Beef Production in Tropical and Subtropical Environments

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Introduction

Characteristics Beef Cattle Production in Warm Climates
• Extensive production systems with predominant use of *Bos indicus* cattle grazing warm-season grasses

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Characteristics of Beef Cattle Production in Warm Climates

• Approximately 90% of the beef cattle slaughtered in tropical and subtropical regions are finished on pasture
• Slaughter age is approximately 3 years of age
• The production system is not segmented. There are cow-calf, stockers, pasture and feedlot finished cattle in the same operation

Animals are sold by liveweight or carcass weight
• There are distinct prices for steers, bulls, heifers, and cows
• In general, there is a minimum slaughter weight for males (~ 1000 lb liveweight) and females (~ 660 lb liveweight)

Challenges in Beef Cattle Production in Warm Climates

• Environmental regulations limit the expansion of beef cattle production to new native areas
• Sugarcane and row crops are replacing areas formerly occupied by beef cattle
• Climatic variations limit the potential for herd expansion
Therefore……

• There is a need to improve productivity and have greater beef production in less land

• Crossbreeding is one potential management practice to improve beef cattle productivity
Semen sold in Brazil in 2013

<table>
<thead>
<tr>
<th>Year 2013</th>
<th>Nellore</th>
<th>Angus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semen (million doses)</td>
<td>2921</td>
<td>3697</td>
</tr>
</tbody>
</table>

Animal Performance of Crossbred Cattle in Florida

<table>
<thead>
<tr>
<th>Location</th>
<th>Ona</th>
<th>Marianna</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CP (%)</td>
<td>18.3</td>
<td>18.0</td>
</tr>
<tr>
<td>Digestibility (%)</td>
<td>67.0</td>
<td>65.3</td>
</tr>
<tr>
<td>Animal Performance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADG, lb/d (NRC)</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>ADG, lb/d (Observed)</td>
<td>0.5</td>
<td>1.7</td>
</tr>
</tbody>
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Inyang et al. (2010) and Vendramini et al. (2012)