

A FLIP OF THE COYNE

By Lynnette Wright

Genomics. “It wasn’t even a word a year and a half ago!” Greg Coyne proclaims, but these days genomics isn’t the big, scary word it was before, it’s a new technology that has provided early believers some positive returns. I recently sat down to speak with Greg and his son, Brian, in their barn office at Coyne Farms in Avon, New York. Their belief in genomics has really helped to identify some key players in this 1,000-cow herd.

Genomics, in layman’s terms, is a reading of what an individual’s DNA “says.” Everyone’s DNA is different, and even in full siblings (who are genetically very similar), DNA can “read” very differently. Genomics allows dairy producers to better predict an animal’s potential with a higher reliability than a parent average because it can read those differences.

Like most everyone else using this technology, the Coynes began testing fairly recently. Their initial experience with testing came through working with AI companies who were testing potential young sires, but more recently Coyne Farms have been testing some of their cows and heifers. Greg and Brian figured they had tested about 20-25 females so far, with a list of more to do. To date, nearly 2,900 Holstein females have been genomically tested, and Tom Lawlor, PhD, the Director of Research and Development for Holstein USA, reported that two of the top 10 animals tested by Net Merit dollars (NM\$) are from Coynes. Tom added, “I’m happy for Greg’s success. Coyne Farms have put themselves into an excellent position to benefit from genomic testing. They have emphasized high genetics for years and they have developed some excellent cow families. Being a large farm and with a keen interest in genetics, they’re able to have their cows compete with one another and sort out the better cattle. So, Greg knows his cows and has good insight into which animals and families should do well with a genomic test.”

One of those high testing animals, with a genomic NM\$ of 796, is Coyne-Farms Shottle Yup-ET (VG-87 @2-11), a Shottle daughter that made 34,520 3.7 1291 3.1 1083 in 365 days at 1-11. Her dam, Milkworth Manfred Yadda (VG-86), was purchased as a calf in the Milkworth Holsteins Dispersal back in 1999. Greg recalls that he couldn’t make it to the sale, but wanted to buy something from the Wadsworth family, so he asked John Barrett to buy a heifer for him. Yadda was backed by two Good Plus dams, but behind that, there were numerous generations of VG and EX dams. Yadda ended up selling towards the end of the sale and Greg got her for the bargain price of \$850. Yadda proved to be a high index-

ing cow, especially for health traits, with high PTAs for PL and DPR. She also attracted some interest from the studs and has a proven son at Accelerated Genetics, Coyne-Farms Finley Yogi.

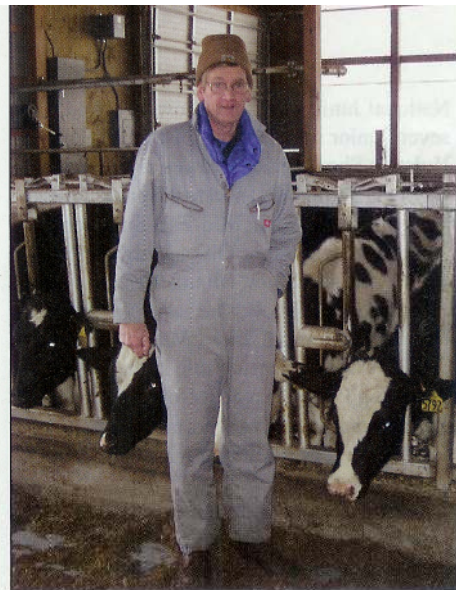
In 2005, Shottle Yup was born, along with her full sister Yeah (VG-88@2-07), and three full brothers. At the time none of the studs had any interest in the bulls so they all sold to local farms for use as herd bulls. Coynes flushed Yadda again to Shottle and put five of the embryos in the NY Convention ET Sale. They sold towards the end with little interest and were eventually treated as a no-sale. So Greg put all five embryos in at home and got five pregnancies, resulting in four bulls and one heifer. By the time these were born at the end of 2007, genomics had just hit the scene. Yeah and Yup had both tested well. Now the bull studs were interested, and in fact, all four bulls went into AI! As for the heifer from this crop, Coynes have been flushing her as a heifer to genomically tested young sires. Her two older sisters, Yeah and Yup, are at Sunshine Genetics now, on an extensive flushing program.

Greg shared with me a print out of Yup’s genomic testing. It’s very interesting to see the differences between “normal” PTAs and the genomic reading. Some traits are basically the same between the two rankings, while others are quite different. For instance, Rear Udder Height is +3.7 Genomic PTA and +4.7 PTA, while Fat% is .12% Genomic PTA and .04% PTA. But no matter the trait, the reliability on all the traits is at least 20% higher genomically, in some cases even 30% higher.

Greg also showed me the testing for three full brothers he’d just received. There was nearly a 200 point range in NM\$ between the three of them. One was in the 500s, one in the 600s and one in the 700s. Furthermore their productive life numbers ranged from +2.8 to +4.4. Two of these bulls will qualify for stud, based on their NM\$. A result in the 600s is good, 700s is great and 800s is awesome and there aren’t many. He explained that the studs are now paying more for genomically tested bulls, based on their percentile ranking. Greg plans to test the market to see which stud is willing to pay the most for those top bulls.

“Greg knows how to utilize the genomic test results for financial gain and he also knows how to market high genetics. So, when he gets a good genomic test result he knows how to turn that information into marketing opportunities. This is important, particularly, when the genomic test costs \$250 per animal,” Tom Lawlor commented.

One of the biggest surprises Coynes have had from their genomic testing is actually the highest



Greg Coyne stands with Coyne-Farms Ramos Jelly (5792), one of the highest genomically tested animals to date

NM\$ female they have, Coyne-Farms Ramos Jelly, who has a Genomic NM\$ of 833. Brian Coyne explained, “The studs never showed any interest in the Ramos’ dam. She was just another VG Shottle.” Jelly is a Ramos daughter born in January of ’08. Her dam is a VG-85 Shottle, then an EX-90 Bestow daughter that has over 165,000M lifetime to date. Behind her is a Wade that “lived and milked forever” as Brian said. Now that this calf has tested so high, the bull studs are interested in the dam, and have made contracts for Socrates-ET bulls due next year. Once Jelly is old enough Coynes plan to flush her as well, to genomically tested young sires of course!

Greg mentioned that this past summer, he was talking to his friend Jeff King of Kings-Ransom Farm at the NY Holstein Picnic. Greg told Jeff that he was going to test 100 females and Jeff asked him if he was nuts! “That would cost \$25,000!” But Greg told him to think about all the money he could make in return. Now Jeff is testing a lot of his animals too! To that effect, Tom Lawlor added, “Greg’s a good student of genetics, meaning that he’s used to seeing genetic indexes go up and down. One needs to be resilient, because with genomic testing, there will be both good and bad results.”

Greg has the confidence in genomic testing to test enough animals so that he can pick and choose amongst a large group of animals. The people who will be most successful with this technology are those like Greg who jump right into it in a fairly big way, using the test results right away and then starting to think about the next batch of animals to be tested.

As for the future, Greg and Brian only see genomics becoming increasingly important and vital to the breeding side of the industry. The testing will get more and more accurate as more animals get tested. Greg warns that “people should not stay ignorant of genomics – because it’s here. Learn about it and understand it, because it is happening.” □