

2013 Colorado State University Combined Research and Extension Annual Report of Accomplishments and Results

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I. Report Overview

1. Executive Summary

The Agricultural Experiment Station (AES) and Extension at Colorado State University are committed to excellence in basic and applied research and translation of this research through Extension programs to clientele and others. Extension continues to emphasize non-formal education and transfer of knowledge to audiences throughout the state, based on local needs and research information from the AES, the colleges of Agricultural Sciences, Health and Human Sciences, Engineering, Veterinary Medicine and Natural Resources. Programs emphasize best management practices in addressing issues that affect Coloradans.

Most Extension data for this report were provided through our Colorado Planning and Reporting System (CPRS). Plans of Work (POW) were submitted by Work Teams (WTs), and individuals linked to them in creating their own Plans to Invest (PTI). During the program year, individuals entered program data, and reports were generated during the first quarter of 2014. While every Planned Program has many, many knowledge (learning) outcomes, this report primarily documents behavior (action) outcomes. The previous POW listed planned outcomes as percentages of participants reporting change. The CPRS data are numbers of participants only. Therefore, many outcomes listed are marked "not reporting" for 2012 as no percentages are available.

An unintended consequence of the adoption of CPRS is differences in scope and reporting of program areas by the AES and Extension. These differences were addressed in the updated Plan of Work and in this 2013 Integrated Report.

Total Actual Amount of professional FTEs/SYs for this State

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	150.0	0.0	50.0	0.0
Actual	0.0	0.0	50.2	0.0

II. Merit Review Process

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

- Internal University Panel
- External Non-University Panel
- Combined External and Internal University External Non-University Panel

2. Brief Explanation

All projects conducted by the AES and Extension are subjected to a peer review process. Each college at Colorado State University has adopted a process for conducting a peer review on all AES and Extension projects submitted for support by state and federal funds. Criteria include meeting needs of Coloradoans, alignment with college priorities, and resource allocation.

In addition, Extension programs were subject to review by the Program Leadership Team (PLT) and Program Area Leaders (PALs). In 2013, Extension specialists and agents teamed together on about 20 work teams (WTs), jointly lead by a specialist and an agent. Each WT completed a Logic Model, including providing a situation statement, identification of inputs, outputs and impacts. All plans were revised and/or updated during the fall, 2012, in order to be posted to CPRS. WTs were encouraged to simplify indicators and discuss how to report collaborative efforts in order to have data necessary for various reports to stakeholders.

At the county level, all county Extension programs are required at a minimum to have an Extension Advisory Committee composed of constituents, partner agencies (such as the school districts, councils on aging, county health and human services, commodity groups, etc.) In addition, many counties have multiple program advisory groups that guide the county staff in identification of specific programs of emphasis. In the most recent survey of these committees, the 62 Extension county programs have a total of 112 advisory committees involving close to 2000 individuals in the program review process. County programs are reviewed and evaluated by these county advisory groups. The primary criteria is meeting needs in the county.

III. Stakeholder Input

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

- Use of media to announce public meetings and listening sessions
- Targeted invitation to traditional stakeholder groups
- Targeted invitation to non-traditional stakeholder groups
- Targeted invitation to traditional stakeholder individuals
- Targeted invitation to non-traditional stakeholder individuals
- Targeted invitation to selected individuals from general public
- Survey of traditional stakeholder groups
- Survey of traditional stakeholder individuals
- Survey of the general public
- Survey specifically with non-traditional groups
- Survey specifically with non-traditional individuals
- Survey of selected individuals from the general public
- Other (Survey of County Commissioners regarding Extension Programs in their county.)

Brief explanation.

The AES and Extension annually utilize multiple means of obtaining stakeholder input on programs conducted, and solicit input on changes in program direction. The AES and Extension

support programs in seven of the eight colleges on the Colorado State University campus as well as at seven off-campus research centers, one regional engagement center, 52 individual county offices and four area programs serving 62 of Colorado's 64 counties. Each year, the off-campus research centers hold a public meeting where research results are presented and proposed programs are discussed. Public input is solicited on all programs. It should be noted that many of the programs discussed involve faculty and staff located on the Fort Collins campus as well as at the off-campus research centers and Extension county or area offices. Each County/Area Extension program is required to have a stakeholder advisory committee, representing all programmatic and geographic areas, as well as the diversity found in the county. Evidence of the advisory committee must be documented in performance appraisals, as well as during the regularly scheduled affirmative action reviews. These advisory committees are expected to meet on a regular basis and provide guidance on programming and target audiences. Finally, Colorado's state Extension Advisory Committee (CEAC), representing program recipient groups, as well as programmatic collaborators provides oversight and input at the state level. Yearly the county advisory committees review the county plans of work which are then incorporated into the statewide work team plans. These plans are reviewed by the Colorado Extension Advisory Committee (CEAC) for additional input and acceptance. There is an open call for additional work teams so that additional priority areas may be identified and state-wide focus provided. Diversity among stakeholders is expected, but as NIFA reviewers have noted, it is not documented.

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
- Use External Focus Groups
- Open Listening Sessions
- Use Surveys
- Other (Council for Agricultural Research, Extension, and Teaching)

Brief explanation.

We identify stakeholder groups through input from county staff and advisory committee members. We engage community partners in the process and request feedback on appropriate individuals and groups to be included in the stakeholder input process.

Both AES and Extension meet regularly with local and state-wide advisory committees to solicit feedback on programs and also invite the general public to participate in listening sessions.

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
- Meeting with traditional Stakeholder individuals
- Survey of traditional Stakeholder individuals
- Meeting specifically with non-traditional groups
- Meeting specifically with non-traditional individuals

- Meeting with invited selected individuals from the general public
- Survey of selected individuals from the general public
- Other (Review of county Web sites to discern priorities)

Brief explanation.

AES and Extension staff meet regularly with advisory committees and other stakeholders to solicit input on program direction, focus, implementation and success. In addition, CSU has required a yearly satisfaction survey of county commissioners regarding the Extension program in their county. That survey has provided valuable information on county needs and the impact/success of the Extension programs.

3. A statement of how the input will be considered

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

Brief explanation.

Input from stakeholder groups/individuals is expected to be reflected in programming changes - both suggestions for new programs and changes to existing programs at the county/area level. In addition, programmatic suggestions are funneled from county stakeholders to the Colorado Extension Advisory Committee (CEAC) for consideration, recommendation, and implementation. The AES research program is modified based on input from stakeholders. Examples include an evaluation of oilseeds that was initiated to assess bioenergy potential based on stakeholder requests; multi-disciplinary and integrated activities are conducted on invasive plants; and the goals of wheat breeding program that reflect the needs of the wheat industry. In essence, ongoing interaction with stakeholders through formal and informal means is used to insure program relevancy.

Brief Explanation of what you learned from your Stakeholders

County needs must take priority for Extension programs.

IV. Expenditure Summary

1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)			
Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
2791891	0	3146084	0

2. Totaled Actual dollars from Planned Programs Inputs				
Extension			Research	
	Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
Actual Formula	3436006	0	3279761	0
Actual Matching	3436006	0	3279761	0
Actual All Other	4652150	0	30089691	0
Total Actual Expended	11524162	0	36649213	0

3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from previous				
Carryover				
	644115	0	103848	0

V. Planned Program Table of Content

S. No.	PROGRAM NAME
1	4-H Youth Development
2	Family Economic Stability
3	Food Safety
4	Global Food Security and Hunger
5	Plant Production Systems
6	Natural Resources and Environment
7	Community Resource Development
8	Sustainable Energy
9	Childhood Obesity
10	Nutrition and Health Promotion
11	Animal Production Systems

V(A). Planned Program (Summary)

Program # 1

1. Name of the Planned Program

4-H 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%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	48.0	0.0	0.0	0.0
Actual Paid Professional	62.0	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
1313767	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
1313767	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
1778762	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

- Support traditional club programs by recruiting and establishing new clubs;

- Conduct after school and school enrichment programs that provide curriculum in Science, Technology, Engineering and Math (STEM), leadership, citizenship and life skills development;
- Develop new curriculum in response to new audience needs;
- Strengthen the volunteer management system needed to implement the 4-H Youth Development program by: conducting agent trainings to develop volunteer management skills; developing tools to support volunteer management system; delivering volunteer leader training; developing new funding support through individual and group solicitation, grant applications and fee-for-service programs.

2. Brief description of the target audience

- For 4-H Youth Development programming - all Colorado youth, ages 5 - 19.
- For volunteers - interested adults, parents, community members, seniors, partner agencies.
- For increased funding - potential funding entities, including grant providers.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	25341	251296	57624	12681

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

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Funding: Increased funding for 4-H Youth Development through private dollars by increasing support from the Colorado 4-H Foundation. (These have been increased based on our 2005-06 actual of \$240,000.)

Year	Actual
2013	505303

Output #2

Output Measure

- Web Hits: Number of web hits regarding 4-H topics, excluding pages of Agent Resources and Blog areas of the site.

Year	Actual
2013	596149

Output #3

Output Measure

- Curricula: New and/or revised curriculum to meet changes in needs for youth audiences.

Year	Actual
2013	22

Output #4

Output Measure

- Funding: Grant dollars generated to support 4-H Youth Development programs.

Year	Actual
2013	0

Output #5

Output Measure

- Volunteers: Value of volunteers' time that Colorado 4-H adult volunteers provide to 4-H programming, based an average donation of 128 hours/year/volunteer at \$21.62/hour (national average for value of time, adjusted for Colorado)
Not reporting on this Output for this Annual Report

Output #6

Output Measure

- Presentations to Youth: Number of Education Classes, trainings, workshops, field days, educational activities, events, etc. for youth.

Year	Actual
2013	113846

Output #7

Output Measure

- Community Development: Number of community meetings convened, community meetings facilitated, community coalitions/collaborations/alliances formed.

Year	Actual
2013	1366

Output #8

Output Measure

- News Releases: Number of press/news releases submitted.

Year	Actual
2013	832

Output #9

Output Measure

- Newsletters: Number of newsletters created.

Year	Actual
2013	10229

Output #10

Output Measure

- One-on-one interventions: Number of trainings for individual volunteers.

Year	Actual
2013	341

Output #11

Output Measure

- One-on-one interventions: Number of direct communications by telephone and/or e-mail.

Year	Actual
2013	60615

Output #12

Output Measure

- Web Sites: Number of web sites.

Year	Actual
2013	1

Output #13

Output Measure

- Volunteers: Number of trainings for Volunteers.

Year	Actual
2013	384

Output #14

Output Measure

- Extension Staff: Number of trainings for Extension staff.

Year	Actual
2013	454

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Volunteers: Number of participating volunteers reporting increasing effectiveness of Extension programs.
2	STEM: Number of participating youth reporting applying STEM Skills. Survey instrument to measure the outcomes can be found at: http://www.colorado4h.org/research_impact/surveys/STEM.pdf
3	Volunteers: Volunteers apply skills developed through Extension-provided training, supervision, and support to increase their effectiveness in influencing positive youth development for the audience(s) with which they work.
4	Volunteers: Number of participating volunteers who foster life skill development in the youth in their communities.
5	Volunteers: Number of participating volunteers who increase leadership capacity in their communities.
6	Volunteers: Number of participating volunteers reporting they contribute to increased public service in their communities.
7	Youth: Number of participating youth reporting contributing to community improvement.
8	Youth: Number of participating youth reporting they developed goal-setting skills.
9	Youth: Number of participating youth reporting they developed decision-making skills.
10	Youth: Number of participating youth reporting they developed record-keeping skills.
11	Youth: Number of participating youth reporting they developed public-speaking skills.
12	Youth: Number of participating youth reporting they developed responsibility.
13	Youth: Number of participating youth reporting they developed leadership skills.

Outcome #1

1. Outcome Measures

Volunteers: Number of participating volunteers reporting increasing effectiveness of Extension programs.

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

STEM: Number of participating youth reporting applying STEM Skills. Survey instrument to measure the outcomes can be found at:

http://www.colorado4h.org/research_impact/surveys/STEM.pdf

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	16318

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

These numbers of youth and adults learning specific STEM skills contribute to the total number who are applying their skills.

11,578 Youth learned strategies to solve problems (98% of those assessed)

9,800 Youth learn how to measure correctly (83% of those assessed)

11,291 Youth learn how to gather and analyze information (96% of those assessed)

11,494 Youth learn record keeping skills (97% of those assessed)

10,781 Youth learn to use tools (91% of those assessed)

9,774 Youth learn to observe things (83% of those assessed)

11,381 Youth learn to compare and contrast things (97% of those assessed)

11,171 Youth show an increased interest and engagement in STEM (95% of those assessed)

10,898 Youth increase positive attitudes towards STEM (95% of those assessed)

552 Youth increase interest, awareness and/or aspirations about STEM careers

11,171 Youth and/or participants increase STEM content knowledge (99% of those assessed)
8,062 Extension staff and volunteers learn to deliver effective inquiry based STEM learning (68% of those assessed)
5,655 Extension staff and volunteers learn STEM content and strategies for positive youth development through STEM projects (48% of those assessed)

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #3

1. Outcome Measures

Volunteers: Volunteers apply skills developed through Extension-provided training, supervision, and support to increase their effectiveness in influencing positive youth development for the audience(s) with which they work.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
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806 Youth Development

Outcome #4

1. Outcome Measures

Volunteers: Number of participating volunteers who foster life skill development in the youth in their communities.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	969

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #5

1. Outcome Measures

Volunteers: Number of participating volunteers who increase leadership capacity in their communities.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1903

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

"Building volunteer leadership [in this county] is a continuing challenge. The people want to be involved often are critical of change and yet that's what they are begging for to happen."

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #6

1. Outcome Measures

Volunteers: Number of participating volunteers reporting they contribute to increased public service in their communities.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1510

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #7

1. Outcome Measures

Youth: Number of participating youth reporting contributing to community improvement.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	2314

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The 4-H program in many states has used the measurement of Life Skill Development to assess the relevance of the program. Data related to the Positive Youth Development of 4-H members is key to share with elected officials at the state and local level as funding and budget issues of non-mandated programs, such as 4-H, are addressed.

What has been done

Colorado 4-H has developed and utilized survey instruments that can easily be used by Extension agents to gather Life Skill data of the 4-H members across the state. These instruments have been pilot tested and used for three years.

Results

5909 of 6100 (97 %) participants assessed reported they had contributed to community improvement through their 4-H participation.

4. Associated Knowledge Areas

KA Code	Knowledge Area
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806 Youth Development

Outcome #8

1. Outcome Measures

Youth: Number of participating youth reporting they developed goal-setting skills.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	5097

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The 4-H program in many states has used the measurement of Life Skill Development to assess the relevance of the program. Data related to the Positive Youth Development of 4-H members is key to share with elected officials at the state and local level as funding and budget issues of non-mandated programs, such as 4-H, are addressed.

What has been done

Colorado 4-H has developed and utilized survey instruments that can easily be used by Extension agents to gather Life Skill data of the 4-H members across the state. These instruments have been pilot tested and used for three years.

Results

5097 of 6100 (84%) participants assessed reported they had developed goal-setting skills through their 4-H participation.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #9

1. Outcome Measures

Youth: Number of participating youth reporting they developed decision-making skills.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	4449

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The 4-H program in many states has used the measurement of Life Skill Development to assess the relevance of the program. Data related to the Positive Youth Development of 4-H members is key to share with elected officials at the state and local level as funding and budget issues of non-mandated programs, such as 4-H, are addressed.

What has been done

Colorado 4-H has developed and utilized survey instruments that can easily be used by Extension agents to gather Life Skill data of the 4-H members across the state. These instruments have been pilot tested and used for three years.

Results

5674 of 6100 (93%) participants assessed reported they had developed decision-making skills through their 4-H participation.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #10

1. Outcome Measures

Youth: Number of participating youth reporting they developed record-keeping skills.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	3053

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The 4-H program in many states has used the measurement of Life Skill Development to assess the relevance of the program. Data related to the Positive Youth Development of 4-H members is key to share with elected officials at the state and local level as funding and budget issues of non-mandated programs, such as 4-H, are addressed.

What has been done

Colorado 4-H has developed and utilized survey instruments that can easily be used by Extension agents to gather Life Skill data of the 4-H members across the state. These instruments have been pilot tested and used for three years.

Results

5772 of 6100 (95%) participants assessed reported they had developed record-keeping skills through their 4-H participation.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #11

1. Outcome Measures

Youth: Number of participating youth reporting they developed public-speaking skills.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	2314

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The 4-H program in many states has used the measurement of Life Skill Development to assess the relevance of the program. Data related to the Positive Youth Development of 4-H members is key to share with elected officials at the state and local level as funding and budget issues of non-mandated programs, such as 4-H, are addressed.

What has been done

Colorado 4-H has developed and utilized survey instruments that can easily be used by Extension agents to gather Life Skill data of the 4-H members across the state. These instruments have been pilot tested and used for three years.

