access to the embryos that fit your needs and genetic strategy.

Looking to the future, Semex is focused on rapidly expanding our embryo business by implementing new strategies and resources, and by taking full advantage of new technologies and our global sales network.



of all dairy embryos exported from Canada are via Semex



Nearly **6000**

embryos exported in 2012

Marketing embryos to

countries



Connecting Embryo Buyers & Sellers

Melissa Bowers - International Embryo Sales Manager 519-821-5060 ext. 223, cell: 519-546-8348, email: mbowers@semex.com

Ben Versteeg - Product & Sales Specialist 519-821-5060 ext. 263, cell: 519-835-2267, email: bversteeg @semex.com

Carolle Pringle - Assistant, Embryo Sales Division





Pierre Laliberté, Semex Senior Vice President, Genetics & Research

Before genomics only

10% of sires

were returned to service

From 2009 to 2012 Semex increased the number of Holsteins bulls genotyped from

1300 to over 4600

Semex genotyped

1500

European young sires in 2012

When we compare annual genetic merit of the bulls sampled before and after genomics, we can confirm that it has at least

doubled

Sourcing Top Genetics Worldwide

In Canada, young sire proving programs were put in place in the 1960s. And, for nearly 50 years the process for bull proving remained the same... A sire analyst would identify top cows with a high index and a good pedigree with nice production and type. Then, she would be mated to a top proven sire on our 'sire of sons' list. We would inspect the bull at six months of age, and if he passed all his health tests, he would be admitted to stud. After he produced about 2000-2500 doses of semen, he would be sampled and we would forget about him until he was about four or five years old. This was when his first daughters would begin calving. Unfortunately, this process was long and expensive, and only returned about 10% of bulls to service.

Over the years well-structured Young
Sire Proving Programs (YSPP) generated
good genetic progress. However, this
system required a lot of bulls, a long time
(due to generation intervals) and was
expensive. And, even though genetic
evaluation systems were improving
and breeders were making good use of
reproductive technologies to grow the
number of progeny from top animals, there
was certainly room to improve overall
efficiency

When genomics arrived in 2008 it certainly was the boost the dairy genetic industry needed. Suddenly we were not talking about sampling as many bulls as possible. Instead, we were talking about revamping young sire programs, selection processes and adapting to the genomic reality in which young bulls are a significant portion of sales.

While the debate surrounding genomics continues, there is no question that it has been the biggest change to the Al industry, and to Semex since frozen semen.

SELECTING BULLS WORLDWIDE

For decades, top semen and embryos have been shipped all over the world, making it possible to find top genetics beyond North America's borders. To ensure Semex is offering top genetics from all corners of the Earth, we're genotyping more than 1500 European Holstein young sires, and we've just completed new barns in Hungary allowing us to house nearly 200 bulls in state-of-the-art facilities.

A prime example of finding exceptional genetics outside of North America is certainly the world's genomic superstar, 0200H007450 Amighetti Numero Uno. Born in Italy, Numero Uno ranked as the world's #1 genomic sire longer than any other to date. His sixth dam was the result of an embryo imported from the USA and through the continuous use of top sires, the world's first genomic giant was born.

CHANGING NUMBERS

While every one agrees that genomic information is far from proven sire information, we can say that for most traits, it's the equivalent of having 10-15 daughters in the pre-genomic era. This is a big advantage because it might not tell us for sure that a high genomic bull will be a top proven sire, but it is certainly accurate enough to tell us which bulls have no chance.

For a bull stud, the number of bulls genotyped is now more important than the number of bulls put into a YSSP.

Since 2009 we've increased the number of Holstein bulls genotyped from 1300 to over 4600. And, in 2009 one out of every four bulls genotyped went into our YSSP. In 2012, one out of every 15 bulls genotyped entered our YSSP.

SELECTION INTENSITY

In all species one of the key components to increasing genetic improvement is to reduce generational intervals. With dairy cattle this is a handicap, but thanks to genomics some opportunities to improve the whole process were discovered.

Top genomic females and high genomic young sires are now put to work earlier, thanks to in-vitro fertilization and conventional flushes. This generates offspring while they are both quite young. One can argue that some reliability is lost using younger animals, but by dealing with many different animals, we're increasing the odds of identifying exceptional individuals. And, when we compare the annual genetic merit of the bulls sampled before and after genomics, we can confirm that it has at least doubled.



One of the biggest changes since genomics occurred a few years ago, is the continual growth in the use of non-proven sires. Before genomics, there were proven sires and test sires. Now, we see a high percentage worldwide of bulls being chosen just on their genomic merit.

