# Triangle B Ranch



#### What Bull Do I Use Next?

- #1 Question from Customers
- It's a complicated question.....
- Our Process Focuses On
  - Pedigree
  - Phenotype
  - Genomics

#### Pedigree Goal – Females & Steers

- Balanced
  - Growth and Marbling
  - Prefecture Bloodline Distribution 16/16
  - Low Inbreeding Coefficient
- Females Good Udder/Milk
- Females have good calf raising ability
- Hybrid Vigor enhancement seen in offspring from crossing two genetically different parents
  - Good Health
  - Disease Resistance
  - Improved Reproductive Efficiency
  - Longevity
  - Etc
- Consistent Carcass Traits in Fats

## Pedigree – Females & Steers



### Pedigree – Females & Steers



## Pedigree Goal - Bulls

- Line Breeding
  - A1/A2/A3
  - B1/B2/B3
- Half-Cross
  - C/B/A
  - C/B1/B2
- In-Cross
  - B/A1/A2
  - A1/A2/B
- Back-Cross
  - A1/B/A2
  - B1/A/B2

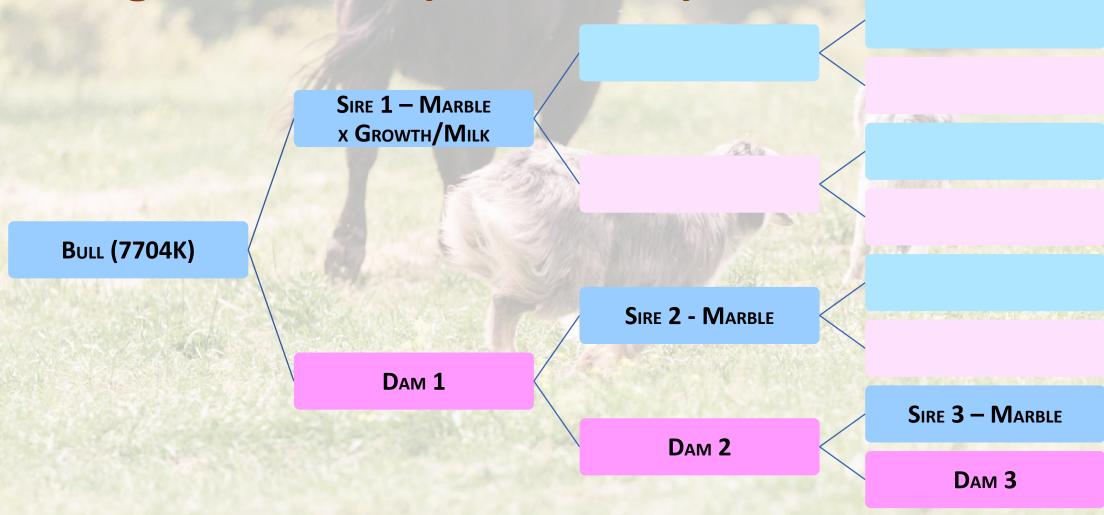
Where: A = Growth/Milk, B = Marble, C = AxB or BxA

- Scrotal Size
- Good Health

# Pedigree – Bulls (Line Breeding)



### Pedigree – Bulls (Half-Cross)



### Pedigree – Bulls (In-Cross)



#### Pedigree – Bulls (Back-Cross)



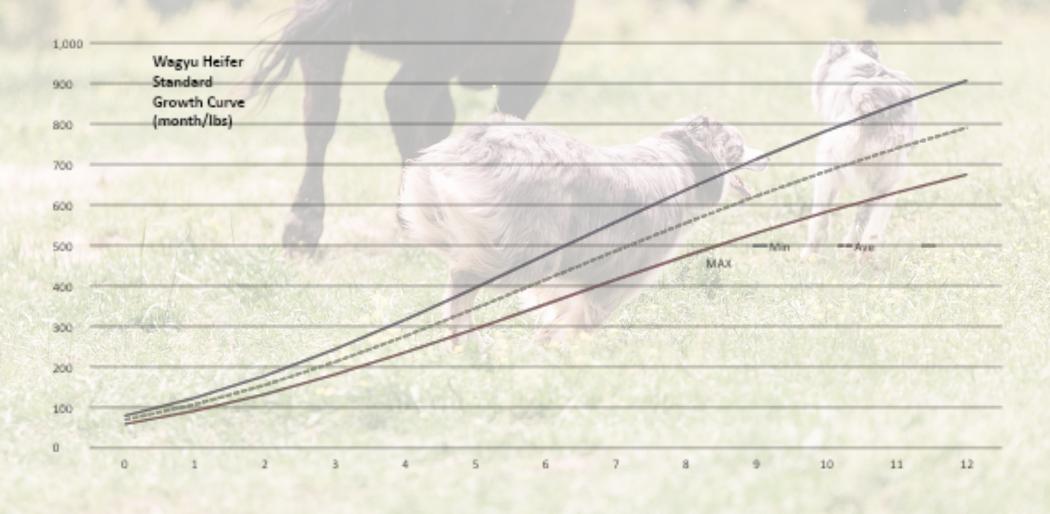
#### Phenotype

- Body Conformation
  - Medium to large frame
  - Well Proportioned with deep, wide chest
  - Straight topline
  - Strong sturdy legs to support balanced structure for efficient movement and grazing
  - Prioritizing quality or quantity
  - Covers step during movement
- Fat Distribution
  - Exceptional intramuscular fat
  - Thin subcutaneous fat but sufficient for insulation

#### Phenotype (cont'd)

- Udder (for breeding cows)
  - Well attached, symmetrical udder with small, evenly spaced teats
  - Adequate milk for raising a calf without compromising beef quality
- Temperament
  - Docile and calm to reduce stress-related impacts on easy handling and meat quality
- Growth, Efficiency, and Health
  - Moderate growth rate reaching maturity 24-30 months of age
  - Efficient feed conversion
  - Robust immune system

# Phenotype (cont'd)



#### Genomics

- EBV's are valuable tools for our breeding program
- Provides accurate selection for traits such as carcass, growth, milk, fertility, maternal, etc
- Enhances offspring traits and overall herd quality
- Reduces risk and boosts economic outcomes through data-driven selections
- Enables balanced trait focus where multiple traits can be improved at once
- Consider using the new MateSel tool

#### **Credits**

- In developing the Triangle B breeding program, we incorporated parts of two methods from the Japanese along with our traditional American breeding method:
  - The Rotational Breeding Model<sup>™</sup> was released by Mr. Shogo Takeda in 2006.
  - A similar model, The Sandwich Cross Model, was released in the Japanese Wagyu Journal by Masakazu Miyashia DVM in 2007.



