Financial Health for Tribal Producers

Moving Forward with Your Business Part 1: Putting Your Plan to Work

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Each university is an affirmative action/equal opportunity institutions
Previous Webinars

• Managing Your Money Part 1: Building a Strong Foundation
  • Financial Plan Basics

• Managing Your Money Part 2: Using MyFI Assist App
  • Available for free on IOS and Google Play
  • Interest, loan payments and credit cards

• Building Your Business Foundation Part 1: Ten Basic Questions that Every Livestock Operation Should Consider
  • This is the foundation of your plan
  • Help for anyone wanting to start a livestock operation or thinking about making changes

• Building Your Business Foundation Part 2: Financial Analysis
  • Use budgets and financial statements to analyze business profit and sensitivity
Webinars Today

• **Moving Forward With Your Business Part 1: Putting Your Plan to Work**
  • Will your plan actually work for you?
    • Enterprise Budget
    • Break-even
    • Sensitivity

• **Moving Forward With Your Business Part 2: Putting it All Together**
  • How to put your plan together
  • How to continue to think about and update the plan
  • MyFi Assist APP for financial decisions

Recordings will be available on [https://tinyurl.com/AZFRTEPFacebook](https://tinyurl.com/AZFRTEPFacebook) or [https://extension.arizona.edu/tribal-extension](https://extension.arizona.edu/tribal-extension)
What is profit?

Profit = (price – Variable Cost) quantity – fixed cost

Margin Per Unit

Funds left to cover fixed cost & profit
How can the water level go up?

Money flows in

• More flow in
• Less flow out
• Change with more flow in than flows out
Questions?
Objectives

• What is the goal of the plan?
• Analyze Your Plan Using:
  • Break Even
  • Sensitivity Analysis
Break-Even Analysis
Break-Even Analysis

• Using cash expenses to determine cash break-even costs
• Can calculate yields required to cover cost
• Helps determine your price floor
  • Cash cost
  • Total cost (economic cost)
What is profit?

Profit = (price – Variable Cost) quantity – fixed cost

Margin Per Unit

Funds left to cover fixed cost & profit
Break-Even Analysis

- **Profit Equation**
  
  \[ \text{Profit} = (\text{Price} \times \text{Quantity}) - (\text{Unit Operating Cost} \times \text{Quantity}) - \text{Total Fixed Cost} \]

- **Given Price**: Quantity to break-even ($0 profit)
  
  \[ \text{Quantity} = \frac{\text{Total Fixed Cost}}{\text{Price} - \text{Variable Cost}} \]

- **Given Quantity**: Price needed to break-even
  
  \[ \text{Price} = \frac{(\text{Unit Operating Cost} \times \text{Quantity}) + \text{Total Fixed Cost}}{\text{Quantity}} \]
This budget reflects a 50 head ranch with a 75% calving rate.

<table>
<thead>
<tr>
<th>INCOME</th>
<th>Price</th>
<th>Quantity</th>
<th>Cwt</th>
<th>Total灵敏度</th>
<th>Per AUY</th>
<th>Per Calf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calves</td>
<td>$150.00</td>
<td>32.0</td>
<td>5</td>
<td>$24,000</td>
<td>$480.00</td>
<td>$750.00</td>
</tr>
<tr>
<td>Cull Cows</td>
<td>$72.00</td>
<td>5.0</td>
<td>5</td>
<td>$3,600</td>
<td>$72</td>
<td>$113</td>
</tr>
<tr>
<td><strong>Total Income</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$27,600</strong></td>
<td><strong>$552</strong></td>
<td><strong>$863</strong></td>
</tr>
</tbody>
</table>

| EXPENSES      | Variable Costs |                             | | Fixed Costs | Average Fixed Costs Per AU |
|---------------|----------------|------------------------------|----------------|---------------------------|
|               | Lease and Grazing Fees | $2,077 | $42 | $65 |
|               | Feed           | $2,710 | $54 | $85 |
|               | Livestock Expenses (inputs) | $8,843 | $177 | $276 |
|               | Labor          | $2,980 | $60 | $93 |
| **Total Variable Expenses** | $16,610 | $332 | $519 |

Net Cash Return Over Variable Expenses (Margin)  
$10,990  
$220  
$343

Total Fixed Expenses  
$7,200  
$144  
$225

**Net Ranch Income**  
$3,790  
$76  
$118

Price / AUY = $542
Variable Cost / AUY = $332
Margin / AUY = $220

Price / Calf = $863
Variable Cost / Calf = $519
Margin / AUY = $343

Breakeven quantity?

FC/Margin = 
$7,200/$220 = 33 cows  
$7,200/$343= 21 calves
### Analyze Profit - Ranch

This budget reflects a 50 head ranch with a 75% calving rate.