Results

5076 of 6100 (83%) participants assessed reported they had developed public speaking skills through their 4-H participation.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #12

1. Outcome Measures

Youth: Number of participating youth reporting they developed responsibility.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	6963

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The 4-H program in many states has used the measurement of Life Skill Development to assess the relevance of the program. Data related to the Positive Youth Development of 4-H members is key to share with elected officials at the state and local level as funding and budget issues of non-mandated programs, such as 4-H, are addressed.

What has been done

Colorado 4-H has developed and utilized survey instruments that can easily be used by Extension agents to gather Life Skill data of the 4-H members across the state. These instruments have been pilot tested and used for three years.

Results

4981 of 6100 (82%) participants assessed reported they had developed responsibility through their 4-H participation.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #13

1. Outcome Measures

Youth: Number of participating youth reporting they developed leadership skills.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	2376

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The 4-H program in many states has used the measurement of Life Skill Development to assess the relevance of the program. Data related to the Positive Youth Development of 4-H members is key to share with elected officials at the state and local level as funding and budget issues of non-mandated programs, such as 4-H, are addressed.

What has been done

Colorado 4-H has developed and utilized survey instruments that can easily be used by Extension agents to gather Life Skill data of the 4-H members across the state. These instruments have been pilot tested and used for three years.

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

V(I). Planned Program (Evaluation Studies)

Evaluation Results

4-H members are surveyed to determine their acquisition of life skills through 4-H programs. The instrument is at http://www.colorado4h.org/research_impact/surveys/MemberLifeSkillSurvey.pdf

Key Items of Evaluation

Narratives associated with outputs and outcomes positively shine with life skills examples.

- "Our Contest Day was a very fun event this year! Members competed in Performing Arts, Demonstrations, Creative Cooks, and Cake Decorating. This event is truly all about life skills. Members have to plan out their exhibits or presentations, they have to answer questions in a logical, clear way and they have to communicate their ideas succinctly. Regardless of what type of exhibit or demonstration they offer, learning how to plan and communicate are two huge life skills among many others that members get to practice during Contest Day."
 - "I think this is one of the most important 4-H experiences that our members can participate in. The camp is completely based on life skills and differentiated for the abilities of the various age and ability groups. For example, for many of the younger members, this is their first time away from home. They learn how to make friends and create positive social interactions. They learn about responsibility and time management, all while learning a variety of content - everything from science-based curriculum to archery. The older members especially learn a lot about planning and organization."
 - "When is a robot not just a robot? When it is an effective tool for teaching important life skills!"

V(A). Planned Program (Summary)

Program # 2

1. Name of the Planned Program

Family Economic Stability

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	100%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	4.2	0.0	0.0	0.0
Actual Paid Professional	28.0	0.0	0.0	0.0
Actual Volunteer	27.0	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
404236	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
404236	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
547312	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Educational activities include:

•Adoption of curriculum, training for agents and other service providers, educational programs on financial management for individuals and families.

2. Brief description of the target audience

Colorado families, including diverse and difficult- to-reach populations.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	14786	82291	1680	25

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

Patent Applications Submitted

Year: 2013
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	4	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- FES 2) Number of Trainings/Classes/Workshops, Field Days, Activity Days.

Year	Actual
2013	2627

Output #2

Output Measure

- FES 9) Number of Newsletters (This is number of newsletters, not number mailed or number of Coloradans who received them).

Year	Actual
2013	63

Output #3

Output Measure

- FES 13) Number of Volunteers (total) in Planned Program.

Year	Actual
2013	163

Output #4

Output Measure

- FES 15) Number of Agencies Partnering/Collaborating (specify).
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- FES 10) Number of Websites (this is number of sites, not number of hits)
Not reporting on this Output for this Annual Report

Output #6

Output Measure

- FES 11) Number of Websites (this is number of hits, not number of sites).
Not reporting on this Output for this Annual Report

Output #7

Output Measure

- FES 14) Number of Certified Master Volunteers (of those in #FES 13).
Not reporting on this Output for this Annual Report

Output #8

Output Measure

- FES 3) Number of Trainings for Volunteers.

Year	Actual
2013	2

Output #9

Output Measure

- FES 4) Number of Trainings for Extension Staff.
Not reporting on this Output for this Annual Report

Output #10

Output Measure

- FES 5) Number of Community Meetings Convened [examples: Advisory Groups, Councils, Coalition Meetings, Boards].

Year	Actual
2013	12

Output #11

Output Measure

- FES 6) Number of Community Meetings Facilitated [examples: Focus Group, Citizen Forum, Round Table Dialogue, Strategic Planning Process].

Year	Actual
2013	4

Output #12

Output Measure

- FES 7) Number of Community Coalitions, Collaborations, Alliances Formed to Address a Specific Issue [list specific groups/issue].

Year	Actual
2013	9

Output #13

Output Measure

- FES 8) Number of Direct Communication/Education by telephone and/or e-mail.

Year	Actual
2013	926

Output #14

Output Measure

- FES 12) Number Press/News Releases or Columns (number submitted, not number distributed or read by Coloradans).

Year	Actual
2013	51

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of participants indicating improvement in financial health due to changes based on skills learned in financial management trainings.
2	FES 1.1a: Number of Participants intending to increase their utilization of successful strategies for financial management (Small Steps financial indicators; setting financial goals; record keeping; creating and using a spending plan; credit management and debt reduction; fraud, exploitation, and risk management; housing decisions; saving; investing; and long term and retirement planning).
3	FES 1.1b: Participants adopted at least one strategy for financial management (Small Steps financial indicators; setting financial goals; record keeping; creating and using a spending plan; credit management and debt reduction; fraud, exploitation, and risk management; housing decisions; saving; investing; and long term and retirement planning).
4	FES 1.2a: Number of participants Intending to implement cost-effective energy conservation, efficiency, and/or renewable energy measures.
5	FES 1.3a: Number of Participants intending to increase their utilization of strategies to teach children and youth healthy money decisions and consumer choices.
6	FES 1.4a: Number of Youth who will intend to implement strategies to make healthy money decisions and consumer choices.

Outcome #1

1. Outcome Measures

Number of participants indicating improvement in financial health due to changes based on skills learned in financial management trainings.

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

FES 1.1a: Number of Participants intending to increase their utilization of successful strategies for financial management (Small Steps financial indicators; setting financial goals; record keeping; creating and using a spending plan; credit management and debt reduction; fraud, exploitation, and risk management; housing decisions; saving; investing; and long term and retirement planning).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1575

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Financial management skills are learned from a person's life experiences. Understanding our "money baggage" is the first step in making changes to improve our finances. Values and beliefs guide us about money decisions we make. Every time we choose to do one thing over another, we make a value judgment. Choices about money are often made based upon our family, race, gender, and culture. People are usually not aware that values influence and affect decision-making choices about setting goals and managing money. We make these decisions more effectively if we understand our most important values and beliefs about money management.

What has been done

A workshop titled "What is Your Money Baggage?" was presented at the Colorado Works Professional Development Academy 2013. This is one example of the community partnering that effectively places Extension educators in front of audiences who are interested in learning more about financial stability, in order to make good decisions for themselves and their families.

Results

1575 participants in presentations across the state reported they intend to increase their utilization of successful strategies for financial management (Small Steps financial indicators; setting financial goals; record keeping; creating and using a spending plan; credit management and debt reduction; fraud, exploitation, and risk management; housing decisions; saving; investing; and long term and retirement planning).

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #3

1. Outcome Measures

FES 1.1b: Participants adopted at least one strategy for financial management (Small Steps financial indicators; setting financial goals; record keeping; creating and using a spending plan; credit management and debt reduction; fraud, exploitation, and risk management; housing decisions; saving; investing; and long term and retirement planning).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	304

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

CSU Extension received \$5,000.00 from the Pitkin County Healthy Communities Fund to train service providers in the Roaring Fork Valley on a personal finance curriculum. The Dollar Works2 Train-the-Trainer workshop was designed for service providers to increase financial literacy behaviors with the individuals and families they work with.

What has been done

One example was presentation of Dollar Works2 curriculum, selected to strengthen people's skills at managing their personal finances and taking control of their financial decision making. The Dollar Works2 activities are designed for use 1:1 or in group settings. The easy-to-use tools help service providers move learners from practicing "concepts" to application in their own lives. Materials are culturally adapted with English & Spanish versions available. The curriculum is from the University of Minnesota Extension.

CSU Extension delivered the two day train-the-trainer workshop to service providers in the

Roaring Fork Valley. Eleven people participated from nine different agencies with nine evaluations returned. All 9 evaluations indicated that the participants gained a general understanding of the Dollar Works2 curriculum, gained knowledge about financial topics, gained innovative education strategies, gained understanding of connecting culture and financial resources as well as gained understanding of the importance of doing evaluations.

Results

304 participants across the state, in various presentations, reported they adopted at least one strategy for financial management (Small Steps financial indicators; setting financial goals; record keeping; creating and using a spending plan; credit management and debt reduction; fraud, exploitation, and risk management; housing decisions; saving; investing; and long term and retirement planning).

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #4

1. Outcome Measures

FES 1.2a: Number of participants Intending to implement cost-effective energy conservation, efficiency, and/or renewable energy measures.

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

FES 1.3a: Number of Participants intending to increase their utilization of strategies to teach children and youth healthy money decisions and consumer choices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	17

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

How children learn to use money will affect their economic stability and security throughout their life. It will also affect how they live and feel about their lives.

What has been done

Colorado State University Extension provides helpful information for parents in the form of a two-page fact sheet entitled "Money In Our Children's Hands" written by Debra Pankow, Family Economics Specialist for North Dakota State University Extension Service. This fact sheet along with a sign-up for a piggy bank drawing were available at several local banks. On June 14th four local children's names were drawn out as winners of a four compartment piggy bank. This will come in handy as these children to save, spend, share and invest. Here are five good reasons for children to learn to save money.

Teaching kids to save teaches self-control. Choosing to save, instead of spend, is an exercise in self-control. Kids with self control are psychologically better adjusted, more dependable and better at school.

Kids who save are more likely to go to college. Children who have a savings account in their name are seven times more likely to attend college than youth without an account.

Children who save have a better outlook on life. Children with a savings account have a greater sense of hope for the future.

Savers are more financially literate. Children with a bank account tend to understand more about money and financial skills than those without a bank account.

Children's savings accounts are free and fun. Most banks offer no-fee custodial accounts for children. Some banks give gifts or other incentives for account openings and deposits.

Help your child start a savings or investment account. Young kids enjoy saving money in a piggy bank. Around the age of eight is a good time to consider opening a savings account at a local bank or credit union. Your child can learn firsthand about how money grows in interest bearing accounts; and how it feels to save for a special goal.

Results

17 participants reported they intend to increase their utilization of strategies to teach children and youth healthy money decisions and consumer choices.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #6

1. Outcome Measures

FES 1.4a: Number of Youth who will intend to implement strategies to make healthy money decisions and consumer choices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	187

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Youth and families are often not connected to resources in their communities, including Extension that can give them information about money and consumer spending.

What has been done

The 2013 FAMILY CONNECT Event was conceptualized by The Youth Foundation to connect families with agencies and community resources. After much planning and preparation, 47 agencies and 135 volunteers participated on a Sunday in March. Two hundred families were served at the event; 122 individuals came through the CSU Extension location. CSU Extension space included Family & Consumer Science, 4-H Youth Development, and Expanded Food and Nutrition Education Program (EFNEP). We made silly putty as part of the 4-H STEM Initiative, Community Nutrition Educators prepared a healthy snack of Trail Mix, and the FCS agent handed out the Fact Sheet #9.157: "Living on an Irregular Income" in both English and Spanish. Magnetic bookmarks that looked like a dollar bill were given to the children to encourage them to save.

Results

187 youth participants in sessions across the state reported they intend to implement strategies to make healthy money decisions and consumer choices. All in all, the event described above was deemed a success and the opportunity for new partnerships and networking between agencies was also an important outcome of the event.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Retrospective evaluations are conducted at the end of nearly every family economic stability class. Follow up evaluations were conducted statewide for the SSHW program, and for the Rocky Mountain Conference on Aging. Program participants are asked what they will do with the information they gained. Intentions frequently cited include: "I will create a spending and savings plan." "I will start an emergency fund." "I will control my spending leaks." "I will order my credit reports." "I will use the step-down method." "I will track my spending." "Everyone should take this class!" "I will use Power Pay." "I will pay myself first." "I will write my goals down."

Key Items of Evaluation

Larimer County Extension Increases Financial Capability

Larimer County Extension has become the trusted, go-to agency for money management classes. Several non-profit organizations now require that their clients take Extension's "Take Charge of Money Matters" classes in order to receive assistance. Housing Authorities and the Homelessness Prevention Initiative are two of the organizations that refer clients to these classes. Classes are taught twice each month and are promoted to the public as well as through Make Change NOCO. Following the classes, one-to-one mentoring sessions with trained volunteers provide an opportunity for participants to work on their specific spending and savings plan and to learn of additional community resources available to them.

In 2013 Catholic Charities asked that Extension provide monthly money management classes for their clients who must take the class to receive assistance. The format of these classes is flexible to meet the needs of these homeless individuals.

Eighteen community volunteers were trained by Laurel Kubin to expand their capability and confidence to teach or mentor people in financial matters. This training was funded by a FINRA United Way grant received by Make Change NOCO.

The Small Steps to Health and Wealth classes finally took off in 2013 when two employer groups requested the classes as part of their wellness programs. Seven SSHW classes were presented through Associates in Family Medicine, Larimer County government, and the Estes Valley Public Library. The businesses have indicated they want to schedule

additional classes in 2014. SSHW will be taught immediately after work hours for Motor Vehicles staff members in Loveland in 2014.

The Make Change NOCO financial literacy initiative has found firm rooting in northern Colorado. The United Way of Larimer County and Larimer County Extension are providing funding to continue the initiative for an additional year beyond the first three year grant period. A business plan has been developed to take the initiative to the next level, and the initiative is firmly implanted in the United Way "Income" pillar for reducing poverty. Laurel Kubin facilitated a Round Table for community entities to determine next steps for the initiative in October 2014. Community agencies and libraries are firmly committed to the initiative and are partnering in many ways.

V(A). Planned Program (Summary)

Program # 3

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
314	Toxic Chemicals, Poisonous Plants, Naturally Occurring Toxins, and Other Hazards Affecting Animals	10%		0%	
503	Quality Maintenance in Storing and Marketing Food Products	30%		0%	
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	30%		0%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	30%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	13.5	0.0	2.0	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
202118	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
202118	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
273656	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Food Safety Education

- Food Safety training for consumers, high risk audiences and their caregivers.(Eat Well for Less, La Cocina Saludable, Work site Wellness, Safe Home Food Preparation and Preservation, Promotion at Farmers Markets.)
- Food Safety Training for Food Service Managers and Workers (Food Safety Works, ServSafe, Food Safety for Food Bank Workers).Some of these programs are fee-based.

Promoting Food Security

- Multi-lesson series programs-Eat Well for Less, La Cocina Saludable]
- Single event programs targeting limited resource families
- Newsletters-Senior Nutrition News

Research

- Development of new technologies for improving food safety

2. Brief description of the target audience

Food Safety Education

- Consumers, High Risk Audiences (pregnant, immune-compromised, elderly).
- Food handlers and their managers at retail food establishments.

Research

- Producers and processors of plant and animal agricultural products.

3. How was eXtension used?

One agent reported that she responded to eXtension Ask-an-Expert online food safety inquiries.

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	0	0	0	0

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

Patent Applications Submitted

Year: 2013
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	13	17	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- FSAFE 2) Number of Trainings/Classes/Workshops, Field Days, Activity Days - Could include: Food Preservation Workshops, Proper Handwashing Demonstration, Pressure Canner Gauge Inspection, Healthy Baby, Healthy Me, Food Safety during Pregnancy, Food Safety Works, ServSafe Manager Certification, Safe GAP, Food Safety for Seniors, Farmers? Market Vendor Training, Other Educational Class.

Year	Actual
2013	430

Output #2

Output Measure

- FSAFE 3) Number of Trainings for Volunteers.

Year	Actual
2013	12

Output #3

Output Measure

- FSAFE 4) Number of Trainings for Extension Staff.

Year	Actual
2013	2

Output #4

Output Measure

- FSAFE 5) Number of Community Meetings Convened [examples: Advisory Groups, Councils, Coalition Meetings, Boards].

Year	Actual
2013	1

Output #5

Output Measure

- FSAFE 7) Number of Community Coalitions, Collaborations, Alliances Formed to Address a Specific Issue [list specific groups/issue].

Year	Actual
2013	33

Output #6

Output Measure

- FSAFE 8) Number of Direct Communications/Education by telephone and/or e-mail.

Year	Actual
2013	5203

Output #7

Output Measure

- FSAFE 9) Number of Newsletters (This is number of newsletters created, not number mailed or number of Coloradans who received them.) SafeFood News-electronic County or other newsletters.

Year	Actual
2013	18

Output #8

Output Measure

- FSAFE 10) Number of Websites (this is number of Websites, not hits)) SafeFood Website Farm to Table Website Other websites.
Not reporting on this Output for this Annual Report

Output #9

Output Measure

- FSAFE 11) Number of Website hits (this is number of hits, not number of websites).

