

2012 West Virginia University Extension Annual Report of Accomplishments and Results

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I. Report Overview

1. Executive Summary

1. Executive Summary

As a land-grant university, West Virginia University was created to help West Virginians make their lives better. To do that, WVU relies on the WVU 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 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 one in every five West Virginia young people (over 80,000) are developing life skills and becoming leaders in their schools and communities. We are a unique collaboration among federal, state, and local governments, private and nonprofit sectors, volunteers, and the national system of land-grant universities. We are a sought-after partner for many state and local agencies who want our expertise because of our community connections and track record of commonsense, 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, and 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 champions; firefighters and other first responders; employers focused on safe workplaces; and worker advocates.

WVU Extension agents are also WVU faculty members, having a master's 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 WVU'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 undergird all WVU

Extension programs are also derived from multistate 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. More than 10,000 well-trained volunteers also help design, deliver, evaluate, and improve Extension programs each year. Employees of numerous longtime program partners help in this regard as well: Regional Education Service Agencies (RESA) of the West Virginia Department of Education; West Virginia's Department of Agriculture, its conservation service, and its development office; county school professionals; the WV Department of Health and Human Resources; WVU Health Sciences, and others. Many identify with WVU Extension through our educational programs. Some of the most recognized programs are 4-H, Dining with Diabetes, Master Gardeners, Firefighter Training, Community Educational Outreach Service (formerly Extension Homemakers), 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.

WVUES 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. We continue to be the trusted local source for answers to home and garden questions. We're committed to ensuring a safe food supply and working with rural landowners to develop alternative enterprises. In 2012, our agriculture and natural resource programs tallied 96,203 direct contacts, including:

- Global Food Security and Hunger - 91,033
- Climate Change - 3,685
- Sustainable Energy - 405
- Food Safety - 1,080

4-H Youth Development professionals and programs provide educational, fun, and safe opportunities for young people to make friends, to learn, and to grow. Positive youth development is achieved through weaving essential elements into 4-H programs that promote independence, generosity, and mastery of new skills, all provided in safe and caring environments. The three primary educational areas of emphasis are healthy lifestyles; science, engineering, and technology; and developing good citizenship skills. Our literacy programs strengthen children's reading skills and promote the benefits of adults and children reading together. In 2012, our 4-H youth development programs tallied 147,618 direct contacts with youth and adults. Of those contacts, 88,289 were non-duplicated youths. Please note that healthy living initiatives for youth are reported in the Families and Health section.

- Citizenship and Leadership for Youth - 74,384

- Science, Technology, Engineering and Math - 58,344
- Literacy - 6,120
- 4-H Leadership for Adults - 8,770

Families and Health 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 the benefits of being physically active. Our family resource management programs help young people and adults understand successful ways to save, spend, and manage resources. We provide education about food preservation, handling, storage, and safety. 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 2012, family and health programs tallied 193,800 direct contacts including youth 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) - 160,259
- Strengthening Families - 33,541

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; and 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. Our Labor Institute, funded by outside sources is not reflected in these contact tallies. In 2012, our community development programs tallied 11,379 direct contacts.

- Community Development - 3,672
- Workforce and Professional Development - 2,773
- Leadership Development - 4,934

WVU Extension also operates WVU Jackson's Mill, located near Weston, the site of the nation's first state 4-H camp and the current "home" of many state youth camps, heritage and nature education programs, and learning opportunities for people of all ages. The Mill is the location for

WVU's Fire Service Extension and State Fire Academy, a place where emergency responders receive training that meets national standards.

Funding: State funding for WVU Extension Service is currently \$16 million (41 percent of total budget). WVU Extension uses that \$16 million to leverage other funds, for a total annual operating budget of approximately \$41 million. We raise 34 percent of our total budget through competitive grants, fees, and individual, foundation, and corporate gifts. County partners (largely county commissions and boards of education) contribute approximately 12 percent of our total budget. The remaining 13 percent 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 \$13.9 million in 2013.

A few facts: WVU Extension

- Date of founding: 1915
- Total direct client contacts, both youths and adults in 2012: 449,000
- Total direct and indirect client contacts, both youths and adults in 2012: 4,771,231
- Number of county agents: 2012: 117
- Number of state specialists: 2012: 70
- Number of youths in 4-H programs in 2012, including camps: 78,607
- Number of youths attending 4-H camps in 2012: 12,155
- Number of volunteers in 2012: 5,559 (4H); 225 (Master Gardener); 3272 (Energy Express); 161 (Healthy Family/Healthy Children); 940 FNP = 10,157 volunteers

Future Plans: The WVU Extension Service is positioning resources and programming in key areas as we anticipate and respond to current and emerging statewide needs.

1. The growth and development of the Marcellus shale in West Virginia creates both opportunities and concerns for public and private landowners, local communities, and local and state governments. In 2013, the expertise and knowledge that the citizens of West Virginia need to make informed decisions about the oil and natural gas industry will continue to be addressed through educational programs and educational resources.
2. Science, Technology, Engineering, and Math (STEM) will continue to be developed and promoted within our 4-H and Youth Development program over the next several years. Plans are being made to incorporate STEM activities into all of our youth programs including camps, clubs, youth agriculture and healthy lifestyle programs.
3. WVU Extension continues to refine its reporting system which allows faculty and staff to keep accurate data on its work and the audiences who benefit from its programs. Next year, we expect full participation of faculty and staff who will use the system to report and to develop their promotion and tenure files. We are hoping that the work time that faculty use to report in the promotion and tenure system will be greatly reduced and that more time can be devoted to implementing programs and serving West Virginians.
4. The WVU Extension Service's Small Farm Center is showing farmers how to retain more of

the \$7 billion 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." The annual Extension-led Small Farm Conference that introduces farmers to new methods for meeting consumers' needs and for creating food pathways to greater profits will continue.

5. The statistics for West Virginia's ATV-related deaths and injuries are alarming and WVU Extension has a program that is tackling the problem through a curriculum and awareness programs to educate families and youths on safety measures for riding ATVs. The curriculum, the first national 4-H youth curriculum for ATV safety, will be distributed nationally.

6. The 4-H program has addressed problems related to substance abuse in youth. We have participated in the Health Rocks program for several years. Now, we are planning to begin the PROSPER project which will bring evidence-based substance abuse programming to several counties. We have applied for funding through the CYFAR program and if funded, will collaborate with Iowa State University on implementing the PROSPER project.

Total Actual Amount of professional FTEs/SYs for this State

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	164.0	0.0	0.0	0.0
Actual	177.0	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 University Panel

2. Brief Explanation

Internal University Panel

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. An administrative review of Extension administrators was carried out this fall. All administrators in WVU Extension were reviewed by Extension staff and faculty. Administrators will review their evaluations, with the Interim Director of Extension, this spring.

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 programs, 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.

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
- Survey of traditional stakeholder groups

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.

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
- Use Internal Focus Groups
- Needs Assessments

Brief explanation.

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(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

Brief explanation.

Meeting with traditional Stakeholder groups

Representatives of Extension, most especially the Interim Director, Steve Bonanno, meets with legislators and head of stakeholder groups to learn how Extension can serve the state and meet the needs of stakeholders. Our recently hired Development Director, Brent Clark, is working 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.

Survey of traditional Stakeholder groups

Last year we conducted a survey of CEOS Extension advisors to assess needs and make strategic plans for the future. This year, one of our teams conducted a survey of Energy

Express alumni and other former college students who served our state during their college years. That survey will help us learn how service in college plays a part in future service activities so that we can better utilize the skills of our alumni. In addition, each of our unit directors has identified stakeholders who have interest in the work of WVU-ES. We plan to use this information to strategically plan for the future. The results of this survey will be reported in next year's Federal report.

3. A statement of how the input will be considered

- In the Budget Process
- To Identify Emerging Issues
- 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 will be addressed through educational programs.
2. Science, Technology, Engineering, and Math (STEM) will be developed and promoted within our 4-H and Youth Development program over the next several years. A new STEM specialist in 4-H will be hired this year.
3. 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."
4. 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.

5. The 4-H program has addressed problems related to substance abuse in youth. We have participated in the Health Rocks program for several years. Now, we are planning to begin the PROSPER project which will bring evidence-based substance abuse programming to several counties. A joint grant with Iowa State University Extension, funded through CYFAR, has been submitted.

In the Action Plans and To Set Priorities

Each of the four Extension units has 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. A thorough review of how outreach is conducted by other land-grant universities has been conducted by WVU administrators. Although plans have not been finalized, there is a trend to centralizing outreach efforts under a new vice president. 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 a new specialist position in Community Rural Tourism. He has been on staff for six months and has collaborated with other Community, Economic, and Workforce Development faculty and staff to provide teaching, research, and service in community vitality, with emphasis on all aspects of rural tourism development in West Virginia. He or she will develop working relationships with West Virginia Division of Tourism, Convention and Visitors Bureaus, and other associations and partners in the state and region. Due to resignations, new specialist positions will be filled this year in 4-H including camping, STEM, curriculum, global education, and volunteerism.

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. Our website features short clips about current activities including tips for healthy living, gardening, family relationships, etc. The front page also features a specialist who offers assistance in his or her area of expertise. We have increased our use of social media. Facebook users can log into a number of WVU-ES groups 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. In 2013, WVU-ES plans to hold two conferences on the subject including Harnessing Energy for Successful Community Development: Facilitating Responsible Growth During Economic Recovery" on October 4 & 5.

3. We learned that we have a great opportunity to expand tourism in West Virginia and will hire a rural community tourism specialist this year.

IV. Expenditure Summary

1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)			
Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
4093262	0	0	0

2. Totalled Actual dollars from Planned Programs Inputs				
Extension			Research	
	Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
Actual Formula	4093262	0	0	0
Actual Matching	9632217	0	0	0
Actual All Other	0	0	0	0
Total Actual Expended	13725479	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: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	16.0	0.0	0.0	0.0
Actual Paid Professional	17.0	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
460000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
790020	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 2012, 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 **3,667** reported activities for 2012 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 - There were **2,260** educational activities, **10,075** adult direct contacts and **81,861** youth direct contacts reported in 2012 that address issues related to nutrition and healthy eating. 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- There were **1,311** educational activities, **9,343** adult direct contacts, and **20,452** youth direct contacts reported in 2012 that address healthy living issues. The largest programs in this category include the Health Motivator Program, the Wild Wonderful Wellness Health Challenge, Choose to Change, Health Rocks, ATV Safety, Germ Bug, and the WV Early Childhood Obesity Prevention Program (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 - There were **96** educational activities, **16,094** adult direct contacts, and **14,239** youth direct contacts reported in 2012 that address health risks and chronic disease prevention. 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. 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

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	35512	92239	124747	71024

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

Patent Applications Submitted

Year: 2012

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2012	Extension	Research	Total
Actual	5	2	7

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational activities

Year	Actual
2012	3667

Output #2

Output Measure

- Number of educational materials created or updated

Year	Actual
2012	27

Output #3

Output Measure

- Number of educational materials distributed

Year	Actual
2012	35090

Output #4

Output Measure

- Number of professional presentations

Year	Actual
2012	12

Output #5

Output Measure

- Number of outside organizations collaborating within this program area
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
2	Number of participants who improve or increase skills
3	Number of participants who change a behavior or use a new skill
4	Number of participants who train others
5	Number of groups or organizations that change their procedures and/or policies
6	Number of new groups or organizations that are established or enhanced
7	Number of participants who advance to higher knowledge and skill level in healthy lifestyle professional areas
8	Number of state organizations who ask Extension professionals to implement programs in schools/communities

Outcome #1

1. Outcome Measures

Number of participants who increase their knowledge

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	323

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Childhood obesity has reached epidemic proportions in the U.S. and West Virginia far exceeds national norms (Singh et al). The Coronary Artery Risk Detection in Appalachian Communities (CARDIAC) Study (2011-2012 surveillance data) reported that 34% kindergarteners, 39% of second graders, and 48% of fifth graders in West Virginia are overweight or obese.

