Evidence Based Programs & Impact Evaluation
Utilizing a Theory of Change to Achieve Public Value Level Impacts

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“The Findings and Conclusions in this Presentation Have Not Been Formally Disseminated by the U. S. Department of Agriculture and Should Not Be Construed to Represent Any Agency Determination or Policy.”
Western Extension Risk Management Education Center (Western Center)

- One of four regional Extension risk management education centers in the U.S.
- Administer a competitive grants program in the 13 western states and U.S. affiliated Pacific Islands
- Supported by funding from the USDA National Institute of Food and Agriculture (NIFA)

http://westrme.wsu.edu/
Extension Risk Management Education

Our Goal
To help farm and ranch families improve their economic viability through targeted risk management education.
Evidence Based Programs: An Overview
Evidence Based Programs

- Benefit Participants
- Lead to Improved viability and effectiveness of programs and policies
- Create rigorous and meaningful evidence as a routine part of program delivery.
- Impart additional value to those who do not directly benefit from a program.
- End Result: Ability to contribute effectively to data systems and inform public policy
Theory of Change & Public Value Level Impacts

- Underlying **assumptions** or **rationale** for how your project activities will lead participants to the desired results
  - Why will the outcomes your project proposes make a difference?
  - What gaps will your program aim to fill?
    - For the individual? For the community?
  - Why is this significant to food and ag?
- **Sets up context at local, regional and national levels**
Theory of Change: Working Back from Your End Goal

1. End Goal = long-term impact(s)
   a) Societal or public value that will come about as a result of your program

2. Long-term program outcomes – benefits accrued to participants

3. Short- and medium-term outcomes
   a) Necessary pre-conditions for long term outcomes and impact:
      i. Activities
      ii. Actions/behavioral change
      iii. Strategies
Theory of Change Construct for Production Risk

A SECURE SUPPLY OF SAFE, NUTRITIOUS, AND AFFORDABLE FOOD

ACHIEVE AGRICULTURAL ECONOMIC SUSTAINABILITY FOR U.S. FARMERS AND RANCHERS

INCREASING YIELDS

ENSURE PROFITABILITY

REDUCING INPUT COSTS

1) CONTROL OR MINIMIZE RISK

2) REDUCE VARIABILITY BY:

INCREASE FLEXIBILITY (Cost compared to benefits)

VERTICAL INTEGRATION

TECHNOLOGY APPLICATION

3) TRANSFER RISK

CONTRACTING & INSURANCE

Improve Management Practices

Diversification

Diversify income sources by expanding into Agri-tourism

Diversify products and markets

Water use decisions

Manage economic risks of new technologies

Invest in insurance products

SOCIETAL IMPACT/PUBLIC VALUE

BENEFITS ACCRUED TO PRODUCERS

LONG TERM OUTCOME MEASURES

MEDIUM TERM OUTCOME MEASURES (STRATEGIES)

SHORT TERM OUTCOME MEASURES (TACTICS)

OUTPUTS OF TRAINING ACTIVITIES

EXTENSION RISK MANAGEMENT EDUCATION

www.ExtensionRME.org
Use of Baseline/Benchmarking Data: Compare/Contrast

PRODUCTION TOPIC AREAS – NEW TOOLS AND PRACTICES

EXTENSION RISK MANAGEMENT EDUCATION

www.ExtensionRME.org
Value of Using Baseline/Benchmarking Data

1. Producers current cost of production
2. Cost variance data for traditional/commodity operations and differentiated enterprises
3. Processor price data
**Cross correlate above with United States Census of Agriculture, USDA National Agricultural Statistics Service (NASS), Agricultural Resource Management Survey (ARMS), Economic Risk Survey (ERS), etc.

- Creates an ongoing feedback system to validate long-term outcomes and impacts
- Compares current conditions to baseline measures as your project progresses
- Data collection as an ongoing process
- Evaluation conducted at multiple points in time
Systems Evaluation Model Grounded in a Theory of Change

Necessary Preconditions

- Short Term Learning Goals (Understanding)
- Short Term Actions (Develop/Analyze)
- Medium Term Actions (Decide)
- Long Term Measure (Implementation) Evidence of Realized Economic Gains

We use these resources
- Curriculum, Collaborators Etc.

For these activities
- Workshops, conferences, field trips etc.

With these outputs
- Target audience, tools and resources developed, # of participants trained in these risk areas,

So that producers can change their behavior by engaging in these actions (Short Term Objectives)
- # of participants who reported adoption of a new or changed practice

To produce these medium term outcomes (Strategies)
- **Note: Changes in practice that result in measurable reduction of risk

Leading to these long term outcome measures (Achievement of improved economic viability)

Benefits accrued: Long term economic improvement for producers and the livestock value chain

As compared to Baseline/Bench marking Data
- Producers current cost of production
- Cost variance data for traditional/commodity operations and differentiated enterprises.
- Processor price data
- Ag Census/ARMS/AMS data: cross correlate with processor price/commodity price/cost of production data.

