

2013 West Virginia University Extension Annual Report of Accomplishments and Results

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I. Report Overview

1. Executive Summary

As a land-grant university, West Virginia University was created to help West Virginians improve their lives. To do that, WVU relies on the West Virginia University Extension Service as the "doorway to WVU" in every county. For nearly 100 years, WVU Extension Service has provided research-based, reliable information, education, and problem-solving programs that are timely and relevant. Our roots are deep in West Virginia, where we have a WVU Extension Service office in each of the state's 55 counties, and we work to meet the needs of both rural and urban residents.

WVU Extension is best known for its strong and historic 4-H program, in which more than 80,000 young West Virginians (one in every five) are developing life skills and becoming leaders in their schools and communities. Being a unique collaboration of federal, state, and local governments, private and nonprofit sectors, volunteers, and national land-grant universities, we are a sought-after partner by many state and local agencies for our expertise, community connections, and track record of practical, research-based solutions.

West Virginians rely on their county WVU Extension agent to deliver educational programs and practical solutions to meet local needs. Local needs are identified by community advisory committees, created by the West Virginia State Code and known as the County Extension Service Committee. Needs are also identified through regular, daily interaction with major stakeholder groups. Examples include West Virginia Cattleman's Association and other producer and commodity organizations; sister state and federal agencies addressing agriculture and natural resource issues; parents, families, schools, and organizations focused on successful youth development; healthcare and nutrition providers and advocates of healthy lifestyles; sustainable community and economic development experts and leaders; firefighters and other first responders; employers focused on safe workplaces; and worker advocates.

WVU Extension agents are also WVU faculty members, having a masters or doctoral degree. They receive support from WVU Extension subject matter specialists and staff located primarily on the WVU campus in Morgantown. These Extension state specialists and other faculty from the university's 13 colleges and schools provide information and current research that result in proven practices taught by WVU Extension agents. While very focused on the needs of local West Virginia communities, the current research and proven practices that sustain all WVU Extension programs are also derived from multi-state collaborative work among the nation's 103 land-grant university faculties that are part of the United States Cooperative Extension System.

The regular WVU Extension workforce of 465 county agents, state specialists, and staff is augmented by an additional 1,200 seasonal employees who help deliver our large, statewide summer learning programs. Approximately 14,000 well-trained volunteers also help design, deliver, evaluate, and improve Extension programs each year. Employees of numerous longtime program partners, such as Regional Education Service Agencies (RESA) of the West Virginia Department of Education, West Virginia Department of Agriculture, county school professionals, West Virginia Department of Health and Human Resources, and WVU Health Sciences, help in this regard as well. Many identify with WVU Extension

through our educational programs. Some of the most recognized programs are 4-H, Dining with Diabetes, Extension Master Gardeners, Firefighter Training, Community Educational Outreach Service (CEOS), Family Nutrition Program, Energy Express, Soil Testing, Workplace Safety, Pesticide Recertification Training, Character Education, Beef Quality Assurance, Farm Management, Forest Stewardship, and Community Leadership Development.

WVU Extension Service offers planned programs in four areas:

Agriculture and Natural Resources: Agents and specialists work with farmers, landowners, and communities to support local agriculture and encourage wise use of natural resources. We are committed to helping small family farmers find ways to increase their profits. As the trusted local source for answers to home and garden questions, Extension is committed to ensuring a safe food supply and working with rural landowners to develop alternative enterprises. In 2013, our agriculture and natural resource programs tallied 114,416 direct contacts, including:

- Global Food Security and Hunger - 99,978
- Climate Change - 8,266
- Sustainable Energy - 1,289
- Food Safety - 4,883

4-H Youth Development: Professionals and programs provide educational, fun, and safe opportunities for young people to make friends, learn, and grow. Positive youth development is achieved by weaving essential elements into 4-H programs that promote independence, generosity, and mastery of new skills. The three primary educational areas of emphasis are healthy lifestyles; science, technology, engineering, and math (STEM); and developing good citizenship skills. Our literacy programs strengthen children's reading skills and promote the benefits of adults and children reading together. In 2013, our 4-H youth development programs tallied 186,633 direct contacts with youths and adults. Please note that healthy living initiatives for youths are reported in the Families and Health section. In addition to healthy living, 4-H activities are grouped under the following subcategories.

- Citizenship and Leadership for Youths
- Science, Technology, Engineering, and Math (STEM)
- Literacy
- 4-H Leadership for Adults

Families and Health: Extension faculty and paraprofessionals help families thrive by providing research-based knowledge, skills, and resources for healthier lifestyle choices. Our nutrition and health education programs teach individuals and families ways to improve their diets by selecting and preparing healthier foods. Through education, we encourage healthy lifestyle choices and physical activity. Our family resource management programs help young people and adults understand successful ways to save, spend, and manage resources. We provide extensive training in relationship education. Adults working with, caring for, or parenting young children receive education and materials about developmentally appropriate practices for establishing nurturing environments in which children grow and develop successfully. Our faculty members work with adults to build leadership and interpersonal skills and provide an ongoing avenue for continued learning and global community involvement. In 2013, family and health programs tallied 89,405 direct contacts, including youths and adults. We should note, that this year major funding from the West Virginia Department of Health and Human Resources was ended for our Healthy Families/Healthy Children program, which provides relationship and parenting education. Programs are continuing with state and county funding, but the contact numbers reflect withdrawal of support halfway through the year.

- Childhood Obesity (Nutrition and Health) - 77,980

· Strengthening Families - 11,425

Community Economic and Workforce Development: Experts help to promote collaborative community projects and build the capacities of local businesses and governments. We deliver programs that build local leadership capacity, expand and attract employment, improve retail opportunities, provide information and recommendations on downtown revitalization and tourism, and expand understanding of cultural and economic diversity. In addition, we are helping West Virginia individuals and communities prepare for and cope with disasters. Extension's Labor Institute, funded by outside sources, is not reflected in these contact tallies. In 2013, our community development programs tallied 59,197 direct contacts. Activities in this program area are grouped into three subcategories including:

- Community Development
- Workforce and Professional Development
- Leadership Development

WVU Extension also operates WVU Jackson's Mill, located near Weston, the site of the nation's first state 4-H camp. Currently, it is home of many state youth camps, heritage and nature education programs, and learning opportunities for people of all ages. The Mill is the location of WVU's Fire Service Extension and State Fire Academy, which is where emergency responders receive national standards training.

Funding: State funding for WVU Extension Service is currently \$13.8million (35% of total budget). WVU Extension uses that \$13.8million to leverage other funds, for a total annual operating budget of approximately \$50million. We raise 45% of our total budget through competitive grants, fees, volunteer organizations, individual, foundation, and corporate gifts. County partners (largely county commissions and boards of education) contribute approximately 10% of our total budget. The remaining 10% of the budget consists of federal (U.S. Department of Agriculture) funds, primarily 3(b)(c) and EFNEP. Grants and fees have increased from about \$2 million in 1995 to about \$13.5 million in 2013.

A few facts about WVU Extension:

- Date of founding: 1915
- Total direct client contacts in 2013 (youths and adults): 449,651
- Total direct and indirect client contacts in 2013 (youths and adults): 1,110,644
- Number of county agents in 2013: 117
- Number of state specialists in 2013: 70
- Number of non-duplicated youths in 4-H programs in 2013 (including camps): 68,607
- Number of youths attending 4-H camps in 2013: 8,888
- Number of volunteers in 2013: 12,440 (4-H); 1200 (Extension Master Gardener); 1170 (CEOS) = 14,810

Total Actual Amount of professional FTEs/SYs for this State

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	172.0	0.0	0.0	0.0
Actual	173.0	0.0	0.0	0.0

II. Merit Review Process

1. The Merit Review Process that was Employed for this year

- Internal University Panel
- External Non-University Panel

2. Brief Explanation

Internal merit review was done in the following way:

1. Each Extension faculty member developed an individual plan and each program area team developed a plan of work. These plans are approved by the unit directors (agriculture and natural resources, 4-H youth development, families and health, and community workforce education and development). This year, for the first time, the individual plans of work (called Faculty Assignment Document or FAD) were created in our new reporting system. Faculty based their plans on objectives designed to meet the goals of WVU's planned programs.

2. Each unit director reviewed the data collected throughout the reporting system and approved a program summary, written by the program team leaders and other specialists with assistance from the evaluation specialist. That summative report was used to report to NIFA/USDA.

3. Administrative reviews are done periodically. All administrators in WVU Extension were reviewed by Extension staff and faculty last year and have been counseled with regard to evaluations.

External merit review

1. All Extension specialists and county agents are appointed as faculty at West Virginia University. As such, they undergo the same faculty reviews as other university faculty and are promoted under the same protocol. In December of each year, every Extension faculty member submits a faculty file which contains productivity charts and accomplishment narratives related to teaching, service, and research. Depending on the years of service and whether the person is applying for promotion, the files are evaluated by their peers in their unit, their program unit director, an Extension-wide committee, and the WVU Provost (for promotion years only).

2. In 2011, West Virginia University conducted a survey of 800 voters to better understand attitudes towards WVU and touch points between the university and the public. They were asked if they were aware of a number of WVU services including medical care, health care, Extension health education programs, Extension farming programs, 4-H extension program, Mine, fire and other safety programs, rural medical care programs, breast care screen, wellness initiatives including CARDIAC, Environmental protection programs, academic summer camps, Extension gardening, dental care, and Energy Express. Of the Extension programs, 67% had heard of Extension health program, 61% had heard of Extension farming programs, 58% had heard of 4-H Extension programs, 46% had heard of Extension gardening programs, and 40% had heard of Energy Express. Respondents who used a service, also rated whether they thought WVU was doing a good job. For most Extension program, 70% or better thought we were doing a good or excellent job. 4-H programs rank the highest among those who know someone who has used it and among those who say it has a positive performance.

3. Evaluations done by individual programmatic teams often serve as merit reviews for WVU Extension. For example, one team of agents and specialists who conduct canning education, conducted

an evaluation which concluded that WV citizens do not generally look toward WVU Extension for canning advice and information. The results of that study will be published in the Journal of Extension. The results will also be used to inform the food preservation teams about program changes and outreach.

4. Programs at WVU Extension, as well as individual Extension educators, continue to win awards for their excellent programming. This is one type of merit review. This year, our Family Life and Human Development Specialist, Jane Riffe, Ed.D., was recognized by her peers with the prestigious Family Life and Human Development State Specialists Category 1. Early Achievement Award. Additionally, WVU Extension programs are recognized by regional and national organized as providers of quality educational opportunities. For example, this year, the WVU-Safety and Health Extension (WVU-SHE) was awarded accreditation by the International Association of Drilling Contractors (IADC) for their training course, AWARE.

III. Stakeholder Input

1. Actions taken to seek stakeholder input that encouraged their participation

- Use of media to announce public meetings and listening sessions
- Targeted invitation to traditional stakeholder groups
- Targeted invitation to non-traditional stakeholder groups
- Targeted invitation to traditional stakeholder individuals
- Targeted invitation to non-traditional stakeholder individuals
- Targeted invitation to selected individuals from general public
- Survey of traditional stakeholder individuals

Brief explanation.

At special events where the public gathers, such as the WVU Day at the Legislature and the West Virginia State Fair, WVU Extension has made an effort to gather post-evaluative information on stakeholders' satisfaction and how they are able to use what they have learned in their everyday lives. We also gather evaluative information at most educational events all year round. This information not only tells us if participants are satisfied, but also whether and how participants have benefited. The results of these evaluative efforts are generally positive, but critical comments are always used to inform program improvement. Faculty members are expected to report on program outcomes in their annual reports. In order to receive ratings of excellent, evaluations must measure changes in learning, action, and conditions.

Our WVU Extension website is viewed favorably. It is consistently updated with news and informations about programs and issues of interest around the state. There is an opportunity for stakeholders to comment on Extension's programs available on the site.

Another indication of stakeholder participation is their willingness to give financially to Extension programming. Under the direction of our new Director of Development, Brent Clark, Extension has benefited from an increase in financial giving over the last year.

We have used data provided to us by the Extension Brand Value Research to understand how

the public views us. Three hundred and sixty five individuals were interviewed in West Virginia. Participants were members of a representative online panel and included a demographic mix of consumers. This information has helped us understand the issues surrounding the awareness and knowledge of citizens of West Virginia about Extension's work. Overall, West Virginia's statistics are considerably higher than the national average. For instance, 61 percent of West Virginians have heard about their state's Extension program as compared to 37 percent nationally. Additionally, 11 percent said that they have used WVU Extension in the past 12 months, as compared to 5 percent nationally. Of the programs of WVU-ES, 4-H is by the far the best known.

2(A). A brief statement of the process that was used by the recipient institution to identify individuals and groups stakeholders and to collect input from them

1. Method to identify individuals and groups

- Use Advisory Committees
- Open Listening Sessions
- Needs Assessments
- Use Surveys

Brief explanation.

Each of our counties have county advisory committees that meet regularly and advise county faculty on issues and needs of that county. In addition, unit directors and other administrators meet from time to time with these groups. During hiring if county agents, county advisory committees have direct input into the hiring process. Administrators also meet regularly with major stakeholder groups such as the WV Farm Bureau and Community Education Outreach Service (CEOS) constituencies.