What has been done

WVU, in collaboration with other WV organizations was awarded a five-year obesity prevention grant from the USDA. Kick-off events were hosted to share preliminary results from the Nutrition Environment Measures Survey (NEMS) and themes identified from parents and teachers. Teachers and aides were trained in strategies to motivate children and families to make healthy food and physical activity choices. Home visitors with families to collected parent and child biometrics. Family Fun Nights were hosted with the theme "Choosy Families Eat Together."

Results

--100 stakeholders who attended the Monongalia Kick-off gained knowledge of the preliminary results from the Nutrition Environment Measures Survey (NEMS).

--62 Teachers, Aides, and Family Service Workers gained knowledge and skill in performing strategies to motivate children and families to make healthy food choices and increase physical activity.

--99 families contributed information about their children's biometrics during home visits in Monongalia County and Kanawha County which will be used to develop targeted obesity prevention programs for families and youth in WV.

--62 families that attended a Family Fun Night gained knowledge of the benefits of eating together as a family.

4. Associated Knowledge Areas

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

Outcome #2

1. Outcome Measures

Number of participants who improve or increase skills

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	263

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

In WV, family finances are stretched and heads of households need to learn to cook nutritious food on limited budgets. In addition, recipes and food traditions passed on from generation to generation in WV often use high-calorie food containing fats, sugar, and carbohydrates. Fresh vegetables, meats, fish, and poultry are often out of reach for many families.

What has been done

WVU-ES conducts a number of cooking classes designed to equip participants with skills necessary to prepare nutritious meals on limited budgets. Examples of these activities include: Build a better plate, Kid-Friendly Cooking Easy and Healthy, Making a Healthy Meal, Making Homemade Salsa, Kids in the Kitchen, Winter Cooking School, Supper in a Sack, and the like. Each of these activities, in general, have been designed with local communities in mind. Our Dining with Diabetes program is an example of a larger, statewide program that attempts to teach participants how to cook for family members with diabetes.

Results

263 youths and adults improved their skills in preparing healthy foods for their families.

4. Associated Knowledge Areas

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

Outcome #3

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
2012	1043

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 behaviors.

What has been done

The Family Nutrition Program in West Virginia enrolls 1,374 adults and 18,712 youth in its programs which include classroom, afterschool, and camping activities for youth and training workshops for adults at community centers, public school, churches, elderly service centers, adult education and job training centers, health fairs, and the like. Other WVU-ES programs that promote a change in nutrition and physical activity behaviors include: Dining with Diabetes, Maintain, Don't Gain, and Wild, Wonderful Wellness.

Results

37% of youths who attend these programs say that they now always eat a variety of foods that contribute to a balanced diet.

54% of the adults say that they plan meals ahead, up from 52% last year.

47% compare prices before buying foods, up from 44% last year.

50% shop with a grocer list, up from 45% last year.

50% think about healthy food choices, up from 48% last year

64% use "nutrition facts" on food labels to make food choices, up from 59% last year

24% eat meals with their family, up from 21% last year.

4. Associated Knowledge Areas

KA Code	Knowledge Area
702	Requirements and Function of Nutrients and Other Food Components
703	Nutrition Education and Behavior
801	Individual and Family Resource Management

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
2012	9193

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

WVU ES is committed to addressing the substance abuse needs of youth and adults. West Virginia's smoking-attributable mortality rate ranks 50th among the states and about 28% of youth aged 12 to 20 years drink alcohol and 19% reported binge drinking. It is reported that 37% of 8th graders and 72% of 12th graders had tried alcohol, and 15% of 8th graders and 44% of 12th graders drank during the past month.

What has been done

WVU ES has implemented programs designed to train adults and youth to implement programs designed to improve skills in avoiding use of illegal and/or addictive substances such as the Health Rocks program for 4-H youths, workshops on intervention procedures related to substance abuse, and workshops on fetal alcohol spectrum disorders and current trends in substance abuse.

Results

- 1223 adults and teens were trained and worked with youth involved in the Health Rocks program.
- 321 adults in communities were trained to recognize youths at risk for substance abuse and provide educational interventions.

-- As a result, in the Health Rocks program, over 88% of youth participants were confident that they would be able to say "no" if other people, such as their friends or peers, offer them drugs. In addition, over 85% of youth participants were confident that they would be able to deal with stress by using stress management skills, such as talking about it with someone they trust.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle
806	Youth Development

Outcome #5

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 Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

West Virginia's oral health status is ranked among the poorest in the nation on several measures: more than a third of adults (38.4%) had not had their teeth cleaned by a dentist and 60.3% of adults had at least one and 30.9% had six or more teeth missing. Among those 65 years and older, 37.8% were missing all teeth, the highest in the nation. Oral health is essential to general health and well-being, therefore it seemed to be a natural fit with the Family Nutrition Program.

What has been done

Curricula was developed for the Family Nutrition Program and a training was conducted with 23 Nutrition Outreach Instructors (NOIs). NOIs provide instruction to adults and youths through our Family Nutrition Program. Following the training, NOIs began using FNP Dental Tips for Parents with their scheduled classes. Over 300 participant surveys have been collected thus far. This curriculum will become a part of the Family Nutrition Program in WV.

Results

The FNP dental health curricula was added to the program as a result of an evaluative study done by WVU-ES. The changes were made because of these positive results:

13% of the NOIs said that they increased their skill on how to make recommendations for children's dental health to their FNP clients.

57% of FNP participants talk to their family more often about caring for their teeth.

63% of FNP participants more often choose foods that are healthy for their teeth.

53% of FNP participants decreased the amount of sugar-sweetened beverages they drink.

51% of FNP participants floss their teeth more often.

55% of FNP participants brush their teeth more often.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle
802	Human Development and Family Well-Being

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 Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	1

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-ES has developed partnerships with WV Dept. of Motor Vehicles, Governor's Office of Highway Safety, St. Mary's Hospital, Mingo and Cabell County Commissions, and school systems to conduct ATV safety programs for youth. To date, 759 youth have been involved in at least two

hours of ATV Safety instruction. 74 youth have completed the ASI online course. Two-hundred and ninety (290) youth have reported playing the TreadSylvania online game. Three (3) PSA entries were completed for the ATV National PSA Contest: Mingo, Logan and McDowell counties.

Results

A 4-H ATV Safety Mobile Unit is now equipped with necessary equipment to be utilized in conducting ASI Rider Course programs throughout the state. Extension secured funding for first aid kits, canopy, chairs, totes, cones, goggles, gloves and helmets for the mobile unit. Additional funding was secured for an additional mobile unit and four ATVs. \$5,000 was secured from the WV Governor's Office of Highway Safety to set up an Instructors Prep course to get eight new instructors certified to conduct the ASI Rider Course.

This year the West Virginia University Extension 4-H ATV Safety program will once again be highlighted in the Annual Report of the Governor's Office of Highway Safety.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle
806	Youth Development

Outcome #7

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
2012	236

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Nutrition education is best delivered by locally trained individuals. These paraprofessionals become the main source of nutrition information for citizens in the state.

What has been done

Nutrition Outreach instructors are trained by Extension faculty to carry on nutrition programs at the county level. NOIs are trained in adult and elderly nutrition, curriculum overview, dietary guidelines, evaluating Internet research sources, grocery stores, reading food labels, stretching your food dollar, adult and youth pedagogy, and creating action plans. Extension faculty coach NOIs, observe them in their workplace, and interview and hire them in each county.

Results

236 NOIs were trained this year. They successfully delivered educational programs to thousands of West Virginians in most of the State's counties.

4. Associated Knowledge Areas

KA Code	Knowledge Area
702	Requirements and Function of Nutrients and Other Food Components
703	Nutrition Education and Behavior
724	Healthy Lifestyle
801	Individual and Family Resource Management

Outcome #8

1. Outcome Measures

Number of state organizations who ask Extension professionals to implement programs in schools/communities

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
- Competing Programmatic Challenges

Brief Explanation

Because of the economy, many more people in West Virginia are needing help finding nutritious foods to feed their families.

We had two major weather systems in 2012 that knocked out power in much of the state - the derecho last summer and superstorm Sandy in late fall. The derecho, particularly impacted programming because of wide-spread, prolonged power outages.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Exercise for 20 minutes or more

- 5-6 times a week Pre 24/12.5% -- Post 33/17.2%
- everyday Pre 20/10.4 -- Post 24/12.5

Eat a variety of fruits and vegetables

- 5-6 times a week Pre 35/17.7 - Post 62/31.3
- everyday Pre 70/35.4 Post 73/36.9

Eat more than you should have

- 5-6 times a week Pre 24/12.7 - Post 24/12.7
- everyday Pre 40/21.1 -- Post 21/11.1

Take medicines as prescribed

- 5-6 times a week Pre 14/8.1 - Post 11/6.3
- everyday Pre 149/85.6 -- Post 156/89.7

Check blood sugar levels

- 5-6 times a week Pre 13/6.8 - Post 14/7.4
- everyday Pre 82/43.4 - Post 97/51.3

FNP

1. Hour Food Recall Results - percent with positive change in food group at exit. * equals improvement from last year.

a. % of increase by Pyramid Category

1. Grains - 5%
2. Fruits - 150%*
3. Vegetables - 31%
4. Dairy - 33%
5. Protein foods - 5%

b. % of increase in dietary intake

- i. Carbohydrates - 3%
- ii. Fat - -6%*
- iii. Protein - 10%
- iv. Alcohols -- -40%
- v. Fiber - 33%

c. % of increase in food related practices

- i. Food Resource Management - 31%
- ii. Nutrition Practices - 27%*
- iii. Food Safety - 27%
- iv. All Three - 23%

Choose to Change Project

477 retail food outlets in Monongalia County and 593 in Kanawha County were completed. Audit scores indicated an overall high cost and low availability of healthy options, which may result in unhealthy choices by participants.

8 focus groups were conducted with 32 parents and 32 school staff. Stakeholder interviews were conducted with 31 community representatives. The project team learned that many people were unaware of the prevalence and impact of childhood overweight. A variety of barriers and concerns were expressed and subsequently used in the intervention approaches.

Dental Tips for Parents

Twenty three adult NOIs were trained on FNP Dental Tips for Parents. Survey questions ranged from "how and why dental cavities form" to "available dental health and community resources to help FNP families". Post evaluation results showed the following:

- 14% of NOIs increased their knowledge of how and why dental cavities form
- 33% of NOIs increased their knowledge of available dental health and community resources available to FNP families
- 7% increased their knowledge of how to brush and floss effectively
- 13% increased their knowledge on current recommendations for children's dental health

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: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	58.0	0.0	0.0	0.0
Actual Paid Professional	60.0	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
845000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
3320469	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 **93** educational activities with **61,927** youth direct contacts and **211,259** indirect contacts with adults reported in 2012. Activities include clubs, camps, after-school programs, newsletters, social media interactions, and special educational programs such as charting, career counseling, leadership skill development, global and cultural presentations, and trips to other countries. WVU Extension Service faculty members have produced **17** Extension publications on topics related to citizenship and global education.