At Semex, we are very proud of these bulls we call Genomax™ sires. They are the result of intense selection and offer tremendous potential for GTPI, GLPI, Type, Net Merit \$, Calving Ease and many other traits breeders are interested in. While some bulls will be identified early as sires of the next generation, others are being used as groups in commercial environments, spreading the risk of lower reliability, while offering the herd new and top genetics.



The dairy genetic industry has probably seen more changes in last five years than we saw in the previous 40 years. Semex has not hesitated to aggressively lead and join the genomic era. We truly believe that genomics is an exceptional tool to improve genetic selection overall efficiencies, and when used correctly it adds profitability to all steps of genetic selection. There is no doubt genomics is Genetics for Life.

1 Out of 15 sires genotyped enter Semex

1000/

100%

of cows in Hungary are registered

99%

of Holsteins in Hungary are under Al

Dairy products are Hungary's

3rd largest agricultural product

Génbank-Semex Hungary received the award as Hungary's

#1 Cattle Breeding Company

on the 2014 Golden List



renda Lee-Turner, Semex Marketing Communications Specialis

Seven Questions for Génbank-Semex Hungary

As answered by Zoltán Veres, Managing Director, Génbank-Semex Hungary Ltd.

1. HOW LONG HAVE YOU BEEN IN OPERATION?

We have been in operation since December 1989.

2. HOW MANY COWS ARE IN HUNGARY?

There are a bit less than 330,000 cows in Hungary. The Holstein cow population is 170,000, with close to 100% being registered and 99% under Al.

3. DESCRIBE THE FACILITIES

We are located at the Hungarian/Romanian border, beside the small historical town of Mezohegyes. The facility has 4.5 hectares or about 11 acres of land, and includes an office building, five barns and the lab. Our housing capacity is 110 head and these facilities are all governed under the Semex Gold StandardTM.

4. WHY DOES SEMEX HOUSE BULLS IN HUNGARY?

Semex has a large European genetic program. The European purchased bulls come here for housing and production. These bulls are EU (European Union) eligible, fitting with the EU market health regulations that are different from other places in the world. Also, there are obvious biosecurity advantages to housing bulls at multiple locations around the world.

5. HOW MANY BULLS DO YOU HOUSE?

We currently house about 140 bulls. And, our new barns will be completed this fall, allowing for nearly 200 bulls to be housed here in total.

6. WHO ARE YOUR MOST FAMOUS RESIDENTS?

Our most famous bull is the Genomax™ sensation Amighetti Numero Uno, and he confirms Semex's European program. This Italian born bull topped the GTPI list for 1.5 years, so there's no question, that he is our most famous bull! However 0200H007426 Willsbro Larson *RC (Mr Burns *RC x Goldwyn), 0200H007471 Denmire Merchandise (Manifold x Goldwyn) and 0200H007449 Cabon Fernand (Man-O-Man x Bolton) would also be considered some of our best bulls. We also house a very exciting polled Red & White bull, 0200H007735 Wilder Kanu P Red (Colt P-Red x Snowman). Kanu has a unique pedigree; he is polled and has pretty high genomic values in both the Red & White and Black & White populations.

7. HOW DOES GÉNBANK-SEMEX HUNGARY RANK IN THE HUNGARIAN MARKET?

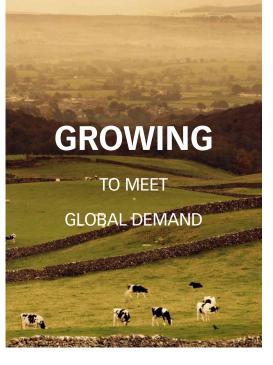
We have always had a young sire program in Hungary, making our bulls very popular on the domestic proven market. We have about 23-24% market share for Holsteins, which is just 1-2% less than the market leader. But, when you include Simmentals, we are the largest semen marketer in Hungary.













DELIVERING

GENETIC

SOLUTIONS



POSITIONED TO BE

THE INTERNATIONAL

LEADER IN

BOVINE GENETICS



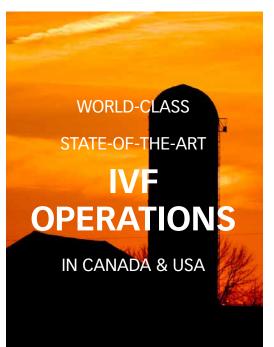
GENETICS FOR LIFE











40+
YEARS EXPERIENCE IN
INTERNATIONAL
BUSINESS





Expanding Our Global Footprint

Paul Larmer, Semex Chief Executive Officer



GENETICS FOR LIFE

IS ALL ABOUT ENHANCING
LIVES & HOW WE WILL
FEED THE LIVES OF
TOMORROW TOGETHER

Various reports state that the world's food production must expand by 70% by 2050 in order to meet the needs of our growing population. This makes agriculture and genetics a tremendous place to be in when looking at places that can have a positive impact on global needs. And, at Semex, we're committed to helping ensure the world has the resources it needs.

