



## WELLNESS IS A PROFITABLE CHOICE FOR HOLSTEINS

### GENETICALLY SELECT HEIFERS TO BUILD A MORE PROFITABLE HERD

With CLARIFIDE<sup>®</sup> Plus, you can improve herd health with genetic testing and selection. Profitable Holstein cows are more fertile, productive, healthy and long-lived. They require fewer treatments and are more likely to remain in the herd longer. CLARIFIDE Plus allows you to make selections based on wellness and fertility traits that impact profitability.

CLARIFIDE Plus is the first and only genomic test in the U.S. that delivers information on all these traits:

- **Eight cow wellness traits** — mastitis, lameness, metritis, retained placenta, displaced abomasum, ketosis, milk fever and respiratory disease
- **Three additional fertility traits** — cystic ovary, abortion and twinning
- **Three calf wellness traits** — calf livability, respiratory disease and scours

These genetic predictions are based on data collected from millions of health records within U.S. commercial herds like yours.

The expanded suite of genomic insights enhances your ability to make decisions that incorporate fertility traits and disease risk. CLARIFIDE Plus indexes balance these factors to help you select the most profitable animals for your herd. This single-sample genetic test provides you with highly relevant information as you seek to improve the health, productivity and profitability of the Holstein cattle in your care.



## SELECT AGAINST DISEASES THAT IMPACT FERTILITY

With the newest trait additions for CLARIFIDE® Plus, you have even better insights to help avoid costly diseases that impact fertility. The newest traits included in CLARIFIDE Plus results include cow abortion, twinning, cow respiratory disease, cystic ovary and milk fever.

Abortion among dairy cows represents a major economic burden to the dairy industry. The average cost of each pregnancy loss from abortion is estimated at \$555.<sup>1</sup> Abortion also can increase the risk of other diseases and premature culling.

Twinning reduces your herd's overall profitability from the health impact on cows as well as on calves born as twins.<sup>2</sup> Twinning can result in increased risk for dystocia, retained placenta, metritis, abortion and culling. The mortality rate for twins is two to three times more than a single calf.<sup>3</sup>

## AVERAGE RELIABILITY AND AVERAGE, MINIMUM AND MAXIMUM GENETIC VALUES FOR HOLSTEIN COW WELLNESS TRAITS, FERTILITY TRAITS AND CALF WELLNESS TRAITS\*

	Average % Reliability	Minimum Score (STA)	Maximum Score (STA)
<b>Cow Wellness Traits</b>			
Mastitis	52	76	115
Lameness	52	73	115
Metritis	51	75	115
Retained Placenta	51	71	116
Displaced Abomasum	50	69	111
Ketosis	51	72	113
Milk Fever	36	68	114
Respiratory Disease	40	70	114
<b>Fertility Traits</b>			
Cystic Ovaries	29	69	118
Abortion	35	70	118
Twinning	42	66	112
<b>Calf Wellness Traits</b>			
Calf Livability	42	85	117
Calf Respiratory	36	83	116
Calf Scours	39	66	116

\*Numbers reflect data from reference population of animals under 2 years of age

Average disease risk is represented by an STA value of 100. Values greater than 100 reflect animals with lower expected average risk for the associated disease relative to their herdmates. Selecting for a high STA will apply selection pressure for reduced risk of disease.

**To learn how CLARIFIDE Plus can help you achieve a healthier, more trouble-free herd, contact your Zoetis representative today or visit [clarifideplus.com](http://clarifideplus.com).**

<sup>1</sup> De Vries A. Economic value of pregnancy in dairy cattle. *Journal of Dairy Science*, 2006;89(10):3876-3885.

<sup>2</sup> Fricke PM. Twinning in dairy cattle. *The Professional Animal Scientist*, 2001;17(2):61-67.

<sup>3</sup> Del Rio NS, Stewart S, Rapnicki P, Chang YM, Fricke PM. An observational analysis of twin births, calf sex ratio, and calf mortality in Holstein dairy cattle. *Journal of Dairy Science*, 2007;90(3):1255-1264.



**Our goal is to help you achieve all of yours.** On your operation, every outcome — from improved reproduction to quality milk — affects your success. And we'll be there to help you develop programs and solutions to improve those outcomes. Because that's how, together, we'll achieve Dairy Wellness.

**DAIRY WELLNESS MAKES A DIFFERENCE™**

**zoetis**