Learning Modules:
- Collaboration Building
- Experiential Learning (Field Trips)
- Interactive Workshops
- Webinars

Collaborators:
- Extension Specialists

Target Audience
- Tools and resources developed:

participants:
Systems Evaluation Model Grounded in a Theory of Change

**Necessary Preconditions**

- **Short Term Learning Goals (Understanding)**
- **Short Term Actions (Develop/Analyze)**
- **Medium Term Actions (Decide)**
- **Long Term Measure (Implementation) Evidence of Realized Economic Gains**

**We use these resources**
- Curriculum, Collaborators etc.
- Budget: Tools/ Business Plan Templates/ Enterprise Decision Trees
- Learning Modules:
  - Meat Value Chain/Existing and emerging market opportunities/ Evaluating risk factors and requirements of identified market opportunities/ Scale appropriate market outlets.
  - Collaborators:
    - Extension Specialists
    - Meat Processors
    - State Dept of Ag

**For these activities**
- Workshops, conferences, field trips etc.
- Networking
- Collaboration Building
- Experiential Learning (Field Trips)
- Interactive Workshops
- Webinars

**With these outputs**
- Target audience, tools and resources developed, # of participants trained in these risk areas
- Networking
- Collaboration Building
- Experiential Learning (Field Trips)
- Interactive Workshops
- Webinars

**So that producers can change their behavior by engaging in these actions (Short Term Objectives)**

- **# of participants who reported adoption of a new or changed practice**
- **20 participants:**
  - Created a communications strategy
  - Developed a risk mgmt plan specific to their operation
  - Adopted a data driven marketing strategy for interaction with specific meat processing outlet

**To produce these medium term outcomes (Strategies)**

- **$/\%$ reduction in variable transportation costs and $/\%$ reduction in processing livestock**
  - **Transitioned herd from commodity to differentiated markets**
  - Improved coordination with processing facility(s)

**Leading to these long term outcome measures (Achievement of improved economic viability)**

- **$/\%$ increase in profit from higher prices received for products in differentiated markets; i.e. BQA/Grassfed/USDA Certified Organic**

**Benefits accrued: Long term economic improvement for producers and the livestock value chain**

**As compared to Baseline/Bench marking Data**

- Producers current cost of production
- Cost variance data for traditional/commodity operations and differentiated enterprises.
- Processor price data
- Ag Census/ARMS/AMS data: cross correlate with processor price/commodity price/cost of production data.

**Colorado producers will benefit by gaining necessary knowledge and skills to enter new direct marketing and value-added options to enhance economic viability. At least 65 more producers from the neighboring states of Utah and NM fall into this category.**

**Note: Who is the audience? How do you hope they will benefit? Of participants reached, how many more fall into this category in the farming community?**

**Note: Changes in practice that result in measurable reduction of risk**

**Converted herd to certified management and marketing plan; i.e. Grassfed/BQA/Sustainably Raised**
<table>
<thead>
<tr>
<th>Objective - ACTION</th>
<th>Output Measures - PRODUCT</th>
<th>Outcome Measures - Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Adopt a data driven market strategy for interaction with specific meat</td>
<td>1. Transitioned herd from commodity to differentiated markets</td>
<td>1. % Increase in profit from higher prices received in differentiated markets; i.e. BQA/Grassfed/USD A Certified Organic</td>
</tr>
<tr>
<td>processing outlets</td>
<td>2. Converted herd to certified management and marketing plan; i.e. BQA/Grassfed/Sustainably raised</td>
<td>2. % reduction in variable transportation costs</td>
</tr>
<tr>
<td></td>
<td>3. Improved coordination with processing facilities</td>
<td>3. % reduction in processing livestock</td>
</tr>
<tr>
<td></td>
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<td>4. % reduction in overall cost of livestock finishing</td>
</tr>
</tbody>
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Outcome measures lead to multiple and related benefits – ultimately benefiting the producers’ bottom lines.
Theory of Change: What to Measure

- End Goal: Assess current value chain restraints and opportunities so that long term improvements can be made to the livestock value chain.

- Activities & Outcomes will fill gaps in the livestock value chain by addressing:

  i. Processing capacity
  ii. Communication/coordination between processors and producers
  iii. Existing and emerging market opportunities
  iv. Cost of Production for livestock finishing: Goal – decrease costs
  v. Cost differences differentiated vs commodity sales: Goals – increase revenue/sales, growth in sales volume
Theory of Change: What to Measure

• End goals produce far reaching effects (Public Value Level Impacts)
• Lead to ability to make informed choices
• Validate effectiveness of (government) programs and policy

**Impacts can be thought of as the longer-term effects of outcomes**
Gathering Quality Data

- Develop detailed evaluation questions that will answer the expectation of what you want your participants to achieve (outcomes).
- Will these questions and resulting data (from participant responses)
  1. Serve the interests of your participants?
  2. Serve the interest of your program?
  3. Serve the interests of your regional leadership and stakeholder partners?
  4. Lead to Public Value Level Impacts – i.e. impacts with far reaching effects?
Gathering Quality Data

• Focus on evaluating results/outcomes versus activities
• Create opportunities to use data for evidence building
  – Build program capacity
  – Elevate data (local/regional/state/national levels
  – Develop stakeholder partnerships

**Improved quantity and quality of evidence leads to improved viability, program effectiveness, decision making and policy.
Thank you for participating...

Questions?

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