This commitment is something we take very seriously. In fact, it is one of the key pillars in our Genetics for Life campaign, helping to define our social responsibility. Beyond investing in markets that will be key contributors to increasing this food production, we continue to support youth programs, encouraging tomorrow's leaders through education and experience. This ensures that they too can help meet the global population's increasing needs.

Through our investments we are expanding our global footprint, increasing our diversity and increasing our sustainability, while encouraging sustainable food production. Our recent expansions in China, Brazil, India and Hungary are the results of our strategic plan that is now paying dividends!

- China is our fastest growing market and continues to develop, with our domestic A.I. (artificial insemination) centre, Semex China, operational and contributing to our expansion
- Semex ProVet India is off to a fantastic start, building sales and laying the groundwork for future expansions that will support increased food production
- Continued expansion in Brazil supports our genetic solutions, offering a wider access to the important tropical breed genetics worldwide

These three countries represent a combined 150 million head of cattle, and are true representatives of Genetics for Life. They are, in part, how we will expand globally, our commitment to research &

development, our training programs and most importantly, developing long-lasting, profitable herds and lifelong partnerships worldwide.

WE'RE GROWING WITH THE WORLD!

Semex is increasing both the quantity and quality of our European housing operations with new barns, collection center and laboratory at our Hungarian facility. We truly believe that good genetics are where you find them, and our barns in Hungary are home to some of the world's highest genomic bulls.

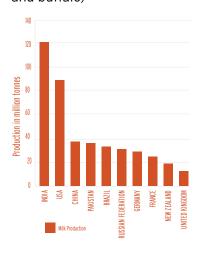
Our industry-leading Gold Standard™ in bull housing, production and collection is in place at each of our facilities worldwide. This includes our Hungarian facility, as well as our investments at home in Canada. In fact, we're building new laboratory and distribution facilities at our Sainte-Marie-Madeleine, Québec, Canada location. This new facility will help enhance both the quality and efficiency of our operations and production.

Boviteq, our research and development arm, is expanding operations into the USA with the opening of an IVF (In Vitro Fertilization) laboratory in Madison, Wisconsin. This will provide breeders with a service to multiply their genetics, but just as important it serves within our genetic solutions suite by helping to provide the correct genetic solutions to meet each and every client's needs.

Genetics for Life also represents our commitment to offering our clients a total genetic solution. This fall, we will be introducing our SemexWorks™ tool. This is a customized genetic plan, individualized for each client. This, combined with our dedication to our people and training, will bring more value to our clients each and every day. In the US, for example, we're already seeing the results of this dedication and solutions focus. The

US continues double-digit growth year over year in a difficult marketplace. This growth is supported by not only our genetic offering, but also by the ai24TM program, Immunity+TM and our well-trained and dedicated staff.

World Top 10 Milk Producing Countries 2011 (includes cow and buffalo)



Semex revenue growth marks four successive years of substantial growth



pg 18 pg 19

THE GOLD STANDARD™

Ensures that strict protocols are followed throughout each and every phase of the production process.

QUALITY CONTROL

- Pre-freeze
- Motility
- Morphology
- Ejaculation volume
- · Sperm concentration
- Post-freeze
- · Motility at two critical times
- Sperm/straw
- Bacteriology

QUALITY MANAGEMENT SYSTEMS

Strict protocals are followed globally with internal and external audits (CFIA and EU-FVO).

6 locations worldwide

RESEARCH & DEVELOPMENT

30%

of profits are invested into research & development through Boviteq, Semex's international R&D centre.

STAFF TRAINING

On-going training with industry scientists and specialists for excellence in collection, evaluation, processing, storage & distribution

