Beef Herd Management Options
What information is important, how to analyze it, GOLD Indicators, WCCCS, Managing for Profit

Freeman Iwasiuk, Patrick Ramsey, Vincent McConnell, Jill Steenbergen, Livestock & Farm Business Branch, ARD
Overview

• Importance of Production Records
• Importance of Analyzing Production Records
• Record This – Production Records to Keep
• Calculate That – Simple Formulas
• Tools – Apps & Programs to Help Store & Analyze Production Records
Production Records Are Important
Agree or Disagree?

The area of beef cattle management that usually gets the least attention is the task of collecting, maintaining, and utilizing records. Records are important on many different levels and should serve as the centerpiece of any good management program. The level of record keeping practiced on a farm often defines the level of success that the operation can expect to achieve. Even the best operational managers can consider only a limited number of factors into each decision they make, whether short or long term. The ability to review historical information and use it in the decision-making process is the single factor that separates the premier managers from those who just “do a good job.”

Bullock et al., Univ of Kentucky
Production Records – Why?

• You cannot manage what you do not measure
• You can’t get where you’re going unless you know where you’re at
• With proper records decisions can be made on the reproductive, productive and financial status of the herd (Bullock & Laurent)
Production Records – Why?

• Production performance drives profitability
• Cost of Production ÷ Unit Cost, aka...
• Break-even...what you need to sell your calves for...
• Fluctuates with production performance

Break-even Price = \frac{\text{Total Costs}}{\text{Total Lbs of Calf Weaned}}

Or

Unit Cost of Production
What Influences Lbs of Calf Weaned?

• Conception rate
• Calving rate
• Calving Distribution
• Calf death loss
• Wean rate
• Wean Weight
Production Records Need to be Analyzed
Records Need to be Analyzed

• Most producers collect some level of records
• Few take the data and make calculations on a herd level
• And even fewer have a data analysis system to track lifetime productivity of an individual cow
Records Need to be Analyzed

• Herd level analysis is good, but
• Records on a per cow basis is better
• Year over year analysis for your herd and the individual females is invaluable
• Benchmarks to compare yourself to can also be helpful to make sure you’re on the right track
Record This
### Production Records to Keep

- Individual Animal ID
  - Electronic RFID
  - Management Tag ‡ Letter Year used at WBDC

<table>
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<th>Year</th>
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<td>2016</td>
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<td>Z</td>
<td>2017</td>
<td>E</td>
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<td>2018</td>
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<td>B</td>
<td>2019</td>
<td>G</td>
<td>2024</td>
<td>M</td>
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</table>
Production Records to Keep

- Herd Counts

*Females exposed
Bull turn out

*Cows & Bred Heifers
January 1

Bred Females

Live Calves Born

Calves Weaned

Cull Cows

Cows that died

Cows replaced

Cows & Bred Hfrs

Cows replaced

December 31

*These are the two critical times to count females.

Source: High Plains Ranch Practicum
Production Records to Keep

• Herd Counts
• Calving Dates
  – Cows that calve early in the calving season, tend to continue to do so throughout their lives, and are the most productive and fertile cows in the herd
  – Calculate calving distribution ‡ Aim for >70% of females calving in first 21 d
Production Records to Keep

• Herd Counts
• Calving Dates
• Body Condition Score – at Weaning & Calving
  – Aim for 2.5 to 3 on scale of 1 (Thin) to 5 (Fat)
• Weights
  – Cow at Weaning
  – Calf at Birth & Weaning
  – Heifer weight at breeding
Production Records to Keep

• Culling Reasons

• Fertility Records
  – Breeding Soundness for Bulls
  – Pregnancy Test for Females

• Death Loss
  – Number, Type, Reason

• Health Records
  – Vaccinations, Parasite Control, Treatments
Production Records to Keep

• For each calf born, ideally track:
  – Dam ID
  – Birth date
  – Calf ID, Management Tag, CCIA (RFID), or Both
  – Sex
  – Calving Ease
  – Sire
  – Birth weight
  – Wean weight

These records are fields in VBP’s calving book.
Calculate That
How are These Calculated?