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2(B). A brief statement of the process that was used by the recipient institution to identify individuals and groups who are stakeholders and to collect input from them

1. Methods for collecting Stakeholder Input

- Meeting with traditional Stakeholder groups
- Survey of traditional Stakeholder groups
- Survey of traditional Stakeholder individuals
- Survey of the general public
- Meeting specifically with non-traditional individuals

Brief explanation.

Meeting with traditional Stakeholder groups

Representatives of Extension, most especially the Interim Director, Steve Bonanno, meet with legislators and heads of stakeholder groups to learn how Extension can serve the state and meet the needs of stakeholders. We coordinate WVU Day at the Legislature each year.

Our Development Director, Brent Clark, works on systems to not only raise funds, but also to understand what alumni and stakeholder groups want Extension to do to extend outreach throughout the State.

Our new Associate Provost for Engagement and Outreach, Gypsy Denzine, has been traveling the State to interview stakeholders of Extension and other outreach endeavors of the university. Her feedback will help Extension strengthen programs.

Survey of traditional Stakeholder groups

Most Extension activities conduct surveys of participants in order to understand their needs with regard to Extension programming. Those surveys are studied by teams of agents and specialist in each program area to determine how to improve programming and/or create new programs. The Evaluation Specialist, Allison Nichols, works with those teams to create appropriate evaluation protocols.

3. A statement of how the input will be considered

- In the Budget Process
- To Identify Emerging Issues
- Redirect Extension Programs
- Redirect Research Programs
- In the Staff Hiring Process
- In the Action Plans
- To Set Priorities

Brief explanation.

In the Budget Process

WVU-ES administrators carefully consider the needs of stakeholders when making additions or subtractions to the budget. In the past, a priority has been placed upon expanding and enhancing the role of Extension at the county level. This continues to be a priority.

Identified Emerging Issues and Redirected Extension Programs

1. The growth and development of the Marcellus shale in West Virginia creates both opportunities and concerns. In 2013, the expertise and knowledge that the citizens of West Virginia need to make informed decisions about the oil and natural gas industry have been addressed through many educational programs.
2. Science, Technology, Engineering, and Math (STEM) programming has been developed

and promoted within our 4-H and Youth Development program this year.

3. WVU Extension has continued to develop its 4-H camping program, held in each county each summer.

4. Our Community Education, and Workforce Development unit has increased its emphasis on tourism, an expanding industry in the state and has expanded the First Impressions program to include tourism.

5. The WVU Extension Service's Small Farm Center is showing farmers how to retain more of the money West Virginians spend on food each year. Extension educators will continue to help farmers see their products as "food for customers" rather than as "crops for sale."

6. The statistics for West Virginia's ATV-related deaths and injuries are alarming, and WVU Extension has a program that is tackling the problem. The curriculum, the first national 4-H youth curriculum for ATV safety, will be distributed nationally. An evaluation initiative to study the benefits of Extension's efforts on ATV safety will be implemented this year.

In the Action Plans and To Set Priorities

Each of the four Extension units have developed strategic plans. Most have considered the new National indicators in their planning. University and Extension administrators have been studying ways to make the Extension service more of an integral part of the University. Extension outcome data has been added to the University's strategic planning website.

In the Staff Hiring Process

In response to stakeholder requests, we have added new specialist positions this year:

- 4-H STEM specialist, Jennifer Robertson-Honeker
- 4-H Camping Specialist, Matt Schmidt
- 4-H Curriculum Specialist, Alicia Cassels
- Extension Specialist and Director of Energy Express,
- Extension Specialist and State Master Gardner Coordinator, Mirjana Bulatovic-Danilovich was hired this year.

Brief Explanation of what you learned from your Stakeholders

1. We learned that we need to pay more attention to our online presence and to take advantage of new technologies and social media opportunities that will allow us to communicate more effectively. We have increased our use of social media. Facebook users can log into a number of WVU-ES groups and county offices and learn about upcoming events.

2. We have learned that the Marcellus Shale natural gas industry develops in West Virginia, developers and citizens want more information and guidance about how to respond. They particularly want to know more about leasing and contracts.

3. We learned that we have a great opportunity to expand tourism in West Virginia. We have learned that we need to work together with West Virginia State University Extension to reach out to all populations in West Virginia.

IV. Expenditure Summary

1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)			
Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
3832503	0	0	0

2. Totaled Actual dollars from Planned Programs Inputs				
Extension			Research	
	Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
Actual Formula	3832503	0	0	0
Actual Matching	8880407	0	0	0
Actual All Other	0	0	0	0
Total Actual Expended	12712910	0	0	0

3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from previous				
Carryover	0	0	0	0

V. Planned Program Table of Content

S. No.	PROGRAM NAME
1	Childhood Obesity
2	Youth Development
3	Workforce and Community Development
4	Global Food Security and Hunger
5	Strengthening Families
6	Climate Change
7	Food Safety
8	Sustainable Energy

V(A). Planned Program (Summary)

Program # 1

1. Name of the Planned Program

Childhood Obesity

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
702	Requirements and Function of Nutrients and Other Food Components	10%			
703	Nutrition Education and Behavior	30%			
724	Healthy Lifestyle	30%			
801	Individual and Family Resource Management	10%			
802	Human Development and Family Well-Being	10%			
806	Youth Development	10%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	17.0	0.0	0.0	0.0
Actual Paid Professional	16.0	0.0	0.0	0.0
Actual Volunteer	0.0	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
400000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
797660	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

In 2013, the childhood obesity planned program at West Virginia University Extension worked towards increasing the capacity of youth, adults, and families to make informed, science-based decisions which prevent chronic disease and maintain healthy weight status through physical activity and intake of nutrient-dense foods.

There were # reported activities for 2013 in the Childhood Obesity and Healthy Lifestyle planned program this year. These activities can be grouped in the following categories:

Nutrition, Food Selection, and Preparation - The largest program in this category is the Family Nutrition Program for both low-income adults and youths. The program teaches food and nutrition by using the USDA's MyPyramid. Other activities in this category include nutrition classes, food preparation classes, and classes on food selection/shopping resources and techniques.

Healthy Lifestyles Skills and Practice- The largest programs in this category include the Health Motivator Program, the Wild Wonderful Wellness Health Challenge, Choose to Change Project, Family Nutrition Program Dental Tips for Parents, Love Your Heart, Health Rocks, and ATV Safety. The Choose to Change Project is a collaborative program with two school systems and WVU's Davis College, School of Medicine, and Regional Research Institute).

Chronic Diseases and Associated Risk Factors- Two initiatives, Dining with Diabetes, a cooking school for persons with diabetes and their caregivers and the Diabetes Symposium, a national professional conference enhance the capacity of Extension educators and healthcare partners to impart diabetes education and prevention initiatives. Other initiatives address heart disease prevention such as Women's Heart Health and the CARDIAC program: Coronary Artery Risk Detection in Appalachian Communities. It is in the CARDIAC program where we have reached 14,239 youths. Additional programs target the special needs of older adults such as the prevention of bone loss and falls.

2. Brief description of the target audience

The primary target audiences include: 1) low-resource West Virginia adults and youth; 2) adult West Virginians who have diabetes and their caregivers; 3) older adults, and 4) health care professionals and

Extension educators.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	29925	88415	48055	144165

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

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	4	2	6

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational activities

Year	Actual
2013	587

Output #2

Output Measure

- Number of educational materials created or updated

Year	Actual
2013	4

Output #3

Output Measure

- Number of educational materials distributed

Year	Actual
2013	77980

Output #4

Output Measure

- Number of professional presentations

Year	Actual
2013	14

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of youth who gained knowledge about eating more healthy foods.
2	Number of participants who change a behavior or use a new skill
3	Number of participants who train others
4	Number of delivery systems/access points that change their procedures and/or policies with regard to expanding or improving their offering healthy foods or healthy activities
5	Number of participants who advance to higher knowledge and skill level in healthy lifestyle professional areas
6	Number of adults that gained knowledge about eating more healthy foods.
7	Number of participants that gained knowledge of how to access and produce healthy foods.

Outcome #1

1. Outcome Measures

Number of youth who gained knowledge about eating more healthy foods.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	48055

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

In West Virginia, youths need to learn skills to assist them in living healthy lifestyles. These skills lead to changes in behavior related to selecting and preparing healthy foods, shopping for the healthiest choices and best prices, choosing physical activities, and improving food safety behaviors.

What has been done

The Family Nutrition Program (SNAPed and EFNEP) in West Virginia enrolls 17,294 youths in its programs which include classroom, after-school programs, and camping activities for youth.

Results

84% of youths in the SNAPed program improved their ability to choose foods according to Federal Dietary Recommendations

39% of youths in the SNAPed program improved their use of safe food handling practices

33% of youths in the SNAPed program improved their physical activity practices

85% of the youths in the EFNEP program improved their abilities to choose foods according to the Federal Dietary Recommendations

43% of the youths in the EFNEP program increased their use of safe handling practices

37% of the youths in the EFNEP program improved their physical activity practices

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle
801	Individual and Family Resource Management
806	Youth Development

Outcome #2

1. Outcome Measures

Number of participants who change a behavior or use a new skill

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	17294

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

In West Virginia, adults need to learn skills to assist them in living healthy lifestyles. These skills lead to changes in behavior related to selecting and preparing healthy foods, shopping for the healthiest choices and best prices, choosing physical activities, and improving food safety behaviors.

What has been done

The Family Nutrition Program (SNAPed and EFNEP) in West Virginia enrolls 1,101 adults in its programs which include training workshops for adults at community centers, public school, churches, elderly service centers, adult education and job training centers, and health fairs.

Results

80% of adults in the EFNEP program showed improvement in one or more food resource management practices

73% of adults in the EFNEP program showed improvement on one or more nutrition practice

62% of adults in the EFNEP program showed improvement in one or more food safety practice

79% of adults in the SNAPed program showed improvement in one or more food resource management practice

76% of adults in the SNAPed program showed improvement in one or more nutrition practice

56% of adults in the SNAPed program showed improvement in one or more food safety practice

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle
801	Individual and Family Resource Management
806	Youth Development

Outcome #3

1. Outcome Measures

Number of participants who train others

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	28

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Oral health is essential to general health and well-being throughout the lifespan. These diseases can affect economic productivity and compromise our ability to work at home, at school, or on the job. West Virginia's oral health status is ranked among the poorest in the nation on several measures:

What has been done

A 3-hour professional development training was held with Nutrition Outreach Instructors (NOI). Following each training, NOIs used FNP Dental Tips for Parents with their scheduled classes. The activities have been used in FNP adult classes from April 2012 to the present.

Results

In 2013, 524 participant surveys were collected. Participants reported that as a result of the Family Nutrition Program, they made the following changes:

61% talk to their family more often about caring for their teeth

64% more often choose foods that are healthy for their teeth

67% decreased the amount of sugar-sweetened beverages they drink

54% floss their teeth more often

59% brush their teeth more often

When asked, "As a result of FNP did you visit a dental health professional?" 33% (170 individuals) responded "yes." When asked, "As a result of FNP did you take your child to a dental health professional?" 22% responded "yes." This was 115 children who may not otherwise have received dental care. It is also noteworthy that due to increased NOI efforts this year, participants were exposed to an average of 4.9 dental activities, up from last year's average of 3.8.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle
801	Individual and Family Resource Management
802	Human Development and Family Well-Being
806	Youth Development

Outcome #4

1. Outcome Measures

Number of delivery systems/access points that change their procedures and/or policies with regard to expanding or improving their offering healthy foods or healthy activities

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	2

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

In West Virginia, adults and youths need to learn skills to assist them in living healthy lifestyles. These skills lead to changes in behavior related to selecting and preparing healthy foods, shopping for the healthiest choices and best prices, choosing physical activities, and improving food safety.

What has been done

An Extension agent taught FIT camp at the Larry Joe Harless Center that included nutrition education and a healthy snack.

In Logan County the diabetes coalition led the project to Walk 100 Miles in 100 Days.

Results

The Harless Center Café Restaurant adopted one of her healthy snack recipes to serve during the after-school program and added a healthy chicken stir fry recipe from FNP to the menu.

The principal of the local elementary school in Logan County adapted the Walk 100 Miles program to increase physical activity at the school (change in policy).

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle
806	Youth Development

Outcome #5

1. Outcome Measures

Number of participants who advance to higher knowledge and skill level in healthy lifestyle professional areas

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	49

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Children are involved in about one-third of all ATV-related deaths and hospital emergency room injuries. Most of these deaths and injuries occur when a child is driving or riding on an adult ATV. Children under 16 on adult ATVs are twice as likely to be injured as those riding youth ATVs. There have been 63 deaths recorded in WV since 1982 for children under 16 who are riding ATVs. In total, there were 546 deaths from ATV accidents in WV for the same time period.

What has been done

WVU Extension faculty conducted Instructor's preparation classes to certify ASI RiderCourse instructors to teach ASI RiderCourse to youth in the state. The ASI ATV RiderCourse was conducted for youth in four locations: Cabell County, Jackson's Mill State 4-H Camp, and Mingo County.