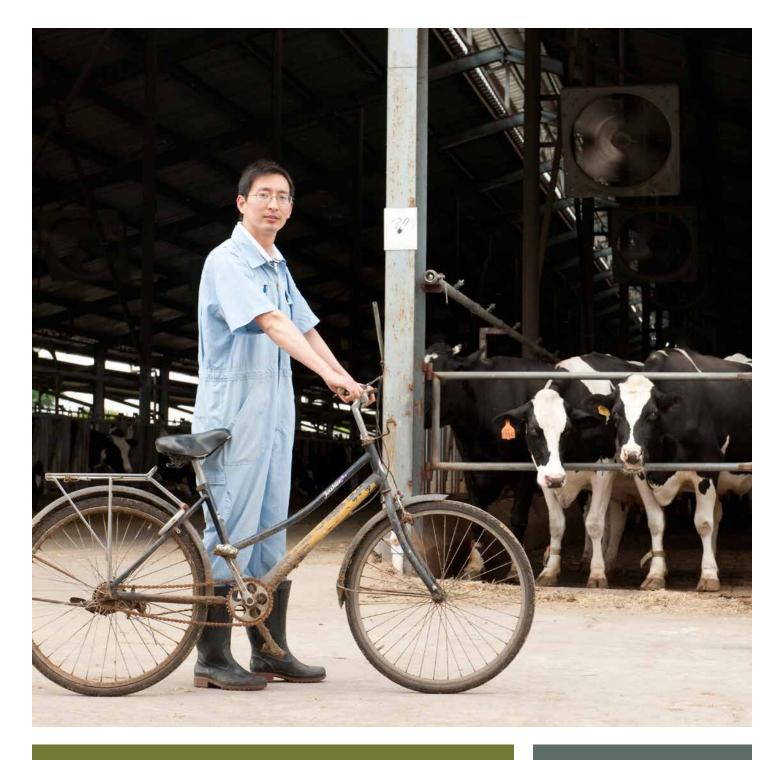
LIVING OUR VISION

While our investments and enhancement plan continues, so do our results. Our sales and revenue continue to exceed last year, and Semex is on target towards our newly raised 2015 expectations. This sales growth is led by our retail markets in China, the USA and Argentina, and is supported by increased sales in Canada and Eastern Europe, showing that our diversity is a true strength.



BRAZIL, INDIA & CHINA represent 150 million head of cattle





Turning strategies into action is a strength of our people who live our Vision: We demand the best; Of ourselves.... Our company....

And what we do for our customers.

CHINA

is our fastest growing market & continues to develop with our domestic A.I.

Courtesy of The Wellington Advertiser, Chris Daponte

Lowell Lindsay To Be Inducted Into Canadian Agricultural Hall of Fame

For Lowell Lindsay, the prospect of entering the Canadian Agricultural Hall of Fame wasn't even on his radar.

"I never once thought of it," said Lindsay from his home near Guelph, Ontario.

Yet this fall Lindsay will be one of four 2013 inductees into the Hall of Fame at the Royal Agricultural Winter Fair in Toronto, marking the culmination of a career in the dairy cattle industry that has spanned over five decades.

"It was a real honour and I'm very, very happy. For me, it's an indication of the accumulation of the respect the industry has for you," says Lindsay.

Judy Shaw, president of the Canadian Agricultural Hall of Fame (CAHF), said some inductees are nominated for their work in one area or another, but Lindsay is a "very broad-based" inductee.

"He was a mentor to youth, he was an excellent judge and he really influenced the genetics in the dairy industry," Shaw said. "He had a huge number of supporters for this induction."

She highlighted Lindsay's travels across Canada and the world for both genetic work and to judge numerous cattle shows.

Paul Larmer, Semex CEO says, "It is impossible to measure the economic impact that Lowell has had, however, his career spanned 53 years, and when one looks at the genetic progress made in Canada over that time period, it is immense."

Brian O'Connor, General Manager at EastGen, said he first met Lindsay as a 4-H member years ago, long before the pair became colleagues as bull buyers.

"EastGen and Semex felt he's been an icon in our industry and was worth consideration for induction into the prestigious Hall of Fame. He basically turned our genetic improvement industry into a world powerhouse," says O'Connor. "His work in sire selection, in genetics promotion and as a judge was instrumental in helping Canada obtain that status as a world leader."

Lindsay was born in Toronto and lived there for a short time until his family moved north to Markdale when he was a child. His aunt had a nearby dairy farm where he spent childhood summers. "I loved the farm," he said, adding, "It's been cattle ever since - and I've been involved ever since."

A young Lindsay was also a member of various 4-H groups growing up, and his interest in agriculture was further piqued by his father, who while the family lived in Markdale, was a manager at an institution that had a large herd of dairy cattle.

"It was a natural jump for me to go into the artificial breeding business," recalled Lindsay.

It wasn't long before he was hired as an artificial insemination technician in Grey County. He later did some work in the Halton and Peel regions and in 1970 he became a sire analyst and moved to Guelph.

Lindsay's involvement in showing dairy cattle began when he was a teenager. As luck would have it, almost right away he got involved with several top-quality Holsteins that won championships. "I had a good start as an 18-year-old," he said.

