



IMPORTANT BOARD ANNOUNCEMENT

April 15, 2016

The American Angus Association was recently contacted by a commercial producer about a calf exhibiting the symptoms of the lethal genetic condition Osteopetrosis (OS, commonly known as Marble Bone disease). The affected calf was submitted to the University of Nebraska Veterinary Diagnostic Center, where Dr. David Steffen confirmed that the calf was affected by OS, based on physical characteristics. DNA testing confirmed the calf was sired by a registered Angus bull. The dam of the calf is a commercial, Angus-influenced cow of unknown parentage. The calf and sire were also DNA-tested for the OS mutation previously observed in Red Angus. The calf was found to be homozygous for the OS mutation, and the sire was found to be a heterozygous carrier of the mutation. Accordingly, the genomic test available for Red Angus animals also diagnoses the condition in Angus cattle.

Osteopetrosis is inherited as a simple recessive genetic condition. Calves affected by OS are born dead or die shortly after birth, usually 10 to 30 days premature. The body can be small, having abnormal development of the brain cavity and a shortened (undershot) lower jaw, and impacted molars may be present. Bones are solid and do not have a normal bone marrow cavity, making bones brittle and easily broken.

The research identifying the mutation for OS in Red Angus was conducted jointly by scientists at the University of Illinois and the US Meat Animal Research Center (MARC). As part of that research, over 500 Angus AI sires were screened for the mutation, and none were found to be carriers of OS. The incidence of the OS mutation in tested Angus cattle is very low, estimated at approximately one-third of one percent in initial testing.

The American Angus Association is working with genomics companies to screen widely used Angus bulls as well as potential carriers to further determine the impact of the genetic condition. For a list of animals tested to date and their test results, [please click here](#).

The Board of Directors of the American Angus Association has adopted policies relative to this condition. For more information on these policies, [please click here](#). Both GeneSeek and Zoetis will offer commercially available OS testing through Angus Genetics, Inc. (AGI) in the near future.