THE REVOLUTION OF AN INDUSTRY

History shows us one bull can change the direction of the Holstein breed. ELEVATION quickly influenced the breed as a dominant transmitter with a balance of powerful type and production. DURHAM set the standard for high type sires, with the most Excellent daughters in the United States. O MAN delivered fitness traits and longevity when the industry desperately called for a healthier, more productive cow, while PLANET brought extreme milk and profit.

As we fast forward to the genomic era, these influential bulls and the thoughtful matings behind them are the foundation of an even greater revolution. North American dairy farmers have continued to be innovative when creating cow families and have utilized genomics to transform global Holstein breeding. Today, DNA testing and rapid genetic progress are initiating massive changes in the Holstein breed.

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Kevin Jorgensen, WWS Holstein Sire Analyst at Select Sires

North American dairy farmers and World Wide Sires (WWS) are driven to create the next elite individual. U.S. Holstein breeders have genomically sampled over 1 million animals since the technology was introduced. There are over 30,000 new Holstein animals genotyped every month according to the Council on Dairy Cattle Breeding. The industry’s initiative and utilization of genomic predictions continues the rate of extreme genetic progress that results in truly influential bulls.

“With the combination of more, better and faster information, we have reduced the generation interval to about 21 months. This adds an extra generation every five years. The ability to have that type of aggression, along with a group of extremely influential sires and young heifers, has put genetic progress in overdrive,” said Kevin Jorgensen, WWS Holstein Sire Analyst at Select Sires.

CREATING PROGRESS TOGETHER

Collaboration between WWS and partner herds throughout North America allows customers access to a diverse selection of profitable genetics. “Having an excellent relationship with breeders is the cornerstone of our sire program,” said Ryan Weigel, WWS Sire Analyst at Accelerated Genetics. “Through strategic matings we have been able to create some of the best genetics in the world.”

As a breeder himself, Weigel knows what his customers want out of a bull. Pictured here, Ryan Weigel and Ryan Kamps, owners of KHW Genetics, with KHW Shamrock Aaryn (VG-86).
WWS sire analysts continue to work with key breeders to develop impact sires. “These breeders have set the pace of the breed’s genetic progress, creating the sires that drive the next generation of sire fathers and maternal grand sires,” said Charlie Will, Manager of the WWS Holstein sire program at Select Sires. “Working together, our goal is creating the best; the best production, fitness, conformation and high ranking total index sires, and doing all of this with different sire stack combinations.”

Herds like Seagull-Bay Dairy in Idaho credit genomics for some of their greatest contributions to the breed. Genomics made the ROBUST and Shauna mating that resulted in SUPERSIRE possible, and it is likely that it would not have happened otherwise. “Seagull-Bay SUPERSIRE is unmatched in his production traits combined with adequate fitness values. He certainly has the potential to be a legendary sire and we are humbled to be his breeder,” said Greg Andersen of Seagull-Bay Dairy.

The Stanton Brothers in Canada cite the value genomics has brought to their elite breeding program and their 800 cow dairy, as they are making more individuals from their best cow families and focusing their sire selection. “Our heifers are better and better all the time,” said Jim Stanton. “2016 will bring the arrival of calves of GAME CHANGER, ANTICIPATION and BUSINESS PLAN. We are quite optimistic that they will be a big part of our future.”

As the industry evolves, some things stay unchanged. There will always be passionate breeders and sire analysts working together to develop the bulls the world desires.

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Genomics plays a part in Oakfield Corners Dairy’s strategy to make a large amount of pregnancies with the highest parent average GTPI as possible. Jonathan and Alicia Lamb, owners of the New York herd, share, “It is our goal to be one of the leaders of the genomic era, as a source for high GTPI bulls and heifers. As long as we focus on working with the elite of the breed, we feel we can compete.”

Mitch Breunig of Mystic Valley Dairy also understands the value of working with the best of the breed. “As a Select Sires partner herd we have worked with offspring from some of the greatest cow families in the world. SUPERSIRE, MOGUL, MCCUTCHEN and ROBUST are really great bulls that will be the genetic base of our herd for the next several generations,” he said.

DELIVERING WHAT YOU NEED

It is likely that genomics and other technologies will continue to drive innovation and progress in the dairy industry. But as the industry evolves, some things stay unchanged. There will always be passionate breeders and sire analysts working together to develop the bulls the world desires.