From that point on his name seemed to become synonymous with champions, leading owners of some of the top show herds in North America to seek him out to show their cattle.

Success in the show ring and his knowledge of the breed led to Lindsav's

involvement as a judge. He has judged over 215 major shows in about 14 countries across the world, including repeat trips to Japan, Australia, Brazil, Europe and all over the U.S.

"Lowell's goal was always to work hard for his employers, but at the end of the day, it was really the producers that benefitted from his work." Brian O'Connor, EastGen General Manager

"I love them all ... I like the small 4-H shows as much as the biggest shows in the world," he said with a smile.

In addition to his work in genetics and in showing and judging cattle, Lindsay has also owned some cattle with friends and has been a mentor to many youths through 4-H and other avenues.

He is a founding member of the committee for the Canadian 4-H Dairy Classic at the Royal Winter Fair and is also a trustee for the Ontario Dairy Youth Trust Fund, which provides scholarships and other opportunities for youths involved in the industry.

Since recently retiring from his sire analyst work, Lindsay plans to relax and do some travelling, and will keep busy tending to his property, though he said he will still attend various industry events, shows and sales.

Larmer said producers will miss the steady influence of Lindsay, who never lost sight of the bigger picture.

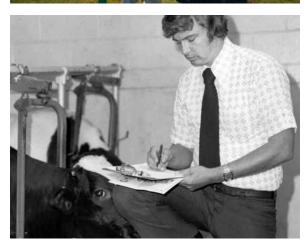
"Working for a 'producer-owned' company for his complete tenure, Lowell always knew who he worked for... the dairy producers of Canada," Larmer stated.

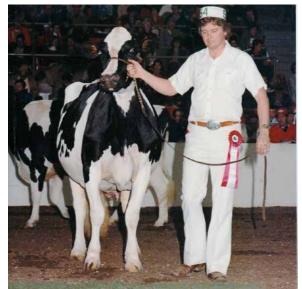
O'Connor echoed that sentiment, saying, "Lowell's goal was always to work hard for his employers, but at the end of the day, it was really the producers that benefitted from his work."

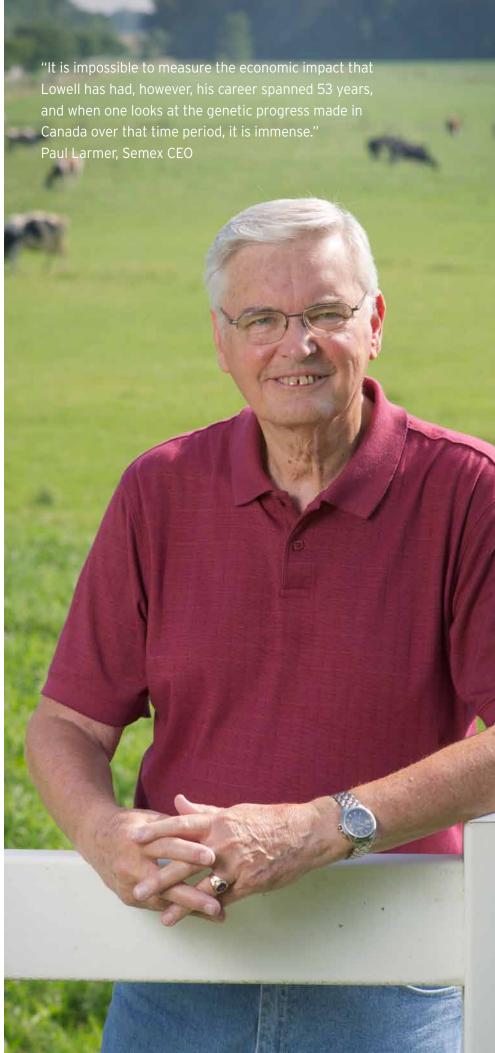
















TURA //auti

A STRONGER HERD

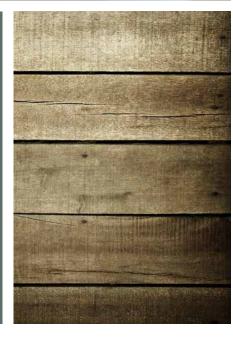
EQUATES TO

MORE PROFIT

THE PROOF

IS IN

THE RESEARCH







lake Kempel Semex Partner Development Manage

Individual Cow Management & Building Immunity At D&D Dairy

THINGS HELPED
ME TO SEE WHERE
IMMUNITY+ SETS
ITSELF APART FROM
OUR CURRENT
SELECTION FOR
HEALTH TRAITS.
A STRONGER,
HEALTHIER HERD
EQUATES TO MORE
PROFIT. 37





D&D Dairy co-owner Dean Smith with herdsman Cayetano and Semex's Jake Kempel. After working for an electrical company, Lyle Smith decided to buy a farm and started milking 70 cows in Winona County, Minnesota in 1973. He slowly started building up the herd, and when his son Dean joined him on the farm in 1995 after graduating from college they were milking 150 cows.