Year	Actual
2013	887669

Output #10

Output Measure

- FSAFE 12) Number of Press/News Releases or Columns (number submitted, not number read by Coloradans).

Year	Actual
2013	62

Output #11

Output Measure

- FSAFE 13) Number of Volunteers (total) in Planned Program Master Food Safety Advisor Program;Other food safety education.
Not reporting on this Output for this Annual Report

Output #12

Output Measure

- FSAFE 14) Number of Certified Master Volunteers (of those reported in FSAFE #13).

Year	Actual
2013	13

Output #13

Output Measure

- FSAFE 15) Number of New Technologies Expected to be Adopted by Producers.
Not reporting on this Output for this Annual Report

Output #14

Output Measure

- FSAFE 17) User Fees generated.
Not reporting on this Output for this Annual Report

Output #15

Output Measure

- Grant dollars received to support Food Safety research
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 new technologies in pre-harvest livestock management adopted to reduce and/or avoid contamination of meat and/or plant products with human pathogens.
2	Number of new technologies in handling and/or post-harvest detection and management systems adopted to prevent contamination of meat and plant products with human pathogens.
3	FSAFE 1.1. Decrease in reportable foodborne illness as determined through statistics gathered by public health agencies such as Colorado Department of Public Health & Environment (CDPHE), FoodNet, Center for Disease Control and Prevention (CDC), Food and Drug Administration (FDA) and Food Safety Inspection Service (FSIS).
4	FSAFE 1.2: Reduction in foodborne illness-related economic losses(including reduced worker productivity, increased medical expenses, and food industry losses) as determined through public health agencies such as Colorado Department of Public Health & Environment (CDPHE), FoodNet, Center for Disease Control and Prevention (CDC), Food and Drug Administration (FDA) and Food Safety Inspection Service (FSIS).
5	FSAFE 2.1. Number of Participants reporting they will adopt recommended food safety practices (including food production, preparation, consumption and storage practices) to minimize risk of food borne illness.
6	FSAFE 2.2. Number of Participants reporting they will adopt skills necessary to teach others about food safety practices that reduce risk of foodborne illness.
7	FSAFE 2.3. Number of Participants who will adopt safe home food preservation practices (including use of tested recipes, following research-based procedures and canning equipment that is routinely inspected and tested for safety).
8	FSAFE 2.4. Number of Participants who will complete food safety training and certification in programs such as ServSafe, Food Safety Works, GAPs, GMPs, HACCP, or on-farm best management practices.
9	FSAFE 3.1. Number of Participants who will plan to implement processes that will minimize microbial and/or chemical threats to the food supply.
10	FSAFE 3.2. Number of Participants who will plan to adopt food safety processes developed through NIFA-funded projects.

Outcome #1

1. Outcome Measures

Number of new technologies in pre-harvest livestock management adopted to reduce and/or avoid contamination of meat and/or plant products with human pathogens.

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Number of new technologies in handling and/or post-harvest detection and management systems adopted to prevent contamination of meat and plant products with human pathogens.

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

FSAFE 1.1. Decrease in reportable foodborne illness as determined through statistics gathered by public health agencies such as Colorado Department of Public Health & Environment (CDPHE), FoodNet, Center for Disease Control and Prevention (CDC), Food and Drug Administration (FDA) and Food Safety Inspection Service (FSIS).

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

FSAFE 1.2: Reduction in foodborne illness-related economic losses(including reduced worker productivity, increased medical expenses, and food industry losses) as determined through public health agencies such as Colorado Department of Public Health & Environment (CDPHE), FoodNet, Center for Disease Control and Prevention (CDC), Food and Drug Administration (FDA) and Food Safety Inspection Service (FSIS).

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

FSAFE 2.1. Number of Participants reporting they will adopt recommended food safety practices (including food production, preparation, consumption and storage practices) to minimize risk of food borne illness.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1880

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Food Preservation Workshops, Proper Handwashing Demonstrations, Pressure Canner Gauge Inspections, Healthy Baby Healthy Me, Food Safety during Pregnancy, Food Safety Works, ServSafe Manager Certification, Safe GAPS, Food Safety for Seniors, Farmers' Market Vendor Training, and other educational classes. In addition to classes presented by Extension agents, there are many, many inquiries that come into the office personally, by phone, and by e-mail or text message. [I]"responded to over 240 food safety related inquiries involving high altitude food preservation, food processing support and general food safety. Also responded to eXtension Ask-an-Expert online food safety inquiries."

Results

1880 participants reported they will adopt recommended food safety practices (including food production, preparation, consumption and storage practices) to minimize risk of food borne illness.

4. Associated Knowledge Areas

KA Code	Knowledge Area
503	Quality Maintenance in Storing and Marketing Food Products
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #6

1. Outcome Measures

FSAFE 2.2. Number of Participants reporting they will adopt skills necessary to teach others about food safety practices that reduce risk of foodborne illness.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	324

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

324 participants reported they will adopt skills necessary to teach others about food safety practices that reduce risk of food-borne illness.

4. Associated Knowledge Areas

KA Code	Knowledge Area
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #7

1. Outcome Measures

FSAFE 2.3. Number of Participants who will adopt safe home food preservation practices (including use of tested recipes, following research-based procedures and canning equipment that is routinely inspected and tested for safety).

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

FSAFE 2.4. Number of Participants who will complete food safety training and certification in programs such as ServSafe, Food Safety Works, GAPs, GMPs, HACCP, or on-farm best management practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	678

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

One example: This particular Food Safety Works Class (12/11/13) accommodated 24 students: 15 English speaking and 9 Spanish speaking. Through the use of an Interpreter who used headsets to translate the presentation, we were able to conduct a class that proved to be highly educational (based on feedback) as well as create an environment where we were able to discuss each other's experiences and share best practices with one another. The two activities I conducted in the class (Glo Germ/Hand washing and Thermometer Calibration) were real eye openers to many of the students as they had thought they were performing both satisfactorily, but after the lesson they realized there was improvement to be made. An overall successful class which seemed to spark an interest in food safety!

Results

678 participants across the state successfully completed food safety training and certification in programs such as Master Food Safety Advisor, ServSafe®, Food Safety Work, GAPs, GMPs, HACCP, or on-farm best management practices.

4. Associated Knowledge Areas

KA Code	Knowledge Area
503	Quality Maintenance in Storing and Marketing Food Products
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #9

1. Outcome Measures

FSAFE 3.1. Number of Participants who will plan to implement processes that will minimize microbial and/or chemical threats to the food supply.

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

FSAFE 3.2. Number of Participants who will plan to adopt food safety processes developed through NIFA-funded projects.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Most programs are followed by a survey to assess learning and intended behavior change.

Key Items of Evaluation

The CSU Extension Food Safety Education Team did an amazing job in 2013, providing education for all points in food production, from farmers to consumers. The FSHN-based food safety education campus team was involved in the development of two new curricula for farm-to-school producers and cottage food producers; over \$250,000 in grant funds was acquired for food safety research and education delivery materials; over 50 campus-based presentations were delivered; social media contacts broke new records; ten graduate students were engaged in Extension-related projects; over 200 consumer questions were answered, media outreach from a well-received Cantaloupe Safety Seminar reached millions and the CSU Center for Food Safety and Prevention of Foodborne Disease was officially recognized and immediately began functioning in collaboration with the Colorado Department of Public Health and Environment in a joint effort as one of CDC's five Centers of Excellence in Food Safety.

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
121	Management of Range Resources	20%		0%	
301	Reproductive Performance of Animals	20%		0%	
302	Nutrient Utilization in Animals	10%		0%	
303	Genetic Improvement of Animals	10%		0%	
307	Animal Management Systems	10%		0%	
311	Animal Diseases	5%		0%	
601	Economics of Agricultural Production and Farm Management	10%		0%	
602	Business Management, Finance, and Taxation	10%		0%	
723	Hazards to Human Health and Safety	5%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	23.1	0.0	0.0	0.0
Actual Paid Professional	0.0	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
444659	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
444659	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
602043	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

- Conduct extension and outreach programs to enhance animal agriculture in Colorado and the West.
- Extension will include applied research and education relevant to emerging issues of Colorado's agricultural industries, including bio-security, safe and effective pesticide use, and implementation of effective pest management strategies that do not rely on pesticides.
 - Evaluate new crop, range, and livestock systems in semi-arid environments including disciplinary and interdisciplinary work in crop and soil sciences, animal sciences, pest sciences, range science, wildlife biology and ecology, forest science, water sciences, economics, and landscape design and policy applicable to the state and region.
- Disseminate findings through extension educational programs aimed at changing practices to control pests.
- Proper diagnosis of plant problems, entomology related to plants and structures, weed control and recommendations of integrated pest management strategies.

- Workshops and educational classes for producers
- Demonstration plots and field days to showcase the results
- Individual counseling on producers specific problems

2. Brief description of the target audience

Individual agricultural producers, commodity groups, agri-business partners

3. How was eXtension used?

{No Data Entered}

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	4245	32698	1565	294

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

Year: 2013
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	5	30	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- ABM 1) Peer Reviewed Publications, including Fact Sheets & Curricula
 Not reporting on this Output for this Annual Report

Output #2

Output Measure

- ABM2) Trainings/Classes/Workshops, Field Days, Activity Days

Year	Actual
2013	19

Output #3

Output Measure

- ABM3) Trainings for Extension Staff

Year	Actual
2013	1

Output #4

Output Measure

- ABM 4) Community Meetings Facilitated [examples: Focus Group, Citizen Forum, Round Table Dialogue, Strategic Planning Process]
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- ABM 5) Community Coalitions, Collaborations, Alliances Formed to Address a Specific Issue [list specific groups/issue]
Not reporting on this Output for this Annual Report

Output #6

Output Measure

- ABM 6) Direct Communication/Education by telephone and/or e-mail

Year	Actual
2013	167

Output #7

Output Measure

- ABM 7) Newsletters (This is number of newsletters, not number mailed or number of Coloradans who received them.)
Not reporting on this Output for this Annual Report

Output #8

Output Measure

- ABM 8) Websites (number of Websites, not number of hits)
Not reporting on this Output for this Annual Report

Output #9

Output Measure

- ABM 9) Websites hits (number of hits, not number of sites)
Not reporting on this Output for this Annual Report

Output #10

Output Measure

- ABM 10) Press/News Release or Column (number submitted)

Year	Actual
2013	1

Output #11

Output Measure

- ABM 11) External Grant Dollars
Not reporting on this Output for this Annual Report

Output #12

Output Measure

- LR 1) Trainings/Classes/Workshops, Field Days, Activity Days

Year	Actual
2013	0

Output #13

Output Measure

- LR 3) Trainings for Extension Staff

Year	Actual
2013	0

Output #14

Output Measure

- LR 4) Community Meetings Facilitated [examples: Focus Group, Citizen Forum, Round Table Dialogue, Strategic Planning Process]

Year	Actual
2013	0

Output #15

Output Measure

- LR 5) Direct Communication/Education by telephone and/or e-mail

Year	Actual
2013	0

Output #16

Output Measure

- LR 6) Newsletters (This is number of newsletters, not number mailed or number of Coloradans who received them.)

Year	Actual
2013	0

Output #17

Output Measure

- LR 7) Websites (number of Websites, not number of hits)

Year	Actual
2013	0

Output #18

Output Measure

- LR 8) Websites hits (number of hits, not number of sites)

Year	Actual
2013	0

Output #19

Output Measure

- LR 9) Press/News Release or Column (number submitted)

Year	Actual
2013	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Economic impact of the change in behavior reported, reported in dollars
2	Number of new technologies adopted to increase food production
3	ABM 1.1. Participants have a greater confidence in talking with young people about becoming farmers and ranchers.
4	ABM 1.2. Participants intend to develop formal business plans regarding the succession of their farms and ranches.
5	ABM 1.3. Participants intend to develop formal marketing plans regarding the succession of their farms and ranches.
6	ABM 1.4. Participants intend to develop formal retirement plans regarding the succession of their farms and ranches.
7	ABM 1.5. Participants intend to develop formal estate plans regarding the succession of their farms and ranches.
8	ABM 1.6. Participants intend to develop ?legacy? plans.
9	ABM 1.7. Participants have improved intra-family communications.
10	ABM 2.1. Participants intend to investigate adding a new enterprise to their farms/ranches
11	ABM 2.2. Participants intend to discontinue an existing enterprise on their farms/ranches.
12	ABM 2.3. Participants intend to not pursue alternative enterprises
13	ABM 2.4. Participants intend to further investigate strategies for increasing the profitability of their enterprises. (Action)
14	ABM 2.5. Participants intend to implement management strategies for making more informed decisions to sustain profitability and/or reduce risk.
15	ABM 2.6. Participants intend to investigate agri-tourism and other alternative enterprises for their farm/ranch businesses.
16	ABM 2.7. Participants will have sustained profits due to increased revenues and/or decreased costs.
17	LR 1.1: The number of producers who document range land monitoring activities.

18	LR 1.2: Adult and youth livestock producers will gain proficiency in producing profitable animal products.
19	LR 1.3: Livestock producers, adult and youth will report an increased adoption of best management practices for optimum production and economic sustainability.

Outcome #1

1. Outcome Measures

Economic impact of the change in behavior reported, reported in dollars

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Number of new technologies adopted to increase food production

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	4

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Adult and youth livestock producers will gain proficiency in producing profitable animal products. never experienced before.

What has been done

Members of the work team have demonstrated expertise and recognition in areas of livestock and range research and educational efforts. This expertise spans several departments, colleges and disciplines. For example, within the Animal Science Department production expertise in cattle nutrition, reproduction, genetics and meat science are all represented. In addition, members of the work team represent veterinary medicine, rangeland science as well as agricultural economics. The team also has broad representation from both on-campus and off-campus faculty. Many of the team members have worked together in various efforts in the past and have demonstrated their ability to be effective.

Results

3524 livestock producers, adult and youth, reported an increased adoption of best management practices, including new technologies, for optimum production and economic sustainability.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
303	Genetic Improvement of Animals
307	Animal Management Systems
601	Economics of Agricultural Production and Farm Management

Outcome #3

1. Outcome Measures

ABM 1.1. Participants have a greater confidence in talking with young people about becoming farmers and ranchers.

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

ABM 1.2. Participants intend to develop formal business plans regarding the succession of their farms and ranches.

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

ABM 1.3. Participants intend to develop formal marketing plans regarding the succession of their farms and ranches.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	41

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The increasing average age of farmers and ranchers brings concerns related to succession. Farmers and ranchers in Colorado are growing older. The average age of Colorado producers was 54.5 in 2002 and 57.0 in 2007, according to the Census of Agriculture. Furthermore, those farm operators aged 55 and older own 44 percent of the land in Colorado. Given the advancing age of producers in Colorado and the amount of land and value of machinery and equipment they own, intergenerational transfer issues are becoming ever more important.

What has been done

ABM team members share feedback and evaluation results of programs which are used in developing new programs and new and/or more effective teaching methodologies.

Results

41 participants reported they intended to develop formal plans regarding the succession of their farms and ranches. NOTE: "marketing" in output is an error.

4. Associated Knowledge Areas

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

Outcome #6

1. Outcome Measures

ABM 1.4. Participants intend to develop formal retirement plans regarding the succession of their farms and ranches.

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

ABM 1.5. Participants intend to develop formal estate plans regarding the succession of their farms and ranches.

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

ABM 1.6. Participants intend to develop ?legacy? plans.

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

ABM 1.7. Participants have improved intra-family communications.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	145

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Improve the management and communications skills of agricultural and rural business managers and their families so as to increase the competitiveness and sustainability of Colorado farms and ranches.

What has been done

The ABM Team provides information and education to Colorado's citizens in order that they can make more informed, goal-oriented decisions about their businesses and their families.

Results

145 participants reported they have improved intra-family communications.

4. Associated Knowledge Areas

KA Code	Knowledge Area
602	Business Management, Finance, and Taxation

Outcome #10

1. Outcome Measures

ABM 2.1. Participants intend to investigate adding a new enterprise to their farms/ranches

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

ABM 2.2. Participants intend to discontinue an existing enterprise on their farms/ranches.

Not Reporting on this Outcome Measure

Outcome #12

1. Outcome Measures

ABM 2.3. Participants intend to not pursue alternative enterprises

Not Reporting on this Outcome Measure

Outcome #13

1. Outcome Measures

ABM 2.4. Participants intend to further investigate strategies for increasing the profitability of their enterprises. (Action)

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	393

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Colorado producers are facing a time of great financial uncertainty and volatility. Prices for many commodities are at all-time highs, but can vary significantly within very short periods of time. Prices for inputs, especially petro-based inputs, are extremely volatile. Higher interest rates and inflation could cause further pressures on profitability in agriculture. The current general national economy is causing investors to look more closely at agriculture lands for investment. These factors are forcing farm and ranch managers to be increasingly more vigilant about their finances and to consider new management and investment strategies.

What has been done

The ABM Team provides information and education to Colorado's citizens in order that they can make more informed, goal-oriented decisions about their businesses and their families.