Literacy Education - Within the Literacy Education program area there were **97** national, state, and **78** local programs. The largest program in this category is the Energy Express 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 year the Energy Express program had **1,730** direct contacts with adults and **4,835** direct contacts with youth and **197,261** indirect contacts with adults.

The West Virginia Storytelling Festival took place over a three-day period (October 16-18) at Jackson's Mill State 4-H Camp and served 725 elementary school students from second to sixth grade from six schools. Three regional train-the-trainer Reading Partner trainings were conducted for adults during 2012. The 29 new trainers have trained **108** volunteers to be reading partners. Sixteen state and national train-the-trainer literacy presentations for adults were made in 2012. "What do you see?" a statewide writing exhibition was implemented and replicated nationally on a national webpage reaching multiple states. Two peer-reviewed publications on sharing the joys of reading were produced. In addition, a training video - "Celebrating 20 Years, Energy Express" was produced.

Science, Technology, Engineering and Math - Within the STEM program area, there were **94** educational activities reported, including topics related to the environment, energy, forestry, agriculture, animals, technology and engineering, the biological sciences, and the physical sciences. There were **58,344** direct contacts with youth and 18,485 indirect contacts with adults. This year, WVU Extension Service faculty members have produced **7** Extension publications on STEM topics.

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, Energy Express mentors, and 4-H agent trainings. In 2012, there were **54** educational activities reported, **8,770** direct adult contacts and **25,085** indirect adult contacts.

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

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	8770	259829	138848	18485

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

Patent Applications Submitted

Year: 2012

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2012	Extension	Research	Total
Actual	17	2	21

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational activities

Year Actual

2012 241

Output #2

Output Measure

- Number of outside organizations collaborating within this program area
Not reporting on this Output for this Annual Report

Output #3

Output Measure

- Number of educational materials created or updated

Year	Actual
2012	21

Output #4

Output Measure

- Number of professional presentations

Year	Actual
2012	17

Output #5

Output Measure

- Number of 4-H educational materials distributed

Year	Actual
2012	40155

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of participants who increase their knowledge
2	Number of participants who improve or increase skills
3	Number of participants who change a behavior or use a new skill
4	Number of participants who train others
5	Number of groups or organizations that change their procedures and/or policies
6	Number of new groups or organizations that are established or enhanced
7	Number of organizations who ask Extension professionals to implement programs in schools/communities.

Outcome #1

1. Outcome Measures

Number of participants who increase their knowledge

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	2672

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

Energy Express is a summer program that serves 78 low-income communities, with kindergarteners to sixth graders. It includes 17.5 hours of instruction per week. The participants are provided a family-style breakfast and lunch each day. They take part in a literature-based language arts curriculum as well as various learning activities.

Results

606 children were selected by a randomized process to take the Woodcock Johnson Test of Individual Achievement before and after participating in the Energy Express program. The results showed that 73% of participants either maintained or improved their scores on each of the three sub-tests from the beginning of the program to the end. Moreover, a large portion of these cases correspond to gains in reading scores (between 58% and 60%), as opposed to simple maintenance. These results point to the efficacy of the reading achievement program put into place by Energy Express.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #2

1. Outcome Measures

Number of participants who improve or increase skills

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	8912

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Extension agents have identified a critical problem in their counties -- the lack of advanced science specialists willing or able to work with youths. They also said that they needed more positive role models for youths to demonstrate the importance of science education throughout life.

What has been done

In 2012, WVU ES launched the STEM Ambassador Program, with the goal of providing West Virginia youths with opportunities to engage in hands-on science, technology, engineering and math (STEM) projects during the summer. The STEM Ambassador program is a collaboration with four WVU colleges each of which sends students to train to be STEM Ambassadors for the summer.

Results

12 STEM Ambassadors gained life and teaching skills such as: 1) Speaking to large groups of people, 2) Improvising quickly when a lesson plan didn't work, 3) working with children, and 3) teaching information with which they were not familiar.

8,900 youths gained engineering skills by designing and building balloon-powered cars made from a nugget box, cup lids, masking tape and a balloon.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #3

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
2012	7678

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

West Virginia youths have been raised with strong social and economic values related to our natural resources and environment. Through experiential learning experiences save and faithfully defend from waste these resources and some of them take on leadership roles in conservation.

What has been done

7,678 youths participated in environmental education this year including 4-H Earth Day, Teens Take the Lead: Be Water Wise! Approximately 125 high school aged campers attended a six-day residential camp that covers topics related to natural resource management and other conservation topics. Each day, campers have hands on classes for approximately four hours in four broad areas: forestry, water, wildlife, and recreation & nature. Afternoon activities include shooting sports, boating, and fishing.

Results

Many campers choose to continue studying conservation topics in college. Two former campers are now Ag Votech Instructors, others are nature photographers, and others are now in natural resource management careers in our state and federal agencies.

Campers take home natural resource conservation ideas and apply them in their own interactions with the natural world.

60% of campers are involved with "envirothon", FFA career development events, or 4-H judging teams that extend camp topic areas even further.

4. Associated Knowledge Areas

KA Code **Knowledge Area**
806 Youth Development

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
2012	241

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The ages of the Energy Express mentors ranged between 18 and 35, with 78.4% between 18 and 21. Therefore, most Energy Express mentors do not have a great deal of experience working with children, especially in teaching them reading skills. Energy Express administrators and staff must provide extensive training for each AmeriCorps volunteers before they can be entrusted with teaching children reading skills in the summer program.

What has been done

Mentors are trained prior to the start of the program in June at a four-day training session held each year at West Virginia Wesleyan University in skills related to working with children and pedagogy as it applies to the summer reading program. Additional training is held earlier in the year for site coordinators. Some training is offered online.

Results

At least 80% of the respondents rated themselves as having maintained or increased in confidence in 18 items related to children's learning such as selecting age-appropriate children's literature, implementing one-on-one reading strategies, facilitating structured reflection activities, and the like. Depending on item, the increases in self-reported efficacy varied from 14.9% to 39.8%, with an average increase of 26.7%. The greatest increases were associated with the development of place-based activities in which children learn to identify and the plan activities so that all children can participate. Both items saw self-reported improvement from more than 35% of the mentors after they had participated in the Energy Express program.

4. Associated Knowledge Areas

KA Code **Knowledge Area**
806 Youth Development

Outcome #5

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 Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	2

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The American Camping Association selected WVU ES and Jackson's Mill as the site for its 2012 National Camping Institute. WVU ES is known for its outstanding camping program and it 4-H camps in 55 counties. Extension agents have a great deal of experience working with youths in camping venues.

What has been done

The National Camping Institute (NCI) was held March 11-15, 2012 at WVU Jackson's Mill. It featured a variety of peer-reviewed workshops and posters tailored for camping professionals and the latest research on youth development and behavior, staff training and development, and camp operations. The keynote speaker was Bob Ditter - author of "In the Trenches," a regular feature of ACA Camping Magazine. The conference's capnote speaker was Jim Clark, an award-winning nature photographer and author.

Results

Changes to camping procedures and offerings will be instituted throughout the country because West Virginia University Extension and the American Camping Association, represented by 200 camping professionals from across the country improved organizational knowledge and skills and shared a venue for sharing their expertise.

4. Associated Knowledge Areas

KA Code **Knowledge Area**
806 Youth Development

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 Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

In West Virginia, schools are in need of enrichment programs for after school 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 Afterschool 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 AfterSchool Association conference.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #7

1. Outcome Measures

Number of organizations who ask Extension professionals to implement programs in schools/communities.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	6

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

WVU Extension Service 4-H Development West Virginia Operation: Military Kids (WV OMK) builds community partnerships to increase capacity for youths, families, and communities to support youths of military families. WVU Extension 4-H Youth Development partners with The American Legion, U.S. Army Child and Youth Service, Boys & Girls Clubs of America, Military Child Education Coalition, National Association of Child Care Resource, and Referral Agencies.

What has been done

"Drop-A-Kid-Days" which allows military youth to travel one day out of the summer to a place they may not regularly visit. "Ready, Set, Go!" trainings educate community members and professionals about the deployment cycle and the special needs of military youth and families. Hero Packs are backpacks given to a child with a deploying parent. The Mobile Technology Lab is used as a resource for military youth with deployed parents. "Speak Out for Military Kids" is a program that is made up of both military and non-military youth who share their experiences. WV OMK's conducted its first babysitting training course.

Results

- 735 WV military youth attended eight summer camps across the state
- 16 Ready, Set, Go! trainings were conducted for 1,054 community and military members
- 25 community organizations received informational briefings on OMK
- 333 military youths participated in eight Yellow Ribbon events assisted by OMK staff

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Appropriations changes
- Competing Public priorities
- Competing Programmatic Challenges
- Other (Funding sources and funding oppo)

Brief Explanation

There have been a number of resignations in the 4-H and Youth Development that have affected functioning. This year, specialists will be hired in camping, volunteerism, curriculum, and global education. Remaining specialists have been stretched thin to fill in the gap.

We had two severe storms in West Virginia in 2012. One last year knocked out power for many counties and limited the number of Energy Express days and camping days in some counties.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

For the National Camping Institute, an online evaluation survey was conducted using Zoomerang, with 140 participants responding, for a 70% response rate. Evaluation results were very positive, with 84% responding that compared to other camping professional development events NCI was "Above Average" or "One of the Best". All evaluated elements of the NCI program received a median response of "Above Average" or "Excellent", with the exception of Flag Raising/Flag Lowering which received a median response of "Average". All evaluated aspects of the WVU Jackson's Mill facility and services also received a median response of "Above Average" or "Excellent", with the exception of Wireless Internet Service which received a median response of "Average". In addition, 92% of respondents agreed or strongly agreed with the statement "Overall, I felt the NCI workshops offered met my professional development needs".

Results from Conservation Camp include:

- Increased knowledge about the topic areas
- Skill development in each of the topic areas
- Many campers choose to continue studying conservation topics in college - two former campers are now Ag Votech Instructors, others that are nature photographers, and still others that are now in natural resource management careers in our state and federal agencies.
- Campers take home natural resource conservation ideas and apply them in their own

interactions with the natural world.

- 60% of campers are involved with envirothon, FFA career development events, or 4-H judging teams that extend camp topic areas even further.

Impact of the STEM Ambassador Program

- Impact on the STEM Ambassadors

100 percent of the Ambassadors agreed or strongly agreed that the program allowed them the opportunity to promote their college to youth across WV, thus encouraging youths to earn a college degree in a STEM field.

100 percent of the Ambassadors agreed or strongly agreed that they were an important part of each camp or activity in which they worked during the summer, thus supporting their feelings of self-worth and contribution to the community.

100 percent of the Ambassadors strongly agreed that they would recommend the job of STEM Ambassador to their peers.

STEM Ambassadors gained understanding of the needs of WV youths as well as adults in rural communities.

STEM Ambassadors gained an appreciation for the value of the WVU 4-H program in the lives of 4-H youths.

