'The Bull Book' features DNA testing

DNA testing is becoming more prevalent in the beef industry, and maybe even more so in today's society, but what does it really offer cattlemen? We wanted to provide a glimpse of that topic in this issue as part of our traditional focus on marketing Angus bulls.

Still learning

Parentage verification through DNA and testing for dominant-recessive genes have been around for years, and we have used those tests with great confidence. However, we're learning that what we thought were single-gene dominant-recessive traits, may not be so simple. For instance, consider the wild color allele in Angus cattle.

For years we believed only one gene controlled coat color, with a homozygous or heterozygous pairing of "black" alleles providing a black hair coat and a homozygous pairing of "red" alleles providing a red hair coat. In recent years we have discovered a wild-type allele that allows an animal without the red color alleles to have a red coat color. Bottom line, not all red Angus cattle carry the "red" gene.

Now we're looking at tests for traits (marbling, feed efficiency, tenderness, etc.) controlled by multiple genes and estimating how much of the variation in that trait is controlled by a single gene. We're looking at panel tests, tests that evaluate more than one gene at a time. We're learning more about epigenetics — the switch that can turn

certain genes on or off, causing animals with the same genetic code to appear or perform differently.

In the DNA section of this issue, we have stories to explain parentage verification, discuss DNA-marker-validation procedures, profile some of the tests available today and to consider epigenetics. It is our intent to be informative, not promotional. Realize that as rapidly as DNA technology and knowledge of the genome is developing, content in this issue could be outdated by publication.

Cattle Industry Convention online

Thanks to the sponsorship of Salt Creek Ranch, Memphis, Texas, Angus Productions Inc. (API) was for the sixth year able to provide online coverage of the 2008 Cattle Industry Annual Convention and NCBA Trade Show in Reno, Nev., Feb. 6-9. Partial coverage begins on page 354. More coverage will be forthcoming in April. For complete coverage visit www.4cattlemen.com.

Did you know?

According to an Associated Press (AP)

report, Democratic presidential candidate Barack Obama sponsored a bill in the Illinois State Senate to ban horse slaughter. Calling himself a proponent of animal rights, AP quoted Obama as saying, "I think how we treat our animals reflects how we treat each other. ... And it's very important that we have a president who is mindful of the cruelty that is perpetrated on animals."

Whether the reporter, or Obama for that matter, distinguishes between animal rights and animal welfare was not apparent in the article. As what seems typical of the animal rights activists, groups such as People for the Ethical Treatment of Animals (PETA) claim this as a victory for their cause.

Obama does express his disagreement with laboratory raids by animal rights activists in *The Audacity of Hope*, a book about the antislavery movement of the 19th century. A *Time* magazine article quotes him as writing:

"It has not always been the pragmatist, the voice of reason, or the force of compromise, that has created the conditions for liberty. Knowing this, I can't summarily dismiss those possessed of similar certainty today — the antiabortion activist ... the animal rights activist who raids a laboratory — no matter how deeply I disagree with their views. I am robbed even of the certainty of uncertainty — for sometimes absolute truths may well be absolute."

In a year when the candidates don't seem to care about agriculture, or at least don't want to campaign about it as an issue, we need to take extra care to study their platforms.

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