"Each of us are only as good as our last bull," Jorgensen said. "I try to combine modern technology with traditional cow-sense, as well as great relationships with breeders, to create sires the market is asking for. I have never felt it is my role to tell someone what they need; it is our task to listen and find sires that meet the needs of dairy producers across the globe."
For 45 years World Wide Sires has been motivated by a clear mission: “With highest integrity, World Wide Sires provides industry leading genetics and services to ensure continued success for our global customers.” Through the years, the bulls and faces have changed, but this promise and the passion behind it remains. We are here to supply profitable genetics and superior customer service, with a strong commitment to producer success.

World Wide Sires (WWS) is farmer owned and farmer driven, with more than 51,000 farmer-owners. We are confident in our ability to provide a diverse line-up of bulls because of the diligence of our experienced sire analysts and their partnerships with America’s elite breeders. Together they create genetic progress and provide the world with the right bulls.

Our extensive product line offers elite proven and genomic sires that excel in TPI, Production, Management Traits, Fertility and Type. World Wide Sires’ rich history includes influential sires that have impacted the Holstein breed around the world, such as Elevation, Chief Mark, Blackstar, O Man, Potter and Man-O-Man. We are proud to offer global impact sires today, like Mogul and Supersire. Our product strength lies in our investment in high ranking genomic bulls that become the foundation for our powerful proven lineup.

The quality of World Wide Sires’ product is complimented by world-class service. Our team of professionals is dedicated to improving breeding programs around the globe with a range of services. The World-Wide Mating Service (WMS) is the world’s largest and most successful mating program, delivering resources to build a better herd, maximize your herd’s genetic progress and yield the greatest return on investment. In addition, we offer a state-of-the-art Global Training Center with experienced staff and a hands-on dairy management program.

At the heart of all that WWS has to offer the world, there is a hard-working team of people devoted to a significant cause. With a combination of technology, cow-sense and a commitment to customer prosperity, we will serve the dairy industry to help feed a growing world.

THE HISTORY OF WORLD WIDE SIRES

1941 Accelerated Genetics is established. 2016 marks their 75th Anniversary of being the producer’s trusted first choice.

1965 Select Sires Inc. is formed, celebrating 50 years of genetic achievement in 2015.

1965 7HO58 ELEVATION is born on August 30th. A 2014 report by Holstein Association USA concluded that ELEVATION still had more genes present in the Holstein breed than any other sire.

1971 California dairyman Bill Clark identified a need and interest for U.S. genetics around the world and began marketing semen for 5 U.S. AI cooperatives as World Wide Sires Inc.

1983 7HO1897 BLACKSTAR is born. A No. 1 TPI proven sire that made a global impact.

1993 Seeing a growing concern for good functional type in high producing cows, WWS began putting an emphasis on herd consultations and type evaluation. As a result the World Wide Mating Service (WMS) is the most used program with approximately 7 million matings in 2015.

1994 Show-ring legend 7HO5157 DURHAM is born. DURHAM would go on to win five consecutive premiere sire banners at World Dairy Expo.

1996 7HO5708 BLITZ is born. He continues to hold the Select Sires lifetime sales record at 1.52 million units sold.

1998 7HO6417 O MAN is born on March 8th. A millionaire sire, he set a record for the number of times he held the No.1 TPI spot and was the first sire to be ranked as the No.1 sire in 10 countries.

1999 14HO3597 POTTER is born. Known for his outstanding health traits and long-lasting daughters, he became a millionaire sire in 2010, producing 1.25 million units.

2001 Select Sires and Accelerated Genetics purchase World Wide Sires, Inc. for all international sales and marketing outside of the Americas. World Wide Sires, Ltd. is formed.

2003 7HO8081 PLANET is born. He continues to be in high demand to create moderate-sized, great-uddered, high-producing cows.

2004 14HO4929 MAN-O-MAN is born. He offered a solid pedigree, index, and type all in one package.

2009 Genomic testing is introduced for dairy cattle. Today there are over 30,000 animals tested monthly in the U.S.

2010 The WWS Global Training Center is established to provide training in the areas of Advanced A.I. and Dairy Management.