STEM Ambassadors gained life and teaching skills such as:

- Speaking to large groups of people
- Improvising quickly when a lesson plan didn't work
- Working with children
- Teaching information with which they were not familiar

- Impact on WVU Extension outreach efforts

100 percent of the Extension agents who had the program in their county strongly agreed that STEM programming is needed in their county.

94 percent of the Extension agents polled agreed or strongly agreed that the STEM Ambassador offered quality K-12 educational outreach programs in science, technology, engineering and math.

100 percent of the Extension agents polled agreed that they would recommend the STEM Ambassador program to their peers for use in the 2012 camping season.

The STEM Ambassador program allowed Extension agents to address a critical problem in their counties -- the lack of advanced science specialists willing or able to work with youths. Extension agents stated that STEM Ambassadors were positive role models for youths and provided more than just science education, they became part of the camping leadership team.

- Impact on youths

Youths gained skills in the following

- inquiry-based learning
- designing solutions to scientific questions
- drafting and construction
- mathematics and measurement
- chemistry and physics
- data collection and analysis
- product evaluation

Youths gained knowledge of career opportunities in science-related fields.

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: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	18.0	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
640000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
974711	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.

In 2012, WVU Extension recorded **338** educational activities in the workforce development program area. There were **2773** direct adult contacts. In this category there were 40,182 indirect contacts, trainees who were trained by our certified OSHA authorized outreach trainers.

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. There were **253** educational activities reported, **4,678** direct adult contacts, and **256** direct youth contacts..

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. This year there were **225** educational activities in this program area, **3,591** direct contacts

with adults, and **81** direct youth contacts.

2. Brief description of the target audience

Firefighters, EMS, law enforcement, first responders, upper management in the fire services, airport personnel, the general population, people who seek to implement or assist in the implementation of individual or employer compliance with state, federal, and local safety and health legislation, employers/owners of businesses, volunteers, immigrants, migrant workers, youth, disabled community members, and older adults.

Local businesses, community-based organizations, elected officials, community leaders, community residents, fair and festivals boards, WVU ES faculty and staff

3. How was eXtension used?

One specialist serves on the Evaluation CoP and as 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

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	11042	423620	337	0

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

Patent Applications Submitted

Year: 2012
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2012	Extension	Research	Total
Actual	2	2	4

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational activities

Year	Actual
2012	859

Output #2

Output Measure

- Number of educational materials created or updated

Year	Actual
2012	10

Output #3

Output Measure

- Number of educational materials distributed

Year	Actual
2012	11042

Output #4

Output Measure

- Number of professional presentations

Year	Actual
2012	2

Output #5

Output Measure

- Number of outside organizations collaborating within this program area

Year	Actual
2012	313

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.
2	Number of participants who improve or increase skills
3	Number of participants who change a behavior or use a new skill
4	Number of participants who train others
5	Number of people certified or licensed to practice in the field
6	Number of groups or organizations that change their procedures and/or policies
7	Number of new groups or organizations that are established or enhanced
8	Number of physical or social effects, such as disease, pollution, or crime that are reduced or eliminated
9	Number of economic improvements
10	Number of organizations that ask Extension professionals to train in leadership skills
11	Number of employers who comply with OSHA specified limits for exposure of workers to hazardous substances and conditions.

Outcome #1

1. Outcome Measures

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	561

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Individuals in a variety of leadership positions in work environments and community associations need to discover personal strengths, recognize the strengths and differences in others, and identify communication styles.

What has been done

The Real Colors program has been presented in a variety of venues in West Virginia by specialists and county agents including camps, teen leader associations, a young adult conference, AFL-CIO groups, and county organizations. The Real Colors Personality Instrument identifies the four temperaments (Blue, Gold, Green, or Orange). It provides individuals with an effective tool for understanding human behavior.

Results

561 adults and youth increased their understanding of their own personal strengths and learned to identify and appreciate the strengths of others. They have also learned how to communicate appropriately to others in different temperament groups.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #2

1. Outcome Measures

Number of participants who improve or increase skills

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	1866

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

1866 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

Outcome #3

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
2012	151

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Communities trying to envision the future, need an accurate and unbiased picture of the present. The First Impressions program provides this perspective by helping a community learn about its strengths and weaknesses as seen through the eyes of a first-time visitor. Since its inception 48 communities have been visited and have received assessments of their towns/communities.

What has been done

The First Impressions program sends teams of anonymous visitors to the community where they record their first impressions. Team members pose as prospective business owners, vacationers, shoppers and potential residents. Retail stores, residences, education, government, tourism and accessibility to services are investigated. In 2012 Camden on Gaulle (40 participants) and Harrisville (20 participants) were visited and reports were sent to communities. In addition, tourism was added to the First Impression program.

Results

The majority of survey respondents indicated that the program led to positive changes in community and economic development conditions. Several communities looked inward and identified additional areas for improvement. Report findings were used to secure monetary resources; new partnerships were formed at the state and regional levels; and broader community participation in decision making at the local level was noticeable.

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 participants who train others

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	1613

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 advisers 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 103 CEOS training activities were recorded.

Results

1,613 CEOS members were trained to train others in topics related to preserving the environment, building family strengths, increasing awareness of our global interdependence and leadership. They reproduced that training at their county meetings.

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
2012	1231

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 80 OSHA Education Center train-the-trainer courses in 2012. 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

1,231 trainers were certified as OSHA authorized outreach trainers in 2012. They went out and trained 40,182 individuals in 3,218 courses.

4. Associated Knowledge Areas

KA Code	Knowledge Area
723	Hazards to Human Health and Safety

Outcome #6

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 Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	4

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Each year, trade union organizations need to adjust their policies and procedures to fit the ever-changing laws and regulations passed by state and federal legislatures. They need timely information about these changes.

What has been done

Every year the WVU Institute for Labor Studies and Research conducts a wide variety of programs for thousands of trade unionists throughout the state, region, and nation. This year, they included: 2012 AFL-CIO Summer School, Labor Leadership Academy, 2012 CWA Summer School, Leadership Conference 2012 UMWA Summer School 2012 Union Women's Concerns Conference Advanced Steward Training United Mine Workers.

Results

In 2012, labor union organizations including the United Mine Workers Association, AFL-CIO, the Labor Leadership Academy, and the Construction Workers Association addressed issues related to collective bargaining, the Family Medical Leave Act, Social Work, and the Affordable Care Act, all of which were covered by training workshops and seminars and presented at the WVU Institute for Labor Studies and Research.

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities
805	Community Institutions, Health, and Social Services

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
2012	12

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The Community Design Team (CDT) at WVU Extension helps people make the most of their community. This program brings volunteer professionals to locales to assist community members in laying a course for the future. Self-reliant local economies and improved business climates are also goals of WVU-ES and the Business Retention and Expansion (BR&E) program promotes job growth by helping communities identify the concerns and barriers to survival and growth.

What has been done

Extension specialists worked with local municipalities (counties, cities, towns, businesses) to analyze their community and business plans and develop a plan for success. In 2012, 12 groups developed a strategic plan and pursued its implementation. This included the cities/towns of Madison, Harpers Ferry, Westover, Nitro, and Winfield, and the counties of Lewis, Preston, Putnam, and Randolph, as well as Holly Gray Park and the WV Conservation Department.

Results

12 towns, cities, counties, and organizations have completed strategic plans and are on their way to implementing them in their locations. This should lead to the strengthening of local government functioning as well as business sustainability.

4. Associated Knowledge Areas

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

Outcome #8

1. Outcome Measures

Number of physical or social effects, such as disease, pollution, or crime that are reduced or eliminated

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

Number of economic improvements

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

Number of organizations that ask Extension professionals to train in leadership skills

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	8

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

WVU-ES through the Workforce and Community planned program provides educational programs and technical assistance to strengthen the capacity of citizens and organizations throughout the state of West Virginia. It does this by responding to the needs of local and state institutions and organizations.

What has been done

In 2012, types of organizations requested training from WVU-ES faculty. These included trade unions, OSHA, counties, towns, and other local municipalities, businesses, community organizations such as CEOS, HeadStart, senior centers, tourist organizations, and schools, and

WVU departments and centers.

Results

8 types of organizations have received training from faculty within the Workforce and Community Development in 2012. This represents at least 50 organizations that have improved their organizational knowledge and skills.

4. Associated Knowledge Areas

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

Outcome #11

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

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Government Regulations
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

Two major storms affected programming, especially tourism.

The low economy has affected towns and communities as they plan for economic development.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Although communities in the First Impressions program were overwhelmingly successful in implementing at least some program suggestions, barriers to both project initiation and completion were common. Overall, 89% (n=16) of communities identified barriers that limited their ability to carry out improvements. Seventy-two percent (n = 13) reported money and resources, 28% (n=5) reported human capital and vision, and 11% (n=2) indicated turnover in government leadership.

In many communities these barriers were overcome by engaging in partnerships with other state/regional initiatives and development organizations. Beyond the partnerships described previously, 28% (n=5) of community representatives indicated participating in West Virginia University's Community Design Team; 33% (n = 6) participated in downtown revitalization efforts including WVU Extension Service's Power of Ten (n=1) and the West Virginia Department of Commerce Main Street West Virginia program (n=5); and 22 % (n = 4) were involved with broad community leadership and revitalization initiatives led by the West Virginia Community Development HUB, West Virginia Department of Commerce, and Federal Home Loan Bank of Pittsburgh.

Seven communities reported actively seeking and/or receiving grants. Five communities received ARC/WV Development Office Flex-E-Grants providing between \$3,000 and \$10,000 per community for leadership and community capacity building programs. Two communities received awards from the West Virginia Brownfield's Assistance Center's FOCUS program, which provides \$5,000 and site redevelopment support for community-based Brownfield's projects. The ability to secure funding was especially important in the First Impressions Program success. Analysis using Pearson r (Coefficient/Cases 1-tailed Significance) revealed a moderate positive correlation between communities receiving Flex-E-Grant money and those reporting improvements in the general condition of their community as a result of the program participation, $r = 0.41$, $p \leq 0.05$.

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: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	31.0	0.0	0.0	0.0
Actual Paid Professional	28.0	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
715000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
513974	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. There were **161** educational activities reported, **21,003** direct adult contacts and **213** direct youth contacts. The major initiatives included: feeder cattle marketing program, livestock improvement, grassland management, and aquaculture.

Horticulture - There were **255** educational activities reported in the horticulture (fruits and vegetables) program area, **14,554** direct adult contacts and **1,227** direct youth contacts. The major initiatives included: homeowner and commercial horticulture, the Master Gardener Program and International Conference.

Pest Management - There were **31** educational activities reported in the pest management program area, **1177** direct adult contacts and **84** youth contacts. The major initiatives included: Integrated Pest Management, the White Tailed Deer Damage Program, and Weed Control Management and Master Gardener.

Sustainable Agriculture: Agriculture Business/Small Farm Management - There were **333** educational activities reported in the sustainable agriculture program area, **10,514** direct adult contacts and **335** direct youth contacts. The major initiatives included: West Virginia Small Farms

Conference and Small Farms Website.

Nutrient Management - There were **20** educational activities reported in the nutrient management program area, **1209** direct adult contacts. The major initiatives included fertilizer use and selection, soil sampling, and composting. The major initiatives included fertilizer use and selection, soil sampling, and composting.