They gradually expanded the herd to 300 in 2002, and in 2007 they bought in with a neighbor that was milking 150 cows at the time, building a brand new state-of-the-art cross ventilated barn and expanding the herd to 1,000 cows.

Just a few short years later they bought out their neighbour, and today the partnership consists of Dean, his brothers Greg and Randy, who also grain farm and supply the feed for the dairy. D&D Dairy LLP is a Holstein herd being milked on two locations, with the two-year-olds on the original home farm and second lactation and older cows in the new cross ventilation barn.

When Dean first began farming with his dad in 1995, they had a rolling herd average of 16,800 pounds and they were using little to no artificial insemination. Dean began emphasizing genetics and raised the RHA to 30,000 pounds by 2007.

The Smiths are still at that mark today, averaging 95-100 lb per cow per day, with a low 175 somatic cell count. Maintaining these numbers is important to them, and Dean is a strong believer in culling off poor performing cows.

"We use Dairy Comp 305 to track cow performance. We have noticed that cows that are poor performers generally had mothers and grandmothers that were poor performers," says Dean. "We cull those animals and make pregnancies from the profitable cows by breeding them to continue to increase profitability."

Maximizing pregnancies and herd health are key factors that have helped Dean selectively cull animals. Increasing hormone shots to get cows pregnant, and cows that were dying or falling seriously ill due to late illness detection, however, was a source of frustration.

Smith's philosophy of breeding for profitable cows and selecting for health in genetics is what led him to conversations with his Semex team about Immunity+TM in December of 2012.

"I know there are cows in my barn that I never see and I don't know who they are because they never have a problem and they are paying their way," said Smith.

Before using Immunity+ sires he was selecting for Productive Life, Daughter Pregnancy Rate, Somatic Cell Count, Protein, Fat and Net Merit. Looking at each figure individually, while trying to find bulls to meet his criteria overall.

"Immunity+ bulls show a great balance of everything I was selecting for before, but now I have the science behind it to prove the health traits more accurately," Dean says. "I am also more comfortable with the 25% heritability of Immunity+ than just Productive Life and other health traits alone. This will speed up the rate at which disease resistance is built up in my herd. Proven science is more attractive to me than a calculation."

Visiting with dairies throughout the Midwest in the US, we're often asked what dairymen are using to help make the decision to use Immunity+ sires.

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Brenda Lee-Turner, Semex Marketing Communications Specialist

Reproductive Solutions

Semex believes that Genetics for Life is all about reproductive solutions and meeting the evolving needs of our customers. We're committed to the on-going research and development conducted at L'Alliance Boviteq that has led to ground-breaking technologies benefitting producers worldwide. This has included the world's only international fertility evaluation, Repromax™, as well as Sexxed™.

PROCESS & WE CONSIDER SUCCESS TO BE A TRUE PARTNERSHIP WITH VETERINARIANS & PRODUCERS. THIS IS THE BEST WAY TO PROVIDE OPTIMUM RESULTS TO THE CUSTOMER.

Located in Saint-Hyacinthe, Québec, Canada, Boviteq, is world-renown for both its research and bovine embryo work. We're proud to be a part of their industryleading standards and developments. For decades, producers from coast to coast in both Canada and the USA have benefited from and looked to Boviteq as their source for reproductive excellence.

Recently, Semex announced the opening of Boviteq operations in Madison, Wisconsin, USA.

Now, with a world-class, state-of-the-art IVF (In Vitro Fertilization) facility open in Madison, Wisconsin, Boviteq is excited to offer Semex and its American clients a laboratory specializing in IVF for the commercial, elite and beef markets.

"We plan to bring the standards that made us successful in Canada to the USA market," says André Barnabé, L'Alliance Boviteq Chief Executive Officer. "IVF is a complex process and we consider success to be a true partnership with veterinarians and producers. This is the best way to provide optimum results to the customer."

"However, we will not be housing cows for breeders," says Barnabé. "Instead we will be working with and training our clients' vets to our protocols. They will conduct the OPU (Ovum Pick Up) for their customers. These harvested oocytes will be sent to our lab and we will either ship back fresh embryos or freeze them."

