

Managing Brahmans: A Comprehensive Guide to DNA Testing Procedures

Introduction

You can choose your lab of choice however ABBA primarily uses Zoetis and Neo Gen official DNA testing laboratory. DNA testing is vital for:

- Permitting donor dams and sires for artificial insemination (AI).
- Parentage verification and genetic abnormality testing.
- Enhancing the accuracy of genomic-enhanced expected progeny differences (GE-EPDs).

DNA Testing Procedures

Getting Started

1. Prepare Animal Information:

- Obtain registration numbers for all animals to be tested.
- Determine which tests to request (e.g., AI permits, genetic abnormalities).

2. Contact ABBA:

- Call customer service at **979-** to request DNA test kits.
- Specify the type of DNA test(s) required.

Sample Collection

• Preferred Method: Hair Samples:

- Collect 80 hair strands from above the tail switch. Ensure roots are intact, as they contain the DNA.
- Clean the area to remove debris and pull hair evenly to avoid breakage.
- Attach the sample to the designated form provided by ABBA, ensuring proper alignment and labeling.

• Alternate Methods:

- Semen (use a protective casing to prevent breakage).
- Blood or tissue samples, such as ear punches.

- For deceased animals, bone samples can be submitted (additional charges may apply).

Submission and Testing Process

1. Submit Samples:

- Mail the completed test form and sample to lab of choice, not ABBA.
- Address:

2. Processing:

- Lab will process the sample, generate results, and send them to ABBA. If you did not receive requested kits from ABBA and are functioning independently you as the client will have to request the lab to provide the information to ABBA so we can update in Digital Beef.

3. Results Integration:

- ABBA incorporates the data into national evaluations to produce GE-EPDs.

4. Turnaround Time:

- Results are typically available within 15 business days of the lab receiving the sample but this is subject to a delayed timeline if the lab is experiencing high volume.

DNA Testing Options and Pricing

Available Tests

1. Basic Test (\$):

- Includes genetic profile, parentage verification, and genetic abnormality testing.

2. Horned/Polled (H/P) Test (\$):

- Identifies the horned or polled genotype (does not test for scur genes or abnormalities).

3. Full Package (\$):

- Includes genetic profile, parentage, GE-EPD, and H/P testing.

Genetic Abnormalities Tested

1. **Hypotrichosis (HY)** – Partial or near-total lack of hair.
2. **Dilutor (DL)** – Produces smoky or gray coloration in offspring when crossed with black cattle.
3. **Idiopathic Epilepsy (IE)** – A lethal genetic condition causing seizures.

Genomic Terms and Concepts

- **Allele:** Variants of a gene inherited from sire and dam.
- **DNA Marker Testing:** Identifies specific genetic markers associated with traits.
- **GE-EPDs:** Combine conventional EPDs with genomic data for greater accuracy.
- **SNP (Single Nucleotide Polymorphism):** Precise genetic markers used in genomic testing.
- **STR**

Key Reminders

- **Preparation:**
 - Ensure animals are recorded (not necessarily registered) to assign a unique registration number. P # must be created.
- **Testing Deadlines:**
 - Allow at least three months before production sales to include results in catalogs.
- **Sample Handling:**
 - Submit separate, uncontaminated samples for each animal.
- **Additional Testing:**
 - Contact ABBA to request new kits if additional tests are required after initial submission.

For further questions, contact ABBA customer service at **979**.