Results

Forty-one youths in West Virginia were certified after successfully completing the ASI ATV Rider Course. In addition, eight Extension staff and volunteers were certified to teach the ASI RiderCourse to youth in West Virginia.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle
806	Youth Development

Outcome #6

1. Outcome Measures

Number of adults that gained knowledge about eating more healthy foods.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	127

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

It is critical that West Virginia women understand the symptoms and modifiable risk factors in order to make the best decisions about their health and lifestyle, as well as those of their family members. Women are especially at risk of heart disease for these reasons: 1) half of women do not know that heart disease is the major cause of death among women; 2) women's heart disease symptoms often differ from those of men's, so women may ignore them; 3) women typically do not seek out or receive immediate care in response to their symptoms; and 4) women are often physically inactive and overweight.

What has been done

A grant from the Foundations of the National Institutes of Health funded "The Love Your Heart Movement" for \$67,922 in 2013. Up-to-date materials from reliable sources assembled into a volunteer-friendly kit. Additional materials were developed. Training was held for campus faculty, staff, and students. A volunteer webinar will be held in 2014.

Results

Self-reported survey results from trained volunteers show important and statistically significant improvements in targeted knowledge, at least in the short term. Results appear to demonstrate that trained volunteers gained significant knowledge in each of the target areas. The greatest increase in self-reported gain is in the awareness of community resources. They also cited plans to make personal health improvements. Volunteers responded very favorably to the LYHM volunteer kit and resources. The four activities (Love Your Heart Talks, Fun Lunch, Faith-based, and Walking Group) offer volunteers many options and the kind of flexibility they need to spread research-based facts in ways that are culturally appropriate for West Virginia women.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle
801	Individual and Family Resource Management

Outcome #7

1. Outcome Measures

Number of participants that gained knowledge of how to access and produce healthy foods.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

We had several vacant NOI positions that we couldn't fill for a long time. First, there was the reversion of EFNEP funds, then the shutdown delayed our SNAP-Ed funding. We also were delayed in filling two county agent positions due to uncertainty about the budget.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Family Fun Event Participation and Post-surveys for Dental Tips for Parents Program

Five Family Fun Events were conducted (2 in Monongalia and 3 in Kanawha) for intervention participants in cohort 2013-2014. Events were held in each county during the month of November. 15 families attended in Monongalia County 26 families attended in Kanawha County

Parents were asked to complete a post-survey at the end of each event. Following are selected highlights:

- 100% agreed that the Family Fun Event ideas will be put to use right away
- 100% (of those who did not do this previously) planned to turn off TV and electronics during family mealtime
- 100% agreed the event helped them gain skills in making positive mealtime experiences

Maintain, Don't Gain Program

Four hundred ninety-eight (498) weighed in before Thanksgiving 2012 and 248 (49.8%) weighed out in January 2013. 181 lost weight or maintained their weight.

Pre/Post Weights: Key Findings (248 Persons)

Lost Weight

153 (61.7%)

Gained Weight
67 (27.0%)
Maintained Weight
28 (11.3%) maintained their weight
Mean Pre-Holiday Weight
184.62 pounds
Mean Post-Holiday Weight
183.00 pounds
Mean Weight Loss
1.62 pounds
Sig. (2-tailed)
.000 which indicates statistical significance

Love Your Heart Program

Table 1 - Love Your Heart Movement Volunteer Pre/Post Survey Mean Scores

Question

Pre-Survey Mean
Post-Survey Mean
Paired Sample Pre/Post Differences in Mean Scores*
Ratings: 1=Strongly Disagree; 2=Disagree; 3=Agree; 4=Strongly Agree
I know the signs of a heart attack in women.
3.03
3.62
.589
I know the personal behaviors that can increase risk for heart disease.
3.19
3.66
.472
I can name 5 ways to reduce my risk for heart disease.
2.87
3.69
.824
I know the questions to ask a doctor about my risk for heart disease and stroke.
2.78
3.59
.814
I am aware of community resources to help women reach their heart health goals.
2.83
3.71
.884
Post-Survey: I gained new information about women's heart health.
3.59

Post-Survey: The training will motivate me to make life changes.

3.71

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 2

1. Name of the Planned Program

Youth Development

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
806	Youth Development	100%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	59.0	0.0	0.0	0.0
Actual Paid Professional	59.0	0.0	0.0	0.0
Actual Volunteer	12440.0	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
710000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
3406270	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The youth development program addresses four programmatic areas: 1) citizenship and global education; 2) literacy education, 3) science, technology, engineering and math (STEM), and 4) healthy lifestyles. The goals of the program are: 1) develop youths into responsible leaders of their state, country, and world, 2) improve reading skills in youth and engage adults in teaching children to read, 3) create in youth an appreciation for STEM and equip them for a technologically advanced society, 4) increase the capacity of youth to maintain a healthy lifestyle.

Citizenship and Global Education - Within the Citizenship and Global Education program there were 163 educational activities reported with 16,813 youth direct contacts and 22,119 adults direct contacts reported in 2013. Activities include clubs, camps and camp management, 4-H leadership skill development, 4-H workforce development, iRespect, Operation Military Kids, post-secondary education, global and cultural education and exchanges, and young adult programs. This area also includes diversity and inclusion educational activities including bullying awareness and prevention and disability awareness.

Literacy Education - Within the Literacy Education program area there were 73 local programs. The largest program in this category is Energy Express, a summer program that promotes school success of children living in low-income communities by providing summer learning experiences and an ethic of service among college students and community members. This category also includes the Reading Partner initiative.

Science, Technology, Engineering and Math - Within the STEM program area, there were 45 educational activities reported, including topics related to the environment, energy, forestry, agriculture, animals, technology and engineering, the biological sciences, and the physical sciences.

Healthy Lifestyles - youth activities related to healthy living are reported in the Childhood Obesity section.

Adult Leadership Development for Youth Activities- WVU Extension faculty members train adults to work with youth in West Virginia. These programs train club leaders, camp counselors and staff.

2. Brief description of the target audience

Youth 9 to 21. Adult volunteers who work directly with youth.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	34027	13290	152606	5934

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

Year: 2013
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	8	1	9

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational activities

Year	Actual
2013	3347

Output #2

Output Measure

- Number of educational materials created or updated

Year	Actual
2013	8

Output #3

Output Measure

- Number of professional presentations

Year	Actual
2013	61

Output #4

Output Measure

- Number of 4-H educational materials distributed

Year	Actual
2013	37032

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of youth participants who improve or increase skills in STEM subjects.
2	Number of youth participants who use a new skill that they learned in a 4-H activity.
3	Number of new groups or organizations that are established, enhanced, or changed their procedures.
4	Number of youth participants who improve or increase leadership or citizenship skills
5	Number of participants who improve or increase healthy living skills.
6	Number of youth who increase or improve their literacy skills.

Outcome #1

1. Outcome Measures

Number of youth participants who improve or increase skills in STEM subjects.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	12000

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

To address growing disparities in science and math preparedness, WVU Extension launched the STEM Ambassador Program in 2012 with the goal of providing West Virginia youth with opportunities to engage in hands-on science, technology, and engineering projects during the summer camping season. STEM Ambassadors, WVU undergraduate students pursuing STEM degrees, are trained in pedagogy and curricula encompassing a broad array of scientific fields before spending 4-6 weeks teaching in 4-H summer camps across the state.

What has been done

Following a request to include more rigorous and relevant activities, new curriculum was launched including TechXcite, an engineering program that introduces students to such topics as circuitry, wireless transmission, and photovoltaic cells. Instruction on how to discuss and explore STEM careers and tips for preparing for and succeeding in college were also included. STEM Ambassadors were coached in pedagogy best-practices and STEM curricula encompassing robotics, electronics, forensics, chemistry, and bridge building.

Results

During the combined 2012-2013 camping seasons, STEM Ambassadors provided over 3,000 hours of applied instruction in science and engineering to more than 10,000 K-12 students statewide. Ambassadors worked at a total of 44 events and traveled to 34 different counties throughout the state, up from 20 counties the previous year. It is estimated that over 12,000 youth across the state participated in STEM activities and informal STEM education during the 2013 summer camping season. Ambassadors also took part in the camp setting as counselors in youth cabins. For many campers, especially those in rural counties, the STEM Ambassador is their first encounter with a scientist or engineer. These interactions provided positive role models in STEM, especially among females. The informal camp setting allowed ambassadors to provide career mentoring and general information on college expectations and academic requirements.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #2

1. Outcome Measures

Number of youth participants who use a new skill that they learned in a 4-H activity.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	8888

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The Global Education & Engagement (GEE) Team of the West Virginia University Extension Service (WVUES) believes in aiding West Virginians in becoming globally aware. It is imperative to see and understand that the United States (U.S.), West Virginia (WV), and its citizens are part of the global dimension and not separate from it. We all now live in a changing environment that is characterized by global interrelationships and increasing cultural diversity.

What has been done

4-H members have traveled around the state of WV to make presentations on the Four-H Youth Exchange (IFYE) project and other globally focused initiatives. Additionally, the GEE team has written 25 skill-a-thons to aid in educating Extension groups on a variety of global topics.

Results

Through the promotion of "Travel the World with 4-H: Camp Theme in a Box?" almost 9000 4-H campers have participated an international themed camping experience and have increased their knowledge of other cultures around the world.

4-H youths have learned about other cultures through the "Explore the World with a Global Education Curriculum."

4. Associated Knowledge Areas

KA Code **Knowledge Area**
806 Youth Development

Outcome #3

1. Outcome Measures

Number of new groups or organizations that are established, enhanced, or changed their procedures.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

In West Virginia, schools are in need of enrichment programs for afterschool programs. Research shows that quality afterschool programs can lead to increased attendance at school, improved behaviors, and improved coursework.

What has been done

WVU-ES coordinates the West Virginia Statewide After-school Network (WVSAN) which provides resources to all after-school programs in West Virginia. In addition, through the CYFAR program Extension, has been able to fill the gap by offering STEM programs and encouraging 4-H membership and participation in other activities. CYFAR after-school programs are held in three counties and six schools or organizations such as the Boys and Girls club.

Results

WVSAN developed a sustainable statewide structure of state, regional and local partnerships with systems in place to influence policy development and generate resources necessary to sustain new and existing after-school programs.

WVSAN facilitated strategic planning and then drafted a governance document to assist with growth and sustainability of the network.

WVSAN provided professional development at the National After-School Association conference.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #4

1. Outcome Measures

Number of youth participants who improve or increase leadership or citizenship skills

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	280

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Developing a strong sense of personal identity, responsibility, caring, compassion and tolerance are essential first steps for any individual to be fully engaged in any societal level. In order to develop youth who are involved in their local communities, and even in a larger scale, we must focus on providing opportunities for young people to participate in civics in order to increase their internal locus of control and improve their ability to resolve social and interpersonal issues.

What has been done

West Virginia 4-H allows for personal development experiences to help youth better understand themselves, and display more personal confidence when assuming leadership positions through numerous programs. The State 4-H Teen Leader/Charting Weekend (TLW) is a state 4-H event where youth are able to increase their leadership skills, advance their personal development and gain knowledge of 4-H Teen Leaders.

Results

91.8% felt participation in State TLW helped them to build competencies

91.8% felt participation in the weekend gave them an opportunity to value service

96% felt they had an opportunity build knowledge

98% felt they had an opportunity to build new skills

91.9% felt that the event provided them a sense of belonging

89.8% felt a sense of connectedness

89.8% felt they were provided an opportunity to connect with a caring adult role model

100% felt the weekend provided a physically safe environment

95.9% felt the environment was emotionally safe

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #5

1. Outcome Measures

Number of participants who improve or increase healthy living skills.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	12

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

West Virginia has the highest per capita rate of disabilities in the United States; 18.8% of West Virginia's population has a disability. From 2007-2008, the percentage of the total population with a disability grew more in West Virginia than any other state, 4.1%. The percentage of youths in West Virginia with a disability is also higher in West Virginia than the national average with more than 7% of the population ages 5-20 having a recognized disability. West Virginia University Extension Service can play a major role in achieving this goal through 4-H, for 4-H is an empowering pathway for youth with disabilities and their families.

What has been done

The Inclusion Task Force offered faculty training resources for camps and club programs. A specialist created a comprehensive "how-to" guide called "Taking Shape" that covers several

disability and inclusion topics and includes an extensive lesson plan. The curriculum was presented to audiences in 2013. Task Force members co-authored and published an article that was published in the Mid-Ohio Valley Parent Magazine titled: "Simple Strategies for Inclusion."

Results

Improved Extension professional skills and performance in working with children with disabilities;

Increased communication between parents, camp staff, and Extension professionals and managers of camping facilities about the needs and reasonable accommodations for children with disabilities;

Increasing commitment by the WVU Extension Service to strive to develop more opportunities for youth and more training opportunities for adults;

Children with Disabilities and other special needs have full access to quality 4-H youth development programs:

Increased positive changes in behavior and attitudes of the leaders, camp counselors, and volunteers concerning volunteering with children with varying abilities;

Partnerships at the state level with The Arc of the Mid-Ohio Valley are strong and provide additional training and information to our programs.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #6

1. Outcome Measures

Number of youth who increase or improve their literacy skills.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	2527

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

During the summer months, children are most at risk for falling behind on reading levels--a preventable loss known as the "summer slide." Summer reading programs are most effective when they are fun and when they occur in a safe, enriching environment focused on reading, writing, art and drama. Many children do not get nutritious meals in the summer because their families cannot afford them, and if children are hungry they cannot learn, so it is important to provide family-style meals with children.