- Conception rate
- Calving rate
- Calving Distribution
- Calf death loss
- Wean rate
- Wean Weight

Need to have:
- # Females Exposed
- # Pregnant/Open
- Calving Dates
- # Calves Born
- # Calves Died
- # Calves Weaned
- A Scale
Production Indicators

- Conception Rate = # Bred / # Females Exposed
- Calving Rate = # Live Calves / # Females Exposed
- Calving Distribution = % Females that Calve / 21 d
- Wean Rate = # Calves Weaned / # Females Exposed
- Culling Percentage = # Culled / Jan 1 Count
- Cow Death Loss = # Cows that Died / Jan 1 Count
- Calf Death Loss = 1 – (# Calves Weaned / # Born)
- Lbs Weaned / Cow wintered
Production Indicators

Adj. 205 day WW = \frac{(WW\text{-birth weight})}{\text{weaning age in days}}\times 205

+ birth weight

+ age of dam adj. factor

<table>
<thead>
<tr>
<th>Dam Age</th>
<th>Male</th>
<th>Female</th>
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<tr>
<td>2</td>
<td>+60</td>
<td>+54</td>
</tr>
<tr>
<td>3</td>
<td>+40</td>
<td>+36</td>
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<tr>
<td>4</td>
<td>+20</td>
<td>+18</td>
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<tr>
<td>5-10</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11+</td>
<td>+20</td>
<td>+18</td>
</tr>
</tbody>
</table>
GOLD Production Indicators

- **G**rowth – lbs of calf weaned/Cow wintered; wean wt as % of dam weight should be 45 %+

- **O**pen rate – < 5% open cows

- **L**ength – of calving season 60-80 days

- **D**eath – loss on calves should be < 5%
# AB GOLD Indicators

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<thead>
<tr>
<th>Indicator</th>
<th>2010 Total</th>
<th>2010 Low-Cost</th>
<th>2006-10 Low-Cost</th>
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<tr>
<td>Growth (WWT lbs)</td>
<td>577.2</td>
<td>566.8</td>
<td>571.2</td>
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<tr>
<td>Open Cows (%)</td>
<td>11.7</td>
<td>8.8</td>
<td>9.1</td>
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<tr>
<td>Length of Calving Period, d</td>
<td>98.6</td>
<td>84.1</td>
<td>95.2</td>
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<tr>
<td>Death Loss on Calves (%)</td>
<td>4.7</td>
<td>3.9</td>
<td>3.5</td>
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</table>

Source: Kaliel, D. AgriProfit$, AB Agriculture & Rural Development
### WBDC’s GOLD Indicators

<table>
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<tr>
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<th>2010</th>
<th>2011</th>
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<th>2013</th>
<th>2014</th>
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<tr>
<td>Avg Wean Weight, lbs</td>
<td>511</td>
<td>534</td>
<td>506</td>
<td>496</td>
<td>491</td>
<td>508</td>
</tr>
<tr>
<td>Opens, %</td>
<td>7.6%</td>
<td>6.5%</td>
<td>8.2%</td>
<td>8.2%</td>
<td>7.9%</td>
<td>7.7%</td>
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<tr>
<td>Calving Period, days</td>
<td>73</td>
<td>66</td>
<td>76</td>
<td>68</td>
<td>81</td>
<td>73</td>
</tr>
<tr>
<td>Calf Death Loss, %</td>
<td>5.3%</td>
<td>6.1%</td>
<td>6.2%</td>
<td>7.8%</td>
<td>4.7%</td>
<td>6.0%</td>
</tr>
</tbody>
</table>

Source: WBDC Production Records
Preliminary Results

Online Respondents

- Alberta: 41%
- Saskatchewan: 27%
- Manitoba: 16%
- BC: 9%

Western Beef
Development Centre
Preliminary Results

• Avg age of respondents: 46 yrs
• Avg herd size: 187 hd
• Avg breeding season length: 88 d
• Avg percent open: 9%
• % of operations that preg check: 58% cows; – 70% heifers
• % that implanted: 24%
• % that creep fed in 2014: 16%
• % that Body Condition Score: 8%
Apps & Programs
Is the Investment Worth It?

