Conclusion: Missouri Beef Cattle Producers have many ways to maximize profitability depending on their strengths and environments.

### Average Missouri Cow-Calf Operation

**Opportunity:** Consistent prices with traditional management practices

**Risk:** Poor cattle markets or poor weather causes deficit, small margins

### Artificial Insemination

**Opportunity:** Higher Value Calves

**Risk:** Higher upfront cost with potentially low conception rates

### All-Natural Grass Fed Beef

**Opportunity:** Premium based opportunity for producers with large amounts of pasture ground, lower feed cost

**Risk:** Cattle are slow growing, allowing a greater chance of death loss

### Direct Marketing

**Opportunity:** Chance for much higher local price by cutting out the middle man

**Risk:** Market Uncertainty, death loss cuts profits heavily

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*Average Farm includes 45 cows, accounting for 90% conception rate for 41 calves, keeping 4 replacement heifers, feeding 37 head, accounting for .75% death loss, equaling 34 head to slaughter.*

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**Estimated Income/Cow**

- Spring: $151.41
- Calving: $180.09
- Total Income: $331.50

**Estimated Total Income (lb) / Cow**

- Spring: $13.88
- Calving: $16.13
- Total Income: $29.91

<table>
<thead>
<tr>
<th>Variable Cost</th>
<th>Protein (Bushel)</th>
<th>$0.48</th>
<th>Milk (Bushel)</th>
<th>$3.50</th>
<th>Total Protein</th>
<th>$3.98</th>
</tr>
</thead>
</table>

**Expected Carcass Price ($/lb)**

- Beef: $5.50
- Pork: $3.20
- Chicken: $2.00

**Actual Carcass Weight**

- Beef: 800 lb
- Pork: 600 lb
- Chicken: 500 lb

**Expected Slaughter Weight (lb)**

- Beef: 1,200 lb
- Pork: 900 lb
- Chicken: 700 lb

**Carcass Weight**

- Beef: 765 lb
- Pork: 675 lb
- Chicken: 550 lb

**Carcass Weight (lb) / Cow**

- Beef: 18 lb
- Pork: 13 lb
- Chicken: 11 lb

**Total Income Over Total Costs**

- Beef: $1,056.80
- Pork: $47,556.00
- Chicken: $29,130.00

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**MU Extension Integrated STEM Internship Program**

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