Limited work has already begun with vet clinics and dairies nationwide, offering

Semex customers valuable IVF solutions in both the commercial and elite genetic sectors. Those interested in exploring IVF solutions on their dairy should contact their Semex Genetic Consultant.

"Now, more than ever, Semex is the choice on dairies nationwide," says Paul Krueger, Semex Director, Sales & Business Development, USA. "By offering our clients IVF services for both commercial and genetic purposes, we're assisting them with their genetic strategy and adding value and money to their bottom line."



Brad Adams Semex Global Training Manage

Delivering Value

⑤ Semex Learning Centre_™







A large part of Genetics for Life at Semex involves training our staff to be your Genetic Consultant. And, we expect that our Genetic Consultants will bring value to your dairy each and every time they step out of their trucks.

This is a process we take very seriously. We firmly believe that our staff is our most important asset, and ensuring their success is key in our long-term strategy and goals. Since 2010, Semex has delivered this training to over 350 employees in 50 countries through our Semex Learning Centre™.

Our training goal is to help our people become your people. It is not to displace industry experts, but instead to offer a genetics viewpoint to the dairy. We strive to be well informed and knowledgeable in all aspects of the dairy, with training in reproduction, nutrition, housing, nutrient management, cow health, forages and even finance. It is a rigorous process, taking several sessions and months to complete.

There are several hours in the classroom learning from industry experts such as Dr. John Fetrow, Professor of Dairy Production Medicine at the University of Minnesota, Center for Dairy Health, Management and Food Quality. Dr. Fetrow trains our people on how to look at a dairy as a whole system, understanding where bottlenecks may occur. This is important because it allows Semex staff to help other experts in areas such as nutrition and cow comfort, while being the dairy's reproduction expert.

It also means time on farm, putting the classroom theory into practice. We require our people to go home and to practice what

they've learned, demonstrating to themselves and their colleagues that they're adding value every day.

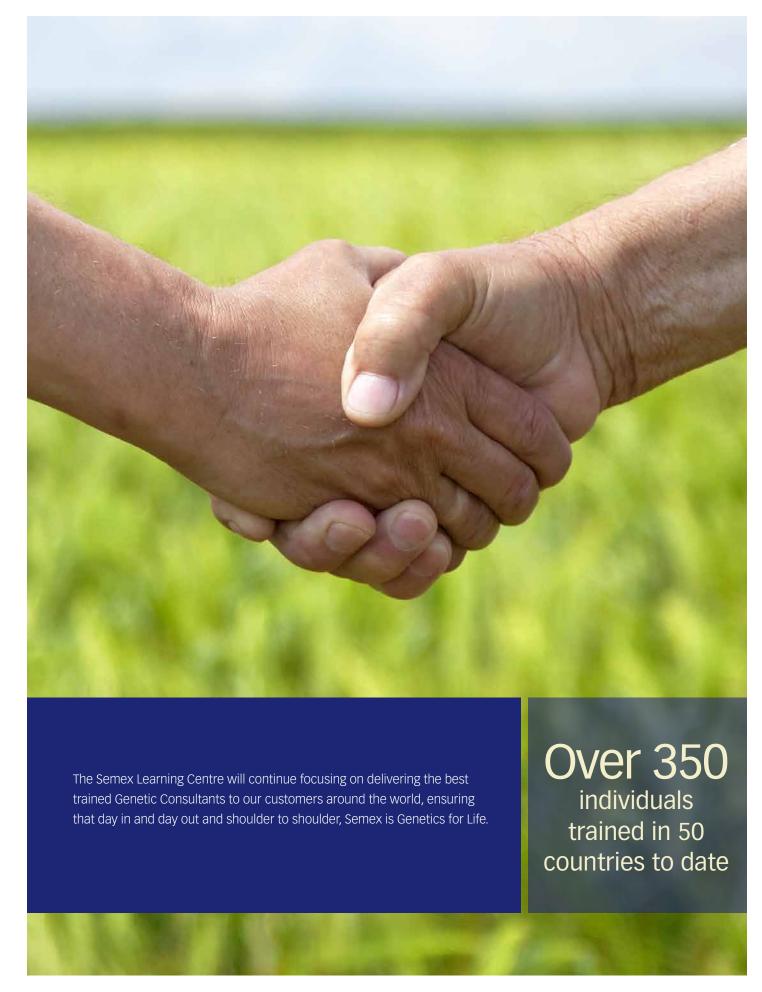
Unique to the Semex Learning Centre, Semex Genetic Consultants also are able to receive accreditation from the Sales Institute as a CSP (Certified Sales Professional). Unlike anything else in the dairy industry, the globally recognized CSP designation is a unique point of difference in a field that can become grey on some days.