Agriculture Literacy - There were **2,206** educational activities reported in the agriculture literacy program area, **8,843** direct adult contacts and **34,137** direct youth contacts. The major initiatives included in this area are 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?

One specialist has been involved with the horticulture - Master Gardener Community of Practice.

V(E). Planned Program (Outputs)

1. Standard output measures

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	56896	3612457	34137	10860

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

Patent Applications Submitted

Year: 2012
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2012	Extension	Research	Total
Actual	18	5	23

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational activities

Year	Actual
2012	3012

Output #2

Output Measure

- Number of educational materials created or updated

Year	Actual
2012	18

Output #3

Output Measure

- Number of educational materials distributed

Year	Actual
2012	17614

Output #4

Output Measure

- Number of outside organizations collaborating within this program area
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- Number of professional presentations

Year	Actual
2012	21

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of participants who increase their knowledge
2	Number of participants who improve or increase skills
3	Number of participants who change a behavior or use a new skill
4	Number of people certified or licensed to practice in the field
5	Number of groups or organizations that change their procedures and/or policies
6	Number of new groups or organizations that are established or enhanced
7	Number of physical or social effects, such as disease, pollution, or crime that are reduced or eliminated
8	Number of economic improvements
9	Number of environmental improvements
10	Dollar amounts generated as a result of implementing new techniques or procedures

Outcome #1

1. Outcome Measures

Number of participants who increase their knowledge

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	599

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Disease emergence, food insecurity, decreasing biodiversity, and public health concerns have been increasingly associated with interactions at the human-wildlife-livestock-ecosystem interface. Food security issues and cultural preferences continue to place pressure on natural resources.

What has been done

In 2012, a new wildlife specialist began work at WVU-ES. Educational activities this year related to wildlife ecology and vertebrate natural history included a conservation camp, classes in waterfowl, reptiles and amphibians, mammals, bats of WV, and safety issues such as avoiding snake encounters. Applied research was conducted through the WV Coyote DNA Project and Fall Bat Survey.

Results

432 youths gained knowledge of wildlife ecology and vertebrate natural history.

159 adults gained knowledge of wildlife ecology and vertebrate natural history.

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems

Outcome #2

1. Outcome Measures

Number of participants who improve or increase skills

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	1119

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Producers in West Virginia want to increase their skills related to commodity production such as breeding soundness exams, nutritional needs of herds/flocks, and genetics.

What has been done

WVU-ES specialists and agents conducted workshops, hands-on trainings, and site visits with West Virginia livestock producers. They also conduct applied research projects in livestock production.

Results

- 1015 producers increased their skill related to livestock improvement
- 104 youths improved their skill related to livestock improvement
- 147 producers increased their skill related to conducting breeding soundness exams
- 147 producers increased their skill related to providing for the nutritional needs of herd/flocks
- 147 producers increased their skill related to genetics
- 11 producers increased their skill related to feeder cattle marketing

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems
308	Improved Animal Products (Before Harvest)

Outcome #3

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
2012	225

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

County Master Gardener (MG) volunteer associations provide an outlet for community horticultural service and extend the WVU ES impact in the state.

What has been done

Trainees from 44 county associations are given core training in botany, propagation, soil science, plant pathology, entomology, communication skills and pest management. Topics include vegetable and fruit production, turf grass and identifying and managing weeds, garden pests, soils, fertilizers and composting, garden systems, bulbs, pruning, cover crops, plant diseases.

Results

225 individuals were trained and 175 became Certified Master Gardener Volunteers. Gardener participants utilized skills learned through the Master Gardener program to beautify and promote commerce in their 44 communities in West Virginia. Fruits, vegetables, and decorative plants were consumed, exchanged, and sold which added to the informal economy of the state and social well-being of citizens.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
213	Weeds Affecting Plants
604	Marketing and Distribution Practices

Outcome #4

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
2012	500

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The West Virginia University Pesticide Safety Education Program (PSEP) seeks to promote the safe use of pesticides by community growers as well as professional pesticide applicators.

What has been done

PSEP trainings were conducted in all 55 counties of the state with licensed pesticide users and in three different locations (Morgantown, Beckley and Keyser) on right-of-way workers pesticide applications for re- certification credits. Programs were approved for credits for applicators in forestry, crop tree release, aquatics, and demonstration/research. Videos were produced of demonstrations of safe use of pesticide, disposal and storage.

Results

Licensed pesticide applicators and Right-of-Way workers were re-certified. Results from pre- and post-test evaluations revealed positive change in the knowledge regarding safe use of pesticide and integrated pest management. Pre-test correct answers were 51.1% whereas post-test correct answers were 85.8%. More than 80% of the respondents mentioned that they would make changes to their pesticide use practices.

Right-of-way workers programs were also very successful for two reasons. They offered a lot of re-certification credits at one time and the presenters shared quality information. The number of participants continued to grow and a core group (about 60%) seems to attend the program every year.

4. Associated Knowledge Areas

KA Code	Knowledge Area
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216 Integrated Pest Management Systems

Outcome #5

1. Outcome Measures

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

Not Reporting on this Outcome Measure

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 Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	4

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The West Virginia Aquaculture Advisory Board identifies issues facing the aquaculture industry in the state and recommends to the Commissioner of Agriculture measures that should be taken to benefit aquaculture development. The emphasis is on creating transparency, minimizing and perhaps even decreasing the burden on the industry, while establishing authority for regulation of aquatic livestock.

What has been done

A WVU-ES specialist has been a leader in this endeavor. In collaboration with representatives from Agriculture, DEP, DNR, and aquaculture producers, he has made a series of recommendations to the Commissioner of Agriculture that describes how the Department should engage aquaculture. He works to lay the foundation for future opportunities and necessary relationships required for the aquaculture project to progress.

Results

In 2012, the Aquaculture Forum was held at the Small Farm Conference in Morgantown, WV in an effort to draw participation from a new group of farmers and prospective farmers. This annual

meeting weaves teaching, research, and service together and is featured on the Extension aquaculture web site. This year a special effort was made to raise support for the work at Reymann Memorial Farm starting in the fall of 2013.

The facilities at Reymann Memorial Farm and at Dogwood Lake are being integrated into the Agricultural Experiment Station and make these facilities available to others.

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems

Outcome #7

1. Outcome Measures

Number of physical or social effects, such as disease, pollution, or crime that are reduced or eliminated

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Research has shown that docking protects sheep and lambs from fly strike, while having no effect on lamb mortality and production. However, producers have a moral and ethical obligation to minimize the pain, stress, and distress that farm livestock experience while they are in our care.

What has been done

Implementation of the Lamb Tail Docking Measurement Policy during the 2011-2012 year continued to have a program emphasis. Data was again collected to assess the effects of implementation of the policy, each county was asked to indicate the number of market lambs and breeding sheep exhibited and the number of market lambs and breeding sheep rejected because of tail dock length.

Results

A total of 928 market lambs were exhibited in the reporting counties with 2 (0.2%) being rejected. A total of 87 breeding sheep were exhibited statewide with 1 (1.1%) being rejected.

4. Associated Knowledge Areas

KA Code	Knowledge Area
216	Integrated Pest Management Systems
307	Animal Management Systems
604	Marketing and Distribution Practices

Outcome #8

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
2012	3

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The opportunity to integrate aquaculture it into current Extension programming in order to improve economic opportunities in West Virginia is real. WVU-ES will continue to seek the same basic support for fish afforded traditional agricultural livestock.

What has been done

Trout, channel catfish and striped bass continue to perform well at Dogwood Lake. This year we stocked Koi and bullhead catfish. Atlantic sturgeon is the newest species to be grown in the treated mine water at Dogwood Lake. At Pipestem Resort, a trout fishing package was developed for fall and spring. A "Live fish list" has been developed and maintained to help people looking for fish to find WV vendors who can meet their needs and helps local fish producers penetrate markets previously dominated by vendors from other states.

Results

- Fish produced at the site have been used by faculty and students at WVU, by the WV Department of Agriculture, and for many events.
- We expect to collect production data for a year and the offer them as a new product to several local restaurants.
- The Pipestem Resort is now purchasing locally grown trout to support the program.
- Over 3,000 lb of striped bass were sold to local restaurants in 2012. We also provided fish on a

regular basis to Pierpont Culinary Academy so their students can see the quality and value associated with farm raised fish. Each year they use our products in competition and often win honors.

--In 2012, striped bass produced at Dogwood Lake won honors at the Cast Iron Cook Off.

4. Associated Knowledge Areas

KA Code	Knowledge Area
216	Integrated Pest Management Systems
604	Marketing and Distribution Practices
607	Consumer Economics

Outcome #9

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
2012	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Applying aquaponic methods on a larger scale is expected to yield plants with value, enhance removal of soluble nutrients, improve retention of total settleable solids, shading the pond bottom to retard growth of submerged vegetation, encourage gas exchange with emergent plants so dissolved oxygen, pH, and CO₂ are more stable, and discourage heat transfer to keep the water temperature near 55 F.

What has been done

We use a combination of methods for waste management in our serial reuse spring fed flowing water system. We maximize feed efficiency with high energy feeds fed at 85% of satiation, capture solid waste in the quiescent zone and dewater solids with a geotube, integrate raft aquaponics, and finally utilize polishing pond with a floating wetland.

Results

Results were presented at a meeting of the Aquaponics Association, and the East Coast Trout

Management and Culture Workshop held every five years, and will be presented at a national aquaculture meeting in 2013. The floating wetland was installed in 2012 and has not yet become fully established.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
205	Plant Management Systems
307	Animal Management Systems

Outcome #10

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
2012	8976388

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

WV markets almost 70% of their annual production in the fall months. Few WV producers are "students" of the market and have a tendency to react to market signals too late. More producers need to adopt a value added approach to minimize risk while providing opportunities to market calves that are in high demand.

What has been done

WVU-ES and the WV Department of Agriculture assemble the auction market data and summaries of the WV Fall Graded Feeder Cattle Sales, Yearling Board Sales, and the Quality Assurance Feeder Calf Sales. The WV Department of Agriculture provides a third party certification by identifying the cattle with USDA grades. The graded sales have allowed buyers to participate in the auction via the teleauction or in-person and purchase WV feeder cattle due to the volume, larger lot size, and a system that describes the cattle universal to the industry.

Results

The 2012 marketing season for West Virginia feeder cattle remained strong throughout the year.

Producers realized a 15% improvement in prices over 2011.

Results from 6 livestock auction markets conducting 25 graded sale events in September and October 2012. The average price in 2012 across 11,598 head, steers, bulls, and heifers, was \$773.96 per head, \$70.00 /hd more than 2011. The equals \$8,976,388.

The South Branch Livestock Exchange recorded the highest cattle volume (5,921) and at an average price \$/cwt, \$146.58 for steers and \$128.96 for heifers.

In 2012 the auction markets handling the larger volume of calves have a tendency to return the higher receipts of \$109 to \$63 more per head for steers and heifers respectively. However, the 2012 prices in the fall auctions displayed less variability and the prices improved or were steady from October to December. Prices, reflected by average \$/head for a 550 pound calf, ranged from \$499 to \$971 for steers and \$427 to \$752 for heifers.

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems
604	Marketing and Distribution Practices
607	Consumer Economics

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy

Brief Explanation

Two major storms causing power adages and distruction of property.