- **Price / AUY** = $552
- **Variable Cost / AUY** = $332
- **Margin / AUY** = $220

- **Price / Calf** = $863
- **Variable Cost / Calf** = $519
- **Margin / AUY** = $343

#### Breakeven price?

\[
(VC + FC) / Q = \frac{23,810}{50} = \$476 / \text{cow} \\
\frac{23,810}{32} = \$744 / \text{calf} \\
\frac{23,810}{210} = \$113 / \text{cwt}
\]

### General Composite Ranch

<table>
<thead>
<tr>
<th>General Composite Ranch</th>
<th>Total</th>
<th>Per AUY</th>
<th>Per Calf</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INCOME</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price</td>
<td>Quantity</td>
<td>Cwt</td>
<td></td>
</tr>
<tr>
<td>Calves</td>
<td>$150.00</td>
<td>32.0</td>
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<td>Cull Cows</td>
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<td>5.0</td>
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<td>$27,600</td>
<td>$552</td>
<td>$863</td>
</tr>
</tbody>
</table>

| **EXPENSES**            |       |         |          |
| Variable Costs          |       |         |          |
| Lease and Grazing Fees  | $2,077 | $42    | $65     |
| Feed                   | $2,710 | $54    | $85     |
| Livestock Expenses (inputs) | $8,843 | $177 | $276    |
| Labor                  | $2,980 | $60    | $93     |
| **Total Variable Expenses** | $16,610 | $332  | $519    |

| **Net Cash Return Over Variable Expenses (Margin)** | $10,990 | $220  | $343    |

<table>
<thead>
<tr>
<th>Fixed Costs</th>
<th>Average Fixed Costs Per AU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash fixed (property tax &amp; Insurance)</td>
<td>$72</td>
</tr>
<tr>
<td>Depreciation</td>
<td>$72</td>
</tr>
<tr>
<td><strong>Total Fixed Expenses</strong></td>
<td>$7,200</td>
</tr>
</tbody>
</table>

| **Total Expenses**      | $23,810 | $476  | $744    |

| **Net Ranch Income**    | $3,790  | $76   | $118    |
## Ranch Budget Break-Even Analysis Examples

### Break-Even Quantity: Cows and Calves

<table>
<thead>
<tr>
<th>Costs</th>
<th>Number needed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cows</td>
</tr>
<tr>
<td>Original Fixed Costs</td>
<td>$7,200</td>
</tr>
</tbody>
</table>

### Break-Even Price: Cows, Calves and Cwt

<table>
<thead>
<tr>
<th>Costs</th>
<th>Break Even</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per Cow</td>
</tr>
<tr>
<td>Variable Costs</td>
<td>$16,610</td>
</tr>
<tr>
<td>Variable &amp; Fixed Costs</td>
<td>$23,810</td>
</tr>
</tbody>
</table>
Break-Even for Change

- **Profit Equation**

  \[ \text{Profit} = (\text{Price} \times \text{Quantity}) - (\text{Unit Operating Cost} \times \text{Quantity}) - \text{Total Fixed Cost} \]

- **Given Price: Quantity to break-even ($0 profit)**

  \[ \text{Quantity} = \frac{\text{Total Fixed Cost}}{\text{Price} \times \text{Variable Cost}} \quad \text{or} \quad \text{Quantity} = \frac{\text{Total Fixed Cost}}{\text{Margin}} \]

- **New website costs $200 to setup plus $480 per year.**

  \[ \text{Quantity} = \frac{\text{New Fixed Cost}}{\text{new margin}} = \frac{$7,200 + $480}{350} \]

<table>
<thead>
<tr>
<th>Costs</th>
<th>Number needed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cows</td>
</tr>
<tr>
<td>Original Fixed Costs</td>
<td>$7,200</td>
</tr>
<tr>
<td>With Website Annual Cost</td>
<td>$7,680</td>
</tr>
<tr>
<td>With Website All Cost</td>
<td>$7,880</td>
</tr>
</tbody>
</table>
## Profit Goal

- **Profit Equation**

  \[
  \text{Profit} = (\text{Price} \times \text{Quantity}) - (\text{Unit Operating Cost} \times \text{Quantity}) - \text{Total Fixed Cost}
  \]

- **Quantity to reach profit goal**

  \[
  \text{Quantity} = \frac{\text{Total Fixed Cost} + \text{Profit}}{\text{Price} - \text{Variable Cost}} \quad \text{or} \quad \text{Quantity} = \frac{\text{Total Fixed Cost} + \text{Profit}}{\text{margin}}
  \]

<table>
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</thead>
<tbody>
<tr>
<td></td>
<td>Cows</td>
</tr>
<tr>
<td>Original Fixed Costs</td>
<td>$7,200</td>
</tr>
<tr>
<td>With $3,790 profit</td>
<td>$10,990</td>
</tr>
<tr>
<td>With $5,000 profit</td>
<td>$12,200</td>
</tr>
<tr>
<td>With $10,000 profit</td>
<td>$17,200</td>
</tr>
</tbody>
</table>
Sensitivity Analysis
How Sensitive Are You?

• You made your best guess
• Determine what will happen if you are wrong
• Look at the good, the bad, and the ugly
• Changing one assumption may cause bigger changes in results

Use the Sensitivity tab on Excel tools
Questions?
Thank You!