

## Random Thoughts about DNA Markers

- 5-6 Companies working doing DNA analysis
- Parentage
- Specific Gene tests
  - Black coat color
  - TH & PH
  - Myostatin
  - Leptin

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- DNA Markers
  - Marbling
  - Tenderness
  - Growth
  - Horn/Poll
  - Feed to Gain

## Random Thoughts about DNA Markers

- Are DNA Markers better than EPD's ?
  - Right now the answer is easy NO
  - Why
  - Number 1 reason is that producers understand what a birth weight EPD of +1 means
  - What does 5 Stars mean to the average cow calf producer ?

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- BUT
  - IF you couple the two, then a Marker Assisted EPD is much better
  - WHY
    - 2 full sib brothers sell in a sale
    - One has a measured IMF that is in the top 5%, the other is only in the top 25%
    - Which one brings more in the sale?
    - Which one is genetically better ?

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- Accuracy of the estimate is the key
  - Young unproven bulls have low accuracies
- With Marker Adjusted EPD's accuracies increase, and the ability to make rapid genetic change increases
- The key is that the Geneticists that are doing the EPD work need to work with the Geneticists that do the marker work!

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- Feedlot DNA testing
  - We do not have EPD's when we buy feeder cattle.
  - Right now the only accuracy that cattle feeders have is that they live on the average.

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- Please Rank these traits in terms of value to a feedlot operator:
  - Weight
  - Condition
  - Breed
  - Source Verified/Age Verified
  - Location
  - Vaccination records
  - Knowledge about who's bulls they have bought in the last 2 years.

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Given the advent of Grids and Branded Beef Programs we need more information

- Five Rivers Cattle Feeding is focused on managing variation by sorting for
  - Weight
  - Breed
  - Ultrasound (at this point not enough value)

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- How much DNA information do you need ?
  - 2-3 markers for Marbling and/or Tenderness is not enough
  - DNA tests that sort Angus cattle into one pen and Brahman's into another are not useful
  - We need the ability to sort Angus in Angus groups and Brahmans in Brahman groups

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- What are you going to do with the information
  - KIS (Keep it simple)
  - Labor in a feedlot is a choke point
  - The ability for a feedyard to execute multiple programs is very difficult
  - Identify 1 or 2 key items and develop programs and or processes around them to capture the value.

## Random Thoughts about DNA Markers

- Value added in the feedlot
  - New products being sold to feedlots now costing over \$15 per head
  - Over the past 25 years fed cattle have averaged more or less a breakeven
  - Implants return nearly a 50 to 1 return
  - We will not look at anything unless you can make a 3 to 1