

Demystifying Parentage Verification Requirements

BY HOLSTEIN USA STAFF

Parentage verification is a core function in upholding the integrity of the Holstein Association USA herdbook, and with the advent of genomic testing, more animals are having their parentage confirmed than ever before. The Quality Assurance department routinely fields a variety of questions about parentage verification requirements, and in this article, we hope to clarify some common asked questions.

Holstein Association USA's parentage verification program has two components: having the genotype stored in our database, when possible; and having parentage officially confirmed. Parentage confirmation is done routinely every time an animal is genomic tested, aside from specific parentage testing. When that testing is done through Holstein Association USA, we automatically receive the genotype. When the genomic testing is done through another organization, we suggest the owner request the testing organization to send the genotype to the Association, to satisfy our requirements.

Aside from parentage confirmation that is done at the time of genomic testing (SNP verification), the other primary method is microsatellite parentage testing, which meets many international requirements, and is available through the Association for \$45. Now, let's look at what requirements are needed for specific groups of animals that require parentage verification.

Donor Dams: SNP parentage verification, included with genomic testing, satisfies the requirements for donor dam parentage verification. Remember, if the donor dam was tested by someone other than Holstein USA, please request her genotype be sent to us to satisfy this requirement and avoid extra hassle when registering progeny.

Required E.T. Calves: Holstein Association USA policy requires every third calf born by embryo transfer (ET) to have parentage confirmed. At the time of registration, our ID

program determines the best type of test for the calf, based on the type of test (SNP or microsatellite) that was performed on the dam. For SNP parentage, we must know that the calf's dam was genomic tested. If the calf has been genomic tested

through an organization other than Holstein USA, we suggest the breeder ask that organization to send the genotype to us to satisfy parentage requirements. There is a \$10 genotype transfer fee to add the external SNP genotype to our database.

Bulls Going into A.I.:

Holstein Association USA does not have access to genotypes on bulls genomic tested by an A.I. company, and the industry prefers to continue using microsatellite testing for this group of animals. This is a common situation when a breeder may have to submit a second DNA sample, even if the bull has already been genomic tested. It is a different type of test, performed by a different lab, so the same initial sample may not be used. In some cases, if the dam has not

previously been microsatellite tested, a test for her will also be requested at this time.

Embryos and Semen Being Exported: In this instance, Holstein Association USA is required to follow the requirements of the countries to which embryos/semen are being imported, to minimize any delays with shipments or the registration of any resulting progeny. Currently, most importing countries are continuing to require a microsatellite genotype certificate. This both confirms the parentage of the animal, as well as providing a genotype, so that progeny are able to be verified for the country's own herdbook programs.

U.S. breeders should be proud of the measures taken to ensure the integrity of our herdbook. If you have further questions about Holstein Association USA parentage verification requirements, please contact Customer Service at 800.952.5200.



“Holstein Association USA’s parentage verification program has two components: having the genotype stored in our database, when possible; and having parentage officially confirmed.”