2016 World Wide Sires Ltd. celebrates 45 years of genetic excellence.
THE STRATEGY BEHIND THE SIRE: HOW THE BEST BULLS ARE CREATED

Every sire has unique beginnings. Maybe he was created to rise to the top of the TPI charts. Or perhaps he was a carefully planned mating to result in an outcross bull. There are strategies behind the creation of every great bull because every great bull is meant to serve a purpose. Deciding what that purpose will be is up to forward-thinking, globally conscious breeders and sire analysts.

Strategies for sire development have evolved over time. “When bulls like DURHAM, BLACKSTAR and OMAN were developed and brought to Select Sires, hours of pedigree research and many miles were traveled to see what cow families were true transmitters, not just a pretty picture,” said Jeff Ziegler, WWS Genomics Program Manager at Select Sires. “The genomic tools today greatly assist us in finding true superior genetic transmitters in the breed, and pedigrees that consistently perform for breeders around the globe.”

Genomic testing, cow sense and relationships with breeders are crucial to creating the best bulls. As the industry changes, one constant is the importance of building strong connections with producers and tracking their successful cow families.

“We make it a priority to align with key, established breeders in the industry,” said Jess Peter, WWS Sire Analyst at Accelerated Genetics. “When working with outstanding breeders, we contract matings from not only our pre-release semen, but also from competitor semen. This allows us to have a diverse and interesting line-up from a magnitude of cow families and sires.”

Investing in female programs is another strategy to develop unique and purposeful sires. It allows AI companies to broaden their genetic portfolio and keep the needs of the industry in mind when creating matings.

“We are conscious to slow down the rising inbreeding we now face. We want to develop more feed efficient stock, much like other livestock industries have developed. And we want to create some unique matings that are not found in the general population,” Ziegler said of Select Sires’ female program.

Using all of these strategies, sire analysts have the complex task of meeting the needs of the industry today and anticipating the needs of tomorrow’s dairy producers. Ziegler and Peter believe the industry is asking for a more profitable, healthier cow.

“In the next decade, there will be a focus on fine-tuning traits with low heritability that add to profitability. This will take time, research and additional phenotypes to sort out more of what the bovine genome can tell us,” Ziegler said.

Peter shares the industry trends she sees and uses to make sire selections. “The trend on the commercial side of the industry is leaning towards a moderate sized cow with outstanding feed efficiency and calving ability. We are also starting to utilize the new wellness traits from Zoetis to identify bulls that will sire profitable and healthy, long-lasting daughters,” Peter said.

The sire teams working to develop the next best bull will continue to evolve with the industry, adapting to trends and employing new technologies, while trusting the value of people who know cows. Ziegler shares, “Scientists fill an important role in today’s genetic improvement. Yet, our team of sire analysts still travels the globe in disposable boots to sort out what truly makes money in barns everywhere.”

S.I Supersire Mini 8679 ET (VG-88) is a product of Select Sires’ female program and has already shown her influence with sons JEDI and FLAGSHIP.
Earl de l’Orangerie Sanchez Galaxy
Reserve Intermediate Champion and Champion Udder; 2015 Nuit de la Holstein – Belgium

Ruchtis Brokaw Cremona
First Intermediate 2 Yr Old and Best Udder at Junior Bulle Expo

DH Gold Chip Darling, VG 87
Honorable Mention Senior Champion 2016 Swiss Expo

Co-Vale Dempsy Dina 4270-ET, EX-92
All-Canadian & Unanimous All-American Sr. 2-year-old, 2015

Ruchtis Brokaw Cremona
First Intermediate 2 Yr Old, Best Udder at Junior
Ruchtis Brokaw Cremona
First Intermediate 2 Yr Old and Best Udder at Junior Bulle Expo

Galys Vray, EX 94
Grand Champion and Supreme Champion 2016 Swiss Expo

Kingsway Airlift Gosling
First Intermediate Yearling & Honorable Mention Jr. Champion 2015 Royal Winter Fair

Co-Vale Dempsy Dina 4270-ET, EX-92
All-Canadian & Unanimous All-American Sr. 2-year-old, 2015

GW Alwood
Galys Vray, EX 94
Grand Champion and Supreme Champion 2016 Swiss Expo
WORLD WIDE MATING SERVICE
SOLUTIONS FOR MODERN DAIRY PRODUCERS
The WMS program has been the trusted choice for thousands of farmers around the world for more than 20 years. Approximately seven million cows in 58 countries were mated through WMS last year and the system continues to evolve to meet the needs of the modern dairy producer.
WMS provides a genetic blueprint to help you achieve your herd goals.