Results

393 participants reported they intend to investigate strategies for increasing the profitability, including changing enterprise mixes, leasing, and use of crop insurance.

4. Associated Knowledge Areas

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

Outcome #14

1. Outcome Measures

ABM 2.5. Participants intend to implement management strategies for making more informed decisions to sustain profitability and/or reduce risk.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	157

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Colorado producers are facing a time of great financial uncertainty and volatility. Prices for many commodities are at all-time highs, but can vary significantly within very short periods of time. Prices for inputs, especially petro-based inputs, are extremely volatile. Higher interest rates and inflation could cause further pressures on profitability in agriculture. The current general national economy is causing investors to look more closely at agriculture lands for investment. These

factors are forcing farm and ranch managers to be increasingly more vigilant about their finances and to consider new management and investment strategies.

What has been done

The ABM Team provides information and education to Colorado's citizens in order that they can make more informed, goal-oriented decisions about their businesses and their families.

Results

157 participants reported they intend to implement management strategies for making more informed decisions to sustain profitability and/or manage risk.

4. Associated Knowledge Areas

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

Outcome #15

1. Outcome Measures

ABM 2.6. Participants intend to investigate agri-tourism and other alternative enterprises for their farm/ranch businesses.

Not Reporting on this Outcome Measure

Outcome #16

1. Outcome Measures

ABM 2.7. Participants will have sustained profits due to increased revenues and/or decreased costs.

Not Reporting on this Outcome Measure

Outcome #17

1. Outcome Measures

LR 1.1: The number of producers who document range land monitoring activities.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	188

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The livestock industry in Colorado is entering into a time of uncertainty that it's never experienced before. With recent record production and feed cost along with the volatility in the livestock industry the Livestock and Range Team will have to stay very pro-active with its programming efforts and dissemination of information.

What has been done

Members of the work team work closely with animal agriculture and range industry and professionals to determine program goals and objectives. The animal agriculture industry provides valuable partnership opportunities and helps evaluate and expand the scope of Colorado State University Livestock and Range Team.

Results

Colorado ranks 5th in the nation for value of cattle and calves (\$3.2 billion) which is over half of the total market value of agricultural products sold in Colorado. There were 2.6 million cattle and calves in 188 producers reported they use rangeland monitoring documentation. Colorado (livestock and dairy) on January 1, 2009. The contribution from livestock cattle is greater than 3 times that of grains, oilseeds, dry beans and dry peas (\$1.0 billion). According to the 2007 Census of Agriculture, the number of farms in Colorado with livestock cows decreased 6.4% from 1997 to 2007 and the number of farms with all cattle and calves decreased 28.1% during the same 10-year period.

4. Associated Knowledge Areas

KA Code	Knowledge Area
121	Management of Range Resources

Outcome #18

1. Outcome Measures

LR 1.2: Adult and youth livestock producers will gain proficiency in producing profitable animal products.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	4403

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Adult and youth livestock producers will gain proficiency in producing profitable animal products never experienced before.

What has been done

Members of the work team work closely with animal agriculture and range industry and professionals to determine program goals and objectives. The animal agriculture industry provides valuable partnership opportunities and helps evaluate and expand the scope of Colorado State University Livestock and Range Team.

Results

Colorado ranks 5th in the nation for value of cattle and calves (\$3.2 billion) which is over half of the total market value of agricultural products sold in Colorado. There were 2.6 million cattle and calves in Colorado (livestock and dairy) on January 1, 2009. The contribution from livestock cattle is greater than 3 times that of grains, oilseeds, dry beans and dry peas (\$1.0 billion). According to the 2007 Census of Agriculture, the number of farms in Colorado with livestock cows decreased 6.4% from 1997 to 2007 and the number of farms with all cattle and calves decreased 28.1% during the same 10-year period.

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems

Outcome #19

1. Outcome Measures

LR 1.3: Livestock producers, adult and youth will report an increased adoption of best management practices for optimum production and economic sustainability.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	3524

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The livestock industry in Colorado is entering into a time of uncertainty that it's never experienced before, with recent record production and feed cost along with the volatility in the livestock industry.

What has been done

Members of the work team have demonstrated expertise and recognition in areas of livestock and range research and educational efforts. This expertise spans several departments, colleges and disciplines. For example, within the Animal Science Department production expertise in cattle nutrition, reproduction, genetics and meat science are all represented. In addition, members of the work team represent veterinary medicine, rangeland science as well as agricultural economics. The team also has broad representation from both on-campus and off-campus faculty. Many of the team members have worked together in various efforts in the past and have demonstrated their ability to be effective.

Results

3524 livestock producers, adult and youth reported an increased adoption of best management practices for optimum production and economic sustainability.

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

LR: Livestock and range outcomes are dependent on government regulation, public policy, weather, volatility in the market and increasing input costs. These external factors will be addressed in education and research efforts but will still influence participation

ABM: Programming attempts to meet the needs of farmers, ranchers, and other clientele as they face the risks associated with drought and other natural disasters, changes in market prices, the economy, and agriculturally related policies/legislation. Changes in federal and state financial appropriations and availabilities of grant funds will also affect the ability of the ABM Team to deliver successful educational programs and the outcomes of that education.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

LR: A state wide survey has been developed for all Livestock and Range Team members to use. This survey is divided to represent the 4 quarters of the state, NE, SE, SW, NW allowing an overall summary and area-specific summary for all beef programming needs. This survey also allows participants to list specific programming needs and delivery method. This survey will also allow team leaders to develop an entire state wide programming effort when needed.

Evaluations will occur immediately following the educational programs (short term).

Evaluations will occur 6-12 months following the program to determine if changes were incorporated (medium term).

Evaluations will be conducted 2-5 years following the program to determine the sustainability of the change and the economic return gained as a result of the change (long term).

ABM: The ABM Team actively and continuously solicits input from agents, ag lenders, researchers, legislators and policy makers, colleagues, funders, and other stakeholder to determine future educational and informational needs of clientele. Personal response systems (clickers) and various other methodologies are used to test knowledge and understanding levels and to solicit feedback, knowledge gained, and intended actions by participants before, during, and after educational programs. Responses to inter-program questions are often used to change presentations 'on the fly' in order to meet the educational needs of participants. Further, research conducted with colleagues at other universities and anecdotal evidence is used to plan and deliver needed and/or demanded education and information.

Key Items of Evaluation

LR: [from the southeast area of Colorado]

Livestock producers have concern for the level of nitrates in drought stress forage crops. Medium nitrate levels can cause abortions in pregnant cows, losing \$600 to \$700 per calf for the producers. At high levels of nitrates, producers take a chance of losing a \$1000 to \$1500 adult animal as well as her future production loss.

Also, with \$200 to \$300 per ton forage, producers need to know the nutritional level of the feed they provide their livestock. Over feeding animals adds to the producers total cost of production. Under feeding causes animals to decrease production, again affecting

the producers profit levels.

V(A). Planned Program (Summary)

Program # 5

1. Name of the Planned Program

Plant Production Systems

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	25%		15%	
201	Plant Genome, Genetics, and Genetic Mechanisms	0%		20%	
202	Plant Genetic Resources	0%		20%	
204	Plant Product Quality and Utility (Preharvest)	15%		0%	
206	Basic Plant Biology	15%		0%	
213	Weeds Affecting Plants	15%		20%	
216	Integrated Pest Management Systems	15%		25%	
601	Economics of Agricultural Production and Farm Management	15%		0%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	18.1	0.0	26.0	0.0
Actual Paid Professional	20.0	0.0	23.0	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
404236	0	1119506	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
404236	0	1119506	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
547312	0	10898978	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

- Conduct basic and applied research in plant productions systems.
- Workshops and educational classes for producers.
- Utilize demonstration plots and field days to communicate program results.
- Use individual counseling with producers and clientele on specific plant production problems

2. Brief description of the target audience

Individual agricultural producers, homeowners, agribusinesses, and commodity organizations.

3. How was eXtension used?

{No Data Entered}

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	0	0	0	0

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

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	2	167	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- PM 14) New Technologies Expected to be Adopted by Producers

Year	Actual
2013	17

Output #2

Output Measure

- PM 2) Pest diagnostics in field, urban, office, individual settings

Year	Actual
2013	1629

Output #3

Output Measure

- PM 3) Trainings/Classes/Workshops, Field Days, Activity Days

Year	Actual
2013	533

Output #4

Output Measure

- PM 4) Trainings for Volunteers

Year	Actual
2013	239

Output #5

Output Measure

- PM 5) Trainings for Extension Staff

Year	Actual
2013	5

Output #6

Output Measure

- PM 6) Community Meetings Convened [examples: Advisory Groups, Councils, Coalition Meetings, Boards]

Year	Actual
2013	14

Output #7

Output Measure

- PM 7) Direct Communication/Education by field call, telephone and/or e-mail

Year	Actual
2013	3052

Output #8

Output Measure

- PM 8) Newsletters (This is number of newsletters, not number mailed or number of Coloradans who received them.)

Year	Actual
2013	13

Output #9

Output Measure

- PM 9) Websites (number of Websites, not number of hits)

Year	Actual
2013	2

Output #10

Output Measure

- PM 10) Websites hits (number of hits, not number of sites)

Year	Actual
2013	758762

Output #11

Output Measure

- PM 11) Press/News Release or Column (number submitted)

Year	Actual
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2013 33

Output #12

Output Measure

- PM 12) Volunteers (total) in Planned Program

Year	Actual
2013	130

Output #13

Output Measure

- PM 13) Certified Master Volunteers (of those in #12)
Not reporting on this Output for this Annual Report

Output #14

Output Measure

- PM 15) External Grant Dollars

Year	Actual
2013	124572

Output #15

Output Measure

- PM 16) User Fees
Not reporting on this Output for this Annual Report

Output #16

Output Measure

- SFSC 1) Trainings/Classes/Workshops, Field Days, Activity Days

Year	Actual
2013	66

Output #17

Output Measure

- SFSC 2) Direct Communication/Education by telephone and/or e-mail

Year	Actual
2013	1432

Output #18

Output Measure

- SFSC 3) New Technologies Expected to be Adopted by Producers

Year	Actual
2013	4

Output #19

Output Measure

- SFSC 4) External Grant Dollars
Not reporting on this Output for this Annual Report

Output #20

Output Measure

- WOCS 1) Trainings/Classes/Workshops, Field Days, Activity Days

Year	Actual
2013	392

Output #21

Output Measure

- WOCS 10) Press/News Release or Column (number submitted)
Not reporting on this Output for this Annual Report

Output #22

Output Measure

- WOCS 11) Volunteers (total) in Planned Program

Year	Actual
2013	66

Output #23

Output Measure

- WOCS 12) New Technologies Expected to be Adopted by Producers
Not reporting on this Output for this Annual Report

Output #24

Output Measure

- WOCS 13) External Grant Dollars
Not reporting on this Output for this Annual Report

Output #25

Output Measure

- WOCS 14) User Fees
Not reporting on this Output for this Annual Report

Output #26

Output Measure

- WOCS 3) Trainings for Extension Staff
Not reporting on this Output for this Annual Report

Output #27

Output Measure

- WOCS 4) Community Meetings Convened [examples: Advisory Groups, Councils, Coalition Meetings, Boards]
Not reporting on this Output for this Annual Report

Output #28

Output Measure

- WOCS 5) Community Coalitions, Collaborations, Alliances Formed to Address a Specific Issue
Groups: USDA-ARS at Akron & Ft Collins Units
CSU Experiment Station
Colorado Sunflower Association,
Colorado Conservation Tillage Association
Colorado Wheat Research Foundation
Colorado Wheat Administrative Committee
Colorado Association of Wheat Growers
BASF Bayer Crop Science
DuPont Syngenta
Issue: Providing Cropping Systems Education for Producers and their Advisors

Year	Actual
2013	7

Output #29

Output Measure

- WOCS 6) Direct Communication/Education by telephone and/or e-mail
Not reporting on this Output for this Annual Report

Output #30

Output Measure

- WOCS 7) Newsletters (This is number of newsletters, not number mailed or number of Coloradans who received them.)
Not reporting on this Output for this Annual Report

Output #31

Output Measure

- WOCS 8) Websites (number of Websites, not number of hits)

Year	Actual
2013	1

Output #32

Output Measure

- WOCS 9) Websites hits (number of hits, not number of sites)
Not reporting on this Output for this Annual Report

Output #33

Output Measure

- Amount of grant dollars garnered to support crop production systems research
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	Economic impact of the change in behavior reported.
2	Adoption of improved wheat cultivars.
3	PM 1.1 a: Participants will improve or intend to improve their practices, decisions and skills in action through timely access to pest management resources and/or pest identification and IPM implementation.
4	SFSC 1.1: Participants intend to adopt or have adopted and/or increase usage of production practices which will reduce greenhouse gas emissions, increase carbon sequestration, reduce carbon footprint and/or reduce ground water pollutants
5	SFSC 2.1: Participants intend to develop or have developed formal plans regarding succession
6	SFSC 3.1: Participants intend to further investigate alternative marketing strategies for their crop and/or livestock products
7	SFSC 3.2: Participants develop and use business, marketing and production plans
8	SFSC 3.3: Participants have implemented strategies for increasing the profitability of their crop and/or livestock enterprises (Action)
9	SFSC 3.4: Participants have implemented strategies for improving crop yield and quality
10	SFSC 3.5: Participants project they will have increased revenues and/or decreased costs
11	SFSC 4.1: Participants use a record-keeping system for financial and production records
12	SFSC 5.1: Participants have accessed resources, information and networks to improve their production enterprises
13	WOCS 1.1: % wheat (or other crop) acres planted to CSU and other recently released improved varieties.
14	WOCS 1.2: % of field crop acreage under crop and soil management systems that result in an enhancement of soil health and crop productivity (includes but is not limited to no-till or conservation tillage practices)
15	WOCS 1.3: % of producers using new marketing and/or management techniques for enhancing enterprise efficiency and optimizing net profits
16	WOCS 1.4: % of producers using research based nutrient management practices for cropping systems
17	WOCS 1.5: % of producers using research based integrated pest management practices for field crops

18	WOCS 2.1: % of farmed acreage planted to diversified cropping systems.
19	WOCS 2.2: % of farmed acreage managed with research based best management practices for water use crop efficiency
20	Adoption of crop production technology as measured by agricultural statistics
21	WOCS - Number of farmed acres planted to diversified cropping systems.
22	PM: Percentage of students in Colorado public schools who benefit from their schools' using low-risk pest management strategies and practices.
23	Bean Breeding
24	Traditional and Bioenergy Crops and Cropping Systems in Western Colorado
25	Colorado Potato Breeding Program

Outcome #1

1. Outcome Measures

Economic impact of the change in behavior reported.

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Adoption of improved wheat cultivars.

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Development of improved wheat cultivars serves the wheat industry in Colorado and the western Great Plains through reduction of production costs and increased disease and insect resistance providing minimized environmental impacts and improved marketing options.

What has been done

In fall 2013, experimental line CO09W293 was advanced for Foundation seed production to enable release as a new cultivar in fall 2014. CO09W293 is a hard white winter wheat (HWW) from the cross KS01HW152-6/HV9W02-276W made in 2005.

In 2013 techniques were adopted for dense genome-wide marker analysis using "genotyping by sequencing" (GBS) on 1,900 breeding lines. Since implementation of GBS approximately 223 million marker datapoints have been obtained.

Results

Since inception of the program, 37+ CSU-bred wheat cultivars account for 61.3% (or 77.4% of the accounted-for acreage) of Colorado's 2.4 million acres (2012 crop). Average wheat grain yields in Colorado have more than doubled with at least 50% of this increase attributed to improved cultivars. Estimates of economic returns in Colorado from CSU-developed wheat varieties were approximately \$43 million for the 2011 crop alone. These estimates include yield increases resulting from improved CSU varieties (\$29 million), marketing benefits resulting from CSU varieties with enhanced end-use quality (\$9 million), and yield-protection resulting from adoption of CSU varieties carrying herbicide tolerance traits for winter annual grassy weed control (\$5 million).

4. Associated Knowledge Areas

KA Code	Knowledge Area
201	Plant Genome, Genetics, and Genetic Mechanisms
202	Plant Genetic Resources
204	Plant Product Quality and Utility (Preharvest)
206	Basic Plant Biology

Outcome #3

1. Outcome Measures

PM 1.1 a: Participants will improve or intend to improve their practices, decisions and skills in action through timely access to pest management resources and/or pest identification and IPM implementation.

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

SFSC 1.1: Participants intend to adopt or have adopted and/or increase usage of production practices which will reduce greenhouse gas emissions, increase carbon sequestration, reduce carbon footprint and/or reduce ground water pollutants

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

SFSC 2.1: Participants intend to develop or have developed formal plans regarding succession

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

SFSC 3.1: Participants intend to further investigate alternative marketing strategies for their crop and/or livestock products

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

SFSC 3.2: Participants develop and use business, marketing and production plans

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

SFSC 3.3: Participants have implemented strategies for increasing the profitability of their crop and/or livestock enterprises (Action)

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	12

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The Small Farms and Specialty Crops Work Team strives to increase the sustainability and profitability of small and mid-sized farms whose operators report farming as their major occupation and report sales of less than \$250,000, or between \$250,000 and \$1,000,000 in less commodity oriented, diverse channels using a broad array of methodologies to provide education to producers and Team members.

