Reduce disease impact, save money and decrease antibiotic use on your farm. It sounds like a lot for a producer to ask for, but it’s becoming a reality on a growing number of farms.

“It’s the result of bringing the power of genetics to bear on the needs of dairy producers,” says Semex Genomics Program Manager Dr. Steven Larmer. Immunity+ disease-resistant genetics started as a research project over 20 years ago. Today, based on University of Guelph research, producers can count on Immunity+ sired daughters to suffer less production-robbing disease, saving producers $72 US per cow, from birth to the end of first lactation.

Last June, Semex added even more genetic punch by launching Elevate®, a new genetic herd strategy tool that uses genomic testing to identify the immune response capability of the herd’s females. “This allows us to identify high, average and low immune responding animals,” says Larmer, who notes the early test results really do point to a revolution in herd health.

HIGH IMMUNE RESPONDERS HAVE 30% LESS DISEASE

“What we’ve found across the board, in terms of total disease incidence, is those high immune responding animals have 30% less disease than the average or the low responding animals in the herd,” says Larmer. This revelation emerges from testing data on 16 large dairies — in the US, Germany and Canada – that included 8,000 cows, mostly in their first lactation. Data from 9,000 heifers was also analyzed. Overall, it reveals significant differences for lameness, mastitis and persistent mastitis, as well as the overall disease frequency.

“This gives us a lot of power that we didn’t previously have,” says Larmer. “When it comes to immunity, we’ve been able to manage it on the sire side, but we’ve never really been able to measure precisely how well we’re doing in terms of actually creating stronger immune systems on farm.”

With the combination of Immunity+ and Elevate, producers now have the ability to not only select better bulls, but to also select the right females that will produce the next generation of healthier animals. “There’s less hassle dealing with illness on a day-to-day basis, both from a management perspective and financially,” says Larmer. “Thirty percent less disease is a huge impact on any dairy farm no matter the size. By crushing disease we’re also crushing the use of antibiotics.”

REDUCING RELIANCE ON ANTIBIOTICS

Reducing antibiotic resistance continues to be a major objective of the World Health Organization, and the campaign to reduce antibiotic use grows stronger each year. “Agriculture has to be a part of that, and we can do a better job of mitigating antibiotic use,” stresses Larmer. “We really feel this is a great holistic solution to be able to reduce disease on farm and ultimately reduce the need for reliance on antibiotics on a day-to-day basis.”

“From a genetic perspective, the more selection producers can make for immunity and disease defense, the less antibiotics we’re going to be needing to use in the next generation,” says Larmer. The combined power of Immunity+ and Elevate is certainly making a difference on farms that have embraced the tools.

“From what we’ve seen, this technology has had a huge impact. Producers have seen their entire herd perform better because they’re dealing less with sick animals,” says Larmer. He feels the genomic era will continue to bring even further benefits, as producers are freer to select for health and productive traits.