What has been done

West Virginia Extension has collaborated with schools and communities in West Virginia to implement the Energy Express program. Many recognize the value of having this reading enrichment program in their communities. The program cannot function without the cooperation on community members. Matching funds are raised by the communities. This year Energy Express operated in 71 sites in 37 counties.

Results

2527 children attended with a 50% attendance record or better

There were significant positive changes in letter-word identification, reading fluency, passage comprehension, and broad reading.

121,338 meals were served to children participating in the program

9,378 meals were served to other community youth

19,044 take home books were distributed

470 college and community members engaged in service as AmeriCorps members

3,323 family and community members served as volunteers

76,154 hours of volunteer time were provided.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)
- Other (Funding sources and funding oppo)

Brief Explanation

This year, several 4-H specialists left WVU Extension and several new specialists were hired to take their places. This almost complete turnover of specialists affected programs because new employees are learning about their jobs and the Extension system. We expect improved programming in the coming years.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

The Youth Agriculture Team developed a county indicator report which identified the types of educational activities being conducted in each county, the total dollars generated from 4-H/FFA market livestock project sales, the total dollars donated to community groups/organizations from 4-H/FFA market livestock project sales, market project summary, and a summary of the implementation of the sheep tail docking rule. Reports were received from 43 counties.

Students in the CYFAR afterschool program in three counties were given a science quiz that was designed to measure understanding of the scientific method. The steps in the scientific method were taught in every afterschool program (6) and were reinforced throughout the year. Because the CYFAR coordinator position in Cabell County was left vacant for many months in the fall of 2013, only two counties conducted pre- and post-assessments. Cabell county participants only completed the post assessment.

There were 86 students who took the pre-test and 118 students who took the post test, including 42 students in Cabell county who did not take a pre-test. For the t-test conducted in Kanawha and Mercer counties there were 86 pre-tests and 76 post-tests. Overall, and across the independent variables gender and county affiliation, participants showed improvements in:

- Making a plan to answer questions
- Collecting pieces of information called data that will answer questions
- Looking at data and determining if they answered the question
- Using scientific words to share what they found out
- Creating posters to show other what they found out about their question
- Looking up facts about nature, animals or space in books or on the Internet
- These tasks are helpful in preparing for scientific inquiry and sharing about what one

has learned.

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Workforce and Community Development

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
608	Community Resource Planning and Development	50%			
723	Hazards to Human Health and Safety	20%			
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	15%			
805	Community Institutions, Health, and Social Services	15%			
Total		100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	21.0	0.0	0.0	0.0
Actual Paid Professional	21.0	0.0	0.0	0.0
Actual Volunteer	1170.0	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
640000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
988910	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Workforce Development

WVU-ES conducts workshops and training opportunities for workers in a variety of settings in West Virginia. Some workforce development is reported under other planned programs, where appropriate. Examples include ServSafe certification, logger training, and childcare provider training. Topics cover a broad range and include ADA and Civil Rights Compliance, how to start non-profit organizations, grant writing, and cultural diversity. Included in this program area are workshops and training opportunities we provide to Extension educators who in turn train others in their community.

WVU-ES contracts with OSHA to train workers. Topics include updates for construction industry outreach, OSHA standards for maritime, standards for general industry, occupational safety and health standards for construction, contractor refresher, inspector refresher, designer refresher, asbestos building inspector, asbestos management planner refresher, and general industry hazard awareness.

Leadership Development

WVU Extension relies on volunteers to carry out programs in the community. Specific programs, such as 4-H, train their own adult leaders and those efforts are reported under the youth development program area. Other groups who train their own volunteers training are our Community Education Outreach Service organization (CEOS), the Master Gardener program (reported under Food Security and World Hunger), and Energy Express (reported under Youth Development). Topics for volunteers include budgeting and planning for small organizations, public speaking, board responsibilities including serving as an officer, and communications.

Community Development

WVU Extension implements a number of initiatives which have as its focus the development of local governments and community organizations. These initiatives include The First Impressions Program, Government Planning and Public Policy, Business Retention and Expansion, Community Development East, and the Power of 10. These programs attract participants who are interested in initiating downtown revitalization programs to improve their community's capacity to attract and retain new businesses and make communities more desirable places to live and work.

2. Brief description of the target audience

Employers/owners of businesses, community/county boards and other leaders, volunteers, immigrants and migrant workers, disabled community members, and older adults, members of the West Virginia workforce.

3. How was eXtension used?

One specialist serves on the Evaluation CoP and such contributed answers to FAQs and has reviewed other material and served on a leadership team to improve the offerings of the CoP.

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	33137	60381	26060	3272

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

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	2	5	7

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational activities

Year	Actual
2013	952

Output #2

Output Measure

- Number of educational materials created or updated

Year	Actual
2013	2

Output #3

Output Measure

- Number of educational materials distributed

Year	Actual
2013	26790

Output #4

Output Measure

- Number of professional presentations

Year	Actual
2013	8

Output #5

Output Measure

- Number of outside organizations collaborating within this program area

Year	Actual
2013	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of participants in workforce development programs who increase their knowledge and skills.
2	Number of government and civic leaders who improve or increase skills
3	Number of workers who use a new skill
4	Number of volunteers who increase or improve skills.
5	Number of people certified or licensed to practice in the field
6	Number of new groups or organizations that are established or enhanced
7	Number of economic improvements
8	Number of employers who comply with OSHA specified limits for exposure of workers to hazardous substances and conditions.
9	Number of government or civic groups that use a new skill or procedure.

Outcome #1

1. Outcome Measures

Number of participants in workforce development programs who increase their knowledge and skills.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	4545

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The protection of workers' rights is an important issue in West Virginia. The Building and Construction Trades Department, The National Resource Center for OSHA Training, is a consortium of the George Meany Center for Labor Studies -- National Labor College, AFL-CIO, and West Virginia University Safety and Health Extension. It was formed to provide training for workers in the building and construction trade.

What has been done

This year, West Virginia University Extension offered 263 OSHA training sessions. Topics include updates for construction industry outreach, OSHA standards for maritime, standards for general industry, occupational safety and health standards for construction, contractor refresher, inspector refresher, designer refresher, asbestos building inspector, asbestos management planner refresher, and general industry hazard awareness.

Results

4545 construction industry workers gained skills in safety and health standards as a result of attending OSHA workshops and seminars at WVU Extension.

4. Associated Knowledge Areas

KA Code	Knowledge Area
723	Hazards to Human Health and Safety
805	Community Institutions, Health, and Social Services

Outcome #2

1. Outcome Measures

Number of government and civic leaders who improve or increase skills

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	101

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Only about half West Virginia counties have active planning commissions defined as at least meeting quarterly as required by law (27 of 55 in 2010, the most recent data available). Only about half of them are known to have up-to-date comprehensive plans (13 as of early 2013).

What has been done

Over 100 unique individuals received direct instruction on planning, its procedures, its importance, and its impacts. This includes 73 community leaders and decisions makers. They were split roughly equally between the "Community Visioning/Planning Design" projects (35 persons) and "Community Planning Assistance" efforts (38 persons). Additionally, 28 college students were enrolled in planning courses.

Results

In Lewis County, the comprehensive plan document has gone from initial to final draft.

In Buckhannon, the city will update the Buckhannon 2015 Plan.

In Putnam County, they received guidance and counsel regarding the structure and development of the new comprehensive plan.

In Elkins, they learned about the importance of planning and alternatives for plan development.

In Hurricane, they learned about the importance of planning, particularly with respect to the ability to enforce land use regulation under state law.

In Bethany, members of the Planning Commission received a briefing on the town's

comprehensive plan and what would need to be done to update the plan.

In Tucker County, they received published copies of the "Tucker County Comprehensive Plan."

In Hampshire Country, they received digitized versions of the land use maps to post on its website.

In Westover, they received information on topics ranging from noxious weeds to urban agriculture.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services

Outcome #3

1. Outcome Measures

Number of workers who use a new skill

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	40

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

To improve nutrition in low-income areas and to promote locally grown foods, farmers' market need to market to those who do not use cash but rely on alternative means of payment. In order for the community to become aware that they can make purchases using their SNAP cards and credit/debit cards at farmers markets, a marketing campaign must be implemented.

What has been done

A marketing campaign was developed in Roane County, WV which utilized local newspapers, radio stations, and social media. The marketing campaign also introduced the use of credit/debit and EBT forms of payment at various farmers' market locations to about 1000 people each week. WVU Extension provided PSAs for each market. Several community events were sponsored by the county farmers' market association as a means of promoting the use of EPT

payments and credit cards.

Results

40 farmers' market vendors were trained and accepted senior vouchers, credit/debit cards, and EBT forms of payment.

Most markets averaged \$120 a week in EBT payments and \$150 a week in credit card sales.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services

Outcome #4

1. Outcome Measures

Number of volunteers who increase or improve skills.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	512

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The West Virginia Community Educational Outreach Service (WVCEOS) has a strong tradition of education, service, and community development. Extension faculty members serve as advisors to local groups and the state board and develop WVCEOS program topics on timely issues. Program areas of emphasis include: preserving the environment, building family strengths, and increasing awareness of our global interdependence.

What has been done

County Extension agents produced lesson plans and trained CEOS members to deliver educational programs to their members at the county level. They also trained members in leadership skills at CEOS council meetings. This year 19 Counties reported that they held

programs and trainings on identity theft and also retirement planning.

Results

512 CEOS members were trained in volunteer skills. As a result they assumed leadership positions and roles as State board members, State educational committee members, county presidents, vice presidents, secretaries and treasures 44. 255 CEOS clubs have officers as leaders. Eight hundred and thirty eight members read aloud to others.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services

Outcome #5

1. Outcome Measures

Number of people certified or licensed to practice in the field

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1378

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

After being trained by WVU-ES faculty, newly trained OSHA authorized outreach trainers are certified to implement hazard awareness courses to workers. This enhances the ability of WVU-ES to provide training to many more individuals.

What has been done

Our faculty taught 107 OSHA Education Center train-the-trainer courses in 2013. When the trainers from these OSHA courses successfully complete the course they become certified as OSHA authorized outreach trainers and then they went out and provided hazard awareness courses in their specialized areas. The new trainees receive DOL cards for 10 hour and 30 hour construction, 10 hour and 30 hour general industry, 16 hour disaster site worker, and 8 different cards for the maritime industry.

Results

1378 trainers were certified as OSHA authorized outreach trainers in 2013. They went out and trained 45,474 individuals in 3582 courses.

4. Associated Knowledge Areas

KA Code	Knowledge Area
723	Hazards to Human Health and Safety

Outcome #6

1. Outcome Measures

Number of new groups or organizations that are established or enhanced

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	5

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The community data analysis and community profiling program is generally a first step in community development programming. As such, the role of the analysis is not to "fix" the local economy but to provide local leaders with data, and a more complete understanding of the data, to make rational decisions about the community's economic problems and the solutions that best fit the community's needs. Follow-up activities are occurring in nearly all of the communities:

What has been done

In Harrisville, WV socio-economic data relevant to community volunteerism and involvement was incorporated into a First Impressions presentation. In Doddridge County socio-economic data were presented to a group of community stakeholders engaged in strategic planning. A draft of the report "Wetzel County, WV's Economic Structure: A Socio-Economic Profile and Input-Output Analysis" was delivered to the Wetzel County Chamber of Commerce. Results from the community profile in Ravenswood will be used to inform future planning efforts in the community. In Nitro, WV, a final report was presented to the mayor and city council.

Results

CRED specialists have met with the Executive Director of the Ritchie County EDA to discuss

follow-up activities in the county and broader region. CRED specialist, Doug Arbogast is working with EDA leaders in both Doddridge and Ritchie Counties on regional tourism activities. Extension faculty and the Doddridge County EDA are working on strategies for business recruitment. Members of the Nitro city council have begun the comprehensive planning process and are incorporating report recommendations into their documents.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
805	Community Institutions, Health, and Social Services

Outcome #7

1. Outcome Measures

Number of economic improvements

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	6

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

According to the Census of Fatal Occupational Injuries between 2003 and 2008, 648 US oil and gas extraction workers were fatally injured on the job. Training to prevent injuries is a business expense which non-profit organizations cannot always afford.

What has been done

Safety and Health Extension provides safety and health services to Habitat of Humanities, WV Women's Work, Storm Sandy Clean-up operations, Youth Build and The Restore. Training conducted in 2012 has included Residential Fall Protection, OSHA 10 Hour Construction, Chain Saw Safety and Electrical Safety. These trainings are conducted in Charleston, Martinsburg, Elkins, Fairmont and Morgantown. In 2012, 12 classes were delivered reaching 190 individuals.

Results

?Training at six non-profit organizations was offered at no cost to the organization or the individual resulting in economic savings to those organizations

4. Associated Knowledge Areas

KA Code	Knowledge Area
723	Hazards to Human Health and Safety
805	Community Institutions, Health, and Social Services

Outcome #8

1. Outcome Measures

Number of employers who comply with OSHA specified limits for exposure of workers to hazardous substances and conditions.

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

Number of government or civic groups that use a new skill or procedure.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

According to the Census of Fatal Occupational Injuries between 2003 and 2008, 648 US oil and gas extraction workers were fatally injured on the job. The Oil and Gas industries fatality rate is 7 times greater as compared to all other US industries (29.1 vs. 3.0 per 100,000 workers). West Virginia is seeing an increase in natural gas jobs. West Virginia jobs grew by 44.2 percent in the oil and gas extraction sector; by 9.4 percent in the drilling oil and gas wells sector; and by 99 percent in the support sector for oil and gas operations.

