

Standard Procedures for DNA Testing and Reporting of Results

In 2011 the ABA is going to test all Berkshire Champions and Reserve Champions at all Team Purebred Events. The following procedures will be followed:

I. DNA Collection at the Show:

- a. Needed information on DNA cards and verification forms for tested animals will be completed by ABA or Team Purebred staff before sample is collected and made available for staff that will be collecting the sample.
- b. DNA collection process (each tested animal):
 - i. Exhibitor or legal guardian must be present.
 - ii. Exhibitor or legal guardian must sign verification form after DNA has been collected.
- c. DNA samples and verification forms will be returned to the ABA office to coordinate testing process.

Starting June 5, 2011 the following procedures will be followed for any pig that is tested from a junior show, open show or private sale if the pig is supposed to be stress negative but is tested as a carrier.

II. Stress Tests:

- a. If the tested animal is verified as stress negative the animal passes and the result will be updated in the pedigree system. The exhibitor will receive all awards.
- b. If the tested animal is verified as either a 'carrier' or 'positive' for the stress gene the animal fails. The following procedures will then be followed:

III. Negative Mating (both parents are negative in the pedigree system):

- a. A parentage test will be done to check the pig against the sire.
- b. If the pigs pass the parentage test:
 - i. A stress test will be performed on the sire if he is previously untested (negative mating).
 - ii. If he fails the stress test, the pig in question will lose the negative stress status in the ABA pedigree system, but will keep its pedigree. All littermates will also lose the stress negative status.
 - iii. If he passes the stress test or if a stress test was previously performed to show the sire as negative, the ABA will try to obtain DNA from the dam to be tested for stress.
 1. If the dam passes the stress test, there will be a parentage test to see if the dam is truly the dam. If she is not the dam, we will follow the procedure spelled out in c. below but for dams instead of sires.
 2. If the dam fails the stress test, the pig in question will lose the negative stress status in the ABA pedigree system, but will keep its pedigree. All littermates will also lose the stress negative status.
 3. If a sample from the dam is not available the animal will be considered to have failed the testing and will lose its pedigree. All littermates will also lose their pedigrees.
- c. If the parentage test states that the listed sire is not the sire
 - i. Breeder must provide a list of possible sires (no more than 10) with DNA samples on ABA blotter cards to re-test (this testing is done at the breeders expense).
 - ii. The re-testing procedure must be completed all at once (a single GeneSeek order) and must be submitted within 30 days of the initial parentage result.
 - iii. This process follows the same steps detailed in section V.
 - iv. If breeder opts not to attempt to rectify the parentage, then a final 'Fail' result is determined and all pigs in the litter will lose their pedigrees.

IV. Original pedigree listed an unknown mating (at least one of the parents is not negative in the system), therefore the exhibitor or breeder needed to test the pig before the show:

- a. The ABA will try to obtain the original DNA.
 - i. If the DNA is available, the samples will be compared to make sure they come from the same pig.
 - 1. If this sample matches, parentage testing will be completed (see section III) and the breeder will be considered at fault
 - 2. If this sample does not match, parentage testing will be completed (see section III) and the person who sent in the original DNA sample for testing will be considered at fault
 - ii. If the DNA is not available, we will follow procedures in section III with parentage testing.

V. Parentage Test Procedures

- a. The first test completed will be a SNP test:
 - i. If there are less than 2 exclusions the animal passed the parentage test.
 - ii. If there are 2 exclusions the animals will be re-tested on the microsatellite panel. See “b” below.
 - iii. If there are more than 2 exclusions the animal failed the parentage test.
- b. The second round of testing (microsatellite panel):
 - i. If there are 1 or fewer exclusions the animal passed the parentage test.
 - ii. If there is more than 1 exclusion the animal failed the parentage test.
- c. The above procedures (a & b) will be followed for any boar the breeder tests against (see section III c).