The market was quite volatile throughout the summer due to the drought and sharp increases in feed cost however the market seemed to stabilize in the fall at the time when most WV producers were marketing calves. The US economy remained uncertain due to the political posturing and the uncertainty of the Farm Bill. The ethanol policy was challenged in the halls of congress due to the demand and short supplies of corn due to the drought and strong export market.

The drought in the southern plains reduced the size of the US cow herd again in 2012 to 1952 inventories. Expansion of the cow herd has been slowed by a slow economy and the uncertainty the weather has pressured the market due to drought, heat and intense storms. The cow herd reduction resulted in more competition for feeder calves and higher prices that benefited WV cow calf producers. Market experts expected 2012 and beyond to be good for cattle prices. If producers keep cost in check they will be able to ride through the market volatility. Continuing to investigate value added opportunities and risk management options, producers will be able to enjoy several profitable years.

Locally, cattlemen experienced one of the better forage seasons since spring arrived early and in spite of a dry hot June across the state. The rains returned in July providing enough moisture for forage crops and allowed producers to market calves and yearlings in an orderly manner. Hay supplies are adequate underpinning the local demand for lighter calves. There is an abundance of lower quality hay due to drought or late harvest. Wet spring weather delayed the planting of corn and soybeans putting more pressure on feed cost. Cattle producers experienced dramatic increases in production cost associated with preconditioning feed and supplements causing many to question the value of preconditioning feeder cattle.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

In collaboration with the National Center for Cool and Cold Water Aquaculture we evaluated the performance of growth-selected (GS) and unselected (US) rainbow trout. The fish selected for rapid growth did indeed grow more rapidly than the control group. After 24 weeks of dietary treatment there was an interaction ($p < 0.05$) between genetics and feeding strategy for both length and weight. Investigators with the federal lab measured mRNA expression. Their data suggests decreased degradation of protein through proteasomes and capsases could be the cause for increased weight and length of the growth-selected trout. Initial results were presented at the Experimental Biology meeting. Analysis continues and results will be presented at a national aquaculture meeting in 2013.

An evaluation study was undertaken during the 2011-2012 4-H year to determine the usage of Animal Science, Plant Science, Mechanical Science, and Natural Resources and Environment project curriculum enrollment in 4-H Agriculture, and to assess the project completion rates in these project areas. Data indicate project completion rates for the 2011-2012 areas are as follows: Animal Sciences (76%) a decrease of 1%; Plant Sciences (48%), a decrease of 16%; Mechanical Sciences (63%), a decrease of 4%; and Natural Resources (63%), an increase of 2% from the 2010-2011 4-H year; in addition, the overall project completion rate was 73%, an decrease of 2% from 2010-2011.

Key Items of Evaluation

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: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	24.0	0.0	0.0	0.0
Actual Paid Professional	27.0	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
414917	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
1483747	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 2012, 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 - In 2012, there were **28** educational activities reported in the financial management program area, **1714** direct adult contacts and **606** direct youth contacts. 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 - In 2012, there were **88** educational activities reported in the parenting education program area, **2,682** direct adult contacts and **876** direct youth contacts. 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- In 2012, there were **875** educational activities in the adult relationship program area, **15,162** direct adult contacts and **12,488** direct youth contacts. 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 - In 2012, there were **11** educational activities reported in the childcare training program area and **313** direct adult contacts. 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?

One specialist is involved with the Family Caregiving CoP as an evaluator and content contributor.

V(E). Planned Program (Outputs)

1. Standard output measures

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	19571	90727	13970	39142

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

Patent Applications Submitted

Year: 2012
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2012	Extension	Research	Total
Actual	1	0	1

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational activities

Year	Actual
2012	1016

Output #2

Output Measure

- Number of educational materials created or updated.

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

2012 3

Output #3

Output Measure

- Number of educational materials distributed.

Year	Actual
2012	90727

Output #4

Output Measure

- Number of outside organizations collaborating within this program area

Year	Actual
2012	5

Output #5

Output Measure

- Number of professional presentations

Year	Actual
2012	12

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of participants who increased their knowledge.
2	Number of participants who improve or increase their skills.
3	Number of participants who change a behavior or use a new skill
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 groups or organizations that change their procedures and/or policies
8	Number of new groups or organizations that are established or enhanced
9	Number of physical or social effects, such as disease, pollution, or crime that are reduced or eliminated
10	Number of economic improvements
11	Number of social improvements

Outcome #1

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
2012	251

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Since 2005, through the Healthy Children Healthy Program, WVU-ES has worked toward decreasing the economic, psychological, and physical costs of unhealthy couple relationships in the communities of West Virginia by promoting and providing research-based, skill-focused education in relationships and marriage. Grant funding ended this year, however, WVU Extension faculty and partners continue to deliver these programs, including one called "Five Love Languages."

What has been done

County Extension agents offered the training entitled "Five Love Languages" at 19 venues throughout the year. In 2013, a team of agents and specialists will conduct research to determine the benefits of this program.

Results

251 participants gained knowledge of the five love languages and expressed motivation to practice them in within their primary relationships.

4. Associated Knowledge Areas

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

Outcome #2

1. Outcome Measures

Number of participants who improve or increase their skills.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	225

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Knowing normal child development information will help parents to adjust expectations and responses to their child's level and needs. This will help parents manage their children more appropriately. Parents and children need to deal with their feelings, encourage each other to take responsibility, and use effective communication strategies.

What has been done

WVU-ES county faculty have offered the Parenting Piece by Piece training to parents within the state in a variety of venues including prisons, court-required parenting classes, and the like. Thirty classes were offered.

Results

225 participants gained skills in recognizing personal and parenting strengths, managing stress, listening and attending to their children's feelings and ideas, modelling of appropriate behaviors, problem solving, establishing and maintaining reasonable limits, and finding, using, and creating community resources that benefit their children.

4. Associated Knowledge Areas

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

Outcome #3

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
2012	239

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

According to Stop It Now®, 2012 has been a "watershed year" in the area of public awareness about child sexual abuse. Several high-profile cases revealing widespread, unchecked sexual abuse of children have catapulted this issue into the media limelight. The impact of these cases has been a dramatic shift in public opinion about the common occurrence of child sexual abuse and the damaging impacts on children.

What has been done

Extension professionals, staff of youth-serving organizations such as Starting Points, and parents attended a three-hour seminar taught by a WVU-ES specialist and county agents.

Results

10 WVU-ES faculty members, Energy Express mentors and site supervisors, and HR representatives improved their skills in recognizing and reporting child abuse.

222 parents and staff of youth-serving organizations improved their skills in recognizing and reporting child abuse.

7 WVU-ES faculty received certification to teach Stewards of Children. WVU-ES now has a total of 11 certified trainers to meet the need.

4. Associated Knowledge Areas

KA Code	Knowledge Area
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- 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
2012	9

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Among stress management approaches, mindfulness-based stress reduction has shown promise in positively impacting physiological as well as emotional correlates of stress. "Mindfulness" has been described as paying attention, on purpose, to the present moment, and with a non-judgmental attitude. (Kabat-Zinn, 1994) Mindfulness involves training in gently focused awareness. Simple self-regulation practices are taught which can lower one's reactivity to stress triggers.

What has been done

Our family life specialist and a county agent trained Extension faculty from 9 states in the Stress Less curriculum at the Priester Extension Health Conference. The educational package was made available on the web. A day-long training for professional social workers and counselors was created. Three county agents were trained in reproducing the curriculum. Materials were peer-reviewed and disseminated to agents and human service professionals.

Results

9 Extension faculty from 9 states gained skills in conducting the Stress Less training for their county clients. They plan to carry out the training in their state.

PEIA, our state health insurance provider, has expressed interest in having WVU Extension provide curricula for PEIA insured individuals. Their top state-wide priority is stress management, citing WV-DHHR studies showing the high medical cost of stress. We have submitted a proposal and once a Memorandum of Understanding is signed, the family and Human Development specialist will be streamlining Stress Less materials for a fall, 2013 roll-out. Three agents have been trained and will teach the classes in their counties.

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

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	126755

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Educational programs, offered by WVU-ES are funded through traditional sources such as federal, state, and private funds. However, most could not be implemented with the same quality without the in-kind donations of volunteers and participating organizations.

What has been done

The Healthy Family/Healthy Children program was funded until July1, 2012 by a grant from the WV Department of Human Resources. In addition to those funds, additional in-kind contributions were made from volunteer hours, donated meeting space, and donated food and refreshments for educational programs.

Results

As a result of in-kind donations of \$126,755, the Healthy Family/Healthy Children Initiative was able to increase public awareness about the value of healthy couple and parent-child relationships, increase the knowledge and skill of couples to form and sustain healthy marriages and family relationships, build a network of county-based coalitions to assess needs and to plan and deliver locally relevant educational and family-strengthening activities, provide relationship, parenting, and financial education promoting healthy families and healthy marriages by training and certifying coalition leaders and members to teach the chosen relationship curricula to residents of their communities and helped change public policy with the legislative, and maintain and improve program evaluation process to evaluate outcomes and impact.

4. Associated Knowledge Areas

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

Outcome #6

1. Outcome Measures

Number of people certified or license to practice in the field

Not Reporting on this Outcome Measure

Outcome #7

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 Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	1

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. This year, classes for childcare providers have been taught in 7 venues to 226 participants.

Results

This year the WV ACDS added programs on child abuse and neglect issues, an initiative of WVU-ES.

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 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
2012	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

While the American economy continues to change and grow many of them are working, but still living below the poverty line because of economic globalization and their lack of employable skills. This is especially true in West Virginia. In West Virginia, interest remains strong from educators and social service providers to better understand and instruct children and families from poverty.

What has been done

WVU-ES faculty taught classes on understanding economic diversity which included poverty simulations. This year, a Families and Health agent taught 9 classes with 1,359 participants. These are held in schools and community organizations. In the simulations, some play the part of community people while others play the part of individuals living in poverty.

Results

Adult participants gained knowledge and skill in utilizing the following concepts in their work with West Virginia clients: the 12 key points of poverty; the hidden rules of three economic classes; how family structure impacts poverty; the eight resources and determining which resources individuals are lacking; the difference between casual register and formal register in language; how discipline differs in poverty; the importance of relationships, and strategies for "making deposits" and for discipline.

4. Associated Knowledge Areas

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

Outcome #9

1. Outcome Measures

Number of physical or social effects, such as disease, pollution, or crime that are reduced or eliminated

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

Number of economic improvements

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

Number of social improvements

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

Brief Explanation

A grant from the WV Department of Health and Human Resources has discontinued a large grant to WVU Extension which funded the Healthy Families/Healthy Children program. The program is continuing with less funding through state funds.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

For the Healthy Families/Healthy Children program:

- 216 childcare providers, family court judges, supreme court administrators and educators such as Extension agents and specialists have used the protocol to guide their decisions about disclosing and acting on reports of domestic violence.
- 507 individuals taught other people in their communities using curricula for which they received training by faculty members in the Strengthening Families section of WVU-ES Families and Health Unit.
- 17,136 participants gained knowledge and skill in parenting, including: 1) protecting children against sexual abuse, 2) establishing rules and routines for children, 3) the importance of eating together as a family, 4) accessing resources to meet the needs of the families and children, and 5) finding resources for inmates and their families after they leave prison.
- 3,804 family members gained skills in identifying types of spending habits, setting goals and creating budgets, and changing patterns of spending and saving. In addition, citizens gained skills for applying for the Earned Income Tax Credit.
- 27 providers were certified in "Parenting Piece by Piece," a parent education curriculum for high-risk, low-literacy parents.