What has been done

Safety & Health Extension has developed a center offering safety training for oil and gas workers. People seeking work in the industry can take the courses offered by the Oil and Gas Training and Assistance Center. The training includes a comprehensive hazard awareness and orientation

course named, AWARE. This course is designed to educate employers and employees on the recognition, avoidance, and prevention of hazards specific to the Oil and Gas industry as well as to create an authorized trainer network throughout the Appalachian basin.

Results

WVU-Safety and Health Extension (WVU-SHE) has been awarded accreditation by the International Association of Drilling Contractors (IADC) for their training course, AWARE. WVU-SHE applied through the IADC Rig Pass program, which is endorsed by SafeLandUSA. SafeLandUSA is a volunteer organization comprised of major and independent operating companies, industry associations, and educators with a purpose of developing a standardized orientation, which sets minimum requirements for the US Onshore Exploration and Production Industry.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
723	Hazards to Human Health and Safety

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges

Brief Explanation

With the increase of energy employment in the Marcellus Shale Region (WV & PA), also we see an increase of injuries and fatalities.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

OSHA Training Institute

- Ranked first nationally in Number of OSHA 10 and 30 Hour Students Trained
- Ranked fourth nationally in number of OSHA courses delivered.
- In 6 month post assessment surveys of 2013 students:
 - o 97% of respondents reported that completion of training at WVU improved their skills as a safety trainer
 - o 91% will make changes in training methods as a direct results of the class
 - o 50% will make changes in safety policies and procedures
 - o 44.3% will make changes in how the implement, use or require personal protective

equipment (respirators, hearing protection, fall protection harness, etc.).

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 4

1. Name of the Planned Program

Global Food Security and Hunger

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
102	Soil, Plant, Water, Nutrient Relationships	15%			
205	Plant Management Systems	10%			
213	Weeds Affecting Plants	5%			
216	Integrated Pest Management Systems	10%			
307	Animal Management Systems	15%			
308	Improved Animal Products (Before Harvest)	15%			
503	Quality Maintenance in Storing and Marketing Food Products	10%			
604	Marketing and Distribution Practices	10%			
607	Consumer Economics	10%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	14.0	0.0	0.0	0.0
Actual Paid Professional	17.0	0.0	0.0	0.0
Actual Volunteer	3323.0	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
715000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
528390	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The Global Food Security and Hunger has the following goals: 1) increase food supply and quality by improving and promoting animal health, marketing, use of pesticides, use of risk mitigation, and control of predation; 2) engage individuals in the promotion, support, and sustainability of horticulture, 3) expand marketing opportunities for value-added products and develop food systems that support local consumers and local business creation and expansion; 4) enhance the agricultural knowledge so that citizens make informed decisions related to the production of food, fiber and wildlife ecology; and 5) build volunteer capacity related to agriculture within communities.

Animal Production and Management. Activities in this area include those that address animal health, livestock production, animal product marketing, grassland management, and aquaculture. The major initiatives include: feeder cattle marketing program, livestock improvement, grassland management, and aquaculture.

Horticulture - The major initiatives include: homeowner and commercial horticulture, the Master Gardener Program and International Conference.

Pest Management - The major initiatives include: Integrated Pest Management, the White Tailed Deer Damage Program, and Weed Control Management.

Sustainable Agriculture: Agriculture Business/Small Farm Management - The major initiatives include: West Virginia Small Farms Conference and Small Farms Website.

Nutrient Management - The major initiatives include fertilizer use and selection, soil sampling, and composting. WVU Extension educators presented at 2 professional meetings. The major initiatives included fertilizer use and selection, soil sampling, and composting.

Agriculture Literacy -The major initiatives include Agriculture in the Classroom, 4-H youth agriculture activities including judging, skillathons, and fairs and festivals.

2. Brief description of the target audience

The target audience is beef and dairy producers, large and small growers of horticultural products, regional livestock producers, market managers, homeowners, shepherds, aquaculture producers,

pesticide applicators, certified nutrient managers, youth livestock exhibitors, volunteers, Extension agents, and Extension specialists.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	65809	235362	34169	102507

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

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	10	17	27

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational activities

Year	Actual
2013	604

Output #2

Output Measure

- Number of educational materials created or updated

Year	Actual
2013	10

Output #3

Output Measure

- Number of educational materials distributed

Year	Actual
2013	40352

Output #4

Output Measure

- Number of professional presentations

Year	Actual
2013	13

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of participants who improve or increase skills in farm management.
2	Number of producers indicating adoption of recommended practices.
3	Number of people certified or licensed to practice in the field
4	Number of new groups or organizations that are established or enhanced
5	Number of producers (and other members of the food supply chain) that have increased revenue.
6	Dollar amounts generated as a result of implementing new techniques or procedures
7	Number of participants who increase or improve skills in animal production and health.
8	Number of participants who increase or improve skills in weed or pest management.
9	Number of participants who increase or improve skills in aquaculture.
10	Number of participants who increase or improve a skill in nutrient management.

Outcome #1

1. Outcome Measures

Number of participants who improve or increase skills in farm management.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	805

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Growing consumer demand for fresh, local products may lead to new market opportunities throughout the local food markets in the WV and Western Maryland region. More small family farms in WV and Western Maryland must successfully enter and compete in this local food market so that a greater share of the \$8.9 local food dollar spent stays within the WV and Western Maryland region to sustain local farming communities.

What has been done

The 2013 WVUES Small Farms Conference was held from February 28 to March 1, 2013. Topics included "The Business Side of Agritourism: Is this Business Economically Feasible?" "Business Planning for the Agritourism Enterprise: Planning for the Big Picture," "Pricing Your Product for Market," "I Cannot Change What I do not Measure: Understanding your Farm Numbers," and "Pricing Your Product for Market: Ten Lessons you should Follow." Other workshops held throughout the state included "So You Want to Start a Food Business," "Business Planning Process," "Professional Development for Agricultural Service Providers in Pollution Discharge Elimination System," and "Small-Scale, Backyard or Pastured Poultry production Workshops."

Results

Over 800 participants in farm management workshops in West Virginia improved their skills in the business side of agritourism and other small farm operations.

4. Associated Knowledge Areas

KA Code	Knowledge Area
503	Quality Maintenance in Storing and Marketing Food Products
604	Marketing and Distribution Practices

Outcome #2

1. Outcome Measures

Number of producers indicating adoption of recommended practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	100

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The USDA 1,000 bird federal exemption allows West Virginia farmers to home process 1,000 birds for retail sale. Producers need skills in how to grow and process backyard poultry.

What has been done

WVU Extension offered the Backyard Training Program with five components: 1) the rules and regulations of the 1,000 bird limit federal exemption 2) feasibility of raising backyard poultry as an alternative enterprise, 3) production and review of processing procedures, 4) demonstration of processing equipment, 5) online resources.

Results

- ?100 participants learned how to butcher chickens
- ?100 participants learned how to finance backyard poultry enterprises
- ?100 participants learned how to select equipment for backyard poultry enterprises

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
205	Plant Management Systems
213	Weeds Affecting Plants
216	Integrated Pest Management Systems
307	Animal Management Systems

308	Improved Animal Products (Before Harvest)
503	Quality Maintenance in Storing and Marketing Food Products
604	Marketing and Distribution Practices
607	Consumer Economics

Outcome #3

1. Outcome Measures

Number of people certified or licensed to practice in the field

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Secure funding for the WV Pesticide Safety Education Program (PSEP) is needed in order to increase knowledge of IPM practices and provide educational support and training to pesticide applicators who seek re-certification training.

What has been done

Four workshops were conducted with pesticide applicators who wanted to accrue continuing education units for re-certification. Topics in various commodities, included covering insect pest identification, monitoring, and control while emphasizing adoption of IPM and proper pesticide use. In addition, a Lawn and Landscape Pesticide Re-Certification Workshop for lawn and landscape professionals was held.

Results

Continuing education units for pesticide re-certification were approved for participants attending all workshop/training sessions. Summary results from pre- and post-tests collected during the Lawn and Landscape Pesticide Re-Certification Workshop showed a 29% improvement in scores. Furthermore, 75% of respondents indicated that the information learned would be utilized to change pesticide use practices.

4. Associated Knowledge Areas

KA Code	Knowledge Area
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102	Soil, Plant, Water, Nutrient Relationships
205	Plant Management Systems
213	Weeds Affecting Plants
216	Integrated Pest Management Systems
307	Animal Management Systems
308	Improved Animal Products (Before Harvest)
503	Quality Maintenance in Storing and Marketing Food Products
604	Marketing and Distribution Practices
607	Consumer Economics

Outcome #4

1. Outcome Measures

Number of new groups or organizations that are established or enhanced

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Aquaculture is Agriculture. The legal/institutional framework in West Virginia has not accommodated this change adequately. DNR is the primary permitting agency for fish farmers rather than the WV Department of Agriculture. There is need to develop policies which address issues and problems facing development of the aquaculture industry in WV.

What has been done

What has been done

Pursuant to the Aquaculture Development Act, an Aquaculture Advisory Board was created to provide recommendations for aquaculture development to the WV Department of Agriculture. It is the responsibility of the Aquaculture Advisory Board to identify issues facing the aquaculture industry and recommend to the Commissioner of Agriculture measures that should be taken to benefit aquaculture development.

Results

In collaboration with representatives from Agriculture, DEP, DNR, and aquaculture producers, we have made a series of recommendations to the Commissioner of Agriculture that describes how the Department should engage aquaculture. The emphasis is on creating transparency, minimizing and perhaps even decreasing the burden on the industry, while establishing authority for regulation of aquatic livestock.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
205	Plant Management Systems
213	Weeds Affecting Plants
216	Integrated Pest Management Systems
307	Animal Management Systems
308	Improved Animal Products (Before Harvest)
503	Quality Maintenance in Storing and Marketing Food Products
604	Marketing and Distribution Practices

Outcome #5

1. Outcome Measures

Number of producers (and other members of the food supply chain) that have increased revenue.

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

Dollar amounts generated as a result of implementing new techniques or procedures

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	14629

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

It is critical to support the expansion of ?Buy Local? initiatives, farmers? market development, and value-added low cost production among small farmers and rural communities.

What has been done

A new cooperative was developed known as the Mid-Ohio Valley Growers Cooperative (MOVE) with 21 members. WVU Extension in Roane County was awarded a \$14,629 2013 Specialty Crops Block Grant for Locally Grown Food Security in the Mid-Ohio Valley.

Results

A job description was developed to hire a part-time MOVE program coordinator who will work toward strengthening the local food economy. MOVE also supports the Farm to School Program.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
307	Animal Management Systems
308	Improved Animal Products (Before Harvest)
503	Quality Maintenance in Storing and Marketing Food Products
604	Marketing and Distribution Practices
607	Consumer Economics

Outcome #7

1. Outcome Measures

Number of participants who increase or improve skills in animal production and health.

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

Number of participants who increase or improve skills in weed or pest management.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	300

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Two major diseases of vegetables (late blight of tomato and potato; downy mildew of cucurbits) have proven to be serious constraints in the state and parts of neighboring states in the year 2011 and 2012.

What has been done

Special initiative on sending forecast and preventative recommendations were implemented. During 2013, one specialist diagnosed disease problem on 300 plant specimens and sent recommendations to commodity growers or home owners to take corrective measures.

Results

Growers in the state changed their attitude on adopting preventative measures. This helped in minimizing losses due to diseases in cucurbits, tomatoes and potatoes. Commodity producers who would use pesticide on a weekly schedule in the absence of disease forecasting also became more confident about the timing of disease outbreak and adjust their spray schedule accordingly. This helped commodity growers minimizing the use of pesticides without compromising the level of disease control.

4. Associated Knowledge Areas

KA Code	Knowledge Area
213	Weeds Affecting Plants
216	Integrated Pest Management Systems

Outcome #9

1. Outcome Measures

Number of participants who increase or improve skills in aquaculture.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
-------------	---------------

2013

0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Farm pond management is always a popular topic, and is related to aquaculture development through the marketing of aquaculture products and services. Presentations on pond management help the public understand how to manage their water resources.

What has been done

In 2013, response was made to more than 200 requests for literature or information on all facets of aquaculture. During the year, there were site visits at 22 locations in addition to research related venues. Pond management was featured at the Aquaculture Forum, the Small Farm Conference, and at a Master Naturalist class. In addition, a presentation on pond design was made at the Appalachian Grazing Conference.

Results

Awareness of pond management methods including control of aquatic vegetation, fish management, and water quality management, have been increased.