With the CSP designation, Semex sales staff completes an intense 20 hours of focused sales training. Then, they become eligible to take exams at a certified location such as a college or university. Those who pass earn CSP accreditation, and those who pass with higher than 85% earn their CSP with Distinction.

According to statistics from the Sales Institute, only 15% of those who pass reach this prestigious level. Semex already enjoys a graduation rate of 64% with distinction, and we are just getting started!

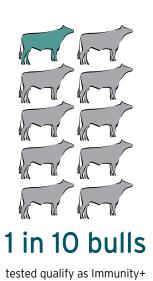
This designation binds Semex Genetic
Consultants to a code of ethics that
ensures they will always do what is best
for the customer. Additionally, they have
demonstrated competency in more 100 areas
of consultative selling, proving that they can
add value when on any dairy farm.

We believe Genetics for Life is about our people becoming your people.





Numero Uno sons are now Immunity+





HIR is

25%

heritable



36 New Sires >>> Designated Immunity+ Average

+2305 GTPI
\$708 NM\$
+4.7 Productive Life
2.69 Somatic Cell Score



Jay Shannon, Semex Global Dairy Solutions Manage

High Genetic Merit and Immunity Too

Every dairyman wants to get everything in one complete package. In the genetics and reproduction business, this is a tall order to fill, but Semex's Immunity+TM lineup is about as close as it gets to truly doing just that!

During the first six months of 2013, a large number of Semex sires were tested for High Immune Response (HIR). This testing resulted in 36 new sires being designated Immunity+ sires with the August genetic evaluation release. These sires are not only proven to be exceptional for their disease resistance, but also for their genetic merit. They average +2305 GTPI (186 points over other bulls tested this year) and \$708 for NM\$ (+\$165 over other bulls tested this year). Additionally, they excel for traditional health traits at +4.7 for PL and 2.69 for SCS, giving clear evidence that you can indeed build immunity while also quickly advancing important genetic traits.

Perhaps, the most exciting addition to the Immunity+ lineup was Semex's Genomax™ super star 0200H007450 Amighetti Numero Uno. Additionally, it is impressive to see the inheritance of immune response at work by looking at Numero Uno's sons. From the first group of sons tested, 12 have also been confirmed as Immunity+! Further evidence of this inheritance was found by testing the sons of one of the first Immunity+ Genomax sires, 0200H002698 Misty-Springs Supersonic. Supersonic remains an extremely popular Genomax sire, and five of his first group of sons tested also qualified as Immunity+. With only 10% of bulls tested qualifying as Immunity+ sires, these numbers are certainly impressive.

Certainly not all sons or daughters of Immunity+ bulls will have high immunity themselves, but Numero Uno and Supersonic are examples of how Immunity+ bulls' progeny will more frequently be found to be higher immune responders when compared to other bulls' progeny. This is because immune response has a 25% heritability. This is comparable to production and conformation traits, and is much higher than all traditional health traits

Every analysis we've performed since Immunity+'s introduction offers additional validation. Whether analyzing the sires themselves, their daughters, their sons or the genomics, we continue to see time and again that this science is real, and that it breeds true. And, we will continually analyze the herd data of Immunity+ sires' daughters to confirm the impact that one generation of Immunity+ bulls can have on a dairy, and how by utilizing Immunity+ in your breeding program, each successive generation can accumulate further disease resistance.

Recently, I had the pleasure of traveling to California to visit vet clinics and many large dairies including organic dairies and discuss Immunity+. The producers and vets tell us that this technology makes a lot of sense to them, because their experiences have shown them that certain cows and cow families display a greater resilience to disease and a better response to commercial vaccines. These folks already believed that there was a strong genetic tie associated with higher immunity, and they were pleased to hear that someone had finally identified the genetics behind such an important characteristic. And, they were looking forward to selecting genetics with this science behind it.

If you want to get serious about improving the immune response on your dairy, the only and most optimal method would be to start using tested Immunity+ sires offered by Semex.

Immunity+ is Genetics for Life.



It's About You.

Life is an evolution, building on the past and adapting for the future. At Semex, our vision is directed by what we see in our clients' eyes.

Genetics For Life is this evolution. It encompasses genetic solutions, how we will expand globally, our commitment to research & development, our training programs, and most importantly developing long-lasting, profitable herds and lifelong partnerships. Genetics For Life is all about enhancing lives and how we will feed the lives of tomorrow together.

What we hear, see and learn from you drives us. It's about you, and we're evolving into tomorrow together.

