What is High Altitude Disease (HAD)?

High Altitude Disease (HAD), also known as brisket disease, most commonly affects cattle living at elevations of 5,500 ft. or greater. This comes as a result of cattle living in hypoxic (low oxygen level) environments challenging heart and lung function. Symptoms of the disease include lethargy, diarrhea, weakness, brisket edema, right heart failure and eventual death.

While hard to quantify the economic deficit to the industry, it is known to be detrimental to high-altitude herds as onset can occur at any age, can be further exasperated by other events such as bovine respiratory disease, and in almost all cases is fatal to the animal. The pulmonary arterial pressure (PAP) EPD is helping operations to remove high-risk HAD individuals earlier in life, not only to be removed from the herd, but also to select breeding animals for the next generation.

Why should you collect DNA samples on cattle that die from HAD?

PAP EPDs are predicted using the American Angus Association's single-step genomic evaluation; therefore, genotypes are used for the PAP evaluation to more precisely define relationships among pedigrees.

In efforts to potentially enhance the accuracy of the PAP EPD and broaden genetic tools, the Association encourages producers to collect DNA samples on cattle that die from HAD. Information from these samples could lead to increased accuracy, providing cattlemen more information for their breeding decisions and ultimately, decreased deaths due to HAD.

How do I submit DNA on cattle that die from HAD?

DNA samples will be collected using the standard collection method. Visit www.angus.org/AGI and find the *Submitting Samples* tab for a step-by step guide to DNA sample submission.

The American Angus Association and Angus Genetics Inc. are committed to assisting the membership with the collection of this valuable data. Therefore, all DNA samples collected to test HAD on deceased cattle will be processed free of charge. Parentage information can be provided, but no GE-EPDs will be predicted.

If you have any further questions about HAD testing, contact the American Angus Association at (816) 383-5100.

High Altitude Disease (HAD)/Brisket Disease Sample Submission Form

Member or Affiliate Code (if available): _____

Name: _____ Phone Number: _____

Address: _____ City, State, Zip: _____

SEX	REGISTRATION/BIR NO.	*SIRE REG. NO.*	DAM REG. NO.	TAG/ TATTOO	DATE OF BIRTH	ELEVATION	Y/N PERFORMED NECROPSY	Y/N TREATED FOR RESPIRATORY DISEASE

SHIP SAMPLES TO: AGI | 3201 FREDERICK AVE. | SAINT JOSEPH, MO 64506

I hereby certify that I have identified the animals to be tested by means of the certification of registration and that each sample submitted herewith were taken and submitted in accordance with the DNA Sample Collection and Shipment Instructions*. I understand that AAA's acceptance of this order is conditioned upon my agreement with the DNA Testing Terms and Conditions* and I do hereby agree to all of the DNA Testing Terms and Conditions. Without limiting the foregoing, I specifically acknowledge and agree that the test results and associated performance values will be provided to AAA for publication and inclusion on any applicable animal registration records. The DNA samples, test results, and any information, data and intellectual property developed in relation to the samples or test results will be owned exclusively by AAA or AGI as applicable. The DNA samples, test results and associated data and information (e.g. phenotypic data and performance values) may be used or disclosed for any purpose as AAA sees fit including, without limitation, parentage verification, genetic defect testing and reporting, research and development, commercialization and breed improvement programs. AGI, AAA and the testing laboratory shall have no liability or responsibility for the usefulness, reliability, accuracy, completeness or timeliness of the tests, tests results or associated data or information. In no event shall AGI, AAA or the testing laboratory be liable for any damages, losses or injuries arising out of or in any way connected with the tests, test results or associated data or information. *The DNA Sample Collection and Shipment Instructions and the DNA Testing Terms and Conditions are posted on the AAA website at www.angus.org and can be sent to you in the mail upon request by calling.

Signature: _____ Date: _____