IMPROVE PROFITABILITY
Increase the lifetime volume and value of milk produced with emphasis on economically important traits.

MANAGE RISK
Eliminate recessive and haplotype carrier matings and manage inbreeding.

MAXIMIZE YOUR GENETIC INVESTMENT
Customized indexes and sire selection tools are tailored for the farm.

EMBRACE TECHNOLOGY
Incorporate genomic evaluations to rank and mate females in the herd.

MAKE THE BEST USE OF YOUR TIME
Experienced WMS consultants are committed to developing an accurate genetic plan for your dairy, so you can focus on other aspects of your business.

“We use the WMS program because it takes out any guesswork and eliminates inbreeding, protecting me from any hidden costs. We have seen really good results. It’s really easy to follow for all my staff, so I can be out of the cow shed and know that every cow gets mated to a sire that will correct her faults. I love that I can spend a small amount on a cow to give such long term results. A mate program that is used over millions of cows worldwide can’t be wrong. It gives me great assurance.” – Daniel and Amanda Schat, Te Pirita, Mid Canterbury, New Zealand, 800 Holstein cows

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“Cattle breeding is moving so fast now that we need to be increasingly mindful of the genetics behind these animals. The WMS program is therefore extremely useful to us as it sorts out and prevents any inbreeding issues or genetic recessives. With robotic milkers we also have to pay careful attention to teat placement and quality. Again, the use of a mating program helps us to select the right bulls and mate them for the greatest benefits to suit our system...making it an invaluable management tool.” – Gregor and Blair Colquhoun of Dendoldrum Farm, Northeastern Scotland, 650 cows

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The Holstein cow of today and tomorrow has the ability to help feed a growing world. This hard-working dairy cow is the product of two things: her genetics and environment. To truly achieve what she is capable of and to maximize each cow’s genetic potential, your herd will require world-class management. The people who care for your herd have a tremendous responsibility to provide every cow a healthy and comfortable environment so her genetics can be expressed.

When using quality genetics, each individual animal is born with the genetic potential to be a profitable producer. Once she is born, the environment affects the possible success of the calf and her future offspring. Hands-on management is especially important in critical periods of development when cows are being bred, confirmed pregnant, drying off and freshening, so negative changes don’t affect them throughout their lives.

World Wide Sires Global Dairy Solutions (GDS) recognizes a need for focusing on people when it comes to creating the right environment for your herd. With a hands-on, real-world approach, GDS works to provide herd managers with training and knowledge, an understanding of the issues in the cow’s environment and how to apply proven systems to improve that environment.

“When in GDS trainings, there is an emphasis on improving the environment around the cow to increase milk and farm profits through better reproduction, transition health, cow survival, heifer survival and care,” said Wayne Conrad, WWS Business Development Manager.

A key element of the GDS program is the World Wide Sires Global Training Center (GTC). The goal of the GTC is to develop a tailored training plan where attendees learn management principals and approaches with comprehensive classroom curriculum, then work directly on farms. Trainees have the opportunity to work with six herds totaling over 54,000 cows, which provides them with an unprecedented hands-on learning environment.

The team behind Global Dairy Solutions ensures training plans deliver results and they serve as a trusted resource for farm management teams. “The GDS crew is driven by the 4 C’s: Consistency, Commitment, Creativity and Competence. If our dedicated team can consistently provide our customers with helpful and creative solutions that result in healthy, pregnant cows, then we have done our job,” said Kevin Bousquet, WWS Director of Field Training.

Investing in genetics and people that will perform at the highest possible level is the key to healthy, profitable cows.
All dairies have the same goal: get cows pregnant. Fertility drives efficiency and profit for dairy producers around the world. As an area of opportunity for many herds, fertility should be considered when selecting bulls. Investing in fertility at conception can positively influence your productivity and your profitability.