What has been done

Adoption of improved, productive, and sustainable direct market, value added, and/or entrepreneurial agricultural systems will assure producers will continue to meet their business goals, and that individuals, families, and communities will have a safe and sufficient food supply.

Results

12 Participants have implemented strategies for increasing the profitability of their crop and/or livestock enterprises; 43 participants reported they had learned about these same strategies.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management

Outcome #9

1. Outcome Measures

SFSC 3.4: Participants have implemented strategies for improving crop yield and quality

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	12

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The Small Farms and Specialty Crops Work Team strives to increase the sustainability and profitability of small and mid-sized farms whose operators report farming as their major occupation and report sales of less than \$250,000, or between \$250,000 and \$1,000,000 in less commodity oriented, diverse channels using a broad array of methodologies to provide education to producers and Team members.

What has been done

Small Farms and Specialty producers are attaining their business goals while exploring and developing their business management practices.

Results

12 participants reported they have implemented strategies for improving crop yield and quality; 43 reported they had learned about these strategies.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management

Outcome #10

1. Outcome Measures

SFSC 3.5: Participants project they will have increased revenues and/or decreased costs

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

SFSC 4.1: Participants use a record-keeping system for financial and production records

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	16

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The Small Farms and Specialty Crops Work Team strives to increase the sustainability and profitability of small and mid-sized farms whose operators report farming as their major occupation and report sales of less than \$250,000, or between \$250,000 and \$1,000,000 in less commodity oriented, diverse channels using a broad array of methodologies to provide education to producers and Team members.

What has been done

Small Farms and Specialty producers are attaining their business goals while exploring and developing their business management practices.

Results

16 participants report they use a record-keeping system for financial and production records.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management

Outcome #12

1. Outcome Measures

SFSC 5.1: Participants have accessed resources, information and networks to improve their production enterprises

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	17

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The Small Farms and Specialty Crops Work Team strives to increase the sustainability and profitability of small and mid-sized farms whose operators report farming as their major occupation and report sales of less than \$250,000, or between \$250,000 and \$1,000,000 in less commodity oriented, diverse channels using a broad array of methodologies to provide education to producers and Team members.

What has been done

Small Farms and Specialty producers are attaining their business goals while exploring and developing their business management practices.

Results

17 participants reported they have accessed resources, information and networks to improve their production enterprises. 238 participants reported they had gained knowledge in this same area.

The 2013 CSU Larimer County Extension office held its third Building Farmer/Rancher program from October 10 to December 5, 2013. Eleven of the 14 registered for the class completed their business plan to receive a Certificate of Completion. Many of the participants were interested in beginning a small vegetable production operation. Some were not quite as traditional. One participant will grow grass hay and alfalfa using draft horses as his only source of power. Another participant is exploring the viability of a small community veganic farm growing organic vegetables, fruits, flowers and grains. Two participants will start an ag production business focusing on herbs and salad mixes. Finally one participant will revisit the viability of a small grass hay, sheep, poultry and honey bee farm. The goal of creating a business plan is to have the students realistically consider their mission/values, their strengths, weaknesses, opportunities, and threats, identifying their markets, and creating a realistic budget. This is the first step in putting their ideas down on paper and using their business plan to help secure loans to begin their operation.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management

Outcome #13

1. Outcome Measures

WOCS 1.1: % wheat (or other crop) acres planted to CSU and other recently released improved varieties.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1400000

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Wheat is the most widely grown crop in Colorado with an average of 2.1 million acres harvested in 2001 - 2010. Crop value over the same period has averaged \$313 million. This compares favorably to grain corn, which has averaged 980,000 acres and \$460 million in crop value over the same period. The difference in crop value per acre is explained by the fact that roughly 90% of Colorado's wheat is grown under dry-land conditions, while about 75% of corn grown for grain is irrigated. Approximately 8% of Colorado wheat production comes from limited and fully irrigated conditions. Wheat for limited irrigation conditions is attracting more and more interest because the timing and amount of its water use minimizes competition with summer crops (alfalfa, corn, sunflower, sugar beet and soybean).

Wheat assumes even greater importance in counties classified as agriculturally dependent, accounting for nearly 24% of all crop sales and over 5% of all agricultural sales (includes crop plus animal and animal product sales). Wheat returns more than 25% of crop sales in eight Colorado counties: Kiowa (98%), Washington (53%), Cheyenne (49%), Baca (>25%), Kit Carson (>25%), Sedgwick (>25%), Logan (>25%), and Prowers (>25%).

There are approximately 9,000 wheat producers in Colorado, and their crop is an important part of the state's agricultural exports. Approximately 80% of the state's wheat production is exported, with the top 10 purchasers in 2009-2010 being Nigeria, Japan, Mexico, Philippines, Korean Republic, Taiwan, Venezuela, Colombia, Peru, and Indonesia.

What has been done

WOCS emphasizes extensively produced field crops, including potatoes, and producers grossing more than \$250,000 in annual sales. WOCS clientele tend to be associated with multi-generational farm family operations geared toward commodity production.

Results

57% of Colorado's 2.4 million acres are planted to Colorado State University varieties.

4. Associated Knowledge Areas

KA Code	Knowledge Area
201	Plant Genome, Genetics, and Genetic Mechanisms
202	Plant Genetic Resources

Outcome #14

1. Outcome Measures

WOCS 1.2: % of field crop acreage under crop and soil management systems that result in an enhancement of soil health and crop productivity (includes but is not limited to no-till or conservation tillage practices)

Not Reporting on this Outcome Measure

Outcome #15

1. Outcome Measures

WOCS 1.3: % of producers using new marketing and/or management techniques for enhancing enterprise efficiency and optimizing net profits

Not Reporting on this Outcome Measure

Outcome #16

1. Outcome Measures

WOCS 1.4: % of producers using research based nutrient management practices for cropping systems

Not Reporting on this Outcome Measure

Outcome #17

1. Outcome Measures

WOCS 1.5: % of producers using research based integrated pest management practices for field crops

Not Reporting on this Outcome Measure

Outcome #18

1. Outcome Measures

WOCS 2.1: % of farmed acreage planted to diversified cropping systems.

Not Reporting on this Outcome Measure

Outcome #19

1. Outcome Measures

WOCS 2.2: % of farmed acreage managed with research based best management practices for water use crop efficiency

Not Reporting on this Outcome Measure

Outcome #20

1. Outcome Measures

Adoption of crop production technology as measured by agricultural statistics

Not Reporting on this Outcome Measure

Outcome #21

1. Outcome Measures

WOCS - Number of farmed acres planted to diversified cropping systems.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1087

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Cropping systems research and extension activities contribute significantly to the profitability and sustainability of field crop (including hayed or ensiled forages) production in Colorado. This is a key component of the state's rural economy. The goal of this program is to support sustainable and profitable field crop production systems in Colorado.

What has been done

The goal of this program is to support sustainable and profitable field crop production systems in Colorado.

Results

1087 acres were reported to be planted to diversified cropping systems.

4. Associated Knowledge Areas

KA Code	Knowledge Area
204	Plant Product Quality and Utility (Preharvest)

Outcome #22

1. Outcome Measures

PM: Percentage of students in Colorado public schools who benefit from their schools' using low-risk pest management strategies and practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	51

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Increase awareness, visibility and support for community IPM through presentations to a variety of audiences, national collaborations, and continued efforts to secure funding.

What has been done

Twenty-four presentations on community IPM were made, with more than 1,000 face-to-face contacts. Audiences include housing and dining managers, custodial and facility managers, teachers and principals in public schools, nurses, environmental health specialists, and the general public. Publications include two abstracts at the National ESA meeting, a 44-page weed identification guide, one website, one blog and one Flickr (photo) site. New funding was received;

five grants were funded and two are pending.

We have increased the number of personnel interested and aware of the program through newsletters (recipients increased from 283 to 340), Healthy Communities blog and YouTube videos (182 visitors and 2,261 visitors respectively). We have increased partnerships with federal, state and county agencies in this program. The following groups actively participate: Colorado Department of Agriculture, county health departments, National Environmental Health Association, and Colorado Department of Education.

Sixty-one hours of professional development training, including participation in a national meeting, increased technical skills related to community IPM.

Impact: Eighty-seven percent of schools in Colorado and Utah said that pest management was important, great or very great concern. However only 45% of schools said they were familiar with IPM and only 17% of school districts have an IPM coordinator.

We wrote and piloted a 3rd - 5th grade science curriculum using IPM. One of the teachers, from a STEM elementary school, said: "My kids loved the entire unit. They loved them all! We learned a ton and had a great time doing so."

Results

From October 2010 to December 2013, the number of school districts participating in the program has increased from two to 14. These fourteen school districts represent 51% of the students in Colorado public schools. There were 15 schools inspected in four school districts in 2013.

4. Associated Knowledge Areas

KA Code	Knowledge Area
216	Integrated Pest Management Systems

Outcome #23

1. Outcome Measures

Bean Breeding

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The primary objectives of this project are to improve dry bean production in the USA, while reducing environmental impact and providing an economically viable food commodity with associated health attributes.

What has been done

Colorado State University concluded the final year as coordinator for the Legume ipm PIPE national network that monitored the occurrence of soybean rust, common rust, white mold, root rots, bacterial and viral diseases, and insect pests. Through this program and continued research on genetics and breeding for tolerance to heat and drought and broadening the genetic base of major bean market classes through utilization of exotic germplasm the project will continue to provide information and improved crop varieties to bean producers.

Results

Commercial dry bean production in Colorado was estimated at 38,000 acres in 2013. The Dry Bean Breeding Project initiated a "Fast Track" project to develop "slow darkening" pinto bean varieties for the High Plains and western U.S. The project increased 200 F4 lines for winter evaluations in New Zealand to test for yield and agronomic traits. CSU cultivars account for approximately 50% of cultivars grown in Colorado and two new Nuna bean germplasm lines were released to the public. Two recently released pinto bean lines, 'Longs Peak' and 'Croissant' continue to provide the public with adapted high yielding cultivars with excellent seed quality.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
201	Plant Genome, Genetics, and Genetic Mechanisms
202	Plant Genetic Resources
206	Basic Plant Biology
213	Weeds Affecting Plants
216	Integrated Pest Management Systems

Outcome #24

1. Outcome Measures

Traditional and Bioenergy Crops and Cropping Systems in Western Colorado

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

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

2013

0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The primary objective of this project is to evaluate, develop, and integrate traditional/alternative and industrial/bioenergy crops and cropping systems to promote an economically and environmentally sustainable environment in the Western Colorado region.

What has been done

Trials have been conducted at the Fruita Research Center on kura clover under furrow irrigation through no-till as well as no-till with a pre plant herbicide application and strip till with varying nitrogen applications to determine biomass and irrigation regimes as well as sediment loss.

Results

Initial results showed that strip tillage is a promising option for producing corn in a kura clover living mulch cropping system and the best option of those treatments tested for producing the largest quantity of high forage quality crop aftermath. This residue can be grazed after grain harvest and is a valuable characteristic of the living mulch cropping system. Further studies will be conducted on biomass and bioenergy crops such as wildrye and various hybrids and other perennial plant species.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
201	Plant Genome, Genetics, and Genetic Mechanisms
202	Plant Genetic Resources
206	Basic Plant Biology
213	Weeds Affecting Plants
216	Integrated Pest Management Systems
601	Economics of Agricultural Production and Farm Management

Outcome #25

1. Outcome Measures

Colorado Potato Breeding Program

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The major objectives of the Colorado Potato Breeding and Selection Program are to address the needs of Colorado growers to have new potato cultivars (russets, reds, chippers, and specialties) with increased yield, improved quality, improved nutritional characteristics, resistance to diseases and pests, and tolerance to environmental stresses. by assessing production, adaptability, marketability, and other characteristics of advanced selections

What has been done

The primary emphasis is placed on the development of russet cultivars. The balance of the breeding effort is devoted to developing red, specialty, and chipping cultivars. This broad approach is important because it recognizes the diverse markets accessed by potato growers throughout Colorado and many other states in the region. Several selections were released for exclusive release in 2013 for on-farm trials with growers in the San Luis Valley of Colorado. Selections released in 2013 include Masquerade, Crestone Russet, and Mercury Russet. In 2013, AC99375-1RU, a Russet cultivar that shows tolerance for the PVYn viurs will be named.

Results

Since 1975, there have been 27 potato cultivars/clonal selections released by Colorado State University (CSU) or in cooperation with other agencies. CSU releases accounted for 58% of the 55,100 acres planted to fall potatoes in Colorado in 2012. Colorado cultivars and clonal selections accounted for 46% of the 13,286 acres of Colorado certified seed accepted for certification in 2012. Three of the top 10 russet cultivars grown for seed in the U.S. [Russet Norkotah-S3 (#5), Canela Russet (#8), Rio Grande Russet (#10), in 2012 were developed by the Colorado program. For reds, Sangre-S11 ranked #5. For colored-fleshed specialties, Mountain Rose and Purple Majesty both continue to be ranked #1 among red- and purple-fleshed cultivars.

4. Associated Knowledge Areas

KA Code	Knowledge Area
201	Plant Genome, Genetics, and Genetic Mechanisms
202	Plant Genetic Resources
206	Basic Plant Biology
601	Economics of Agricultural Production and Farm Management

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

Pest Management (PM)

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
 - weather conditions such as drought, flooding, hail, moisture/temperature trends influencing pathogen and pest life cycles, in addition to abiotic stress effects, which will require short/medium/long term redirection of effort to accommodate program needs for pest diagnostics and management strategies
 - economic issues that may lead more individuals to acquire and/or redirect their IPM strategies according to resource limitations or opportunities
 - continued funding through federal, state and county agencies
 - changes by governmental and non-governmental agencies to irrigation and pest management requirement

Small Farms & Specialty Crops (SFSC)

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

Drought: affects productive capacity and is a business risk

Economy: affects direct market purchasing power and is a business risk

Appropriations changes: ABM Small Farm Specialist is a great asset and loss of that position would negatively impact outcomes

Public Policy changes: food safety policies in local markets can be a business risk, immigration policy is currently a risk for ag labor

Competing public priorities: loss of traditional farming systems via public interest in market farms (dismissive of traditional farming) can cause systemic damage to the ag input supply sector as demand for these inputs wanes, loss of input providers, and make administration and management of ditch systems problematic for irrigation

Competing programmatic challenges: Extension covering several important programs can deplete time and effort toward these POW outcomes

Population changes: market demand may vary with population changes, requiring new marketing strategies and products, also a business risk.

Wheat & other Cropping Systems (WOCS)

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Public Policy changes
- Government Regulations

Public policies and associated regulations and weather and other natural diseases will affect the adoption of new crop production technologies. Economic conditions affect commodity prices and, thus, producers' interests in and willingness to adopt new technologies and practices. Most of the advances are multi-year activities and cumulative rather than episodic in nature

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Pest Management (PM)

- For this Planned Program, evaluation criteria will be adapted from the National Roadmap for IPM and will be performed by distributing written surveys to all program participants.
- The surveys will be done pre and post program.
- The surveys will ask questions focused primarily on pest biology, education and management.
- The surveys will help us measure the percentage of program participants who increased their knowledge on pest biology, education, and management.
- The results of the surveys will be distributed to or will be used for program prioritization and reporting by team members.

One measure of the impact of the Pest Management Work Team and BSPM IPM Program can be obtained by tracking changes in timeliness and accuracy of pest diagnostics, pest management practices, knowledge gained and behavior. For example, high correlation between changes in pesticide use and severity of pest problems would indicate practitioners have adopted sound pest management decision making with benefits to the environment, stakeholder safety, and economic return. Periodic performance surveys of extension agents, research scientists and BSPM IPM specialists are conducted to solicit input on effectiveness from statewide extension faculty (via pre/post test instruments at meetings, clinics, field days), other clientele and commodity groups. Additional feedback will be obtained from stakeholders and administrators on IPM and individual specialist performance. Behavior change surveys have been developed and implemented to determine impact 6 months and a year after participant exposure to extension workshops. These survey instruments utilize onsite iClicker systems and email addresses

of the participants and the Internet product Survey Monkey.