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems
308	Improved Animal Products (Before Harvest)
604	Marketing and Distribution Practices

Outcome #10

1. Outcome Measures

Number of participants who increase or improve a skill in nutrient management.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Other (funding)

Brief Explanation

V(I). Planned Program (Evaluation Studies)

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 5

1. Name of the Planned Program

Strengthening Families

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
801	Individual and Family Resource Management	50%			
802	Human Development and Family Well-Being	50%			
Total		100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	26.0	0.0	0.0	0.0
Actual Paid Professional	25.0	0.0	0.0	0.0
Actual Volunteer	0.0	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
349158	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
1442412	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

In 2013, the Strengthening Families planned program at West Virginia University Extension worked towards improving the financial wellbeing of WV families and building strong primary adult and child/parent relationships in WV families. The goals of the program include: 1) increasing knowledge and skills related to financial decision-making and family relationships; 2) ensuring the success of those who teach others about financial education and family relationships; 3) increasing collaborations between WVU-ES and community organization in order to strengthen families; 4) increasing the number of participants who are certified to provide childcare and offer relationship, parenting or financial education; and 5) increasing the amount of money raised as in-kind contributions to sustain programs.

Financial Management - The major initiatives within this program area were: Money Habitudes, Understanding Economic Diversity, Get A Life, and Financial Freedom. WVU-ES educators produced two educational publications about family finance.

Parenting Education - The major initiatives within this program area were: Healthy Families/Healthy Children program, the Strong Families Eat Together program, Parenting Piece by Piece, Stewards of Children, and Parenting Apart. WVU- ES educators produced five educational publications and presented at one national professional conference.

Adult Relationship Education- The major initiatives within this program area were: Healthy Children/ Healthy Families Initiative, The Five Love Languages, and How Not to Fall in Love with a Jerk, PREP Marriage Preparation Training, 10 Great Dates, and True Colors. WVU-ES educators produced 15 educational publications, and presented at five professional conferences.

Childcare Training -The major initiatives in this area are the ACDS Childcare Provider Training and Making a Difference - the Mandate to Report training program.

2. Brief description of the target audience

West Virginia parents, high school students, childcare providers, older adults, kin caregivers, school teachers, prison inmates, WV citizens in significant relationships, Extension agents, and social service personnel.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	5952	95701	5473	700

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

Year: 2013
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	5	1	6

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational activities

Year	Actual
2013	233

Output #2

Output Measure

- Number of educational materials created or updated.

Year	Actual
2013	5

Output #3

Output Measure

- Number of educational materials distributed.

Year	Actual
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2013 96401

Output #4

Output Measure

- Number of professional presentations

Year	Actual
2013	5

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of participants who increased their skills in family relationships.
2	Number of participants who improve or increase their skills in family financial management.
3	Number of participants who change a behavior or use a new skill related to family management.
4	Number of participants who train others
5	Amount of money raised by participants to support the program
6	Number of people certified or license to practice in the field
7	Number of new groups or organizations that are established or enhanced
8	Number of economic improvements related to families.
9	Number of social improvements related to families.
10	Number of participants who increase or improve their skills in parenting.
11	Number of participants who increased their knowledge.
12	Number of groups or organizations that change their procedures and/or policies.

Outcome #1

1. Outcome Measures

Number of participants who increased their skills in family relationships.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	94

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

"Parenting Piece by Piece" aims to reduce or eliminate instances of child maltreatment by providing parents with educational and social experiences that increase the use of positive parenting practices. This is achieved by creating an environment that facilitates the development of caring, competent, and healthy children.

What has been done

Even though "Parenting Piece by Piece" is designed for use with parents who have been mandated to attend parenting training due to their identification as physically or emotionally abusive and/or neglectful parents, classes were held at Bannum House, a transitional housing from prison to the workforce in Harrison County. Twenty- two classes were taught throughout the year.

Results

Most participants in the "Parenting Piece by Piece" program (94%) agreed or somewhat agreed that they learned something new, would use the information in the next six months, and felt more confident about their ability to parent and/or strengthen their relationship. Participants commented that they learned the following skills: new ways to interact with their children, empathy for their children's feelings, leading by example, being a more caring, and loving parent. A majority (60%) intend to do something differently as a result of the classes.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #2

1. Outcome Measures

Number of participants who improve or increase their skills in family financial management.

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

Number of participants who change a behavior or use a new skill related to family management.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	7

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Modeling good literacy practices helps encourage literacy development. Some estimates from teachers state that over one-third of children entering kindergarten has poor language skills and are not ready for school. Family literacy programs empower parents to help their children be successful in school and build strong parent-child relationships.

What has been done

Family Storyteller was presented to a Mothers of Preschoolers group and included a three-month follow up session. Different teaching methods were incorporated in the Family Storyteller classes including power point presentations, group discussions, and interactive activities.

Results

All Family Storyteller participants (100%) reported on a three-month follow up survey that they implemented such skills as sitting close to the child while reading and having a regular time to read books to the child. All also reported that they were somewhat satisfied or very satisfied as a

parent and with the relationship with the children. The participants also reported 2 hours or more of reading with their children during the week.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being

Outcome #4

1. Outcome Measures

Number of participants who train others

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	34

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

West Virginia has the fifth highest divorce rate of 5.3 divorces/1000 married individuals (Wall Street Journal, 2010 from census data). Additionally, the Census Bureau found statistically higher divorce rate for men (10.9/US 9.2 and women (11.8/US 9.7) than the US average. There has been little change in the State's divorce rate for the past 20 years. This means that there is currently 1 divorce for every 1.32 West Virginia marriages.

What has been done

A WVU Extension specialist developed a curriculum and educators' guide titled "West Virginia Parenting Apart." The WV Supreme Court approved WV Parenting Apart as the mandated curriculum. WVU Extension specialist has been training court-approved parent educators in the new curriculum and certifying WVU-Extension agents as Parent Educators for the court mandated course.

Results

Parent Educators found the materials helpful for their audiences (Average rating 3.67/4). Parent Educators expressed confidence in teaching this material (Average rating 3.51/4).

Twenty-five new family mediators gained knowledge of co-parenting skills to inform mediation work with parents regarding the development of parenting plans.

Nine WVUES faculty certified to teach co-parenting classes

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being

Outcome #5

1. Outcome Measures

Amount of money raised by participants to support the program

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

Number of people certified or license to practice in the field

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	3166

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The West Virginia Apprenticeship Child Development Specialist (ACDS) promotes highly skilled, confident, early childhood employees; quality early childhood classrooms; and informed, supportive early childhood professionals.

What has been done

WVU-ES has contributed to the enhancement and promotion of this organization for several years by designing and implementing classes that count for accreditation. Some of our agents have taught classes on a regular basis.

Results

3,166 adults and youth have been successfully trained by WVU Extension faculty to teach children in day care centers. These trained individuals have then gone on to teach children.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being

Outcome #7

1. Outcome Measures

Number of new groups or organizations that are established or enhanced

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	2

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Unhealthy couple and parent-child relationships are associated with a broad range of poor emotional, social, and financial outcomes for children and adults.

What has been done

The Healthy Families Healthy Children program in West Virginia supports grassroots coalitions to provide locally relevant educational programs. Although grant funding has ceased, the Ohio/Marshall County Coalition, made up of 24 community members continues to educate on the importance of healthy relationships, financial stability and strong parenting. The Healthy Family Coalition of Raleigh County and Braxton County also continued to grow after federal funding

ceased.

Results

The HFHC coalitions have offered educational programs including: "The Five Love Language," and "How not to Fall for a Jerk," "Money Habitudes," "Financial Management," "Five Languages of Children and Teens," Languages of Appreciation in the Workplace. Stewards of Children Darkness to Light, "How to Avoid Marrying or Dating a Jerk." The coalitions have worked with the SPOKES program, Family Resource Networks, and other organizations to present programs on relationship education and financial management.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being

Outcome #8

1. Outcome Measures

Number of economic improvements related to families.

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

Number of social improvements related to families.

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

Number of participants who increase or improve their skills in parenting.

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

Number of participants who increased their knowledge.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1034

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Child sexual abuse is a difficult subject but needs to be addressed because of the devastating human toll that arises when prevention and protection is attainable. There are 39 million survivors of child sexual abuse in America today. It touches every community.

What has been done

"Darkness to Light Stewards of Children," is a prevention and response program for adults that seeks to protect children from sexual abuse. This training is a tool to help accomplish the goal of saving as many children as possible within our reach. Darkness to Light Stewards of Children was taught to all of the Harrison County Parks and Recreation summer camp workers.

Results

More than 95 percent of participants in the "Darkness to Light Stewards of Children" program agreed or strongly agreed that they learned new information about child sexual abuse, have changed their attitudes about child sexual abuse, and will protect children. They said that the training addressed the most critical issues for organizations and individuals concerned about the protection of children, and was appropriate training for a wide range of organizations.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being

Outcome #12

1. Outcome Measures

Number of groups or organizations that change their procedures and/or policies.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Poor mental health outcomes in West Virginia are related to our State's demographics of poverty and low educational attainment and the paucity of behavioral health resources. Many rural counties lack master's level behavioral health providers. Attitudes which regard seeking help for depression or anxiety as a sign of personal or moral weakness still serve as barriers to treatment.

What has been done

The family life and human development specialist created a five-module curriculum titled Stress Less with Mindfulness based on the Kabat-Zinn approach. Beginning in 2012, she developed materials on Seasonal Affective Disorder suitable for community audiences to address the "winter blues."

Results

Stress Less with Mindfulness was accepted by the WV Public Employee Insurance Association as a free wellness program for those insured by PEIA Plan B. WVU Extension is being reimbursed for each participant meeting 80% attendance criterion.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

Our family finance specialist left his position and his position has not yet been filled.

Our direct adult contacts have been reduced because the Healthy Families Healthy Children program, which reached thousands of adults each year was unfunded. Several counties are continuing the program on their own.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

2013 evaluations of the Stress Less workshops consistently showed gains in participant knowledge and intention to use targeted skills. One summary is presented below:

WV Diabetes Symposium: October 16, 2013 (Train the Trainer Event)

Pre-post change

1. Identify 3 mindfulness tools to help me manage stress.
+51 %
1. Identify my Personal Stress Barometers.
+44%
1. Use mindful breathing to calm myself in the face of stress.
+44%
1. Practice mindful movement as a way of calming the mind and body.
+45%
1. Use mindful awareness when I am eating.
+70%
1. Describe how a mindfulness perspective can change my reaction to daily stressors.

+54%

All are significant positive increases.

"How Not to Fall for a Jerk

- 100% reported that after attending program they know something they didn't know before about adult relationships
- 100% reported that in the next 6 months they plan to use the information or skills they learned today
- 80% reported they feel more confident about their ability to use the Relationship Attachment Model to strengthen their relationships

"5 Love Languages"

- 100% reported that after attending program they know something they didn't know before about adult relationships
- 100% reported that in the next 6 months they plan to use the information or skills they learned today
- 100% reported they feel more confident about their ability to communicate using the 5 Love Languages

•
"Appreciation in the Workplace"

According to the average from program feedback forms

- 96 % reported that after attending program they know something they didn't know before about encouraging and motivating coworkers
- 100% reported that in the next 6 months they plan to use the information or skills they learned today
- 100% reported they feel more confident about their ability to communicate using the languages of appreciation

"Money Habitudes"

- 70 % reported that after attending program they know something they didn't know before about their money habits and attitudes
- 71% reported that in the next 6 months they plan to use the information or skills they learned today in their spending and saving
- 70% reported they feel more confident in their ability to understand their spending behaviors

"Financial Fortress"

- 90% reported that after attending program they know something they didn't know before to use when teaching others about credit cards, saving money and making a budget.
- 90% reported that in the next 6 months they plan to use the information or skills they learned today when teaching others about credit cards, saving money and making a budget
- 85% Reported they feel more confident in their ability to teach the curriculum to their clients

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 6

1. Name of the Planned Program

Climate Change

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
102	Soil, Plant, Water, Nutrient Relationships	25%			
123	Management and Sustainability of Forest Resources	30%			
124	Urban Forestry	10%			
125	Agroforestry	20%			
605	Natural Resource and Environmental Economics	15%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	3.0	0.0	0.0	0.0
Actual Paid Professional	3.0	0.0	0.0	0.0
Actual Volunteer	0.0	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
200000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
18230	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

In 2013, the Climate Change planned program at West Virginia University Extension worked towards developing an agriculture system that maintains high productivity in the face of climate changes. It helps producers plan for and make decisions to adapt to changing environments and sustain economic vitality and take advantage of emerging economic opportunities offered by climate change mitigation technologies.

Objectives addressed in this program area include:

- Decrease risk and loss to farming operations through use of risk mitigation tools and control of predation
- Improve woodlot conditions and expand forest and non-timber product production
- Improve the business and management competencies of forest/wood industry businesses.
- Increase compliance with and knowledge of the WV Best Management Practices for controlling soil erosion and sedimentation from logging operations.
- Increase the capacity of local communities and landowners in nutrient management and sustainability

Activities under several categories including: composting and utilization, nutrient management, forestry, logging and milling, hay production, grassland management. Topics include: agricultural and cover crop, calibration methods & demonstration, WV GreenUp logging, forage economics, forage sampling and testing, nutrient management, grassland management, risk mitigation.

