Pursuing Excellence

Measuring Outcomes of Agriculture, Natural Resources, and Community Economic Development Programs

Accountability Overview
UT Extension and TSU Cooperative Extension are pursuing excellence in accountability of Agriculture, Natural Resources, and Community Economic Development programs. Our major accountability goal is robust, statewide outcome measurement. An outcome is a measure of program results, and our evaluation efforts are focused on the total program outcomes, rather than evaluation of activities or events.

Tools and Examples
This fact sheet summarizes tools for program planning and evaluation especially related to developing outcomes and topics and validating PEN instruments. An example from the Livestock and Forages Leadership Team and the Beef Workgroup provides a practical discussion point.

Program Evaluation Network
One of our most successful tools for outcome measurement is the Program Evaluation Network (PEN). PEN is our custom-built software that contains tested questionnaires to measure the results of Extension programs. Since 2006, PEN has been used by Tennessee Extension professionals to survey more than 95,000 individuals in programs that served nearly 350,000 individuals. Testing of PEN questionnaires includes establishment of face and content validity by an expert panel, piloting with actual program participants, and reliability testing. PEN has helped Extension professionals to improve their programs and communicate program results to stakeholders.

Qualtrics
Qualtrics is an online survey tool for data collection, management, and reporting. It is suggested that Qualtrics be used for creating and testing instruments (using the established PEN criteria). It is suggested that one survey be created for testing with respondents using the same URL; this will create a single data file for analysis.

Upcoming Webinars
Look for two upcoming webinars that will address accountability topics (date and time to be announced):

- Qualtrics, Online Surveys Made Easy
- PEN Orientation for Survey Authors

Big Idea 1
Our major accountability goal is robust, statewide outcome measurement. An outcome is a measure of end-results. It describes what happened to people as a result of their participation in Extension programs.

Big Idea 2
Qualtrics allows for easy survey creation with multiple administration options.
## Tools

**SUPER**
super.tennessee.edu

System for University Planning, Evaluation, and Reporting:
- State Action Agendas
- Topics/Outcomes
- Help page

**EESD Program Planning**
extension.tennessee.edu/eessd/Pages/ProgramPlanning.aspx

This page includes numerous program planning tools including:
- Tennessee Extension Program Planning and Evaluation Model (W240)
- Links to USDA-NIFA National Outcomes and Indicators
- USDA-NIFA’s How to Write Meaningful Outcomes/Impact Statements

**extOL Workforce Learning**
extol.tennessee.edu

Courses to assist you to prepare for effective outcome measurement are Extension Program Planning and Evaluation Model and Measuring Extension Program Outcomes.

**PEN**
pen.tennessee.edu

PEN may be accessed from the URL above or from SUPER. PEN includes surveys, reports, examples, and more.

**PEN User Guide**
utexextension.tennessee.edu/Documents/W241.pdf

This Extension publication (W241) is a 26-page guide for using the software. It includes specific examples using PEN data for impact reporting.

**Qualtrics**
UT Login
cas.tennessee.edu/qualtrics

TSU Login
tnstateu.a21.qualtrics.com/WRQualtricsControlPanel/

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## Beef Workgroup Example

The Livestock and Forages Leadership Team and the Beef Workgroup have provided a practical example of effective program development and evaluation.

### Beef Outcomes - Inactive

**January 2, 2015**

___ beef producers sold ___ calves managed according to BQA guidelines to increase returns by $FRM.

___ beef producers stored ___ large, round bales under some type of cover to increase returns by $FRM.

___ beef producers utilized bulls with greater genetic potential to produce ___ head of calves to increase returns by $FRM.

___ beef producers utilized hay feeding rings to feed ___ bales and improved feeding methods to reduce wastage/spoilage, saving $FRM.

___ beef producers utilized improved marketing methods to market ___ head of calves to increase returns by $FRM.

### New Beef Outcomes

___ beef producers sold ___ calves that were managed for improved marketing methods, according to practices promoted by UT Extension, to increase returns by $FRM.

$FRM = Number of calves x $73

___ beef producers utilized ___ bulls (through natural service or artificial insemination) with greater genetic potential to produce ___ head of calves to increase returns by $FRM.

$FRM = Number of calves x $50

___ beef producers implemented reproductive management by conducting breeding soundness exams on ___ bulls ($FRM increased returns) and pregnancy diagnosis on ___ cows/heifers ($FRM2 increased returns).

$FRM1 = Number of bulls x $5,000
$FRM2 = Number of cows/heifers x $400

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### Big Idea 3

A host of tools and resources support effective program development and evaluation.

### Contact Me

If you have questions, please feel free to contact me. I would be happy to address your questions about program development and evaluation.

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### New Beef Survey

This survey is available in the UT Extension Qualtrics Library:

<table>
<thead>
<tr>
<th>Because of this program...</th>
<th>No</th>
<th>Yes</th>
<th>If yes, how many this past year?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have sold calves that were managed for improved marketing methods (BQA, alliances, specialized markets, etc.)</td>
<td>☐</td>
<td>☐</td>
<td>___ calves</td>
</tr>
<tr>
<td>2. I have produced calves using bulls with greater genetic potential through natural service and/or artificial insemination.</td>
<td>☐</td>
<td>☐</td>
<td>___ calves</td>
</tr>
<tr>
<td>3. I have conducted breeding soundness exams on bulls.</td>
<td>☐</td>
<td>☐</td>
<td>___ bulls</td>
</tr>
<tr>
<td>4. I have conducted pregnancy diagnosis on cows/heifers.</td>
<td>☐</td>
<td>☐</td>
<td>___ cows/heifers</td>
</tr>
</tbody>
</table>

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Joseph L. Donaldson, Ph.D.
November 7, 2014

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Programs in agriculture and natural resources, 4-H youth development, family and consumer sciences, and community economic development.
University of Tennessee Institute of Agriculture, U.S. Department of Agriculture and county governments cooperating.
UT Extension provides equal opportunities in programs and employment.