

Maternal DNA Behavioral Inheritance of Hybrid Beefalo

Introduction

The purpose of this extended experiment is to study and observe the behavioral differences in beefalo offspring, a hybrid between cattle and American bison, based on the breed of cattle used to create the hybrid. If a cattle breed that is notorious for an even temperament, low levels of aggression, and low management issues is used in breeding then the offspring may present with the same temperament rather than present with the more aggressive and wild tendencies of American bison.

- Results

- It was found through this study that stereotypically docile breeds in this case Hereford produced offspring that exhibited the desired docile traits inherited from the maternal DNA

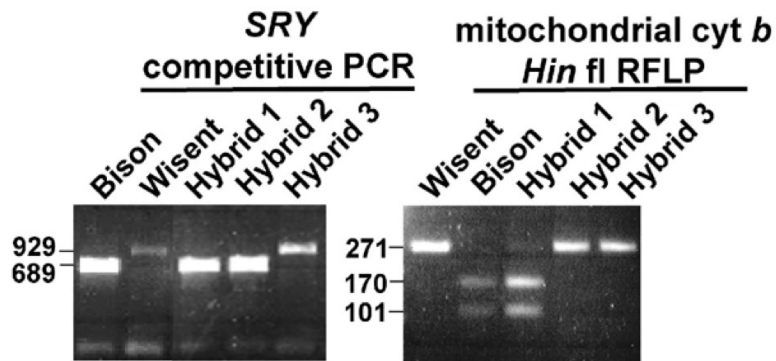
Methods

This study consisted of a sample group of 10 hybrid buffalo individuals, 50% of which are a 50/50 cross of purebred Black Angus cattle and American Bison. The remaining 50% of the sample group are 50/50 crosses of purebred Hereford cattle and American Bison. All 10 of the subjects are offspring of the same Bison bull to observed to most consistent behavior from weaning (around 6-12 months of age) to when expected sexual maturity occurs (2-2.5 years). Their behavior was recorded and compared to a criteria of expected cattle, bison, and hybrid behavior to assess whether the Angus or Hereford cross hybrids were more docile, manageable, and carried more expected cattle behavioral traits over expected Bison behavioral traits.



Hereford/American Bison Hybrid

Sources



The table above used in this study represents the DNA testing done on bison DNA in comparison to the DNA of zebu, ox, yak, wisent, and cow DNA. The scope of the test is to look for taurine-Y chromosomes in a PCR-RFLP DNA analysis. Also shown is the comparison of DNA from cow-bison hybrid DNA. The purpose of this information is to assess whether bison that have higher concentrations of like DNA with bovine produce more manageable hybrid offspring over those who don't share as much DNA characteristics with cattle.

The QR code to the right contains the behavioral checklist used in this experiment to assess and score maternal and hybrid behavioral traits.