2. Brief description of the target audience

Target audiences include private forestland owners, forestry professionals, researchers, general public.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	6426	134539	1810	5430

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

Patent Applications Submitted

Year: 2013
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	8	3	11

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational climate control educational activities

Year	Actual
2013	177

Output #2

Output Measure

- Number of educational materials about climate control created or updated

Year	Actual
2013	4

Output #3

Output Measure

- Number of professional presentations about climate control

Year	Actual
2013	3

Output #4

Output Measure

- Number of educational materials about climate control distributed

Year	Actual
2013	7132

Output #5

Output Measure

- Number of current year climate control relevant research programs
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of participants who increase their knowledge of management practices under climate variability and change
2	The number that adopted recommended adaptation strategies for production agriculture and natural resources management, including invasive species, pest management, pollutant loads, wetlands.
3	Number of participants who adopt recommended climate mitigation practices.
4	Number of groups or organizations that change their procedures and/or policies regarding climate control
5	Number of economic improvements
6	Number of environmental improvements
7	Number of participants who increase their knowledge of management practices under climate variability and change.
8	Number of groups or organizations that change their procedures and/or policies regarding climate control.

Outcome #1

1. Outcome Measures

Number of participants who increase their knowledge of management practices under climate variability and change

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	230

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The purpose of the Renewable Resources Extension Act (RREA) at WVU Extension is to support programs in West Virginia that put landowners in touch with natural resources professionals and to educate citizens about forests, wildlife, and water resources.

What has been done

RREA played an important role in building woodland owners networks, groups of individuals that participate in "Walks in the Woods" and other natural resources seminars. In 2013, over 230 woodland owners, nature enthusiasts, and interested citizens participated in these educational opportunities.

Results

230 landowners and interested citizens gained knowledge about the importance of natural resources and how these resources can be managed to assure that they are available for current and future use.

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
605	Natural Resource and Environmental Economics

Outcome #2

1. Outcome Measures

The number that adopted recommended adaptation strategies for production agriculture and natural resources management, including invasive species, pest management, pollutant loads, wetlands.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	4

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Farm prices have changed in recent years due to the ethanol tax credit. Corn prices have increased and a significant portion of the corn crop is going into ethanol production. This has resulted in feeder calf prices being relatively weak compared to fed-cattle prices, fertilizer prices increasing and supplemental protein and energy prices increasing compared to previous years.

What has been done

Due to these added pressures on net income for feeder calves we develop the Low-Cost Cow-Calf Production in West Virginia project to help farmers fine tune their management of feed production, crop and livestock nutritional management, and livestock marketing and cow efficiency. This project provided training for 360 farmers in best management practices (BMPs) for low cost cow-calf production. In addition, we are worked with eight producers on six farms to help them reduce livestock production costs by using recommended BMPs.

Results

One producer established improved feeding of hay on meadows and was able to save \$100/cow/year by recycling plant nutrients in hay back on meadows instead of purchasing commercial fertilizer. Another operator found it advantageous to give up rented land that could not be used in a sustainable manner through winter feeding programs. A third farm is evaluating land usage relative to forage quality and nutrient cycling but has not made changes at this time. Farm number four did not change the magnitude of their fertilizer budget but targeted the application of phosphorus, potassium, and lime to those fields where soil test showed it was needed. This farm dropped the application of nitrogen on fields containing adequate percentage of clover and reported no loss in forage yield. Thus the fertilizer budget was used to purchase plant nutrients such as phosphorus, potassium, calcium, and magnesium which can be used over and over again through nutrient cycling versus a nutrient such as nitrogen which has limited recycling ability.

4. Associated Knowledge Areas

KA Code	Knowledge Area
605	Natural Resource and Environmental Economics

Outcome #3

1. Outcome Measures

Number of participants who adopt recommended climate mitigation practices.

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

Number of groups or organizations that change their procedures and/or policies regarding climate control

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	2500

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The West Virginia State Division of Forestry needed a system to track, inspect, and enforce forestry laws on all logging operations.

What has been done

Extension specialist developed the LONIE system (logging operation notification, inspection, and enforcement system) that revolutionized the State Division of Forestry to track, inspect, and enforce forestry laws on all logging operations inspections entered into the system.

Results

The LONIE system is used by State Forestry Foresters who entered 2500 operations and over 10,000 inspections into the system this year.

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources

Outcome #5

1. Outcome Measures

Number of economic improvements

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

Number of environmental improvements

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Beavers had built a dam and blocked water below an earthen dam in their commons area. This earthen dam is regulated by the WV Department of Environmental Protection. Per regulations water levels in the plunge pool must be maintained at least 3-6 inches below the outflow pipe. Beavers had built a dam in the stream below the plunge pool raising the water level above the outflow pipe.

What has been done

The homeowners association held a meeting to discuss possible management options. WVU Extension provided background information on several options available to the homeowners association to help manage the damage caused by beaver activity. Once the association decided the appropriate management strategy, Extension assisted in its implementation. Extension provided the association with instructions on how to build a Clemson Beaver Pond Leveler and a supply list of materials. Extension also assisted in dam removal and installation of the leveler into

the dam.

Results

The homeowner's association's maintenance crew constructed the leveler. Once installed, volunteers monitored water levels and functionality of the leveler. The installation of the leveler effectively lowered water levels to meet DEP requirements.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships

Outcome #7

1. Outcome Measures

Number of participants who increase their knowledge of management practices under climate variability and change.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	28

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

It is important to take the classroom outside to allow students to uncover several live specimens of wildlife in their natural habitat.

What has been done

A WVU specialist developed a neotropical ecology field trip to Nicaragua in 2013. This course immersed Master Naturalists into neotropical ecology and natural history of Nicaragua while exploring the impacts of ecotourism on conservation. An off-campus Wildlife Field Camp course for beginning wildlife and fisheries students was also implemented to immerse wildlife and fisheries student into the art and science of collecting data on wildlife and fishes and their habitats.

Results

22 undergraduate wildlife students successfully completed our wildlife summer camp.

6 WV Master Naturalist students successfully observed 160 bird species, 15 mammals, and 24 reptiles and amphibians in Nicaragua.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
123	Management and Sustainability of Forest Resources

Outcome #8

1. Outcome Measures

Number of groups or organizations that change their procedures and/or policies regarding climate control.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Based on forage analysis of plastic wrapped baleage WVU-ES faculty found that baleage often has not fermented adequately to develop the acidity needed to protect the forage from bacterial contamination. This can result in livestock death due to botulism poisoning. The best management practices (BMPs) needed to make high quality baleage are reported in the agriculture research/extension literature.

What has been done

A survey of West Virginia farmers producing baleage to determine how well they are implementing BMPs needed to produce well fermented baleage was implemented. The results helped Extension faculty determine how well producers know of, understand, and implement BMPs that affect the fermentation in baleage. Surveys were submitted by 84 farmers from 19 counties.

Results

The majority of farmers are using recommended BMPs that increase forage quality, promote good wilting, and lead to producing dense bales. However, there are major management short falls in

implementing BMPs required for good oxygen exclusion leading to good fermentation that can be addressed through Extension educational activities. Of surveyed farmers only 36% bale forage at 50-60% moisture, 21% wrap within 2-hours, and 50% use 4.8 mils or less plastic. During the storage period only 12% inspect baleage for damaged plastic weekly. These four BMPs need to be addressed by producers to improve the quality of fermentation in their baleage. Forage moisture can be monitored using hand held or machine mounted electronic moisture meters. Labor and machinery management is needed to ensure wrapping within 2-hours and bales are inspected weekly. Proper wrapper monitoring and adjustment is needed to ensure 6 or more mils of plastic cover the bales.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
605	Natural Resource and Environmental Economics

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Competing Public priorities
- Competing Programmatic Challenges

Brief Explanation

V(I). Planned Program (Evaluation Studies)

Evaluation Results

None

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 7

1. Name of the Planned Program

Food Safety

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
502	New and Improved Food Products	40%			
504	Home and Commercial Food Service	60%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	25.0	0.0	0.0	0.0
Actual Paid Professional	21.0	0.0	0.0	0.0
Actual Volunteer	0.0	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
468345	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
1140305	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

In 2013, the Food Safety planned program at West Virginia University Extension worked toward

reducing the incidence of food-borne illness by eliminating causes of microbial resistance to contaminants, educating consumers and food safety professionals, and developing safe food processing technologies.

Community Food Preparation

In 2013, there were 70 educational activities in the community food preparation program area. The major initiatives included food preservation and canning workshops, Germ City/Germ Bug demonstrations, and Venison 101.

Commercial Food Preparation

In 2013, there were 23 educational activities in the commercial food preparation program. The major initiatives include ServSafe® Manager Food Safety Training, a food business workshop, a food defense workshop, Venison 101, and HACCP training.

This year, Extension Specialist, Litha Sivanandan, conducted research is to identify and develop food products using the isoelectric processing, a WVU-patented technology, and to offer its application through research, outreach, and educational opportunities in business plan, risks and liabilities, process and product technology transfer, product and process development, product/process safety, and product marketing/commercialization. She offered workshops based on her research.

Beef Quality Assurance

In 2013, there were 12 educational activities in the commercial beef quality assurance program area. The major initiatives included beef quality assurance certification, levels I and II; beef quality assurance for WVU farm worker; WVU-ES winter education series; the WV cattlemen's short course for producers; the West Virginia quality assurance feeder calf sale hands on vaccination training; Morgantown calf pool; Wardensville bull sale; bull test and Heifer evaluation sales; and 4-H Beef Quality Assurance. The programs are a valuable tool to help producers keep up-to date on new technology to insure that proper training and techniques are utilized when administering vaccines or animal health products. The members of the WV feeder cattle marketing pools and consignors to the WV Bull evaluation programs are recertified every two years. Educational materials include the Bovine Emerging Response Plan and the Veterinarian Smartphone Apps.

2. Brief description of the target audience

The target audience for home and commercial food safety programs are WV citizens who can or preserve foods, commercial food processors, beef producers, WVU Extension agents. The target audience for the BQA program is adult and youth beef producers, 4-H and FFA youth livestock exhibitors, WVU and Potomac State students, Extension faculty and other livestock industry personnel in beef cattle production.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	1404	2025	3589	10767

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

Year: 2013
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	5	4	9

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational activities focused on increased safety of all inputs into the food chain

Year	Actual
2013	106

Output #2

Output Measure

- Number of educational materials created or updated focused on increased safety of all inputs into the food chain

Year	Actual
2013	6

Output #3

Output Measure

- Number of educational materials distributed focused on increased safety of all inputs into the food chain.

Year	Actual
2013	4993

Output #4

Output Measure

- Number of professional presentations on food safety

Year	Actual
2013	5

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of participants who increase or improve their skill in proper time and temperature controls in food preparation.
2	Number of participants who improve or increase skills in safe food handling practices.
3	Number of growers, producers, and food workers completing food safety certification.
4	Number of improved prevention, detection, control and intervention technologies adopted.
5	Number of projects characterizing social, economic, and/or cultural practices attributed to foodborne illness.
6	Number of economic improvements.

Outcome #1

1. Outcome Measures

Number of participants who increase or improve their skill in proper time and temperature controls in food preparation.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1020

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Un-harvested fruit, and unsold harvested fruit, pose major challenges in West Virginia, resulting in decreasing production and increasing agricultural waste. The prevalent practice of drying fruits and vegetables without any pretreatments and without the inclusion of additional ingredients (such as concentrated juices) are making the final products unsafe for storing it long time (one year).

What has been done

Collaborative work of county faculty members produced the Canning Video series DVD. This series was presented live to the participants of the Food Preservation Workshop in June, and includes a freezing of fruits and vegetables demonstration and hands-on drying of fruits instruction. Other hand-on-food preservation classes were held at the county level.

Results

Extension agents and staff and citizens increased their knowledge of using current and research-based processes in food preservation and byproduct utilization. Participants gained knowledge and skill in freezing of fruits and vegetables, firming up of strawberries using enzyme, pectin methyl esterase, and calcium, pretreatment (in sugar syrup at various concentrations) of blueberries, and how to do the final drying in the dehydrator.

4. Associated Knowledge Areas

KA Code	Knowledge Area
504	Home and Commercial Food Service

Outcome #2

1. Outcome Measures

Number of participants who improve or increase skills in safe food handling practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	116

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Existing marketing pools should attempt to increase the number of producers participating in their programs. Currently there is a strong demand for preconditioned cattle, and the farmer/feeder is willing to pay a premium for cattle that are sorted uniformly, carry genetics that will allow optimum performance, have received a good vaccination program and are weaned.

What has been done

The Livestock Administrator database provides data analysis of cattle offered for sale in the traditional graded feeder cattle sales throughout the state. Sale results were collected from six livestock auction markets throughout West Virginia that offer special graded feeder cattle sales (Buckhannon, Moorefield, Terra Alta, Harrisville, Marlinton and Weston).

Results

One hundred sixteen producers participated in the pools reporting data and marketed an average of 38 calves.

4. Associated Knowledge Areas

KA Code	Knowledge Area
504	Home and Commercial Food Service

Outcome #3

1. Outcome Measures

Number of growers, producers, and food workers completing food safety certification.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	113

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Beef Quality Assurance (BQA) includes all of those practices that contribute to creating an environment conducive to reducing or minimizing stress in the production of beef, thereby improving animal care and welfare and food quality and safety.

What has been done

The WV Beef Quality Assurance Program offered recertification programs in five separate regions in 2013. Brian Sparks and Kitty Reed, Boehringer Ingelheim representative conducted a BQA level II chuteside training for the Nicholas Fayette county calf pool in September.

Results

Approximately 23 producers were recertified at the program.

In West Virginia more than 90 producers took advantage of the opportunity to take an online recertification course from Boehringer Ingelheim. All the farm workers at the WVU livestock farms completed the on line program.

