

V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Community Resilience and Capacity

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
131	Alternative Uses of Land	0%		3%	
133	Pollution Prevention and Mitigation	8%		0%	
301	Reproductive Performance of Animals	2%		2%	
302	Nutrient Utilization in Animals	2%		1%	
303	Genetic Improvement of Animals	2%		1%	
307	Animal Management Systems	2%		1%	
601	Economics of Agricultural Production and Farm Management	18%		8%	
602	Business Management, Finance, and Taxation	29%		3%	
603	Market Economics	0%		8%	
604	Marketing and Distribution Practices	8%		6%	
605	Natural Resource and Environmental Economics	0%		3%	
607	Consumer Economics	0%		5%	
608	Community Resource Planning and Development	29%		20%	
609	Economic Theory and Methods	0%		3%	
703	Nutrition Education and Behavior	0%		3%	
724	Healthy Lifestyle	0%		1%	
802	Human Development and Family Well-Being	0%		1%	
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	0%		19%	
805	Community Institutions and Social Services	0%		7%	
806	Youth Development	0%		5%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
Actual Paid	3.1	0.0	3.6	0.0
Actual Volunteer	0.1	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
489942	0	556262	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
593434	0	780918	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
459158	0	417266	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Research in this planned program includes study of economic factors affecting poor mental health; economic improvement through value-added opportunities and new business development, sometimes in biologically based materials and products; and addressing issues affecting the food system. Researchers also investigated the organic price premium in relation to size of market; social and economic change related to Marcellus shale development, as well as changing perceptions about this development; sustaining Pennsylvania's forests; and prescription drug abuse in rural vs. urban areas.

Extension work related to Community Resiliency and Capacity includes the Farm\$en\$e course, which helps farmers learn to better manage the financial side of their business, and community strategic planning, which can position municipalities to qualify for additional grant money to implement their plans. Other extension work helps livestock producers maximize profit by minimizing costs and focusing on improving animal health. The Marcellus Education Team is developing new programs to meet continuing needs in mineral management, gas utilization, and global implications of shale energy.

2. Brief description of the target audience

Agricultural Producers/Farmers/Landowners
Agriculture Services/Businesses
Nonprofit Associations/Organizations
Business/Industry
Community Groups

Education
 General Public
 Government Personnel
 Military
 Non-Governmental Organizations
 Nonprofit Associations/Organizations
 Policy Makers
 Special Populations (at-risk and underserved audiences)
 Students/Youth
 Volunteers/Extension Leaders

3. How was eXtension used?

Penn State Cooperative Extension supports faculty and staff use of eXtension and promotes communities of practice as a way of broadening sources of information and outreach. Penn State Cooperative Extension supports the professional development offered through eXtension.org.

Some extension team members answered questions through the automated eXtension system, fielded "Ask an Expert" questions, participated in a Community of Practice, and looked up information on eXtension. One member broadcast a webinar on this platform.

V(E). Planned Program (Outputs)

1. Standard output measures

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	3983	70232	2245	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2014
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2014	Extension	Research	Total
Actual	1	19	20

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of participants in extension education classes and workshops.

Year	Actual
2014	8622

Output #2

Output Measure

- Number of technology disclosures involving college faculty, staff, extension educators, or students.

Year	Actual
2014	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Finding that poverty is a statistically more important factor in explaining poor mental health than is income inequality.
2	Amount (in \$) of USDA Farm Service Agency loans obtained by farmers who completed Penn State Extension's "Farm\$en\$e" course.
3	Amount (in \$) of grants obtained by the borough of Mount Union, PA, as a result of implementing a 5-year strategic plan, which Penn State Extension was instrumental in facilitating.
4	Potential value (in \$) of livestock production efficiency changes advocated by Livestock Extension team if just 5% of all sheep and goat farms in Pennsylvania implemented the recommended changes and saw the average changes in costs reported in retrospective assessments.

Outcome #1

1. Outcome Measures

Finding that poverty is a statistically more important factor in explaining poor mental health than is income inequality.

