

Arizona DHIA  
Phone: 480-894-0156

Dairy Lab Services  
Phone: 563-557-7421

Dairy One Cooperative Inc.  
Phone: 607-257-1272

DHI Cooperative Inc.  
Phone: 800-DHI-OHIO

Idaho DHIA  
Phone: 208-733-6372, ext. 104

Indiana State Dairy Assn.  
Phone: 765-494-8025

Lancaster DHIA  
Phone: 717-665-5960

Minnesota DHIA  
Phone: 763-682-1091

NorthStar Cooperative  
DHI Services  
Phone: 800-471-3716

Puerto Rico DHIA  
Phone: 787-544-6690

Rocky Mountain DHIA  
Phone: 435-374-0218

San Joaquin DHIA  
Phone: 209-824-7790

Tennessee DHIA  
Phone: 865-974-7289

Texas DHIA  
Phone: 806-651-8750

United Federation of DHIAs  
Phone: 540-552-2541

Vermont DHIA  
Phone: 802-295-3379

Washington State DHIA  
Phone: 360-755-0375

# Genomic testing: a

New innovations can be sustaining or disruptive. A sustaining innovation is simply an improvement to a current product or service. For example, an improvement in milking liners can lead to lower slippage and less abrasion. However, you'll still buy a similar number of liners from the same people as you did before. Disruptive technology tends to change the whole industry in many fundamental ways.

Examples of disruptive innovations are abundant throughout history; the automobile displacing the horse and buggy; cell phones replacing most public phone booths; bulk tanks eliminating milk cans; and AI reducing the need for a bull. These technologies totally reshaped the landscape and their respective businesses. Genomic testing is that kind of technology. It provides us with a considerable amount of new genetic information, which will reduce our need for some traditional phenotypic data. It's a driver of change within the dairy industry.

The consequence of genomic testing on performance recording was a topic of discussion at a recent international dairy meeting (Interbull). Progeny testing is going from an "organized" test to an "unorganized" data collection program. There are fewer older bulls and more extensive use of highly selected young bulls. The French and Germans stated that they have already closed bull barns or modified them to house more young bulls. Millions of dollars are being shifted to genotyping and the purchasing of elite genetics. The ability of AI companies to provide financial incentive programs to farmers to use young sires and pay staff to coordinate the semen distribution of each bull into a large number of geographically dispersed herds with varying management practices will be greatly diminished.

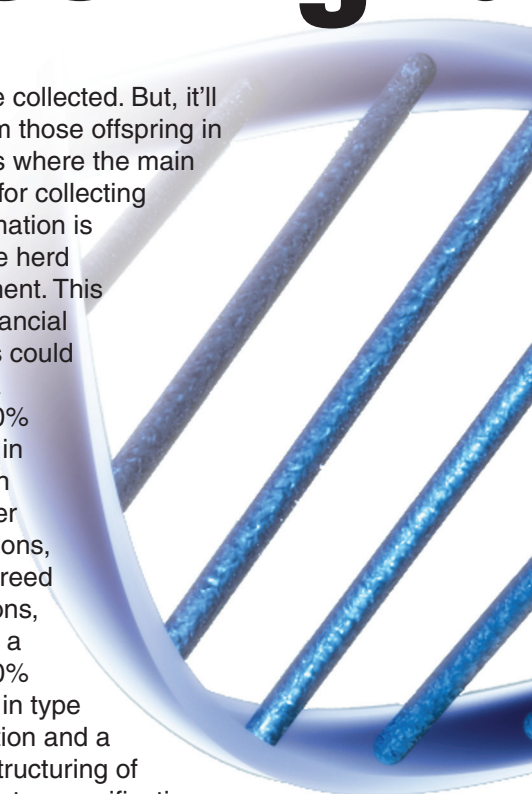
## Producers still need to collect data

Yes, performance data on a bull's daughters

will still be collected. But, it'll come from those offspring in DHI herds where the main objective for collecting this information is to improve herd management. This shift in financial resources could result in a 10% to 20% decrease in production data. Other organizations, such as breed associations, could see a 30% to 40% reduction in type classification and a major restructuring of their parentage verification programs.

New funds to pay for new data on new traits in the areas of health, fertility, animal welfare, feed efficiency, etc. will be needed. Our ability to protect the confidential nature of these data must be provided. Our previous reliance on the randomized sampling of bulls through an organized progeny testing program will be missed. Will the proofs continue to be accurate? Will pre-selection of bulls on early genomic tests introduce a bias? Will we have enough data to recalibrate genomic predictions? Will dairy farmers follow AI and reduce their collection of data on whole herds or some elite cow families? Or, will the "system" somehow take care of all this?

Oh yes, the "system," just who is that? Well, it's us – DHI members. We're part of the system and we're part of the solution. Remember, our mission statement is: "To serve National DHIA members and the dairy





# new technology tool

industry in advancing dairy information services.”

We will accomplish this by:

- Ensuring information accuracy

dataset has for genetic evaluations, management benchmarks and industry trends.

National DHI has a long history and close connection with the U.S. genetic improvement program. But our involvement is more than just being noble; it's in our self interest. Genetic improvement allows us to produce milk more efficiently and this is critical to our profitability.

Recently, DHI representatives on the Council on Dairy Cattle Breeding (CDCB )

an active ongoing research program, produce unbiased genetic evaluations and develop a delivery system, managed by CDCB staff, that will capture as much value as possible from our collective database.

The action of CDCB is a fine example of how different organizations, dairy records providers, AI companies, breed associations and USDA can work together for a common goal. We need to keep our domestic dairy industry efficient and profitable. The U.S. dairy genetics industry needs us and we need them. The industry is changing; doing nothing is not an option. Now is the time to be proactive. Now is the time to take a fresh look at how we can better work together for the benefit of all of us.

- Representing and supporting our members' interests
- Being the direct voice for the dairy information industry
- Working with industry partners

## **A game changer**

Genomic predictions are a great tool, a great innovation and a game changer. It's a disruptive technology that is making the whole U.S. dairy industry think about data collection, data flow, compensation for data and the value of data – the value for each one of our individual members' herds and the collective value the combined

voted in favor of establishing a

Cooperative Agreement with the U.S. Department of Agriculture Agricultural Research Service (USDA-ARS) to ensure that high quality data will continue to flow into USDA, have funds to support