



Which one will be  
your next top producer?

Find out with new  
**CLARIFIDE™** DNA marker technology  
from Pfizer Animal Genetics.

 **Pfizer** Animal Health  
Animal Genetics

  
**CLARIFIDE™**

Predict the future now.

# CLARIFIDE: A powerful tool for

**I**t makes sense to build your herd around animals with the highest genetic potential. CLARIFIDE™ now makes it practical for commercial dairy producers to take advantage of genomic testing to select and manage dairy females for the best possible return.

Although genomic testing has been available to the dairy industry for several years, it has been useful and practical for only a small number of animals. CLARIFIDE now puts this powerful tool in the hands of commercial dairy producers.

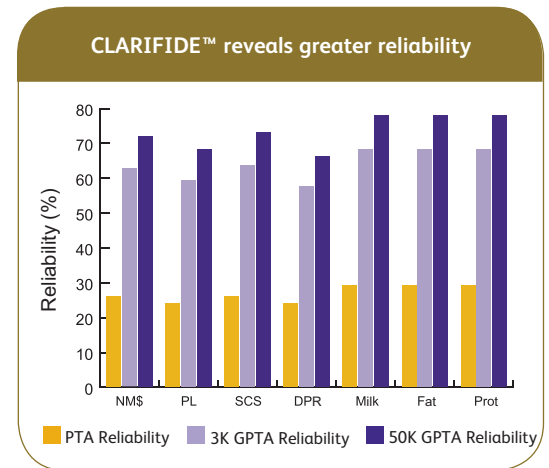
## Here's what CLARIFIDE brings to your operation:

- A panel of 3,000 (3K) genetic markers from the USDA Animal Improvement Programs Laboratory (AIPL) that predict animal performance based on the most economically significant dairy traits
- Testing your herd with CLARIFIDE delivers reliable genomic data on 30 different production, health and type characteristics, as well as several composite indexes, including Net Merit (NM\$)
- Using this data, you can make more informed decisions when it comes to sire selection, reproductive strategies and overall management of your herd
- The result? Faster genetic progress, more efficient use of resources and greater return on your investment

## Use CLARIFIDE with confidence

Results from CLARIFIDE are reported as Genomic Predicted Transmitting Ability (GPTA). When it comes to predicting future performance, GPTA is a significant advancement over traditional PTA information. For the first time, commercial dairy producers can use the power of enhanced genetic selection with GPTA.

For most traits, it would take a cow's entire lifetime — or longer — to get enough progeny and production records to match the reliability of CLARIFIDE. For example, the reliability of the GPTA from CLARIFIDE for Productive Life (PL) is comparable with the reliability of data from 50 actual daughter records. But, with CLARIFIDE this information is available as early as birth.

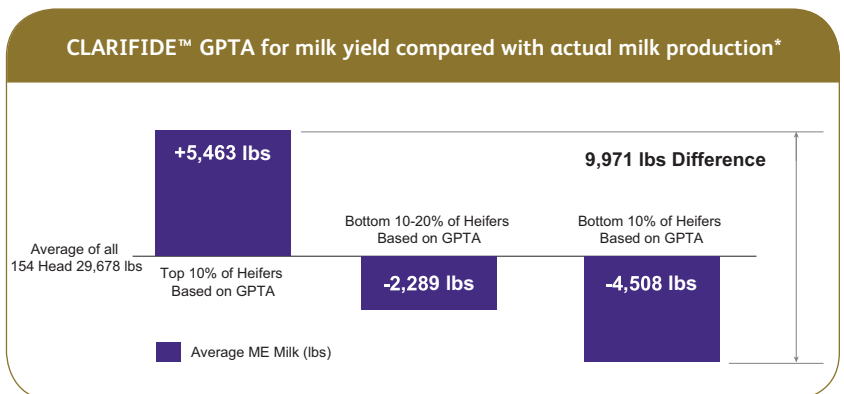


Based on 3K and 50K Genotypes in Holstein Cattle, Pfizer Animal Genetics, data on file.

## Spot-on predictions of future performance

Tests in commercial dairy herds demonstrate that CLARIFIDE™ delivers an accurate forecast of future performance. In this example from a herd in the Upper Midwest, the top 10 percent of heifers based on GPTA for milk yield produced 5,463 more pounds of milk, on an ME basis, than the average of their herdmates. The lowest 10 percent based on GPTA produced 4,508 pounds less than average.

No other tool can give you that level of accuracy when it comes to clarifying the genetic potential of your heifers and cows.



\*Deviation is from herd average that includes all groups.

