Profitability of Beef Cattle Best Management Practices in South Texas: Reproductive Management

Mac Young, Joe Paschal, Levi Russell, and Steven Klose
Texas A&M AgriLife Extension Service, Department of Agricultural Economics

Selected Poster prepared for presentation at the Southern Agricultural Economics Association’s 2016 Annual Meeting, San Antonio, Texas, February 6-9, 2016

Copyright 2016 by Mac Young. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.
**Table 1: 2015 General Assumptions, South Texas Representative Ranch**

<table>
<thead>
<tr>
<th>Selected Parameter</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator Off-Farm Income</td>
<td>$24,000/year</td>
</tr>
<tr>
<td>Spouse Off-Farm Income</td>
<td>$35,000/year</td>
</tr>
<tr>
<td>Family Living Expense</td>
<td>$50,000/year</td>
</tr>
<tr>
<td>Native Pasture</td>
<td>1,800 acres</td>
</tr>
<tr>
<td>Improved Pasture (Bermuda)</td>
<td>200 acres</td>
</tr>
<tr>
<td>Ownership Tenure</td>
<td>100%</td>
</tr>
<tr>
<td>Royalty Income</td>
<td>Not Included</td>
</tr>
<tr>
<td>Hunting Income</td>
<td>$10/acre</td>
</tr>
<tr>
<td>Herd Size</td>
<td>200 Cows, 8 Bulls</td>
</tr>
<tr>
<td>Cow Herd Replacement</td>
<td>Bred cows</td>
</tr>
<tr>
<td>Vet, Medicine &amp; Supplies</td>
<td>$34.34/cow</td>
</tr>
<tr>
<td>Salt/Mineral Blocks/Year</td>
<td>$23.00/cow</td>
</tr>
<tr>
<td>Hay Fed/Cow/Year</td>
<td>1.5 tons</td>
</tr>
<tr>
<td>Protein Cubes Fed/Cow/Year</td>
<td>200 lbs.</td>
</tr>
<tr>
<td>Calving Rate</td>
<td>90%</td>
</tr>
<tr>
<td>Beef Culling Rate/Yr</td>
<td>10%</td>
</tr>
<tr>
<td>Steer Weaning Weights</td>
<td>525 lbs.</td>
</tr>
<tr>
<td>Heifer Weaning Weights</td>
<td>475 lbs.</td>
</tr>
<tr>
<td>Steer Prices</td>
<td>$2.70/lb.</td>
</tr>
<tr>
<td>Heifer Prices</td>
<td>$2.50/lb.</td>
</tr>
<tr>
<td>Bull Cow Prices</td>
<td>$1.10/lb.</td>
</tr>
<tr>
<td>Bull Bull Prices</td>
<td>$1.20/lb.</td>
</tr>
<tr>
<td>Bred Cow Prices</td>
<td>$1.85/lf/head</td>
</tr>
<tr>
<td>Replacement Bull Prices</td>
<td>$4.50/lf/head</td>
</tr>
<tr>
<td>Hay Prices</td>
<td>$10/ton</td>
</tr>
<tr>
<td>Bulk Range Cube Prices</td>
<td>$1.5/lb.</td>
</tr>
<tr>
<td>Pregnancy Testing</td>
<td>$7.50/cow</td>
</tr>
<tr>
<td>BSE Testing</td>
<td>$42.50/bull</td>
</tr>
<tr>
<td>Clostridial Vaccination</td>
<td>$1.16/calf</td>
</tr>
<tr>
<td>Castration &amp; Growth Implants</td>
<td>$1.97/calf</td>
</tr>
<tr>
<td>Deworming Injection</td>
<td>$1.81/$3.96</td>
</tr>
<tr>
<td>Reproductive Vaccines</td>
<td>$3.12/cow</td>
</tr>
<tr>
<td>Extra Day Labor/Calf Practice</td>
<td>$2/calf</td>
</tr>
</tbody>
</table>

**Table 2: Specific Assumptions for a South Texas Representative Ranch (200 Cows)**

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Pregnancy Testing ($/Cow)</th>
<th>Bull Soundness Exam ($/Bull)</th>
<th>Reproductive Vaccinations ($/Cow)</th>
<th>Calf Death Loss</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3-10</th>
<th>Specific Calving Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Non Reproductive Practices</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>5%</td>
<td>70%</td>
<td>70%</td>
<td>70%</td>
<td>n/a</td>
</tr>
<tr>
<td>2-Pregnancy Testing</td>
<td>7.50</td>
<td>n/a</td>
<td>n/a</td>
<td>1%</td>
<td>85%</td>
<td>90%</td>
<td>95%</td>
<td>n/a</td>
</tr>
<tr>
<td>3-Bull Soundness Exam</td>
<td>n/a</td>
<td>42.50</td>
<td>n/a</td>
<td>1%</td>
<td>85%</td>
<td>90%</td>
<td>90%</td>
<td>n/a</td>
</tr>
<tr>
<td>4-All Reproductive Vaccinations</td>
<td>n/a</td>
<td>3.12</td>
<td>n/a</td>
<td>1%</td>
<td>80%</td>
<td>85%</td>
<td>85%</td>
<td>n/a</td>
</tr>
<tr>
<td>5-All Reproductive Practices</td>
<td>7.50</td>
<td>42.50</td>
<td>3.12</td>
<td>1%</td>
<td>90%</td>
<td>95%</td>
<td>95%</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**Table 3: 10-Year Average Financial Indicators for a South Texas Representative Ranch (200 Cows)**

<table>
<thead>
<tr>
<th>Scenario</th>
<th>10-Year Averages Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Cash Receipts ($1000)</td>
</tr>
<tr>
<td>1-Non Reproductive Practices</td>
<td>196.75</td>
</tr>
<tr>
<td>2-Pregnancy Testing</td>
<td>256.19</td>
</tr>
<tr>
<td>3-Bull Soundness Exam</td>
<td>247.53</td>
</tr>
<tr>
<td>4-Reproductive Vaccinations</td>
<td>236.19</td>
</tr>
<tr>
<td>5-All Reproductive Practices</td>
<td>258.52</td>
</tr>
</tbody>
</table>