VI. Breeder Options (at breeder’s expense):

- a. If ‘fail’ result on SNP panel is determined, the breeder has the option to ask for re-test on the Microsatellite panel.
- b. If a final ‘fail’ result is determined, the breeder has **one** opportunity to rectify the parentage (section III 3).
- c. Each breeder is allowed to have one mistake with parentage (lifetime accumulation); once this opportunity is used, all future initial test results stand (any time stress or parentage testing is completed on future animals), and no further options to rectify results are available.

VII. ABA Actions and Reporting of Final Results (after the above sections have been fully completed):

- a. Initial Pass Result – The ABA office will notify Team Purebred personnel of results. All corresponding awards and premiums will be mailed.
- b. Initial Fail Result:
 - i. ABA will notify Team Purebred personnel of results.
 - ii. ABA personnel will:
 - 1. Notify the breeder of the available breeder options (section III c), then
 - 2. Notify the exhibitor of the current status of the process.
- c. Parentage test rectified by breeder:
 - i. ABA will notify Team Purebred personnel of results.
 - ii. Team Purebred personnel will notify the exhibitor and mail corresponding awards.
 - iii. The ABA will make appropriate changes in pedigree system and notify all current owners of each animal in the litter.
- d. Final Fail Result:
 - i. ABA will notify Team Purebred personnel of results.
 - ii. ABA personnel will:
 - 1. Notify the breeder of ABA policy for failed parentage results outlined in section VII., then
 - 2. Notify the exhibitor of the current status of the process.

VIII. ABA Policy Regarding Failed Parentage Tests

- a. The ABA will cancel the pedigree on each animal in the litter.
- b. A letter will be sent to each owner to notify them of cancelled pedigree(s).
- c. If the breeder of a GILT is found at fault, they must:
 - i. Pay the exhibitor's premiums to the ABA. The ABA will then reimburse Team Purebred.
 - ii. Refund the original purchase price of the animal to the exhibitor.
 - iii. Pay the commission to the ABA if the animal(s) sells through an ABA event (This is for gilts that are double entered and shown/sold at an ABA event). The total purchase price will be refunded to the buyer by the ABA, since this animal will no longer have a pedigree.
 - iv. Pay for any additional DNA tests outside of the original stress test completed by the ABA (this includes parentage testing).
 - v. Not be considered a member in good standing with the ABA and will be unable to register any litters or participate in any events if they fail to comply with above rules i-iv.
- d. If the breeder of a BARROW is found at fault, they must:
 - i. Pay the exhibitor's premiums to the ABA. The ABA will then reimburse Team Purebred.
 - ii. Refund the original purchase price of the animal to the exhibitor.
 - iii. Pay for any additional DNA tests outside of the original stress test completed by the ABA (this includes parentage testing).
 - iv. Not be considered a member in good standing with the ABA and will be unable to register any litters or participate in any events if they fail to comply with above rules i-iii.
- e. If the exhibitor of a GILT or BARROW is found at fault:
 - i. All awards and premiums will be revoked. Exhibitor has 30 days to return awards to the Team Purebred office or will not be considered a member in good standing with the ABA and will be unable to register any litters or participate in any events.
 - ii. In the event that the breeder/exhibitor has been awarded a trailer, it must be returned to the dealer and any expenses required to transport, remove lettering, and/or return to the dealership are the responsibility of the breeder/exhibitor.

***The term breeder/seller may also refer to a boar stud, exhibitor, or an interim owner.*

IX. Related Policies:

- a. All parentage tests must be coordinated through ABA. Results will not be accepted from tests submitted by the breeder.
- b. All DNA samples submitted for DNA banking requirements must be on a card from the ABA office and have a sufficient sample.
- c. No test results will be released to anyone outside of ABA staff and Board President until all needed secondary tests are completed.
- d. The need of any further testing on 'Fail' results will be determined and coordinated by ABA staff only.
- e. No 'internal R&D' results will be released to anyone outside of ABA staff until permitted by the ABA Board.
- f. All submitted samples (regardless of test result) will be retained by ABA, and no submitted DNA samples will be released back to the breeder or exhibitor.
- g. Failed test results will not be publicized except in the normal listing of canceled pedigrees published in the ABA newsletter and *Breeders Digest*.