Increasing Prosperity for Small Farms
Sustainable livestock production, processing, and marketing

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Goal: Increase revenues for small livestock producers and maximize economic benefits to rural economies

Research Components

• Supply and willingness to participate
• Potential business models
• Consumer interest and price sensitivity
• Environmental benefits and tradeoffs
• Distribution and marketing strategies
• Economic impacts
• Feasibility of strategies
Project Team

Office of Community Partnerships
→ Darin Saul, Debbie Gray

Sustainability Center
→ Jennifer Boie

Business & Economics
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→ Steve Shook

Conservation Social Sciences
→ Nick Sanyal

Agricultural and Life Sciences
→ Dev Shrestha, Danny Roop
→ Stephen Devadoss
→ Cinda Williams, Ron Richard
1. Study area
   - Eastern Washington
   - North Idaho
   - North Central Idaho

2. Method of study
   - Conjoint analysis

3. Findings
   - Natural vs. Conventional
   - Pay less vs. Pay more
   - Locally grown = 85 miles
Markets

Beef Cooked at Home ($241/household)

<table>
<thead>
<tr>
<th>Region</th>
<th>Population</th>
<th>Households</th>
<th>Total $ Beef</th>
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</thead>
<tbody>
<tr>
<td>AFRI Region</td>
<td>875,000</td>
<td>336,500</td>
<td>$81M</td>
</tr>
<tr>
<td>Spokane/CdA</td>
<td>615,000</td>
<td>236,500</td>
<td>$57M</td>
</tr>
<tr>
<td>Idaho State</td>
<td>1,585,000</td>
<td>609,600</td>
<td>$147M</td>
</tr>
<tr>
<td>Quad County</td>
<td>144,000</td>
<td>55,500</td>
<td>$13M</td>
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Spokane/Coeur d'Alene 70%
Pullman/Moscow
Clarkston/Lewiston 16%
Existing Processing

Methods: Individual and group interviews

Findings

• Continued decline in custom-exempt processors
• Bottlenecks: labor, cooler space and succession
• Additional capacity exists
• Need USDA-inspected carcasses
Findings:

- **13.78 ± 2.08 kg CO₂e/kg live weight** for small ranches
- **15.06–15.79 kg CO₂e/kg live weight** for large operations
- **80%** of GHG emissions from cattle
- **15%** from feed
- **5%** from transportation
- Highly variable for feed and transportation
Economic Impact Analysis

• Alternatives generate 15 to 50 jobs, including multiplier effects

• Sizeable impacts in small rural communities

• Increase by factor of 2 to 3 if entire beef-production system local

• Local beef is important to overall integration of a local food system
Feasibility of Strategies

Method: **Weighted Factor Scoring Model**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weight</th>
<th>Score</th>
<th>Weight*Score</th>
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<tbody>
<tr>
<td>$C_1$: Dollars/lb created in community</td>
<td></td>
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<tr>
<td>$C_2$: Total CO$_2$ emissions</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>$C_n$...</td>
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</tbody>
</table>

Total: ______

Expected outcomes

- Scenario that optimizes existing capacity will be feasible
- Provide recommendation to working group
Supply and Producer Interest

Developing more livestock-processing options
- Very important 60%
- Moderately important 28%

Preferred processing facility
- Fixed facility (USDA Inspected) 42%
- On-farm or mobile-slaughter unit (USDA Inspected) 49%

Willingness to participate in creating
- Processing cooperative 93%
- Marketing cooperative 88%
Willingness to Participate

Methods: Surveys, interviews, group interviews

Findings

• Plenty of animals
• Producer interest
• Viable strategies
• Detail-dependent feasibility
• Producer committee formed for next steps…
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Interdisciplinary Collaborative Efforts Excellence Awards

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