4. Associated Knowledge Areas

KA Code	Knowledge Area
504	Home and Commercial Food Service

Outcome #4

1. Outcome Measures

Number of improved prevention, detection, control and intervention technologies adopted.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

West Virginia fruit industry is facing production and value-added adversity. Between 2009 and 2010, the yield/acre for apples decreased 3,600 pounds over 4,900 acres; this yield represents total production, including un-harvested production and harvested fruits unsold due to various constraints. While 15% US households were food insecure (2011), only 10% of edible surplus food is recovered.

What has been done

Collaborative strategies were devised with faculty of Virginia Tech, WVU Davis College of Agriculture, Natural Resources and Design (WVU DCANRD), and WVU Extension Service (WVU ES) to promote development of value-added food products. Research was conducted to understand the fundamental quality changes in food materials using the different pretreatments & combinations, and its additive effect on food product drying.

Results

Research results have shown an increase in the food safety, product shelf life, and quality of product, reduced energy consumption, and increased byproduct utilization. The process can be applied to any other fruit/vegetable/agricultural product while the engineering equations in dehydration remain the same.

4. Associated Knowledge Areas

KA Code	Knowledge Area
{No Data}	null

Outcome #5

1. Outcome Measures

Number of projects characterizing social, economic, and/or cultural practices attributed to foodborne illness.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	2

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Beef producers have invested their Check Off dollars to educate and inform both the producer and consumer of their efforts to improve or enhance the quality of the product they produce or consume.

What has been done

The Mid Atlantic BQA group held a regional meeting at the CaCapon State Park Dec 9-10. Representatives from WV, PA, VA, ME, VT, NY and MD were in attendance. The meeting focused on Youth Quality Assurance training. The Mid Atlantic group divided the responsibilities for revising the Mid Atlantic PowerPoint Level I training program for a youth audience. Training has been designed for three professional groups on topics such as handling for stressed cattle, trailer types and hazards/extrication/engineering, biosecurity/agroterrorism, and euthanasia.

Results

WV and VA will join MD this year in requiring Quality Assurance training for all 4-H and FFA animal projects.

4. Associated Knowledge Areas

KA Code	Knowledge Area
504	Home and Commercial Food Service

Outcome #6

1. Outcome Measures

Number of economic improvements.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Many cattle offered in the graded sales are not weaned or vaccinated and there have been increases in the number of cattle exhibiting health problems. Some may not respond to treatment, resulting in death losses or a non-saleable animal.

What has been done

During 2013, pooled cattle were offered for sale via statewide board sales (Buckhannon and Riverton) where consignments were limited to Quality Assurance Feeder Cattle. Some cattle were offered on board sales earlier in the season, as well as through sales offered in Virginia and Kentucky.

Results

The average weight of all cattle marketed in graded sales was four pounds heavier than in 2012. The greater pay weights are worth approximately \$100 and \$77 per head for steers and heifers. The total added value of these increased weights is estimated at \$328,673. The per head price this year is up however the total dollars show a decrease due to the fact that there were 470 fewer calves marketed in 2013.

One hundred sixteen producers participated in the pools reporting data and marketed an average of 38 calves. These calves returned an average of \$2,833 more per producer relative to graded sale prices.

The average added value for pooled calves in 2013 was \$74.33. Across the 2001 through 2013 marketing seasons, the per head price advantage of pool participation has ranged from \$39 to \$87, with an average of \$62.

4. Associated Knowledge Areas

KA Code **Knowledge Area**
502 New and Improved Food Products

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges

Brief Explanation

Barriers

Personnel resources are limited to thoroughly analyze the existing data in the Feeder Cattle Marketing Program. Continued involvement not only provides a service and financial advantage for our clientele, but also can provide a dataset for future studies of the industry. The inclusion of new marketing methods has proven problematic for harvesting data from the program. As we move into more diverse marketing strategies we must consider the value of potential economic and performance data and include data harvesting methods into our planning process.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Beef Quality Assurance

The main goal of the beef marketing initiative is to increase the net income of beef producers relative to other marketing options. The most useful indicator of success in calf pool marketing efforts is to compare the dollars returned per head under the pool marketing program to corresponding values in traditional graded sales. The Livestock Administrator database provides data analysis of cattle offered for sale in the traditional graded feeder cattle sales throughout the state. Sale results were collected from six livestock auction markets throughout West Virginia that offer special graded feeder cattle sales (Buckhannon, Moorefield, Terra Alta, Harrisville, Marlinton and Weston). A total of nineteen sales were evaluated at these markets during the fall 2012 marketing season. As of December 14, 2013 this dataset contained records from 1,619 lots marketed at auction. These lots included 13,726 head of cattle with an average weight of 564 pounds. The average weight of all cattle marketed in graded sales was four pounds heavier than in 2012.

Fruits Drying Workshop:

- Understanding of the steps needed to manufacture a dehydrated food product : 95% responded as moderate to considerable post-workshop as opposed to the majority (75%) said non-existent or minimal before the workshop.

- Understanding of the steps needed to firm the fruit before dehydration: 95% responded as moderate to considerable post-workshop as opposed to the majority (96%) said non-existent or minimal before the workshop.
- Understanding of the value added products from fruit dehydration byproducts: 77% responded as moderate to considerable post-workshop as opposed to the majority (80%) said non-existent or minimal before the workshop.
- Understanding to increase the dried fruit yield: 96% responded as moderate to considerable post-workshop as opposed to the majority (90%) said non-existent or minimal before the workshop.
- Understanding in adding special ingredients to produce dried fruits for various applications i.e., cereals etc.: 81% responded as moderate to considerable post-workshop as opposed to the majority (100%) said non-existent or minimal before the workshop.
- Understanding in adding special ingredients as anti-sticking agents to dried fruit products for various applications: 86% responded as moderate to considerable post-workshop as opposed to the majority (100%) said non-existent or minimal before the workshop.
- Venison 101 Workshop: Results of evaluations of participants -
 - 100% responded their knowledge level increased (good or excellent) after listening to the presentations.
 - 100% responded the overall training (quality and usefulness) as excellent or very good
 - 91% rated the educational materials and contents as excellent or very good
 - 100% rated the instructors as excellent or very good
 - 91% responded that they will put to use what they learned in the workshop

Food Preservation Workshop

- Understanding of the steps needed to can a food product using boiling water bath: 83% responded as moderate to considerable post-workshop as opposed to 33% said non-existent or minimal before the workshop.
- Understanding of determining if the lids are sealed after canning a food product: 100% responded as moderate to considerable post-workshop as opposed to 22% said non-existent or minimal before the workshop.
- Understanding of using the approved recipes for canning a food product: 100% responded as moderate to considerable post-workshop as opposed to 22% said non-existent or minimal before the workshop.
- Understanding of steps needed to freeze a product: 83% responded as moderate to considerable post-workshop as opposed to 22% said non-existent or minimal before the workshop.
- Understanding of steps needed to manufacture a dehydrated food product: 83% responded as moderate to considerable post-workshop as opposed to 66% said non-existent or minimal before the workshop.

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 8

1. Name of the Planned Program

Sustainable Energy

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
123	Management and Sustainability of Forest Resources	85%			
605	Natural Resource and Environmental Economics	15%			
Total		100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	11.0	0.0	0.0	0.0
Actual Paid Professional	11.0	0.0	0.0	0.0
Actual Volunteer	0.0	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
350000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
558230	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The Sustainable Energy planned program at West Virginia University Extension works toward energy independence to develop biomass use for biofuels by designing optimum forestry and crops for bioenergy production. It also works towards improving woodlot conditions and expanding forest and non-timber product production in general.

Educational topics include: reclamation of Marcellus well sites, chestnut for reforestation, switchgrass potential for mine soils, chestnut growth on surface mines, bioenergy crops on surface mines, flow effects on acidity, survival of chestnut trees, biomass for bioenergy, switchgrass biomass stewardship, biomass issues for forest management plans, and workshops on byproduct utilization for bioproducts/bioenergy collaborative research on blueberry waste. One specialist is conducting research on reducing food waste and increasing agricultural byproduct utilization for producing other food products and/or producing bioproducts that will be useful for other applications such as enzymes/catalysts. Another specialist is conducting research on the reclamation of mined land with switchgrass, Miscanthus, and Arundo for biofuel production.

2. Brief description of the target audience

Foresters, government officials, consumers of wood products, commercial enterprises dealing with wood products, Extension staff and faculty.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	862	1000	427	1281

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

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
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Actual	1	2	3
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V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational materials created or updated about sustainable energy

Year	Actual
2013	14

Output #2

Output Measure

- Number of educational materials about sustainable energy distributed

Year	Actual
2013	0

Output #3

Output Measure

- Number of professional presentations on sustainable energy topics

Year	Actual
2013	1862

Output #4

Output Measure

- Number of training activities related to sustainable energy

Year	Actual
2013	4

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of stakeholders participating in production/harvesting/storage systems that increase or improve their skills.
2	Number of youth who gain science process skills in biofuels.
3	Number of participants who adopt BMPs for production/harvesting/storage systems.
4	Number of participants who increase their knowledge and skill related to reclamation of Marcellus well sites.

Outcome #1

1. Outcome Measures

Number of stakeholders participating in production/harvesting/storage systems that increase or improve their skills.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	63

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

West Virginia is well-suited to supply forestry wastes for ethanol production and to grow certain energy crops such as switchgrass on marginally productive lands. The state also has tens of thousands of acres of reclaimed surface mine sites which are well-suited for production of energy crops. West Virginia is the nation's second largest coal-producing and third most heavily forested state in the nation. Opportunities exist for the co-development of biomass and coal energy which combine the sustainable qualities of woody biomass and the fuel density of West Virginia coal.

What has been done

Presentations were made at the American Society of Mining and Reclamation national meeting at the National Association of Abandoned Mine Land Meeting. Topics included biomass and coal development opportunities, bioenergy research and development, torrefied biomass and coal blends, energy policy and environmental impacts, and the technical and financial feasibility of coal and biomass as feedstocks for liquid transportation fuels. Other educational topics throughout the year includes: reclamation of Marcellus well sites, chestnut for reforestation, switchgrass potential for minesoils, chestnut growth on surface mines, bioenergy crops on surface mines, flow effects on acidity, biomass for bioenergy: switchgrass biomass stewardship and biomass issues for forest management plans.

Results

Participants gained knowledge of West Virginia surface mine drainage and post-mining land use development, biomass and coal development opportunities, bioenergy research and development, torrefied biomass and coal blends, energy policy and environmental impacts, and the technical and financial feasibility of coal and biomass as feedstocks for liquid transportation fuels.

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
605	Natural Resource and Environmental Economics

Outcome #2

1. Outcome Measures

Number of youth who gain science process skills in biofuels.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	3

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

West Virginia citizens need to understand the importance of natural resources and how these resources can be managed to assure they are available for current and future use.

What has been done

West Virginia Extension holds a Conservation Camp each year. Topics and activities include: fish management, forest protection, forest management, forest products, soil conservation, watershed management, water quality, and wildlife management. Approximately 115 youths attend each year.

Results

Each fall, two to three new incoming freshman at WVU select an educational track in the natural resource field after attending our Conservation Camp.

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources

Outcome #3

1. Outcome Measures

Number of participants who adopt BMPs for production/harvesting/storage systems.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	303

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

An energy audit is the first step to assess how much energy a building or operation consumes and to evaluate what measures can be taken to make buildings or operations more energy efficient.

What has been done

Energy audits were performed to help producers plan for and make decisions to adapt to changing environments and take advantage of economic opportunities offered by climate changed mitigation technologies.

Results

303 producers in West Virginia received an energy audit and made decisions related to adopting climate mitigation technologies to reduce the amount of energy expended in their buildings and operations.

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
605	Natural Resource and Environmental Economics

Outcome #4

1. Outcome Measures

Number of participants who increase their knowledge and skill related to reclamation of Marcellus well sites.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Developing newer and cleaner combustion, while meeting increasing energy demands, is one of the most defining issues of the 21st century. While a variety of natural resources are available to produce energy, the focus on abundant natural gas has increased in the past eight years. West Virginia has a long history in the production of oil and gas. With the discovery of the Marcellus shale and new drilling techniques the state emerges as one of the central natural gas plays in the Appalachian Basin. With this development comes safety and environmental concerns.

What has been done

WVU Extension held 11 educational programs including regional trainings, the second Annual Enhancing Public Awareness of Natural Gas Issues Conference, and in-service training for Extension agents from West Virginia and Pennsylvania. In addition, more than 1,000 people viewed the NGET display and asked questions during the WVU Extension Day at the Legislature in 2013.

Results

Participants (366) increased their knowledge and skills in the environmental impacts of Marcellus shall gas development, reclamation on drilling sites, experiment forest, WV regulations regarding Marcellus shale, WV source water protection program for public water supplies and private wells, WVDEP air quality rules and regulations regarding the natural gas industry, aquatic impacts of Marcellus shall gas development, public health concerns, environmental permit considerations and requirements for natural gas pipeline installation, environmental risk assessment for shale gas development, farming over the Marcellus, overview of water and wastewater treatment for beneficial reuse, and WV erosion and sediment control.

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
605	Natural Resource and Environmental Economics

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges

Brief Explanation

V(I). Planned Program (Evaluation Studies)

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}