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Poor mental health is a concern in the U.S. and worldwide. Not much is known about how community health and resilience affects the mental health of county residents.

What has been done

Researchers examined the effects of socioeconomic and environmental variables on the number of days of poor mental health reported across U.S. counties. They used census and telephone survey data from 2002 to 2008 as well as data from USDA's Economic Research Service.

Results

The results suggest that educational attainment, employment opportunities including self-employment, and social capital have important benefits to community mental health. Other socio-demographic variables also tended to have predicted effects, as did the amount of sunshine in January, which was the control for seasonal affective disorder. The general conclusion of the study was that living in a nonmetro county and adjacent to a metro core is associated with greater happiness. Mental health declined considerably with natural disasters and was affected by regional climate variability. For policymakers concerned about reducing the average number of poor mental health days across the nation, the results suggest that reducing poverty is a more powerful strategy than reducing income inequality. The paper was published in the journal Social Indicators Research.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

802	Human Development and Family Well-Being
805	Community Institutions and Social Services

Outcome #2

1. Outcome Measures

Amount (in \$) of USDA Farm Service Agency loans obtained by farmers who completed Penn State Extension's "Farm\$en\$e" course.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	2500000

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Farmers may be experts at managing their crops and livestock, but they often need help with the business side of the operation to increase profitability and sustainability. Penn State Extension provides a well-rounded set of management education courses for agricultural operators, including farm financial management.

What has been done

In the Farm\$en\$e course, farmers learn to organize and use financial records and develop and analyze financial statements. They come to understand the concepts of stability, liquidity, solvency, and profitability, leading to better decision-making for farm management and stronger relationships with external partners, such as farm lenders. This allows agricultural businesses in PA to remain viable as they continue to develop their knowledge and skills associated with managing a business.

Results

Thirty farmers completed the Farm\$en\$e course. As a result, these farmers acquired \$2.5 million in loans from USDA Farm Service Agency, 45% of which were for start-up businesses ranging from small-scale goat or beef cow-calf production, corn, greenhouse vegetables, and small-herd dairies. Each one completed an impact plan to solve a production problem, which will improve liquidity, profitability, and efficiency. One dairyman was so motivated by this class that he now uses cash-flow projections that he compares monthly with actual cash flows and analyzes the difference, making adjustments to correct any negative trend. He has since established a dairy profit team and obtained an FSA-guaranteed loan with a local private bank.

Having a detailed understanding of their financial situation and options for lending, if needed, helps agricultural operations persist through weather- and market-related difficulties and take advantage of new opportunities as they arise.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation

Outcome #3

1. Outcome Measures

Amount (in \$) of grants obtained by the borough of Mount Union, PA, as a result of implementing a 5-year strategic plan, which Penn State Extension was instrumental in facilitating.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	612000

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

In early 2013, the Mount Union Borough Council (Huntingdon County, PA) decided to develop a strategic plan that would identify key goals to improve the community. The borough engaged a member of the Extension Economic and Community Development team to conduct the strategic planning process.

What has been done

Borough Council was committed to making this a community-wide process. Three public meetings were held, and more than 40 community members attended one or more meetings. Borough Council met with high school students and their advisors, and discussed the plan extensively at several council meetings. County agencies were also well represented in the process.

Results

The ECD team facilitated development of a 5-year strategic plan for Mount Union. This strategic plan is intended as a road map. It is a brief, action-oriented statement of the borough's long-range goals, the objectives it will use to achieve those goals, and a plan of action describing who, what, when, and how the objectives will be achieved. The goals are to:

- rejuvenate rail infrastructure and activities in Mount Union
- increase river tourism
- increase jobs and the tax base in Mount Union
- revitalize and beautify Mount Union's homes and buildings
- build community pride.

