

Dr. Steven Larmer, Semex Senior Manager, Genomics Program

Q: WHY IS SELECTING FOR IMMUNITY IMPORTANT?

Disease frequency in the global dairy population has been increasing each year since 1996. Selection of traits with low heritability that do not directly measure an animal's ability to resist diseases has not provided a significant change in health of the dairy population.

O: HOW CAN IMMUNITY+ HELP SOLVE THIS PROBLEM?

Immunity+ sired animals have genetics which have been proven to provide robust immune systems capable of dealing with a large variety of potential immune challenges, both viral and bacterial in nature, encompassing nearly all major diseases that have an economic impact on farm.

Q: WHY IMMUNITY+ INSTEAD OF SELECTING DIRECTLY AGAINST INDIVIDUAL DISEASES?

The immune system is hugely complex, and selecting for one disease like mastitis can leave animals more susceptible to other potential diseases such as Johne's or viral pneumonia. Immunity+ provides a robust resistance to all disease, plus the heritability is significantly higher than any individual disease incidence.

Q: WHAT IS HERITABILITY AND WHY DOES IT MATTER?

Heritability is the proportion of total variance in a trait that can be explained by genetics. This means that traits with low heritability are more difficult to make genetic progress in relation to the total Continued on page 2...

September 2020 Update

Call for Director Nominations

EastGen members in the following zones are invited to submit nominations for Directors for a three year term. Early nomination forms will be mailed and posted at www.eastgen.ca this fall. All nominations must be submitted prior to Friday, October 30, 2020 at 5:00 p.m.

Zone 3 - City of Ottawa, Dundas, Stormont **

Zone 6 - City of Kawartha Lakes, Durham Region A (Ontario County and Ramara Township), Durham Region B (Durham County excluding Cavan Township), Peterborough County (including Cavan Township), York, Halton, Peel **

Zone 9 - Wellington, Waterloo

Zone 12 - Huron, Middlesex, Elgin, Essex-Kent, Lambton

** The current director in Zone 3 (Joe Krol) and Zone 6 (David Larmer) are not eligible to re-run as they have completed the maximum term a director can represent the membership on the EastGen Board of Directors.

Please note that due to the COVID-19 pandemic we will be conducting the Delegate and Alternate Delegate nominations / elections for the above Zones (Sub-Zones) via the mail as well.

Immunity+® Your Top Questions Answered - *Continued from page 1*

amount of variation in the population. High heritability traits are usually easily and directly measured, and genetics have a larger impact on the difference observed between animals.

Q: ARE THERE ANY BENEFITS OTHER THAN LESS DISEASE?

Immunity+ sired animals also respond better to commercial vaccinations and produce higher quality colostrum than animals sired by any other bull.

Q: HOW MUCH REDUCTION IN DISEASE CAN I EXPECT FROM SELECTING AN IMMUNITY+ SIRE?

It varies by trait, but selecting Immunity+ sires should lead to anywhere from 5-20% reduction in disease in just one generation. More generations of selection will continue to decrease disease frequency even further.

Q: WHAT DO I HAVE TO GIVE UP TO SELECT FOR IMMUNITY?

Nothing! Immunity+ bulls on average have higher genetic merit for all other major traits than the rest of the bulls. No matter what you usually select for, there is an Immunity+ bull that fits your herd.

Q: IF IMMUNITY+ IS BETTER IN BULLS THAT HAVE HIGHER GENETIC MERIT, CAN'T I JUST SELECT HIGH GENETIC MERIT BULLS AND ASSUME I'M GETTING IMMUNITY+ TOO?

"We've seen incredible results using Immunity+ sires. We've seen reduction in disease, especially in pneumonia and four times lower treatment rates for calves sired by Immunity+ sires than calves who aren't. And, our mortality rates have also decreased by 7%.

We have a regimented vaccine program and when we understood that Immunity+ sired calves respond better to vaccines that was a real selling point for us."

Reba Pastink, Calf Manager Henria Holsteins, Conn, ON, No, there are always exceptions, and the only way to be sure you are getting high immune responding daughters is to select Immunity+ sires. Although Immunity+ sires are high genetic merit sires, not all high genetic merit sires for other traits have genes that will provide the robust, effective response to disease that comes from Immunity+ sires.

Q: HAS THIS DATA BEEN VALIDATED IN A REAL COMMERCIAL SETTING?

Yes, we have taken data from over 35 large commercial herds, and analyzed data from over 30,000 cows and 75,000 heifers. The results have been astonishing. Reductions in every major disease have been seen, and range anywhere from 5 to 20% reduction in animals sired by Immunity+ sires compared to all others. Mastitis, lameness and mortality saw especially large decreases in frequency.

Q: WHAT ABOUT COLOSTRUM?

Cows sired by Immunity+ sires had, on average, higher colostrum quality. A correlation of immune response status of their sire and colostrum quality of +0.55 was observed. More importantly, was that no HIR sires had daughters who had average colostrum quality below the 22% threshold recommended for use, compared to 27% of herd average sires having daughters whose colostrum, on average, was too poor to feed to their calves.





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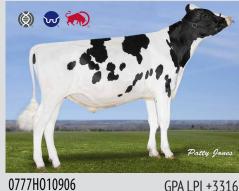
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0777H010845 Melarry **FUEL**

Duke x Kingboy

Pro\$ \$2569 Conf. +9

GPA I PI +3341



Pro\$ \$2707 Conf. 8





GPA I PI +3298 Pro\$ \$2491 Conf. +12

Available Day to Day (subject to availability)

Apprentice x Delta

Superhero x Kingboy

Simplicity-P-RC x

Silver

Abbott x McCutchen

Crush x Mogul

3235

2960

0777H011213

Progenesis **DROPKICK** Superhero x Kingboy

Progenesis **DRYDEN** Scenery-View **CLIFF-PP RDC**

Walnutlawn **SIDEKICK**

Oh-River-Syc CRUSHABULL

Brabantdale **ALONGSIDE**

Westcoast **STAMKOS RDC**

Stantons **HYPERLOOP**

Siemers **DARWIN**

Croteau Lesperron UNIX

Westcoast SWINGMAN Red

Progenesis **SUMMERD**AY

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Sidekick x Jacoby **(** Numero Uno x Domain

Pre-Purchase Only - Not Available Day to Day

(subject to availability)

Positive x Fortune **(**

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Positive x Jedi

Superhero x Silver

Imax x Montana

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Westcoast **REDCARPET** Progenesis **DROPKICK** Voque **SOLARPOWER NEW**

Mcintosh Calmac **SIDEROAD**

Superhero x Kingboy 3298 Crushabull x Bandares Sidekick x Euclid

3464

STANTONS

ATEAM

0200H010856 SILVER X ANTON X SHAMROCK





ATEAM Delivers Profitability & More!



Jaquet Ateam Tika GP-83-2YR-CAN

Backed by 11 generations of VG or EX dams from "The Saturdays", newly proven ATEAM received an early official type evaluation and debuts with a +12 for Conformation. In addition to his **A2A2** & **Robot Ready™** designations, Ateam daughters will be profitable cows with silky, shallow udders, and ideal Feet & Leqs.

ATEAM delivers more!

+3360 GPA LPI

\$2551 PRO\$

+1530 MILK

+88 FAT +.25%

+59 PROT +.07%

+12 CONFORMATION *

+13 MAMMARY SYSTEM *

+10 FEET & LEGS *

GPA 20/AUG
* GEBV20/AUG





