WHY BORAN
SUMMARY OF
THE IMPORTANT BREED CHARACTERISTICS OF
BORAN CATTLE

AND THEIR USES IN CROSSBREEDING
PROGRAMS IN AFRICA

Dr Sally Shiel
Craig Shiel
BORAN GENETIC MAKE-UP

64 % Bos Indicus

24 % European Bos Taurus

12 % African Bos Taurus
TICK AND DISEASE RESISTANCE

• Resistance to ticks, biting flies and insects is conferred by:
  – Smooth short hair coat and motile skin
  – Waxy hair coat secretions
  – Eyebanks, eyelashes and pigment

• Disease resistance:
  – Foot and mouth disease
  – Three day stiff sickness
  – East Coast Fever
  – Trypanosomes
HEAT TOLERANCE

• Glossy coat reflects heat
• Lots of skin and loose folds – heat dissipation
• Graze in heat of day – helps with kraaled herds
FEED REQUIREMENTS, DROUGHT RESISTANCE AND FERTILITY

- Low feed maintenance requirements
- Medium frame size
- Frame size adjusts to nutritional conditions
- Convert low quality roughages
- High body capacity relative to size with well developed rumen
POOR QUALITY ROUGHAGE CONVERTORS

MEDIUM FRAME
CAPACITY – WIDE & DEEP
WIDTH DEPTH CAPACITY – ROUGHAGE CONVERTORS
FEED REQUIREMENTS, DROUGHT RESISTANCE AND FERTILITY

- Efficient browsers
  - Acacias
  - High tannin plants
  - Bush fruits
  - Pods
YOUNG BULLS BROWSING IN DROUGHT CONDITIONS
BORANS ARE EXCELLENT BROWSERS
MPUNDUS fruit of Parinari Curatellifolia
IN BORAN DUNG
FEED REQUIREMENTS, DROUGHT RESISTANCE AND FERTILITY

• Survive in harsh tropical conditions
• High drought tolerance
• Productive (fertile) under difficult nutritional conditions
SOCIAL BEHAVIOUR

- Unique instinct to survive predators
- Gregarious
- Herding instinct very strong, graze, water and sleep together
- Social traits are transmitted to crossbreds
HERDING BORANS
BULL BONDS
HUMAN INTERACTION
• Personal observations
  bulls protect and herd their group of cows
  bonds form early for life
  protect, adopt and cross suckle each other’s calves
  nursery groups
  return on own (herding)
FRIENDS FOR LIFE
NURSERY GROUP WITH MATRON
COWS RETURNING AT END OF DAYS’ GRAZING
TEMPERAMENT AND MOTHERING

- Generally docile
- But extremely protective of calves
- Calves small at birth
  - Low incidence of dystokias
  - Ideal to open heifers
- Calves get strong quickly to walk distances
- Cross suckling of calves
- Cows good milkers
  - high butterfat
  - produce a calf of 45-55% of cow’s weight
- Bottle teats rare
EXCELLENT MOTHERS
PROTECTIVE MOTHERS – CROSS SUCKLING
CALF MORE THAN 50 % OF MOTHER WEIGHT
Calf more than 50% of mother weight
BULL SHEATHS

GOOD ANGLE & PREPUTIAL MUSCLES

GOOD SHEATH
OTHER TRAITS

• Functionally efficient
• Walk long distances
• Can tolerate long period without water
• Polled gene
MORTALITY, LONGEVITY, ADAPTABILITY

- Adapted from Ethiopia to Cape Town
- Handle tough conditions and still be productive
- Low mortalities
- Cows often productive past 15 years
- Bulls productive and active past 10 yrs
- Low replacement rates – herd growth
17 YEAR OLD COW STILL REARING A CALF
CROSS BREEDING

• Genetic mix  
  64% Bos Indicus
  12% European Bos Taurus
  12% African Bos Taurus

• Hybrid vigour with all breeds – beef & dairy

• Flexible for all systems
  ✓ terminal crosses
  ✓ introduction of specific traits
  ✓ 2 and 3 way crosses
  ✓ upgrading of base cow herds
  ✓ feedlot & pasture systems
F2 CALF FROM SIMMENTAL / BORAN F1 MOTHER
F3 CALVES FROM F2 MOTHERS
Boran x Gelbveih / Sussex crosses
¼ BORAN ¾ JERSEY IN A COMMERCIAL DIARY
BORAN / HOLSTEIN F1
BORMAN
Boran x Brahman
BEEF PRODUCTION AND CARCASS TRAITS

• Bos Taurus component – improved beef characteristics
• Boran crosses perform well in feedlots – Zambia, Kenya and South Africa
• Nebraska trials - Tenderness, marbling & rib eye area – Borans > other Zebu types
BORAN STEERS IN FEEDLOT
BORAN WEANERS IN FEEDLOT
### SPARTA - BORAN FEEDLOT RESULTS

#### 1. PURCHASE

<table>
<thead>
<tr>
<th>DATE:</th>
<th>10-Jul-15</th>
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<tbody>
<tr>
<td>NUMBER:</td>
<td>81</td>
</tr>
<tr>
<td>WEIGHT</td>
<td>218 kg</td>
</tr>
<tr>
<td>PRICE/kg</td>
<td>R 20,50</td>
</tr>
<tr>
<td>PRICE/kg</td>
<td>R 21,20</td>
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</tbody>
</table>

**Boran crossbred weaners**

- Price to farmer
- To feedlot including transport

#### 2. BACKGROUNDING

<table>
<thead>
<tr>
<th>START WEIGHT</th>
<th>218 kg</th>
</tr>
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<tbody>
<tr>
<td>END WEIGHT</td>
<td>266,18 kg</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th># DAYS</th>
<th>33</th>
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<tbody>
<tr>
<td>ADG</td>
<td>1,46</td>
</tr>
<tr>
<td>FCR</td>
<td>4,36 (kg dry matter per kg live weight gain)</td>
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</table>

#### 3. FEEDLOT

<table>
<thead>
<tr>
<th>START WEIGHT</th>
<th>266,18 kg</th>
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<tbody>
<tr>
<td>END WEIGHT</td>
<td>468,48 kg</td>
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</table>

<table>
<thead>
<tr>
<th># DAYS</th>
<th>124</th>
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</thead>
<tbody>
<tr>
<td>ADG (before attrition)</td>
<td>1,77</td>
</tr>
<tr>
<td>ADG (after attrition)</td>
<td>1,63 (5 deaths)</td>
</tr>
<tr>
<td>Mid Weight ADG%</td>
<td>44%</td>
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</tbody>
</table>

| FCR | 4,87 (kg dry matter per kg live weight gain) |

#### 4. ABATTOIR

<table>
<thead>
<tr>
<th>Slaughter %</th>
<th>58,83%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carcass Weight</td>
<td>275,61 kg</td>
</tr>
</tbody>
</table>

| A1 | 1 |
| A2 | 68 |
| A3 | 8 |
THANK YOU