



How they're handling sire selection

Sire selection involves so much more than choosing bulls these days. These dairy producers shed light on how much they've incorporated genomics and sexed semen into their herd's breeding program.

THE following information is bonus coverage from our January 25, 2010, Round Table found on pages 50 to 52.

What advice would you give to others considering using sexed semen?

Brandvale: You always have to keep costs in mind when evaluating if sexed semen or any technology is going to improve your profitability. A farm's goals also need to be taken into account in making decisions regarding sexed semen. When we were in an expansion mode and springing heifer prices were high, sexed semen was a good option as a way to increase our herd numbers from within.

We still use sexed semen but now it is to offset low bull calf prices since we do not raise steers and to make genetic progress faster. We would also caution dairy producers to pay attention to which sexed semen bulls are working well in your herd. Sexed semen is good to use on heifers, not only because they have higher fertility, but also because we gain an advantage for that heifer when she calves because giving birth to a female calf is easier generally than a bull calf.

Buttercrest: Talk to your vet and come up with a good vaccination program and implement it. Use sexed semen on heifers that are growing well and gaining weight. Don't be afraid to use it on cows

with a healthy reproductive tract that have been cycling. Be sure your calf facilities and management capabilities can keep up with higher heifer numbers. Your heifers are your best genetics anyway so spending more for sexed semen to reduce calving problems if that is an issue can be money well spent.

Stanton: I think that if a dairy is having a good conception rate, it would be an excellent candidate for sexed semen. If there are already reproduction problems, sexed semen will likely make this worse. Also, I am a big believer in using the best bulls available. I would not advocate using an inferior bull just because his semen is sexed.

Whittier: We really have not had enough experience with the use of sexed semen to give solid advice.

What advice would you give to others when working with genomics?

Brandvale: Time will tell if genomics is a reliable tool for dairy producers. So far, it is interesting to see how the numbers break down with genomically tested animals. Using a variety of genomically tested bulls will spread out the risk in case a bull proves to be inferior over time. As dairy producers, we need to keep in mind that this technology must make economic sense for our herds. Also, there have always been progeny tested bulls that once looked very promising and then crashed. In time, we will

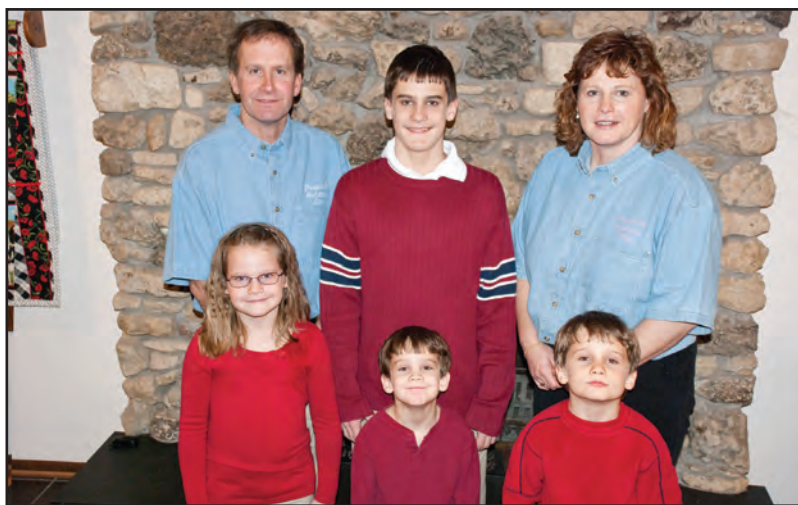
have a better idea if this is true for genomically tested bulls, as well.

Buttercrest: First and foremost, genomics is a brand new tool to use in breeding cows. Like most new technologies, there will be a period of learning, tweaking, and improving to make genomics more accurate. For the time being, a well-organized progeny testing program is still the gold standard.

My advice would be to take advantage of the availability of these young bulls with really high genomic evaluations. Just be sure to spread the risk around. That first genomic proof you see is not yet a finished product. It can and will change in the future.

My hope is to see a lower-cost genomic test in the near future for females. Perhaps we can identify females from new cow families or bloodlines that can contribute to their respective breeds.

I've said before that we are not breeding thoroughbreds where only the wealthiest can afford the best genetics. A.I. companies do a good job of providing top bulls at a reasonable cost to breeders around the world, so with a greater number of males and females being genomic tested, we may be able to uncover outstanding genetics that may not have otherwise been found. It may be pushing it to say the best bulls go to the stockyards, but when you look at the number of bulls proven versus the number born, I'm sure there are many good ones that



Brandvale Dairy — The Steve and Mary Brand Family, Ellsworth, Wis.

"We are trying to breed a medium-sized cow with strength, sound feet and legs, and a well-attached udder," says Steve Brand who farms east of Minnesota's Twin Cities. "If our cows are structurally correct and fit well in our facilities, we feel they will have a long productive life. We strive for a high level of milk production while maintaining a high level of fertility," says Brand whose Holstein herd averages 24,100 M.

"Our goals have changed since our 2001 expansion. At that time, we moved from milking 80 cows in a tie stall barn to milking 803 cows

in a free stall setup," notes Brand. "We currently pay more attention to health traits and sound conformation and less attention to size. We purchased grade animals when we expanded in 2001 and have improved their production, type, and overall soundness by paying attention to pedigrees and genetics. We currently register all animals born on our farm and strive to build on our herd's genetics."

Shown above (from l to r) are: front row, Lauren, Logan, and Austin; back row, Steve, Alex, and Mary Brand.



