

# North American Bison Registry:

## DNA Testing Overview

Tracking and recording genetic information is a crucial management practice for a healthy herd and a great marketing tool when selling your animals, and the NBA has the tools to help you do it.

- DNA testing is exclusively available to NBA members. Not a member? [Please join the NBA today!](#)
- Testing is facilitated through our partnership with the University of California – Davis. NABR offers testing through UC-Davis Veterinary Genetics Laboratory using microsatellite technology.
- Microsatellites are tracts of repetitive DNA in which certain DNA motifs (ranging in length from 2–5 base pairs) are repeated, typically 5–50 times.
- Microsatellites occur at thousands of locations in the genome and they are notable for their high mutation rate and high diversity in populations.

### **NABR DNA testing service offers five types of DNA testing:**

#### Parentage – \$37/head

Used to determine exact parental lineage lines (i.e., multiple sire herds or large herds where pairing calves and cows can be difficult.) Please note, parents need to have been DNA tested previously to match any DNA data.

#### Hybridization – \$38/head

Used to determine if cattle allele introgression has occurred within an animal or family of animals.

#### Charolais Diluter Gene Test – \$37/head

Used to determine if Charolais breed cattle allele introgression has occurred within an animal or family of animals which can result in a light colored bison calf.

#### Gene(tic) Diversity – \$38/head

The percent of the total genetic markers recognized as historic lineage present in one individual of a particular species population.

#### Historic Lineage – \$38/head

The presence of genetic markers that have been identified as present in herds recognized for post great-slaughter-era preservation of the species.