For producers utilizing American genetics, Sire Conception Rate (SCR) is a great tool to use when making breeding decisions. SCR is an indicator of the semen fertility of bulls used for Artificial Insemination (AI) based upon conception rate of service sires. SCR is the only measure of male fertility that is published by a third party (not an individual AI organization) and that uses data from all of the USA Dairy Records Processing Centers.

When it comes to investing in genetics and choosing sires, Mel DeJarnette, Vice President of Processing and Research at Select Sires, advises farmers to pick sires for the genetic traits important to the progress of their individual herds and management systems, and then look at SCR as an additional tool. He explains, “While the impact of sire fertility on overall herd conception rates is only one piece of the puzzle, sire selection for fertility using SCR is a contributing factor to an effective reproductive management program.”

Levi Gassaway, Assistant Manager at Cow Palace LLC, a training herd for the World Wide Sires Global Training Center in Washington, USA, uses SCR for sire selection. “As a large herd, we value SCR as a tool to help us maintain an effective and efficient breeding program, which is essential for operational success. With close attention to fertility data, and reproductive performance, we have been able to achieve and maintain solid conception rates year-after-year,” Gassaway said.

Producers should have access to unbiased, well-researched information that will help them achieve reproductive success. SCR has become a national standard for evaluating sire fertility in the USA because bulls from all suppliers can be impartially compared. It has proven results and is a trusted resource for farmers around the world.

Recognizing the importance of SCR, World Wide Sires and our owners, Select Sires and Accelerated Genetics, have invested in developing bulls with superior fertility. World Wide Sires delivers industry-leading fertility, with more bulls over +1.5 Sire Conception Rate than any other stud in the world.

**HOLSTEIN ACTIVE PROVEN BULLS ≥ +1.5 SCR**

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<tr>
<th>Bull</th>
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<tr>
<td>WWS</td>
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**SCR AVERAGES BY STUD**

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<tr>
<th>Stud</th>
<th>SCR</th>
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<tbody>
<tr>
<td>WWS</td>
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<td>Stud A</td>
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Source: CDCB, USA, April 2016

Does not account for REL

WWS: SS, AG, Genervations

Includes Foreign and Limited

7HO11351 **SUPERSIRE** is known for his breed-leading TPI and unparalleled production and components. Producers around the world should also look to this proven sensation to create pregnancies with his elite SCR.

7HO12353 **BEEMER**, a son of 7HO11477 MCCUTCHEN, is a popular high-type young sire. He offers breeders solid production coupled with elite type, in addition to sire fertility that is going to create pregnancies. BEEMER’S admirable type proof is backed by a reliable high type pedigree that goes back to the Barbie’s.

14HO07296 **RACER** is another well-known young sire that delivers outstanding sire fertility. He offers breeders a unique sire stack with no Shottle or Bolton. In addition, RACER is a production improver and provides breeders with an incredible combination of health traits.

**THE COMPLETE PACKAGE: WWS bulls with Elite Fertility and So Much More**
Mr. Bill Clark, founder of World Wide Sires, built a global business with people as the foundation. Our valued customers, team members and suppliers are at the heart of everything we do. The farmers we serve give us purpose and inspire our work. Our dedicated staff and sales teams around the world are passionate about farmer success. They ensure WWS elite genetics and services meet customer needs.

We are able to offer industry-leading genetics with the help of our suppliers and farmer-owned cooperatives, Select Sires and Accelerated Genetics. Our suppliers have established relationships with the North American breeders that develop the world’s best genetics. We appreciate these influential breeders for enabling WWS and our owners to make an impact with their genetics in over 90 countries. Additionally, they graciously host our international friends at their farms, allowing visitors to see the North American system first-hand.

At the core of every WWS success there is a hard-working, talented team of people that made it possible. People of all cultures and backgrounds are World Wide Sires’ greatest strength. Our differences enrich our relationships and add to the diversity of our WWS family. Even with our celebrated differences, the people of World Wide Sires are connected by a shared passion for cows and people, driven by a sincere desire to help farmers achieve their goals.

For 45 years, World Wide Sires has operated under Mr. Clark’s vision of putting people first. Even as we grow and change, our focus on people will be our greatest success.
Elevation
Blackstar
Durham
O Man
Planet
Man-O-Man
Épic
Mogul
Supersire

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