Buttercrest Jerseys — Tom Cooperrider, Croton, Ohio

"I'm looking for a cow that is a average in size. Our cows have gotten bigger over the years as a by-product of other selection traits," says Tom Cooperrider who farms north-east of Columbus, Ohio. "A moderate-sized cow can milk every bit as well as a very large cow, can get up and down in free stalls easier, and is more mobile on concrete. I prefer cows to have plenty of width and substance with the ability to milk well and maintain body condition."

"When I started farming, pounds of milk, fat, and protein came first, but as improvements in feeding and

management boosted production, the need for a cow to wear longer became obvious. Feet, legs, and well-attached shallow udders with close teat placement now receive more emphasis."

Buttercrest Jerseys has been owned by Tom and his wife, Brenda, since he graduated from Ohio State in 1980. The farm has been in the family since 1937. The couple have three children: Tony, Travis, and Kelsy. The herd consists of 123 Jerseys that average 17,996 M, 916 F, and 677 P. Cows are housed in sand-bedded free stalls.



never get the chance. You can't find them if you don't test them.

Stanton: I am a strong believer in genomics and would certainly encourage its use. That being said, on the bull side, we are going to spread our risk on genomically proven bulls by using a number of them. This is really not different than our use of proven bulls before genomics.

On the female side, unless the individual has a high index, I would not recommend testing her genomic level. The index system we have in place is reasonably accurate at predicting an animal's genetic ability. Genomics is really a tool to verify the index.

Whittier: Assuming accuracy of genomic values, time will tell how good of a tool it is to today's breeders. We feel genomics creates a more level playing field when proving bulls by genomics rather than traditional values. This is because we can compare the predicted transmitting ability of a sire better without management and herd type variation factors that are not usually taken into account when evaluating a bull's daughters. For example, it is difficult to compare different daughters of a sire versus her herdmates to each other because herdmates are so different from herd to herd. With genomic values, this is all predetermined assuming accuracy. We are eager to see how accurate genomic values prove to be, and only time will tell.


As with any new tool out there, go slow, don't base all your breeding decisions on this one system of data. Lastly, we would like to mention that even organizations that contract and purchase genetics from us, even though genomics plays a major role, buyers are still looking at a female's actual performance. This includes classification and milk records made that are closely evaluated in order to decide if they want to contract a cow for embryos, bulls, or female calves.

Has the cost of the current genomic test limited testing? Would a lower-density, lower-cost test lead you to test more individuals?

Brandvale: Cost is definitely a factor in determining the number of females we genomically test. We would test more animals if the cost of the test were lower. Especially in today's economy we watch our costs closely, and there has to be an economic payback before we will embrace a technology or practice.

Buttercrest: The cost has certainly limited our testing, especially with the economic situation the dairy industry has been in this past year. A low-cost, low-density test would be very helpful in screening a larger group of females to show what direction they are heading from parent average and then zero in on the best with a more accurate test.

Stanton: The cost of the test has limited the number of females that we have tested. We are only willing to test the animals that have marketing potential. At this point, we are only testing those animals that, based on their sire and their maternal side, have a realistic chance of being high. We are very likely missing some potentially high individuals but we feel the cost to find these are too high. A lower-density, lower-cost test likely wouldn't change the number of animals we test unless the savings were significant. Whenever we decide to test an animal, we want to be convinced that there is a reasonable chance at getting a return on our investment. We don't want to waste money regardless of the amount.

Whittier: Yes, the current cost of genomic testing has limited the number of females we have tested. If a lower-cost test was available, we would most likely test more animals in the herd. 



Stanton Farms — The Stanton Family, Ilderton, Ontario, Canada

"We are trying to breed cows that can easily produce large amounts of milk over several lactations. In order to do this, they must have exceptional feet and legs and a great udder," says Jim Stanton who farms midway between Detroit, Mich., and Toronto, Ontario, Canada.

"These goals have not changed much over time. However, we are focused now more than ever on breeding the truly elite individual that will improve not only our herd, but through her offspring, will improve the breed around the world," says Jim.

The 75-year-old family farm is owned by parents Laurie and Sandy Stanton, along with sons Jeff, Greg, and Jim and their sister, Amy. Shown in the photo are Laurie, Jim, and Jeff along with Calbrett Shottle Lela, a VG-87 Shotte daughter of Lylehaven Lila Z that ranks 34 on Holstein Canada's top-ranking genomic list.

The 850 Holsteins at the farm average 27,600 pounds of milk and are housed in a free stall barn and milked in a double-30 herringbone parlor. In all, the Stantons own 1,550 acres and rent an additional 250.



Whittier Farms — West Sutton, Mass.

"We try to breed for a complete cow. We strive for cows that will classify Very Good as 2-year-olds and mature into Excellent cows that will easily produce 30,000 pounds of milk trouble-free," says Todd Whittier. "We want to have something that's in demand to merchandise. Also, we enjoy showing, so extreme type carries some focus."

Janice Whittier and her sons, Todd and Wayne, represent the fourth and fifth generation to own the 500-acre dairy. The 150 cows average 22,316 M, 867 F, and 688 P. Shown above are Todd Whittier and his assistant

herdperson, Darcie Hartford.

Genomics has enhanced their merchandising program. Last summer, they had a heifer (bred and owned with Cybil Fisher) that genomic tested 2394 GTPL. That ranked fourth in the world at the time. They consigned her to an elite sale and Whittier-CF Mac Lucina-ET sold for \$88,000.

"Even without genomic testing, this heifer would have sold well given her deep pedigree, but because we had her tested bidding was fierce, driving her sale price up," says Todd.