By spring 2014, the borough had in place a strategic planning implementation committee, and citizens were beginning to put the plan into action. The community recently obtained \$612,000 in grants to support implementation of the plan, hired a code enforcement officer, and is constructing a boat launch ramp as part of the first phase of a linear park along the Juniata River.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #4

1. Outcome Measures

Potential value (in \$) of livestock production efficiency changes advocated by Livestock Extension team if just 5% of all sheep and goat farms in Pennsylvania implemented the recommended changes and saw the average changes in costs reported in retrospective assessments.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	566784

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

With the increasing costs of production, producers must improve efficiency to remain profitable. The use of sustainable practices and best management practices in production is important if livestock operations are to remain viable in the future.

What has been done

The Livestock Extension team addressed these issues during sheep and goat field days related to pasture production. Decreased feed costs come from doing a better job with rotational grazing so that less money is spent on supplemental feeds (hay and grain). With these practices, many producers are able to graze for a longer part the year. Efficiency can come from better pasture management, stockpiling feeds for late fall and early winter grazing, grazing crop residues, and better ration balancing.

Results

Completed retrospective evaluations (n=28) for this program showed improved production efficiency as a result of attending. Twenty-seven percent of respondents indicated a decrease in feed costs by an average of \$1,476 per farm. If just 5% of the sheep and/or goat farms in Pennsylvania (total of 7,678) achieved similar results, the impact would equal \$566,784. Achievable economic impacts such as these can help improve long-term farm sustainability, which increases the stability of rural economies.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
303	Genetic Improvement of Animals
307	Animal Management Systems

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)
- Other (Extramural Funding)

Brief Explanation

Natural Disasters

· Adverse weather factors continued to influence clientele participation.

Economy

- The economic climate continues to have a significant impact on the ability of clientele to attend meetings and conferences.
- A rapidly shifting and historic sourcing of energy globally has affected educational programming needs in local Pennsylvania communities and around the world. Windfall gains from shale gas drilling have impacted some of our programs in a positive way.
- The economic activity around shale gas has increased wealth in many communities. In

turn, this has led to opportunities to address issues of land use and economic development.

- The state funding situation is not strong. This has limited our ability to obtain new resources from the state.
- Some people are seeking alternative income opportunities, which is an advantage for many of our programs.

Public Policy Changes

- Oversight of food and farm businesses at all levels of government affects our program efforts, and we must stay current.

Government Regulations

- There is a growing awareness with a widening array of stakeholders as to the importance of Marcellus shale development to many aspects of their communities, businesses, educational institutions, and organizations. Communities are becoming more engaged in decision making and the consideration of ordinances. Considerable discussion is taking place on the local level as municipal officials discuss their options for some local regulation.
- Changes in government regulations in the natural gas industry require education on related impacts.

Competing Public Priorities

- Competing public priorities force us to continually align our program priorities with budget realities.
- Public priorities cause concern over the use of ag land. Odors travel across farm boundaries and can affect quality of life for nearby neighbors.

Competing Programmatic Challenges

- Most staff members are stretched very thin due to multiple needs from phone calls, emails, programming, and various producer or industry groups. The small staff is working to prioritize issues and address the most pressing ones.

Population Changes

- The number of native Spanish speakers is on the rise. Our programs must adapt to be relevant to that audience.

Other - Extramural Funding

- Some of our programs are affected by extramural funding, either by adding resources to promote them or by shaping the content of the product.
- The perception of extramural funding from natural gas companies continues as a sensitive issue for the Marcellus Education Team and is leading the team to successfully seek new revenue streams to fund programmatic efforts and the associated staff. It has also led to outreach on new topics.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

The generation of outcomes from existing programs and the development of new programs require improved evaluation that identifies pre- and post- responses to information and monitoring for long-term behavioral changes that result in improved outcomes. More statewide extension programs are using retrospective evaluation to gather information about the number of participants who actually put into practice lessons learned through extension programs. Measuring costs averted or profit increased can show powerful, tangible benefits of our programming--the type of feedback that keeps people coming back for more information. Customer satisfaction and needs assessment instruments

(Salesforce and Atlas) are scheduled to be implemented in fall 2015 to provide feedback on the quality and value of our programs.

Key Items of Evaluation

See highlights of state-defined outcomes in this planned program.