

Haplotypes & genomic reliability updated

Based on new findings from the Council on Dairy Cattle Breeding (CDCB), one new haplotype will be added, and two others removed, starting with December 2018 proofs. Alta Bull Search and Alta GPS will be programmed according to this new information.

A new Holstein haplotype, HH6, was recently identified in France, and is currently found at a 0.5% of animals in the US Holstein population. Mating two HH6 carriers is expected to yield a 7%-11% drop in conception rate.

Further research into the JH2 haplotype in Jerseys and the BH1 haplotype in Brown Swiss showed no significant fertility losses on matings between carriers. This, paired with the fact that researchers could find no causative mutation on these two haplotypes, means they will no longer be reported.

Gene test advancements

In addition to new and discontinued haplotypes, the reported haplotypes are also gaining accuracy. PEAK Geneticist, Doug Bjelland, compares the improved accuracy of haplotypes to locating a house on a map. The previous way of recognizing haplotypes essentially showed us which street a house is located on. Now, because of gene test advancements for causative mutations to determine haplotypes, we know exactly where on that street a house is located.

Upgraded genomic reliability

Improved genomic accuracy also extends beyond the haplotypes. Researchers are now using an 80k SNP chip. This means they are using nearly 80,000 markers on the genome, up from the previous 60,000 used since 2014.

The additional markers, combined with a new reference genome, give genomic predictions about a 1% - 2% improvement in reliability.

What does this mean for you?

We want to keep you up-to-date on the newest genetic findings. Updates on haplotypes and genomic accuracy are one part of that. Because the haplotype updates will be accounted for within the AltaGPS program, you can have confidence that potential carriers of two bulls will not be mated together. That means your clients are protected from any potential fertility losses that could result in mating two carriers of any given haplotype.

Improved genomic accuracy should give you, and your clients, even more confidence that genomics and genetics continue to advance at more rapid rate. It's as important now as it ever has been, to ensure your clients select genetics according to their customized genetic plan so the progress they make aligns with their current situation and future goals.