• Avg Cost of Production....$650 per cow
• If you can identify one female that is under performing each year ‡ record keeping program paid for
• Time is right ‡ 70% Rebate Available for most higher-priced programs
• Get better before you get bigger ‡ Better prepared for next downturn in P cycle
Record Keeping Tools

- VBP Pocket Book: FREE
- iCalve App: $10
- CowChips, Chaps: $50
- Calfbook: $250/yr
- bioTrack: $350/yr + $1/cow/yr
- CattleMax: $5-60/month
- HerdTrax: $3K + $1-20/cow/yr
<table>
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<tr>
<th></th>
<th>iCalve</th>
<th>CowChips &amp; Chaps</th>
<th>CalfBook VetAgri-Health</th>
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<td><strong>Cost</strong></td>
<td>$10</td>
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<td>$250/year</td>
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<td><strong>70% Traceability Rebate?</strong></td>
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<td>No</td>
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<tr>
<td><strong>Platform</strong></td>
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<td>Install on PC Computer</td>
<td>Web-based with Android interface</td>
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<tr>
<td><strong>Description</strong></td>
<td>Calving Book App</td>
<td>Individual Female Record Keeping</td>
<td>Individual Female Record Keeping</td>
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<tr>
<td><strong>Captures</strong></td>
<td>Calving Records, Deaths, Cull List, Treatments, Herd Data</td>
<td>Calving records by dam, death &amp; culling records, treatments</td>
<td>Calving records by dam, death &amp; culling records, treatments</td>
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<td><strong>Reports</strong></td>
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<td>Built-in Reports</td>
<td>Built-in Reports</td>
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<tr>
<td><strong>Limitations</strong></td>
<td>Does not calc. performance #’s; Exports to PDF only</td>
<td>Currently being upgraded</td>
<td>Smartphone – Android Only</td>
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<tr>
<td></td>
<td>BioTrack</td>
<td>CattleMax</td>
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</tr>
<tr>
<td>---------------------</td>
<td>--------------------------------</td>
<td>--------------------------------</td>
<td>--------------------------------</td>
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<tr>
<td><strong>Cost</strong></td>
<td>$350/yr + $1/cow/yr</td>
<td>$9-60/month</td>
<td>$3K Start-up + $/cow/year</td>
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<tr>
<td><strong>70% Traceability Rebate?</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
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<td><strong>Platform</strong></td>
<td>Web-based</td>
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<td><strong>Description</strong></td>
<td>Individual Female Record Keeping</td>
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<td><strong>Captures</strong></td>
<td>Individual Animal Records – Calving, Cull, Death; Treatments, Moves, Costs</td>
<td>Individual Animal Records – Calving, Cull, Death; Treatments, Moves, Costs</td>
<td>Individual Animal Records – Calving, Cull, Death; Treatments, Feedlot Performance</td>
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<tr>
<td><strong>Reports/Features</strong></td>
<td>Built-in &amp; Custom Reporting; Auto age-verify Auto BIXS data fill</td>
<td>Built-in &amp; Custom Reporting;</td>
<td>Daily Reports Carcass Data Vet-Client Relation Proof &amp; Post Verify</td>
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</table>
Closing Comments

- Phenotypic records are the stepping stone to genomics
- Production records need to be analyzed for informed decision-making – identify strengths, weaknesses
- Year-over-year analysis of each female and herd is invaluable
- Compare with benchmarks 🍃 Am I on the right track?
  - Fill in the WCCCS survey to help generate benchmarks
- Tools range from free to $1000’s
  - With increasing cost comes increasing features
  - Use the 70% traceability rebate!
Any Questions?

freeman.iwasiuk@gov.ab.ca
pat.ramsey@gov.ab.ca
vincent.mcconnel@gov.ab.ca
jill.steenbergen@gov.ab.ca
www.growingforward.alberta.ca