# dairy management.

## Maximize your investment in replacement heifers

Consider the costs of raising a heifer from birth — an average of \$2,150<sup>1</sup> per animal.

CLARIFIDE helps you maximize your investment in replacements by providing valuable information about their potential future performance. Determining the genetic potential of both home-raised and purchased heifers allows you to take control of your herd's genetic future.



## How to use CLARIFIDE to improve your herd

CLARIFIDE reveals a heifer's overall genetic potential early in life. Armed with that information, you can make management decisions accordingly. For example:

- Focus resources on high-genetic-potential females that can improve your herd more quickly
- Identify females that will deliver a higher return from advanced reproductive technologies, such as sexed semen or embryo transfer
- Conversely, identify animals with lower genetic potential so you can allocate management resources accordingly
- Address genetic deficiencies that may be corrected in future offspring through mating to appropriate sires
- Better manage inbreeding without previous knowledge of the parentage of the animal

To take full advantage of CLARIFIDE, test young heifers before they reach breeding age. Results can then be used to make initial breeding decisions that will deliver the greatest long-term improvement in your herd. But DNA collection can be done any time it fits the protocols and goals of your operation.

## What CLARIFIDE includes: 30 production, health and type traits\*

- Milk Yield
- Fat Yield
- Protein Yield
- Fat %
- Protein %
- Somatic Cell Score
- Daughter Pregnancy Rate
- Productive Life
- Sire Calving Ease
- Daughter Calving Ease
- Sire Stillbirth
- Daughter Stillbirth
- Individual Inbreeding
- Future Inbreeding
- Stature
- Strength
- Body Depth
- Dairy Form
- Rump Angle
- Rump – Thurl Width
- Rear Legs Side View
- Rear Legs Rear View
- Foot Angle
- Feet/Legs Score
- Fore Udder Attachment
- Rear Udder Attachment
- Rear Udder Width
- Udder Cleft
- Udder Depth
- Front Teat Placement
- Rear Teat Placement
- Teat Length

\*For each trait, the GPTA is reported in units specific to that trait. For example, GPTA for milk yield is expressed in pounds of milk; GPTA for productive life is expressed in months.

## Composite indexes\*\*

- Net Merit
- Cheese Merit
- Fluid Merit
- Breed Performance Index
- Type – Final Score
- Calving Ability
- Udder Composite
- Feet/Legs Composite
- Body Size Composite

\*\*Indexes combine information on several related traits into one composite value.

## Getting started

### Order a CLARIFIDE™ test kit

- Go to [www.pfizeranimalgenetics.com](http://www.pfizeranimalgenetics.com) to access an electronic order form
- For questions, call Pfizer Animal Genetics Customer Service at 877-233-3362

### Collect tissue samples

- Samples are accepted for Holstein, Jersey and Brown Swiss females
- Blood cards, whole blood samples or hair follicle samples can be used for testing
- For twins, hair is the only accepted tissue source
- For animals younger than 4 months of age, a blood sample is required

### Ship to Pfizer Animal Genetics

- Follow shipping instructions and adhere to deadlines found on the [www.pfizeranimalgenetics.com](http://www.pfizeranimalgenetics.com) website

### Analyze results and determine action plan

- CLARIFIDE results will be returned in an easily sortable Excel® report. Your Pfizer Animal Health representative can help you interpret your results and incorporate the information into your overall reproductive plan.

Now you can take control of your herd's genetic future. Ask your Pfizer Animal Health representative about CLARIFIDE, or visit [www.pfizeranimalgenetics.com](http://www.pfizeranimalgenetics.com).

### 4 Steps to Genetic Improvement

- 1 Use CLARIFIDE to understand the genetic potential of your dairy females
- 2 Identify areas of improvement based on your operation's goals
- 3 Define short-term and long-term strategies to meet your goals
- 4 Monitor and measure progress



*CLARIFIDE comes from Pfizer Animal Genetics, a business of Pfizer Animal Health, the leader in reproductive technologies. Experts from Pfizer Animal Health are available to help you apply this innovation in your herd, analyze the results and make sound management decisions. With CLARIFIDE, you can integrate genomic testing with your other Pfizer Animal Health reproductive and health management programs to get the most out of your herd's genetic potential.*

<sup>1</sup>Zwald A, Kohlman TL, Gunderson SL, Hoffman PC and Kriegl T. University of Wisconsin. Economic costs and labor efficiencies associated with raising dairy herd replacements on Wisconsin dairy farms and custom heifer raising operations. Available at: <http://www.sheboygan.uwex.edu/ag/dairy/documents/CostofRaisingHeifers-2007ICPARReport.pdf>. Accessed July 28, 2010.

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