Survey Tools: the following sets of questions can help team members capture and report relevant information that quantifies the impact and behavior changes of Pest Management programs and products on stakeholders as measured by the following indicators, outcomes and outputs. It is recommended that 5 to 10 question surveys be adapted to the event or program, and presented as a printed or electronic form (e.g., PowerPoint, iClicker technology, etc.) The following are examples of questions that have been used or modified for WT Survey Tools:

- What was the economic impact of damage by the pest/disease/weed in 2013: a) 0, b) 25, c) 50, d) 100, e) \$150 or more/acre
- Place a pest management value on CSU extension and research from which you have benefitted - a) \$0, b) 25, c) 50, d) 100, e) more than \$125 per acre
- Has your pest biology and/or pest management knowledge increased as a result of this program by: a) 0, b) 25, c) 50, d) 75, e) 100%
- As a result of this program, will you change your action, behavior, recommendation when managing a pest: a) 0, b) 25, c) 50, d) 75, e) 100% probability
- My participation at this program resulted in a total cost (travel, lodging, registration, food, etc) and investment to the county of: a) 10, b) 25, c) 50, d) 100, e) more than \$125
- Today's speaker provided pest biology and/or management information that I can and will use: a) strongly agree, b) agree, c) neutral, d) disagree, e) strongly disagree
- What monetary value would you place on today's workshop: a) \$0, b) \$10, c) \$25, d) \$50, e) \$100
- What value change have you gained by using pest management knowledge learned from this and other CSU programs in [wheat] [you add the crop of interest]: a) 0, b) 5, c) 10, d) 20, e) more than 25%
- Does CSU Extension and/or Research programs and services have a positive economic impact on the community in which you live: a) strongly agree, b) agree, c) neutral, d) disagree, e) strongly disagree
- Can you identify [Iris yellow spot virus on onions] [you add the crop & disease/pest of interest]: a) strongly agree, b) agree, c) neutral, d) disagree, e) strongly disagree.

Small Farms & Specialty Crops (SFSC)

For this Planned Program, evaluation will be performed by:

- Evaluating impacts pre and post with written and online instruments based on stated learning and action outcomes in this POW
- Using surveys and questionnaires with participants to elicit immediate, and in some cases, longer term changes in behavior, attitudes and practices because they participated in this team's programs.

Wheat & Other Cropping Systems (WOCS)

For this Planned Program, evaluation will be performed by [for example, distributing written surveys to all program participants.]

- The surveys will be done pre and post program
- The surveys will ask questions focused primarily on knowledge and skills gained and intention to change behaviors or use knowledge & skills gained. Follow-up surveys will ask for actual changes made and practices used as well as their economic or welfare benefits.
- The surveys will help us measure the percentage of program participants who increased people's knowledge and skills as well as the profitability and sustainability of

people's business enterprises (primarily farms & ranches).

The results of the surveys will be distributed to or will be used for developing further program plans for the work team as well as developing impact reports for stakeholders.

Key Items of Evaluation

WOCS: CASS reports for 2013 that 56.8% of 2.2 million acres are planted to CSU wheat varieties.

Colorado's Agricultural Statistics Service report for Wheat variety plantings can be found at: http://www.nass.usda.gov/Statistics_by_State/Colorado/Publications/Special_Interest_Reports/WWVARIETY13.pdf. And, according to a report from Colorado's Wheat Administrative Committee website, 2013 harvest was done on 1.5 million acres with an average yield of 29 bu/acre = 43.5 million bushels. Average acres & yields are: 2.1 million acres and 35 bushels per acre average = 73.4 million bushels/year

PM: The Tri River Area Pest Management Workshop is designed to give licensed pesticide applicators, private and commercial, an opportunity to gather all continuing education credits (CEC's) required to maintain their licenses at a single workshop. Applicators are required to get CEC's every three years, so attendance is must for most. The ultimate goal of the Tri River Area workshop is to attract as many applicators as possible to attend whether they need CEC's or not. The way to achieve this goal is to put together a quality program at a reasonable price.

A total of 971 people have registered to attend the workshop since 2009. This represents 659 individuals. Of these 659 individuals, 207 (31.3%) have attended more than one workshop in the past five years. Sixty two individuals (9.4%) have attended three or more workshops in the past five years. It is safe to say that at least 10% of registrants are attending even though they do not need CEC's.

Four new school districts are participating in School IPM. Assuming that every school in our active districts are practicing IPM (12 school districts and 318,043 students) and every school in our initial districts are practicing IPM (2 school districts and 115,531 students), 51% of the students in Colorado schools benefit from IPM.

SFSC: Workshop evaluations have been distributed in all years, but the questions were changed in 2013 to estimate whether the program made any difference in the way the attendee did business. The question was worded "Will anything you learned in this workshop change the way you do business?" Forty-four evaluations were returned from a total of 179 registrants (24.6%). Of these 30 left the question blank, either because they hadn't decided, weren't in a position to make management decisions, or for other reasons. Of the 14 who answered the question, 12 had a yes answer. So depending on how you view the totals, 86% of those who answered the question said the program would change some aspect of the way they conducted business. 27.3% of individuals who had an opportunity to answer the question said it would affect the way they did business. On the other side, 4.5% of those who had the opportunity to express an opinion said it would not affect the way they conduct business.

V(A). Planned Program (Summary)

Program # 6

1. Name of the Planned Program

Natural Resources and Environment

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%		20%	
111	Conservation and Efficient Use of Water	20%		20%	
121	Management of Range Resources	0%		5%	
123	Management and Sustainability of Forest Resources	0%		5%	
205	Plant Management Systems	25%		10%	
206	Basic Plant Biology	0%		5%	
216	Integrated Pest Management Systems	15%		15%	
307	Animal Management Systems	20%		10%	
605	Natural Resource and Environmental Economics	0%		10%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	28.0	0.0	11.0	0.0
Actual Paid Professional	19.0	0.0	13.0	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
384024	0	887158	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
384024	0	887158	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
519946	0	8956765	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

- Conduct basic and applied research on environmental and natural resources issues.
- CMG EDUCATION Total hours of Continuing Education reported by all CMG volunteers

- CMG EDUCATION Number of Extension staff (agents, specialists, CMG program assistants) days spent HOSTING or FACILITATING CMG education
 - CMG EDUCATION Number of Extension staff (agents, specialists, CMG program assistants) days spent on CURRICULUM DEVELOPMENT and producing other educational products (websites, etc.) for the CMG program
 - CMG EDUCATION Number of Extension staff (agents, specialists, CMG program assistants) days spent TEACHING CMG volunteers (basic and continuing education)
 - CMG OUTREACH One-to-one contacts at the office and in the field - including one-to-one contacts by phone, office walk-ins, diagnostic clinic at the office, e-mails, Ask an Expert questions and house calls
- VOLUNTEER HOURS
 - CMG OUTREACH Apprentice CMG volunteers: total volunteer HOURS
 - CMG OUTREACH Circulation for newspapers/print media where CMG articles are published
 - CMG OUTREACH Continuing CMG Volunteers: NUMBER
 - CMG OUTREACH Continuing CMG Volunteers: Total volunteer HOURS
 - CMG OUTREACH Emeritus, limited activity, and affiliate CMG volunteers NUMBER OF
 - CMG OUTREACH Estimate PERCENTAGE (%) of total CMG contacts that served minority or underserved (as defined for your county) clientele
 - CMG OUTREACH Food Banks - If your CMG program works with directly or indirectly with local food banks, please record the pounds of fresh produce donated.
 - CMG OUTREACH Number of Apprentice CMGs employed in the Green Industry (information found on CMG application)
 - CMG OUTREACH Number of Fact Sheets, PlantTalk and CMG GardenNotes distributed by CMG volunteers
 - CMG OUTREACH TOTAL VOLUNTEER CONTACTS for all CMG activities
 - CMG OUTREACH TOTAL VOLUNTEER HOURS for all CMG volunteer activities
 - CMG OUTREACH Newsletters - number mailed or emailed
 - CMG OUTREACH Website/BLOGS maintained by CMG volunteers - hours spent developing and in maintenance
 - CMG OUTREACH Website/BLOGS maintained by CMG volunteers - number of hits

- CMG OUTREACH Information booths and clinics (one-to-one and small group contacts in an public setting) - including clinics at nurseries, garden shows (including Colorado Garden Show, and Home and Patio Show), farmers' markets, county fairs, state fairs, and other events where CMGs staff an informational booth. NUMBER OF CONTACTS
- CMG OUTREACH Information booths and clinics (one-to-one and small group contacts in an public setting) - including clinics at nurseries, garden shows (including Colorado Garden Show, and Home and Patio Show), farmers' markets, county fairs, state fairs, and other events where CMGs staff an informational booth. VOLUNTEER HOURS
- CMG OUTREACH One-to-one contacts at the office and in the field - including one-to-one contacts by phone, office walk-ins, diagnostic clinic at the office, e-mails, Ask an Expert questions and house calls
NUMBER OF CONTACTS
- CMG OUTREACH Classes and group presentations - including all classroom type presentations and workshops where instruction is give on a group basis. This includes classes taught by Master Gardeners, and where Master Gardeners assist as room monitors/hosts. It includes classes for general public, green industry, schools, youth groups, and Master Gardeners. (For example: Speakers bureau, ProGreen room monitors, Twilight Garden Series) NUMBER OF CONTACTS
- CMG OUTREACH Classes and group presentations - including all classroom type presentations and workshops where instruction is give on a group basis. This includes classes taught by Master Gardeners, and where Master Gardeners assist as room monitors/hosts. It includes classes for general public, green industry, schools, youth groups, and Master Gardeners. (For example: Speakers bureau, ProGreen room monitors, Twilight Garden Series) VOLUNTEER HOURS
- CMG OUTREACH Community Greening and Gardening Projects - including all activities where Master Gardeners are assisting with community gardening projects, community greening projects, or other hands-on gardening activities, i.e., where the Master Gardeners is assisting in actual hands-on gardening projects. Includes demonstration gardens and research plots. (For example, Arbor Day projects, Children's Hospital Garden, community gardens, Earth Day project, Habitat for Humanity, Hudson gardens, jail gardens, Loveland youth garden project, nature centers, PERC Gardens, Praying Hands Ranch, Pueblo Zoo, school garden project, tree plantings, and Victim's Outreach garden) NUMBER OF CONTACTS
- CMG OUTREACH Community Greening and Gardening Projects - including all activities where Master Gardeners are assisting with community gardening projects, community greening projects, or other hands-on gardening activities, i.e., where the Master Gardeners is assisting in actual hands-on gardening projects. Includes demonstration gardens and research plots. (For example, Arbor Day projects, Children's Hospital Garden, community gardens, Earth Day project, Habitat for Humanity, Hudson gardens, jail gardens, Loveland youth garden project, nature centers, PERC Gardens, Praying Hands Ranch, Pueblo Zoo, school garden project, tree plantings, and Victim's Outreach garden) VOLUNTEER HOURS
- CMG OUTREACH Number of apprentice CMG volunteers
- CMG OUTREACH Number of Colorado Gardener Certificate, CGC students
- CMG OUTREACH Print Media - CMG-written newspaper, magazine, and newsletter articles
NUMBER WRITTEN
- CMG OUTREACH Print Media - CMG-written newspaper, magazine, and newsletter articles
VOLUNTEER HOURS spent developing/writing
- CMG OUTREACH Support of CMG Program - including advisory boards, CMG committee meetings (not related to specific projects) office filing and assistance, and other behind the scenes work that does not directly contact the public. VOLUNTEER HOURS
- CMG OUTREACH Support of CMG Program - including advisory boards, CMG committee meetings (not related to specific projects) office filing and assistance, and other behind the scene work that does not directly contact the public. NUMBER OF CONTACTS
- CMG OUTREACH Radio and TV - number of programs, show or appearances by CMG volunteers
- CMG OUTREACH Radio and TV - programs, show or appearances by CMG volunteers
ESTIMATED AUDIENCE
- CMG OUTREACH Radio and TV programs, show1 or appearances by CMG volunteers
VOLUNTEER HOURS SPENT

- CMG VOLUNTEER MGT Agent/specialist/program coordinator/Extension staff days spent on CMG volunteer and program management
- CMG Youth - All outreach activities specifically targeting a youth audience NUMBER OF CMG VOLUNTEERS INVOLVED IN YOUTH PROJECTS
- CMG Youth - All outreach activities specifically targeting a youth audience NUMBER OF YOUTH CONTACTS
- CMG Youth - All outreach activities specifically targeting a youth audience VOLUNTEER HOURS DEVOTED TO YOUTH PROJECTS
- CMG Youth - Number of youth gardening projects that received assistance from CMG volunteers (including 4-H, K-12 and any other youth programs/organizations)
- HORT FM - Farmers' Market administration - agent hours
- HORT FM - Farmers' Market administration - FM coordinator and other Extension staff (hours)
- HORT FM - Farmers' Market estimated attendance
- HORT FM - Farmers' Market gross sales (\$)
- HORT FM - Farmers' Market number of participating vendors
- HORT FM - Farmers' Market-specific volunteer hours (OK if these have also been included in TOTAL CMG VOLUNTEER HOURS - don't worry about double-counting!)
- HORT Telephone, e-mail, other electronic communication
- HORT Demonstration garden management (total agent/coordinator/volunteer DAYS invested)
- HORT Demonstration gardens built/maintained (Plant Select, High and Dry, Xeriscape, etc)
- NUMBER OF GARDENS
- HORT eXtension - Ask an Expert (estimated time spent responding to questions in HOURS)
- HORT Extension Fact Sheets, CMG Notes, PlantTalk Colorado scripts written; other writing for CSU Extension (number)
- HORT Newspaper, magazine, newsletter articles, blogs written (number)
- HORT Presentations, Trainings, Classes, Workshops, Webinars, Updates, Field Days given/taught (but NOT CO Master Gardener)
- HORT Presentations, Trainings, Classes, Workshops, Webinars, Updates, Field Days given/taught (but NOT CO Master Gardener) including participation and planning in events that are partnerships such as symposiums, conferences, garden walks, etc.
- HORT User fees generated (Lawncheck, Tree Team, other fee generation/income) DOLLARS GENERATED
- HORT Websites, blogs developed and maintained - number of hits
- HORT Websites, blogs maintained (number)
- NPE-1 No. of NPM Certification Courses (1 course = 3 sessions totaling approx 12.5 contact hrs.)
- NPE-10 External Grant Dollars
- NPE-11 User Fees (gross \$ collected from NPM courses and classes, material sales etc.)
- NPE-12 No. of Agencies Partnering/Collaborating (specify)
- NP

2. Brief description of the target audience

Individual agricultural producers, landowners, commodity groups, regulatory agencies, agribusinesses, and local, state, and federal land management agencies.

3. How was eXtension used?

{No Data Entered}

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	351683	857989	3644	57500

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

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	45	77	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- CMG OUTREACH: Apprentice CMG volunteers: total volunteer HOURS

Year	Actual
2013	0

Output #2

Output Measure

- CMG OUTREACH: Continuing CMG Volunteers: NUMBER

Year	Actual
2013	0

Output #3

Output Measure

- CMG OUTREACH: Continuing CMG Volunteers: Total volunteer HOURS

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

2013 0

Output #4

Output Measure

- CMG OUTREACH: Emeritus, limited activity, and affiliate CMG volunteers NUMBER OF

Year	Actual
2013	0

Output #5

Output Measure

- CMG OUTREACH: Estimate PERCENTAGE (%) of total CMG contacts that served minority or underserved (as defined for your county) clientele

Year	Actual
2013	0

Output #6

Output Measure

- CMG OUTREACH: Food Banks -- If your CMG program works with directly or indirectly with local food banks, please record the pounds of fresh produce donated.