For the Stress Less with Mindfulness program

Pre-test and Post-test retrospective surveys were administered after two Stress Less With Mindfulness workshops on 10/12/2012 (N=23), and 4/11/2012 (N=15). The surveys principally looked at if participants would use the tools that they were taught, and how they would implement them. Overwhelmingly participants indicated that they would do things differently after hearing information taught in the workshop. The most common things that participants said they would do differently included: mindful breathing, laughing more, being more mindful of their eating, and allowing for personal time to de-stress. 100% of 48 Nutritional Outreach Instructors intend to do something differently after hearing the presentation including: take time to breathe, worry less, be more aware of mindless eating, and install mindfulness bell on my cellphone and use it.

For the Preventing and Reducing Child Sexual Abuse program:

Impact analysis of the class evaluations using aggregate sample t-tests showed significant gains in two areas: 1) knowledge about child sexual abuse and 2) willingness of adults to engage in behaviors to protect children. A remarkable finding is that parents and professionals increased willingness to change 100% of the behaviors identified as protecting children.

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	20%			
112	Watershed Protection and Management	10%			
123	Management and Sustainability of Forest Resources	25%			
124	Urban Forestry	10%			
125	Agroforestry	20%			
131	Alternative Uses of Land	5%			
605	Natural Resource and Environmental Economics	10%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	8.0	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
643345	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
427705	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 2012, 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:

1. Decrease risk and loss to farming operations through use of risk mitigation tools and control of predation
2. Improve woodlot conditions and expand forest and non-timber product production
3. Improve the business and management competencies of forest/wood industry businesses.
4. Increase compliance with and knowledge of the WV Best Management Practices for controlling soil erosion and sedimentation from logging operations.
5. Increase the capacity of local communities and landowners in nutrient management and sustainability
6. To address topics of interest and concern citizens have about the natural gas industry in WV.

The growth and economic development of the Marcellus shale in West Virginia provides opportunities for public and private landowners, local communities, and local and state governments to benefit from monies generated from land leases and royalties. However, with this economic growth and development comes safety and environmental concerns. The WVU Extension Service (WVU-ES) Agriculture and Natural Resources (ANR) Program Unit's Natural Gas Education Team (NGET) was formed to address topics of interest and concern citizens have about the natural gas industry in WV.

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, and natural gas education.

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

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	3730	392237	184	0

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

Patent Applications Submitted

Year: 2012
Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2012	Extension	Research	Total
Actual	1	1	2

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational activities

Year	Actual
2012	146

Output #2

Output Measure

- Number of educational materials created or updated

Year	Actual
2012	11

Output #3

Output Measure

- Number of professional presentations

Year	Actual
2012	9

Output #4

Output Measure

- Number of outside organizations collaborating with this program area

Year	Actual
2012	3

Output #5

Output Measure

- Number of educational materials distributed

Year	Actual
2012	391737

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of participants who increase their knowledge
2	Number of participants who improve or increase skills
3	Number of participants who change a behavior or use a new skill
4	Number of groups or organizations that change their procedures and/or policies
5	Number of new groups or organizations that are established or enhanced
6	Number of physical or social effects, such as disease, pollution, or crime, etc., reduced or eliminated
7	Number of economic improvements
8	Number of environmental improvements

Outcome #1

1. Outcome Measures

Number of participants who increase their knowledge

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	1770

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The Renewable Resources Extension Act (RREA) at West Virginia University puts landowners in touch with natural resources professionals and educates citizens about forests, wildlife, and water resources. Education programs developed for the 270,000 private landowners aim to demonstrate 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

RREA supported the production of the Acid Mine Drainage Task Force Symposium in Morgantown. Extension Specialists facilitated youth forestry contests and activities including the WV Conservation Camp, the National 4-H Forestry Invitational, and the Future Farmers of America state forestry contest. An outreach effort concerning forestry laws and regulations was conducted. Groups of individuals participated in "Walks in the Woods" and other natural resources seminars.

Results

- 170 natural resources professionals gained knowledge of forestry laws and regulations.
- 300 professionals gained knowledge of the issues surrounding acid mine drainage.
- 100 youths gained knowledge of conservation and natural resources
- 1200 woodland owners, nature enthusiasts, and interested citizens gained knowledge of forests, woodlands and wildlife through participating in "Walks in the Woods."

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources

124	Urban Forestry
125	Agroforestry

Outcome #2

1. Outcome Measures

Number of participants who improve or increase skills

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	35

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

This WV Green-Up Certified Logger Training Program was designed to familiarize trainees with the logging industry through a series of training modules. The training is provided at no cost to the participant and will meet the requirements for becoming a licensed logger in the State of WV. The program is a six-day training program that qualifies participants for certification.

What has been done

An Extension specialist taught classes for WV GreenUp Certified Logger Training Program. An Extension specialist also conducted on-site evaluations at West Virginia work sites and worked with logger to develop safe, productive, and environmentally sensitive harvest plan and implementation of new cable logging system.

Results

Participants gained skills related to the logging industry.
Participants from the state of WV qualified for certification in the WV GreenUp Certified Logger Training Program.

Loggers developed safe, productive, and environmentally sensitive harvest plan and implementation of new cable logging system.

4. Associated Knowledge Areas

KA Code Knowledge Area

- 123 Management and Sustainability of Forest Resources
- 125 Agroforestry

Outcome #3

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
2012	93

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

West Virginia's portion of the Chesapeake Bay watershed is the land that drains into the Potomac River and a small area that drains into the James River. The pollutant reduction mechanisms of cover crops are: improved stabilization of soil surface, improved water infiltration and nutrient adsorption, increased crop growing season, reduced in-field volume of runoff water, reduced erosion and transport of nutrient enriched sediments, temporary nutrient sequestration; rapping and retention of nutrient enriched sediments; and vegetative assimilation.

What has been done

Extension specialist gave cover crop demonstrations for landowners in or near the Chesapeake Bay watershed. Topics included planting, nutrient cycling, and use of roller crimper.

Results

The adoption of cover crops by 93 landowners in the Chesapeake Bay watershed increased.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
112	Watershed Protection and Management

Outcome #4

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
2012	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

With the prevalence of wrapped hay or balage for cattle some questions have arisen about the common practices and their effect on quality of the hay. It is also suggested that there may be some guidelines that can help to improve the quality of hay managed in this manner and also prevent losses of livestock as a result of improperly made balage.

What has been done

In consultation with Dr. Les Vough (emeritus professor from the University of Maryland) WVU Extension specialists developed a list of BMPs that produce well fermented baleage. In 2011 they analyzed 19 lots of baleage while in 2012 they have analyzed 22 samples. The results will be presented at county, state, and regional extension educational meetings and developed into a fact sheet.

Results

--Moisture appears to be the biggest single factor in determining fermentation quality in baleage. As the moisture content in the sampled forage dropped below 50% the VFA Score dropped accordingly (Fig. 1). This relation was basically identical for both 2011 and 2012.

--Based on the 41 samples in the data set when forage moisture was less than 50% there was an 80% probability that the VFA Score would be less than 6. Since we had few samples with moisture greater than 60% we could not quantify the negative effects of having forage baled when it was too wet or over 70% moisture.

--This information will show farmers what baleage BMPs are needed for good baleage fermentation and what BMPs they may need to improve on in their operation.

4. Associated Knowledge Areas

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

Outcome #5

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
2012	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The Summit Bechtel Family National Scout Reserve (SBR) is located in Mount Hope, West Virginia, between Beckley and Glen Jean and is one of four facilities managed by the National Council of the Boy Scouts of America (BSA). The Summit is the future home of the national Scout jamboree, the Summit High Adventure Base, and the National Center for Scouting Excellence. The 10,600 acre Boy Scout Camp that will serve as the site of the 2013 Boy Scout Jamboree. It is anticipated that there will be 50,000 attendees at the 2013 National Scout Jamboree

What has been done

The WVU ES Land Reclamation Specialist helped with the development of the new Bechtel Reserve. The current goals of construction at the site are developing infrastructure, providing access to the area's resources for outdoor activities, and preparing for the Jamboree.

Results

RREA has supported land reclamation advisory services at the Bechtel Reserve, a 10,600 acre Boy Scout Camp near Beckley, West Virginia. The Summit is expected to inject \$25.3 million into the local economy annually.

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land

Outcome #6

1. Outcome Measures

Number of physical or social effects, such as disease, pollution, or crime, etc., reduced or eliminated

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

Number of economic improvements

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

Number of environmental improvements

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Other (Audience objections to the topic of Marcellus Shale technology and use.)

Brief Explanation

Two major storms - flooding, damage to homes and property.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Moisture appears to be the biggest single factor in determining fermentation quality in baleage. As the moisture content in the sampled forage dropped below 50% the VFA Score dropped accordingly (Fig. 1). This relation was basically identical for both 2011 and 2012.

Based on the 41 samples in the data set when forage moisture was less than 50% there was

an 80% probability that the VFA Score would be less than 6. Since we had few samples with moisture greater than 60% we could not quantify the negative effects of having forage baled when it was too wet or over 70% moisture.

This information will show farmers what baleage BMPs are needed for good baleage fermentation and what BMPs they may need to improve on in their operation.

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
501	New and Improved Food Processing Technologies	15%			
502	New and Improved Food Products	15%			
504	Home and Commercial Food Service	70%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	5.0	0.0	0.0	0.0
Actual Paid Professional	10.0	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
255000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
1338664	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

Brief description of the Activity

In 2012, 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 2012, there were **32** educational activities in the community food preparation program area, **277** direct adult contacts and **14** direct youth contacts. The major initiatives included food preservation and canning workshops, and Venison 101.

Commercial Food Preparation

In 2012, there were **21** educational activities in the commercial food preparation program and **289** direct adult contacts. The major initiatives include food safety for food banks, ServSafe® Manager Food Safety Training, a food business workshop, a food defense workshop, and the Better Process Control School for Acidified Foods.

This year, Extension Specialist, Litha Sivanandan, was on maternity leave and another Food Safety Specialist in Extension passed away. As a result the number of contacts and activities in this program area is lower than in previous years. Dr. Sivanandan's 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.

Beef Quality Assurance

In 2012, there were **15** educational activities in the commercial beef quality assurance program area and **374** direct adult contacts and **80** direct youth contacts. The major initiatives included beef quality assurance certification, beef quality assurance training for students, beef quality assurance for WVU farm workers, NCBA stockman and stewardship sessions, WVU-ES winter education series, the WV cattlemen's short course for producers, the West Virginia quality assurance feeder calf sale, 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.

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

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	986	23500	94	0

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

Patent Applications Submitted

Year: 2012
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2012	Extension	Research	Total
Actual	0	3	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational activities

Year	Actual
2012	67

Output #2

Output Measure

- Number of educational materials created or updated

Year	Actual
2012	1

Output #3

Output Measure

- Number of educational materials distributed

Year	Actual
2012	5164

Output #4

Output Measure

- Number of professional presentations

Year	Actual
2012	2

Output #5

Output Measure

- Number of outside organizations collaborating within this program area

Year	Actual
2012	12

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of participants who increase their knowledge
2	Number of participants who improve or increase skills
3	Number of participants who are motivated to change their behavior
4	Number of participants who change a behavior or use a new skill
5	Number of people certified or license to practice in the field
6	Number of groups or organizations that change their procedures and/or policies
7	Number of new groups or organizations that are established or enhanced
8	Number of physical or social effects, such as disease, pollution, or crime, that are reduced or eliminated
9	Number of economic improvements
10	Number of environmental improvements

Outcome #1

1. Outcome Measures

Number of participants who increase their knowledge

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	454

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

BQA training provides an opportunity for direct contact with producers and incorporates a method of "hands on teaching." The WV BQA certification program follows the guidelines established by the Mid-Atlantic BQA program where producers are required to participate in Level I and II classroom training program.

What has been done

The major initiatives were beef quality assurance certification, beef quality assurance training for students, beef quality assurance for WVU farm workers, NCBA stockman and stewardship sessions, WVU-ES winter education series, the WV cattlemen short course for producers, and the West Virginia quality assurance feeder calf sale. A Youth Quality Assurance Retreat was conducted in November. The program and curriculum was developed by WVU-ES specialists.

Results

455 participants gained knowledge and skill in maintaining animal welfare and the proper use of beef products.

4. Associated Knowledge Areas

KA Code	Knowledge Area
501	New and Improved Food Processing Technologies
502	New and Improved Food Products

Outcome #2

1. Outcome Measures

Number of participants who improve or increase skills

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	262

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Dial gauges should be checked for accuracy before use each year. Gauges that read high cause under-processing and may result in unsafe food. Low readings cause over-processing. Pressure adjustments can be made if the gauge reads up to 2 pounds high or low. Replace gauges that differ by more than 2 pounds.

What has been done

Canner pressure gauge testing training is part of the curriculum on canning. Canning workshops are presented at the county level many times throughout the year.

Results

262 participants increased skill in testing dial gauges on pressure canners.

4. Associated Knowledge Areas

KA Code	Knowledge Area
504	Home and Commercial Food Service

Outcome #3

1. Outcome Measures

Number of participants who are motivated to change their behavior

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

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

Not Reporting on this Outcome Measure

Outcome #5

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
2012	148

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Preventing food borne illness and death remains a major public health challenge. Medical bills and loss of productivity add to the cost. The incidence of food borne illnesses could be greatly reduced with the adoption of established food safety practices in the production, transportation, storage, preparation and service of food. ServSafe Food Protection Manager Certification is accredited the by the American National Standards Institute (ANSI)-Conference for Food Protection.

What has been done

ServSafe® Manager Food Safety Training was held online and onsite. Extension Educators in Jefferson, Kanawha, Harrison, and Mercer counties taught classes required in the ServSafe Food Protection Manager curriculum.

Results

A total of 148 trainees gained or renewed nationally recognized food safety manager certification in 2012.

4. Associated Knowledge Areas

KA Code	Knowledge Area
504	Home and Commercial Food Service

Outcome #6

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 Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	121

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The intent of the calf pool is to offer small to mid-size beef producers an opportunity to build marketing power.

What has been done

A Microsoft Access database application specifically developed for calf pools is utilized to manage data associated with RFID tags. The database integrates all identification and pooling activities including producer enrollment and tag allocation, recording of premise of origin and birth date for process verification and shipment day activities. The BQA Administrator database can easily import data from the individual pool databases used when delivering cattle at a calf pool.

Results

--Twelve marketing pools (9 Gold & 3 Silver) composed of 121 producers participating in three board sales submitted marketing data on 4,892 calves.

--One hundred twenty one producers participated in the pools reporting data and marketed an

average of 40 calves. These calves returned an average of \$3,539 more per producer relative to graded sale prices.

--These data indicate that calf pool programs are accessible to smaller and mid-size producers. The continued use of RFID technology and participation in a process verification program demonstrated that producers in West Virginia can successfully comply with a potential National Animal Identification System, and will be able to provide feeder cattle to buyers that can qualify for beef export.

The success of marketing of feeder cattle through calf pools is clearly documented by these data. The price advantages, additional weight gains and savings in marketing charges have a total value in 2012 of \$848,000.

4. Associated Knowledge Areas

KA Code	Knowledge Area
502	New and Improved Food Products

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
2012	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The Better Process Control School for Acidified Foods was offered yearly in West Virginia under the leadership of Cameron Hackney, now deceased. West Virginia did not apply to offer the school this year.

What has been done

An arrangement was made with Virginia Tech to offer the school this year in West Virginia and in future years.

Results

Commercial acidified food producers were certified this year and will continue to be certified in coming years.

4. Associated Knowledge Areas

KA Code	Knowledge Area
501	New and Improved Food Processing Technologies
502	New and Improved Food Products
504	Home and Commercial Food Service

Outcome #8

1. Outcome Measures

Number of physical or social effects, such as disease, pollution, or crime, that are reduced or eliminated

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Clostridium botulinum causes the deadly disease known as botulism. When this organism grows under conditions present in canned foods it can produce a neurotoxin that is one of the most potent poisons known. Before acidified products can be sold (even at farmers markets) the producer has to go to a school (offered by WVU-ES) and pass all the tests. He or she can then register with the FDA. Before any product can be produced and sold, a process authority has to approve the process and tell the producer what records to keep.

What has been done

Products first go to the WV Dept. Agriculture. They inspect the facility and verify the process flow diagram and do the nutritional analysis. Extension takes the product, tests it, and specifies the process to destroy spoilage organisms and pH for safety. The processor has to have our letter on file and use our information to get FDA approval so the product can be sold. This service is provided free; if the producer goes out of state it can cost \$100 per food item.

Results

Those who purchased acidified products from vendors in WV were protected from food poisoning

caused by Clostridium botulinum.

4. Associated Knowledge Areas

KA Code	Knowledge Area
501	New and Improved Food Processing Technologies
502	New and Improved Food Products
504	Home and Commercial Food Service

Outcome #9

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
2012	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Marketing "All Natural" offers an opportunity to add value to means of adding value to feeder cattle. The Natural food industry has been expanding across the country and has offered a number of opportunities for producers willing to develop or supply a niche market. The demand for Natural meats is growing like the rest of the industry yet is the only sector that is regulated by USDA or third party certification.

What has been done

A majority of WV producers raise cattle that would qualify for a natural program unless they have experienced a disease outbreak. Calves remain natural for the most part until weaning. The weaning process like the other quality assurance calves is a necessity for producers to add value. The natural opportunity best suits the larger producers or marketing pools with less than five cooperators to insure quality loads of calves can be assembled.

Results

The 2012 WV Quality Assurance Sale did feature 204 steers and 261 heifers from three marketing pools. The heavier 600 lb calves realized about a \$40.00 per head advantage over the Gold Quality Assurance calves. The natural heifers brought the same dollars per head as the

Gold QA heifers (\$840.00/head). Not all of the advantage was attributed to the natural qualification since a number of the loads went to buyers that are not feeding for the natural market, a large percent of the difference this year can likely be attributed to the reputation of the pools. The feeder cattle market prices will eventually stabilize and the value difference for natural cattle will become more distinct. The opportunity to participate and add value will improve for the producer willing to meet the required qualifications.

4. Associated Knowledge Areas

KA Code	Knowledge Area
502	New and Improved Food Products

Outcome #10

1. Outcome Measures

Number of environmental improvements

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Other (Attrition in personnel - One specialist was on leave and another passed away during the year.)

Brief Explanation

V(I). Planned Program (Evaluation Studies)

Evaluation Results

The 2012 WV Quality Assurance Sale did feature 204 steers and 261 heifers from three marketing pools. The heavier 600 lb calves realized about a \$40.00 per head advantage over the Gold Quality Assurance calves. The natural heifers brought the same dollars per head as the Gold QA heifers (\$840.00/head). Not all of the advantage was attributed to the natural qualification since a number of the loads went to buyers that are not feeding for the natural market, a large percent of the difference this year can likely be attributed to the reputation of the pools. The feeder cattle market prices will eventually stabilize and the value difference for natural cattle will become more distinct. The opportunity to participate and add value will improve for the producer willing to meet the required qualifications.

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	25%			
136	Conservation of Biological Diversity	50%			
605	Natural Resource and Environmental Economics	25%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	5.0	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
120000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
782927	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 minesoils, 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

2. Brief description of the target audience

Foresters, government officials, consumers of wood products, commercial enterprises dealing with wood products, researchers, 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

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	15437	0	0	0

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

Patent Applications Submitted

Year: 2012

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2012	Extension	Research	Total
Actual	0	8	8

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational materials created or updated

Year	Actual
2012	1

Output #2

Output Measure

- Number of educational materials distributed

Year	Actual
2012	405

Output #3

Output Measure

- Number of professional presentations

Year	Actual
2012	9

Output #4

Output Measure

- Number of outside organizations collaborating within this program area
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- Number of training activities

Year	Actual
2012	12

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of groups or organizations that change their procedures and/or policies
2	Number of economic improvements
3	Number of environmental improvements
4	Number of participants who gain knowledge about sustainable energy
5	Number of participants who gain new skills related to sustainable energy.
6	Number of participants who change a behavior or use a new skill.

Outcome #1

1. Outcome Measures

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

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Number of economic improvements

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

Number of environmental improvements

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

Number of participants who gain knowledge about sustainable energy

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	205

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 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. WV is the nation's second largest coal-producing and third most heavily forested state. Opportunities exist for the co-development of biomass and coal energy which combine the sustainable qualities of woody biomass and the fuel density of coal.

What has been done

The Appalachian Hardwood Center and Bio-materials and Wood Utilization Research Center partnered with the WV Div. of Energy to hold a conference on biomass and coal opportunities. Topics included biomass and coal development, bioenergy research and development, torrefied biomass and coal blends, energy policy and environmental impacts, and feasibility of coal and biomass as feedstocks for liquid transportation fuels. Other educational include: reclamation of Marcellus well sites, chestnut for reforestation, and switchgrass potential for minesoils.

Results

205 participants in programs on production/harvesting/storage systems 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
136	Conservation of Biological Diversity
605	Natural Resource and Environmental Economics

Outcome #5

1. Outcome Measures

Number of participants who gain new skills related to sustainable energy.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	140

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Woody biomass from forest management is a renewable, low-carbon feedstock that can substitute for fossil fuels in the production of energy and other products -- a potentially important tool in the national strategy to reduce greenhouse gas emissions and resist global climate change. Markets for logging residues, small diameter trees, and other low-value forest products can add value to working forests, help provide financial alternatives to land clearing and development, and create incentives for investing in sustainable forest management.

What has been done

Extension specialist gives lectures on biomass stewardship at forest stewardship meetings on biomass issues for forest management plans. He has also produced three fact sheets (Morwood Logging Residue Fact Sheets) reporting results from field visits where he assessed the residue left on site after logging activities.

Results

140 participants in programs on production/harvesting/storage systems gained new skills in biomass stewardship for forest management plans.

4. Associated Knowledge Areas

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

Outcome #6

1. Outcome Measures

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

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Competing Public priorities

Brief Explanation

Nothing to report

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Nothing to report

Key Items of Evaluation