Year	Actual
2013	0

Output #7

Output Measure

- CMG EDUCATION: Total hours of Continuing Education reported by all CMG volunteers

Year	Actual
2013	0

Output #8

Output Measure

- CMG EDUCATION: Number of Extension staff (agents, specialists, CMG program assistants) days spent HOSTING or FACILITATING CMG education

Year	Actual
2013	0

Output #9

Output Measure

- CMG EDUCATION: Number of Extension staff (agents, specialists, CMG program assistants) days spent on CURRICULUM DEVELOPMENT and producing other educational products (websites, etc.) for the CMG program

Year	Actual
2013	0

Output #10

Output Measure

- CMG EDUCATION: Number of Extension staff (agents, specialists, CMG program assistants) days spent TEACHING CMG volunteers (basic and continuing education)

Year	Actual
2013	0

Output #11

Output Measure

- CMG OUTREACH: One-to-one contacts at the office and in the field including one-to-one contacts by phone, office walk-ins, diagnostic clinic at the office, e-mails, Ask an Expert questions and house calls VOLUNTEER HOURS

Year	Actual
2013	0

Output #12

Output Measure

- CMG OUTREACH: Number of Apprentice CMGs employed in the Green Industry (information found on CMG application)

Year	Actual
2013	0

Output #13

Output Measure

- CMG OUTREACH: Number of Fact Sheets, PlantTalk and CMG GardenNotes distributed by CMG volunteers

Year	Actual
2013	0

Output #14

Output Measure

- CMG OUTREACH: TOTAL VOLUNTEER CONTACTS for all CMG activities

Year	Actual
2013	0

Output #15

Output Measure

- CMG OUTREACH: TOTAL VOLUNTEER HOURS for all CMG volunteer activities

Year	Actual
2013	0

Output #16

Output Measure

- CMG OUTREACH: Newsletters, number mailed or emailed

Year	Actual
2013	0

Output #17

Output Measure

- CMG OUTREACH: Website/BLOGS maintained by CMG volunteers, hours spent developing and in maintenance

Year	Actual
2013	0

Output #18

Output Measure

- CMG OUTREACH: Website/BLOGS maintained by CMG volunteers, number of hits

Year	Actual
2013	0

Output #19

Output Measure

- CMG OUTREACH: Information booths and clinics (one-to-one and small group contacts in a public setting) including clinics at nurseries, garden shows (including Colorado Garden Show, and Home and Patio Show), farmers markets, county fairs, state fairs, and other events where CMGs staff an informational booth. NUMBER OF CONTACTS

Year	Actual
2013	0

Output #20

Output Measure

- CMG OUTREACH: Information booths and clinics (one-to-one and small group contacts in an public setting) including clinics at nurseries, garden shows (including Colorado Garden Show, and Home and Patio Show), farmers markets, county fairs, state fairs, and other events where CMGs staff an informational booth. VOLUNTEER HOURS

Year	Actual
2013	0

Output #21

Output Measure

- CMG OUTREACH: One-to-one contacts at the office and in the field including one-to-one contacts by phone, office walk-ins, diagnostic clinic at the office, e-mails, Ask an Expert questions and house calls NUMBER OF CONTACTS

Year	Actual
2013	0

Output #22

Output Measure

- CMG OUTREACH: Classes and group presentations including all classroom type presentations and workshops where instruction is give on a group basis. This includes classes taught by Master Gardeners, and where Master Gardeners assist as room monitors/hosts. It includes classes for general public, green industry, schools, youth groups, and Master Gardeners. (For example: Speakers bureau, ProGreen room monitors, Twilight Garden Series) NUMBER OF CONTACTS

Year	Actual
2013	0

Output #23

Output Measure

- CMG OUTREACH:Classes and group presentations including all classroom type presentations and workshops where instruction is give on a group basis. This includes classes taught by Master Gardeners, and where Master Gardeners assist as room monitors/hosts. It includes classes for general public, green industry, schools, youth groups, and Master Gardeners. (For example: Speakers bureau, ProGreen room monitors, Twilight Garden Series) VOLUNTEER HOURS

Year	Actual
2013	0

Output #24

Output Measure

- CMG OUTREACH: Community Greening and Gardening Projects including all activities where Master Gardeners are assisting with community gardening projects, community greening projects, or other hands-on gardening activities, i.e., where the Master Gardeners is assisting in actual hands-on gardening projects. Includes demonstration gardens and research plots. (For example, Arbor Day projects, Children’s Hospital Garden, community gardens, Earth Day project, Habitat for Humanity, Hudson gardens, jail gardens, Loveland youth garden project, nature centers, PERC Gardens, Praying Hands Ranch, Pueblo Zoo, school garden project, tree plantings, and Victim’s Outreach garden) NUMBER OF CONTACTS

Year	Actual
2013	0

Output #25

Output Measure

- CMG OUTREACH: Community Greening and Gardening Projects including all activities where Master Gardeners are assisting with community gardening projects, community greening projects, or other hands-on gardening activities, i.e., where the Master Gardeners is assisting in actual hands-on gardening projects. Includes demonstration gardens and research plots. (For example, Arbor Day projects, Children’s Hospital Garden, community gardens, Earth Day project, Habitat for Humanity, Hudson gardens, jail gardens, Loveland youth garden project, nature centers, PERC Gardens, Praying Hands Ranch, Pueblo Zoo, school garden project, tree plantings, and Victim’s Outreach garden) VOLUNTEER HOURS

Year	Actual
2013	0

Output #26

Output Measure

- CMG OUTREACH: Number of apprentice CMG volunteers

Year	Actual
2013	0

Output #27

Output Measure

- CMG OUTREACH: Number of Colorado Gardener Certificate, CGC students

Year	Actual
2013	0

Output #28

Output Measure

- CMG OUTREACH: Print Media ? CMG-written newspaper, magazine, and newsletter articles
NUMBER WRITTEN

Year	Actual
2013	0

Output #29

Output Measure

- CMG OUTREACH: Print Media ? CMG-written newspaper, magazine, and newsletter articles
VOLUNTEER HOURS spent developing/writing

Year	Actual
2013	0

Output #30

Output Measure

- CMG OUTREACH: Support of CMG Program ? including advisory boards, CMG committee meetings (not related to specific projects) office filing and assistance, and other behind the scenes work that does not directly contact the public. VOLUNTEER HOURS

Year	Actual
2013	0

Output #31

Output Measure

- CMG OUTREACH: Support of CMG Program including advisory boards, CMG committee meetings (not related to specific projects) office filing and assistance, and other behind the scene work that does not directly contact the public. NUMBER OF CONTACTS

Year	Actual
2013	0

Output #32

Output Measure

- CMG OUTREACH: Radio and TV ? number of programs, show or appearances by CMG volunteers

Year	Actual
2013	0

Output #33

Output Measure

- CMG OUTREACH: Radio and TV ? programs, show or appearances by CMG volunteers
ESTIMATED AUDIENCE

Year	Actual
2013	0

Output #34

Output Measure

- CMG OUTREACH: Radio and TV programs, show1 or appearances by CMG volunteers
VOLUNTEER HOURS SPENT

Year	Actual
2013	0

Output #35

Output Measure

- CMG VOLUNTEER MGT: Agent/specialist/program coordinator/Extension staff days spent on
CMG volunteer and program management

Year	Actual
2013	0

Output #36

Output Measure

- CMG Youth: All outreach activities specifically targeting a youth audience
NUMBER OF CMG VOLUNTEERS INVOLVED IN YOUTH PROJECTS

Year	Actual
2013	0

Output #37

Output Measure

- CMG Youth: All outreach activities specifically targeting a youth audience
NUMBER OF YOUTH CONTACTS

Year	Actual
2013	0

Output #38

Output Measure

- CMG Youth: All outreach activities specifically targeting a youth audience
VOLUNTEER HOURS DEVOTED TO YOUTH PROJECTS

Year	Actual
2013	0

Output #39

Output Measure

- CMG Youth: Number of youth gardening projects that received assistance from CMG volunteers (including 4-H, K-12 and any other youth programs/organizations)

Year	Actual
2013	0

Output #40

Output Measure

- HORT FM: Farmers Market administration, agent hours

Year	Actual
2013	0

Output #41

Output Measure

- HORT FM: Farmers Market administration, FM coordinator and other Extension staff (hours)

Year	Actual
2013	0

Output #42

Output Measure

- HORT FM: Farmers Market estimated attendance

Year	Actual
2013	0

Output #43

Output Measure

- HORT FM: Farmers Market gross sales (\$)

Year	Actual
2013	0

Output #44

Output Measure

- HORT FM: Farmers Market number of participating vendors

Year	Actual
2013	0

Output #45

Output Measure

- HORT FM: Farmers Market-specific volunteer hours (OK if these have also been included in TOTAL CMG VOLUNTEER HOURS, don't worry about double-counting)

Year	Actual
2013	0

Output #46

Output Measure

- HORT: Telephone, e-mail, other electronic communication

Year	Actual
2013	0

Output #47

Output Measure

- HORT: Demonstration garden management (total agent/coordinator/volunteer DAYS invested)

Year	Actual
2013	0

Output #48

Output Measure

- HORT: Demonstration gardens built/maintained (Plant Select, High and Dry, Xeriscape, etc.)
NUMBER OF GARDENS

Year	Actual
2013	0

Output #49

Output Measure

- HORT: eXtension, Ask an Expert (estimated time spent responding to questions in HOURS)

Year	Actual
2013	0

Output #50

Output Measure

- HORT: Extension Fact Sheets, CMG Notes, PlantTalk Colorado scripts written; other writing for

CSU Extension (number)

Year	Actual
2013	0

Output #51

Output Measure

- HORT Newspaper, magazine, newsletter articles, blogs written (number)

Year	Actual
2013	0

Output #52

Output Measure

- HORT: Presentations, Trainings, Classes, Workshops, Webinars, Updates, Field Days given/taught (but NOT CO Master Gardener)

Year	Actual
2013	0

Output #53

Output Measure

- HORT: Presentations, Trainings, Classes, Workshops, Webinars, Updates, Field Days given/taught (but NOT CO Master Gardener) including participation and planning in events that are partnerships such a symposiums, conferences, garden walks, etc.

Year	Actual
2013	0

Output #54

Output Measure

- HORT: User fees generated (Lawncheck, Tree Team, other fee generation/income) DOLLARS GENERATED

Year	Actual
2013	0

Output #55

Output Measure

- HORT: Websites, blogs developed and maintained, number of hits

Year	Actual
2013	0

Output #56

Output Measure

- HORT: Websites, blogs maintained (number)

Year	Actual
2013	0

Output #57

Output Measure

- NPE-1: Number of NPM Certification Courses (1 course = 3 sessions totaling approx 12.5 contact hrs.)

Year	Actual
2013	0

Output #58

Output Measure

- NPE-10: External Grant Dollars

Year	Actual
2013	0

Output #59

Output Measure

- NPE-11: User Fees (gross \$ collected from NPM courses and classes, material sales etc.)

Year	Actual
2013	0

Output #60

Output Measure

- NPE-12: No. of Agencies Partnering/Collaborating (specify)

Year	Actual
2013	0

Output #61

Output Measure

- NPE-13: No. of Newsletters (This is no. of newsletters, not number mailed or number of Coloradoans who received them.)

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

2013 0

Output #62

Output Measure

- NPE-14: No. of locally hosted Websites in support of this Plan of Work (enter no. of hits as participants.)

Year	Actual
2013	0

Output #63

Output Measure

- NPE-15: Number of NPM media-related items published or aired that are educational in nature such as newspaper articles, blogs, radio or television interviews. (This is the no. of publications etc., not the circulation, listenership or viewership.)

Year	Actual
2013	0

Output #64

Output Measure

- NPE-2: No. of NPM Special Classes (such as basic botany, native plant landscaping, weed management etc. that support NPM courses)

Year	Actual
2013	0

Output #65

Output Measure

- NPE-3: No. of Trainings for NPM Volunteers

Year	Actual
2013	0

Output #66

Output Measure

- NPE-4: No. of Trainings for Extension Staff

Year	Actual
2013	0

Output #67

Output Measure

- NPE-5: No. of NPM Volunteers (total)

Year	Actual
2013	0

Output #68

Output Measure

- NPE-6: No. of Certified Native Plant Master Volunteers in good standing (of those above in #5)

Year	Actual
2013	0

Output #69

Output Measure

- NPE-7: No. of Volunteer Trainers that teach NPM courses/classes to public (of those above in #5)

Year	Actual
2013	0

Output #70

Output Measure

- NPE-8: No. of Adult Educational Contacts made by Volunteers/Agents

Year	Actual
2013	0

Output #71

Output Measure

- NPE-9: No. of Youth Educational Contacts made by Volunteers/Agents

Year	Actual
2013	0

Output #72

Output Measure

- Number of different agencies you partnered with in this program effort. Include employers/agencies of NPM volunteers and any other collaborating agencies which cosponsor NPM in your county.

Year	Actual
2013	0

Output #73

Output Measure

- Number of volunteer trainings conducted for volunteer NPM trainers

Year	Actual
2013	0

Output #74

Output Measure

- Number of web hits for individual water-related fact sheets

Year	Actual
2013	0

Output #75

Output Measure

- SAM 1. Trainings/Classes/Workshops, Field Days, Activity Days (Including all Workshops, Educational Classes, webinars, demonstrations)

Year	Actual
2013	0

Output #76

Output Measure

- SAM 10. Volunteers (total) in Planned Program

Year	Actual
2013	0

Output #77

Output Measure

- SAM 11. External Grant Dollars

Year	Actual
2013	0

Output #78

Output Measure

- SAM 12. User Fees

Year	Actual
2013	0

Output #79

Output Measure

- SAM 13. Agencies Partnering/Collaborating (specify) NRCS, County Weed Divisions, CO State Forest Service

Year	Actual
2013	0

Output #80

Output Measure

- SAM 14. The number of acres on which small acreage landowners have established a weed management and monitoring plan and/or have reported active management of noxious/unwanted weeds. (includes workshops, classes, demonstrations, one-on-one intervention, and webinars, etc).

Year	Actual
2013	0

Output #81

Output Measure

- SAM 15. The number of acres on which small acreage landowners have successful grass establishment.

Year	Actual
2013	0

Output #82

Output Measure

- SAM 16. The number of acres on which small acreage landowners have established proper grazing and pasture management.

Year	Actual
2013	0

Output #83

Output Measure

- SAM 17. The number of acres on which small acreage landowners are implementing a forest management plan which includes insect/disease issues, proper stand health, and/or creating defensible space.

Year	Actual
2013	0

Output #84

Output Measure

- SAM 2. Trainings for Volunteers (Including all Workshop, Educational Classes, webinars, demonstrations)

Year	Actual
2013	0

Output #85

Output Measure

- SAM 3. Trainings for Extension Staff (includes webinars, workshops, demonstrations, and group discussions).

Year	Actual
2013	0

Output #86

Output Measure

- SAM 4. Community Meetings Convened [examples: Advisory Groups, Councils, Coalition Meetings, Boards].

Year	Actual
2013	0

Output #87

Output Measure

- SAM 5. Direct Communication/Education by telephone and/or e-mail

Year	Actual
2013	0

Output #88

Output Measure

- SAM 6. Newsletters (This is number of newsletters, not number mailed or number of Coloradoans who received them.)

Year	Actual
2013	0

Output #89

Output Measure

- SAM 7. Websites (number of Websites, not number of hits)

Year	Actual
2013	0

Output #90

Output Measure

- SAM 8. Website Hits (number of hits, not number of sites)

Year	Actual
2013	0

Output #91

Output Measure

- SAM 9. Press/News Release or Column (number submitted)

Year	Actual
2013	0

Output #92

Output Measure

- WR 1) Trainings/Classes/Workshops, Field Days, Activity Days

Year	Actual
2013	0

Output #93

Output Measure

- WR 2) Trainings for Extension Staff

Year	Actual
2013	0

Output #94

Output Measure

- WR 3) Community Meetings Convened [examples: Advisory Groups, Councils, Coalition Meetings, Boards]

Year	Actual
2013	0

Output #95

Output Measure

- WR 4) Community Meetings Facilitated [examples: Focus Group, Citizen Forum, Round Table Dialogue, Strategic Planning Process]

Year	Actual
2013	0

Output #96

Output Measure

- WR 5) Direct Communication/Education by telephone and/or e-mail

Year	Actual
2013	0

Output #97

Output Measure

- WR 6) Newsletters (This is number of newsletters, not number mailed or number of Coloradoans who received them.)

Year	Actual
2013	0

Output #98

Output Measure

- WR 7) Websites (number of Websites)Can include:Water Quality Interpretation Tool, Anaerobic digestion, decision,Other site

Year	Actual
2013	0

Output #99

Output Measure

- WR 8) Websites (number of hits)Could include:Water-related fact sheets, Other sites

Year	Actual
2013	0

Output #100

Output Measure

- WR 9) Press/News Release or Column (number submitted)

Year	Actual
2013	0

Output #101

Output Measure

- Amount of grant dollars to support natural resource and environmental research

Year	Actual
2013	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	HORT Home gardeners and green industry professionals report enhanced plant health and more efficient use of labor, water, fertilizer and pesticides when creating and maintaining landscapes
2	NPE 1.1a: Number of land managers and residents who asked for native plants at a local garden center or by mail order.
3	NPE 1.1b: Number of land managers and residents who began or increased planting of natives in a sustainable landscape.
4	NPE 1.2a: Number of land managers and residents who began or increased weed control efforts.
5	NPE 1.1c: Number of acres impacted by planting of natives in a sustainable landscape
6	NPE 1.2b: Number of acres impacted by alien weed control efforts.
7	NPE 1.3a: Number of land managers and residents who left wild native plants to produce seed rather than collecting or picking wildflowers.
8	NPE 1.3b: Number of land managers and residents who stayed on trails to prevent erosion and damage to native plants.
9	NPE 2.1a: Dollar amount saved by residents from their planting of natives in a sustainable landscape.
10	NPE 2.1b: Dollar amount saved by land managers and residents from control of alien weeds.
11	NPE 2.1c: Number of land managers and residents who retained their current job, got a promotion or got a new job as a result of their program participation.
12	SAM 1.1a. The number of small acreage landowners who conducted a well water test.
13	SAM 1.1b. The number of small acreage landowners who report having their septic system checked/pumped
14	SAM 1.2. The number of small acreage landowners who report water conservation by planting drought tolerant plants and/or implementing efficient irrigation techniques.
15	SAM 2.1. The number of small acreage landowners who report implementation of proper manure management including storage, composting, and/or proper disposal.
16	SAM 2.2. The number of small acreage landowners who report utilizing techniques to deter unwanted wildlife.
17	SAM 2.3a. The number of small acreage landowners who report having a plan in place which addresses livestock and animal diet and supplements, emergency veterinary care, emergency evacuation, and death.

18	SAM 2.3b. The number of feed stores who were sent emergency messages from the Animal Health Network or some other system to advise landowners of state veterinary emergency reports.
19	SAM 2.4. The number of small acreage landowners who report successfully attracting pollinators and/or other desired wildlife.
20	SAM 3.1a. The number of small acreage landowners who report implementation of composting and/or vermicomposting.
21	SAM 3.1b. The number of small acreage landowners who utilize soil tests on their property.
22	SAM 3.1c. The number of small acreage landowners who reduced soil erosion by using windbreaks, cover crops, and/or other techniques.
23	SAM 4.1. The number of small acreage landowners who have established a weed management and monitoring plan and/or have reported active management of noxious/unwanted weeds.
24	SAM 4.2. The number of small acreage landowners who have implemented proper grazing and pasture management.
25	SAM 4.3. The number of small acreage landowners who have successfully established grass.
26	SAM 4.5. The number of small acreage landowners who have identified existing vegetation on their property, including grasses, weeds, forbs, shrubs, and/or trees.
27	SAM 4.4. The number of small acreage landowners who have planted and/or properly maintained windbreaks or snow fences on their property.
28	SAM 4.6a. The number of small acreage landowners who are implementing a forest management plan which includes insect/disease issues, proper stand health, and/or creating defensible space.
29	SAM 4.6b. The number of small acreage landowners who report having an evacuation plan in place in case of wildfire.
30	WR 1.1) Number of participants reporting they Perform water quality sampling and analysis in a manner meaningful to the user and regulating agencies.
31	WR 1.2) Adoption of technology and Best Management Practices (BMPs) that prevent and mitigate the effects of point-source and/or non-point source water pollution.
32	WR 2.1) Adoption of tools, technology, and practices that foster conservation of water or optimization of water use in agriculture settings.
33	Economic impact of the change in behavior reported
34	Change in knowledge
35	Change in condition outcome
36	Determining the Consumptive Water Use of Crops in Colorado for Efficient Irrigation

Outcome #1

1. Outcome Measures

HORT Home gardeners and green industry professionals report enhanced plant health and more efficient use of labor, water, fertilizer and pesticides when creating and maintaining landscapes

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

NPE 1.1a: Number of land managers and residents who asked for native plants at a local garden center or by mail order.

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

NPE 1.1b: Number of land managers and residents who began or increased planting of natives in a sustainable landscape.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	33

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Colorado is a dry state. According to the Colorado Climate Center, statewide average annual precipitation is only 17 inches. Sustainable landscapes using site-appropriate native plants can reduce the need for water and maintenance.

What has been done

Educational programs can provide research-based information on native plants suitable for

sustainable landscaping and noxious weed management that will enable residents to make informed choices.

Results

Land managers' and residents' choices result in cost savings from reduced inputs such as water and maintenance and a positive impact on the environment through control of alien invasive plants that threaten native plant communities.

4. Associated Knowledge Areas

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

Outcome #4

1. Outcome Measures

NPE 1.2a: Number of land managers and residents who began or increased weed control efforts.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	175

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Invasive, non-native weeds are a concern in many communities and threaten native ecosystems. Management of invasive weeds is critical when maintaining a natural space or a landscaped yard and garden. About 42% of the species on the Threatened or Endangered Species lists are at risk primarily because of alien invasive species. Non-indigenous species in the United States cause major environmental damage and losses totaling approximately \$120 billion per year. (Source: <http://www.sciencedirect.com/science/article/pii/S0921800904003027> Update on the Environmental and Economic Costs Associated with Alien-Invasive Species in the United States, Pimentel et al., Feb. 2005.)

What has been done

Management of invasive weeds is critical when maintaining a natural space or a landscaped yard and garden. Educational programs help land managers and residents to make appropriate choices.

Results

175 land managers and residents began or increased weed control efforts.

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

NPE 1.1c: Number of acres impacted by planting of natives in a sustainable landscape

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	2690205

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Colorado is a drought-prone state with limited water resources. Research demonstrates that sustainable landscapes including natives and adapted non-natives can reduce water usage by 60%. Sustainable landscapes using site-appropriate native plants can reduce the need for maintenance and pesticide use. Native plants can also be beneficial because they are environmentally adapted, provide food and shelter for wildlife and maintain local biological diversity. However, many residents need education in selecting plants appropriate to Colorado's local environmental conditions such as water availability, soils and elevation. New residents find that their landscaping and gardening experiences often do not apply to Colorado's environmental conditions.

Invasive alien weeds are a vital concern in many communities and threaten native ecosystems. Management of invasive weeds is critical when maintaining a natural space or a landscaped yard and garden. The United States spends \$137 billion per year in controlling weeds and mitigating

damage. Noxious weeds are moving into valued ecosystems displacing natives at an alarming rate. Invasive species are a factor in the decline of 49% of all imperiled species. Invasive species are found on 133 million acres and advance by 1.7 million acres per year.

What has been done

The Native Plant Master (NPM) Program fosters stewardship of native plants, sustainable landscaping, and management of alien invasive weeds that threaten native ecosystems. NPM courses are field-based and participants learn taxonomy, terminology, noxious weed identification/control and landscaping uses of native plants in an experiential manner.

Results

Impacts from 2008-2013 (collected from online surveys to participants) were significant and included a total of 103,306 direct educational contacts made by 2,892 volunteers. 2,690,205 acres in Colorado were impacted by noxious weed control or native plantings.

4. Associated Knowledge Areas

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

Outcome #6

1. Outcome Measures

NPE 1.2b: Number of acres impacted by alien weed control efforts.

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

NPE 1.3a: Number of land managers and residents who left wild native plants to produce seed rather than collecting or picking wildflowers.

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

NPE 1.3b: Number of land managers and residents who stayed on trails to prevent erosion and damage to native plants.

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

NPE 2.1a: Dollar amount saved by residents from their planting of natives in a sustainable landscape.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1778171

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Colorado is a drought-prone state with limited water resources. Research demonstrates that sustainable landscapes including natives and adapted non-natives can reduce water usage by 60%. Sustainable landscapes using site-appropriate native plants can reduce the need for maintenance and pesticide use. Native plants can also be beneficial because they are environmentally adapted, provide food and shelter for wildlife and maintain local biological diversity. However, many residents need education in selecting plants appropriate to Colorado's local environmental conditions such as water availability, soils and elevation. New residents find that their landscaping and gardening experiences often do not apply to Colorado's environmental conditions.

Invasive alien weeds are a vital concern in many communities and threaten native ecosystems. Management of invasive weeds is critical when maintaining a natural space or a landscaped yard and garden. The United States spends \$137 billion per year in controlling weeds and mitigating damage. Noxious weeds are moving into valued ecosystems displacing natives at an alarming rate. Invasive species are a factor in the decline of 49% of all imperiled species. Invasive species are found on 133 million acres and advance by 1.7 million acres per year.

What has been done

Native Plant Master (NPM) courses are field-based and participants learn taxonomy, terminology, noxious weed identification/control and landscaping uses of native plants in an experiential manner.

Results

Impacts from 2008-2013 (collected from online surveys to participants) were significant and included a total of 103,306 direct educational contacts made by 2,892 volunteers. 2,690,205 acres in Colorado were impacted by noxious weed control or native plantings, resulting in \$1,778,171 saved by participants. The program is the only program of its kind in the country, and

several other states are interested in replicating the program

4. Associated Knowledge Areas

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

Outcome #10

1. Outcome Measures

NPE 2.1b: Dollar amount saved by land managers and residents from control of alien weeds.

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

NPE 2.1c: Number of land managers and residents who retained their current job, got a promotion or got a new job as a result of their program participation.

Not Reporting on this Outcome Measure

Outcome #12

1. Outcome Measures

SAM 1.1a. The number of small acreage landowners who conducted a well water test.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	105

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The 2007 US Census of Agriculture classifies 36.4% of small farms (1-100 acres) as Residential/Lifestyle properties in which operators report major non-farming occupations. Placing rural agricultural land into the hands of many diverse owners has created a new educational challenge for Extension.

What has been done

The program addresses the needs of small acreage landowners who own one to 100 acres of land. These individuals live on small acreage properties because they embrace the rural lifestyle but do not necessarily intend to derive income from the property. According to the USDA ERS (Economic Research Service) 2007 census data, 48.5% of Colorado farms are 1-99 acres in size. The number of small farms (1-99 acres in size) has increased by 7.7% since 1997.

Results

105 small acreage landowners reported implementation of water-related conservation practices (such as having their septic system checked/pumped, well water tested, excluding livestock from a stream, drought tolerant landscaping, or increasing irrigation efficiency).

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water

Outcome #13

1. Outcome Measures

SAM 1.1b. The number of small acreage landowners who report having their septic system checked/pumped

Not Reporting on this Outcome Measure

Outcome #14

1. Outcome Measures

SAM 1.2. The number of small acreage landowners who report water conservation by planting drought tolerant plants and/or implementing efficient irrigation techniques.

Not Reporting on this Outcome Measure

Outcome #15

1. Outcome Measures

SAM 2.1. The number of small acreage landowners who report implementation of proper manure management including storage, composting, and/or proper disposal.

Not Reporting on this Outcome Measure

Outcome #16

1. Outcome Measures

SAM 2.2. The number of small acreage landowners who report utilizing techniques to deter unwanted wildlife.

Not Reporting on this Outcome Measure

Outcome #17

1. Outcome Measures

SAM 2.3a. The number of small acreage landowners who report having a plan in place which addresses livestock and animal diet and supplements, emergency veterinary care, emergency evacuation, and death.

Not Reporting on this Outcome Measure

Outcome #18

1. Outcome Measures

SAM 2.3b. The number of feed stores who were sent emergency messages from the Animal Health Network or some other system to advise landowners of state veterinary emergency reports.

Not Reporting on this Outcome Measure

Outcome #19

1. Outcome Measures

SAM 2.4. The number of small acreage landowners who report successfully attracting pollinators and/or other desired wildlife.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	90

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Small acreage landowners have a significant impact on the conditions of soil, water, plants, animals, and other natural and man-made resources through their cumulative effects. The large tracts of agricultural lands in Colorado are being subdivided into one to 100 acre tracts of dry land for rural homesteads. Many of these homesteaders move from cities or other states and do not have the land management knowledge base which traditional agricultural landowners hold. Therefore, the demand for information and technical assistance is immense. Weed control, water use, and grazing management are prime examples of the land management skills which many small acreage landowners seek.

What has been done

CSU Extension, along with partners such as the USDA-Natural Resources Conservation Service, Colorado Division of Parks and Wildlife, and local Conservation Districts lead this educational effort.

Results

90 small acreage landowners reported implementation of animal/wildlife-related conservation practices (such as improved manure management, livestock emergency preparedness, attracting pollinators or other desired wildlife, or deterring unwanted wildlife).

4. Associated Knowledge Areas

KA Code	Knowledge Area
605	Natural Resource and Environmental Economics

Outcome #20

1. Outcome Measures

SAM 3.1a. The number of small acreage landowners who report implementation of composting and/or vermicomposting.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	756

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The 2007 US Census of Agriculture classifies 36.4% of small farms (1-100 acres) as Residential/Lifestyle properties in which operators report major non-farming occupations. Placing rural agricultural land into the hands of many diverse owners has created a new educational challenge for Extension.

What has been done

The program addresses the needs of small acreage landowners who own one to 100 acres of land.

Results

756 small acreage landowners reported implementation of soil-related conservation practices (such as composting and soil testing).

4. Associated Knowledge Areas

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

Outcome #21

1. Outcome Measures

SAM 3.1b. The number of small acreage landowners who utilize soil tests on their property.

Not Reporting on this Outcome Measure

Outcome #22

1. Outcome Measures

SAM 3.1c. The number of small acreage landowners who reduced soil erosion by using windbreaks, cover crops, and/or other techniques.

Not Reporting on this Outcome Measure

Outcome #23

1. Outcome Measures

SAM 4.1. The number of small acreage landowners who have established a weed management and monitoring plan and/or have reported active management of noxious/ unwanted weeds.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	360

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Small acreage landowners have a significant impact on the conditions of soil, water, plants, animals, and other natural and man-made resources through their cumulative effects. The large tracts of agricultural lands in Colorado are being subdivided into one to 100 acre tracts of dry land for rural homesteads. Many of these homesteaders move from cities or other states and do not have the land management knowledge base which traditional agricultural landowners hold. Therefore, the demand for information and technical assistance is immense.

What has been done

Weed control, water use, and grazing management are prime examples of the land management skills which many small acreage landowners seek. CSU Extension, along with partners such as the USDA-Natural Resources Conservation Service, Colorado Division of Parks and Wildlife, and local Conservation Districts lead this educational effort.

Results

360 small acreage landowners reported implementation of plant-related conservation practices (such as active weed management, pasture management techniques, grass stand establishment, planting windbreaks, and active forest management).

4. Associated Knowledge Areas

KA Code	Knowledge Area
123	Management and Sustainability of Forest Resources
205	Plant Management Systems

Outcome #24

1. Outcome Measures

SAM 4.2. The number of small acreage landowners who have implemented proper grazing and pasture management.

Not Reporting on this Outcome Measure

Outcome #25

1. Outcome Measures

SAM 4.3. The number of small acreage landowners who have successfully established grass.

Not Reporting on this Outcome Measure

Outcome #26

1. Outcome Measures

SAM 4.5. The number of small acreage landowners who have identified existing vegetation on their property, including grasses, weeds, forbs, shrubs, and/or trees.

Not Reporting on this Outcome Measure

Outcome #27

1. Outcome Measures

SAM 4.4. The number of small acreage landowners who have planted and/or properly maintained windbreaks or snow fences on their property.

Not Reporting on this Outcome Measure

Outcome #28

1. Outcome Measures

SAM 4.6a. The number of small acreage landowners who are implementing a forest management plan which includes insect/disease issues, proper stand health, and/or creating defensible space.

Not Reporting on this Outcome Measure

Outcome #29

1. Outcome Measures

SAM 4.6b. The number of small acreage landowners who report having an evacuation plan in place in case of wildfire.

Not Reporting on this Outcome Measure

Outcome #30

1. Outcome Measures

WR 1.1) Number of participants reporting they Perform water quality sampling and analysis in a manner meaningful to the user and regulating agencies.

Not Reporting on this Outcome Measure

Outcome #31

1. Outcome Measures

WR 1.2) Adoption of technology and Best Management Practices (BMPs) that prevent and mitigate the effects of point-source and/or non-point source water pollution.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

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

Outcome #32

1. Outcome Measures

WR 2.1) Adoption of tools, technology, and practices that foster conservation of water or optimization of water use in agriculture settings.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water

Outcome #33

1. Outcome Measures

Economic impact of the change in behavior reported

Not Reporting on this Outcome Measure

Outcome #34

1. Outcome Measures

Change in knowledge

Not Reporting on this Outcome Measure

Outcome #35

1. Outcome Measures

Change in condition outcome

Not Reporting on this Outcome Measure

Outcome #36

1. Outcome Measures

Determining the Consumptive Water Use of Crops in Colorado for Efficient Irrigation

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Water transfers from agriculture to growing municipalities, well shutdowns, tighter regulations for compact compliance in major river basins, and droughts have reduced the availability of water for irrigation. The Colorado Water Conservation Board's Statewide Water Supply Initiative projected reductions in irrigated acres ranging from 185,000 to 428,000 acres by 203. These pressures on irrigation water supplies require increased efficiency in irrigation. The primary objective of this project is to create a water management tool that utilizes localized crop ET estimates, weather, and soil information for efficient uses of irrigation water.

What has been done

Crop coefficient curves for 4 cutting cycles of alfalfa hay have been incorporated into the spreadsheet-based irrigation scheduling tool. The 2013 growing season was also the first season of growing corn on the lysimeter at Rocky Ford, CO. This first year of lysimeter data for corn will enable the development of a seasonal crop coefficient curve appropriate for growing conditions in the Arkansas Valley of Colorado

Results

a newly-developed irrigation scheduling spreadsheet tool gives users that have Internet access the capability of tracking the daily soil water balance of individual irrigated fields calculated from evapotranspiration and rainfall data from the Colorado Agricultural Meteorological Network (CoAgMet) and field-specific soils information from USDA-NRCS Web Soil Survey.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water
205	Plant Management Systems
605	Natural Resource and Environmental Economics

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Note %-ages aren't collected any longer, so several outcomes are not reported due to data being collected in numbers instead of percentages.

Key Items of Evaluation

Nataive Plant Masters (NPM) - 2,690,205 acres in Colorado were impacted by noxious weed control or native plantings, resulting in \$1,778,171 saved by participants. The impact of the program can also be seen in the number of people educated. From 2008-2013, the program has held 371 courses and classes, directly educating 6,886 participants. These participants in turn have educated 103,306 people about natives or invasives. There have been 2,892 volunteers in the program, and they have donated 5,120 hours of time since

2012 (when we began collecting this data). County Extension offices have generated \$158,577 in revenues from this program.

V(A). Planned Program (Summary)

Program # 7

1. Name of the Planned Program

Community Resource 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
602	Business Management, Finance, and Taxation	5%		0%	
603	Market Economics	2%		50%	
604	Marketing and Distribution Practices	5%		0%	
607	Consumer Economics	5%		0%	
608	Community Resource Planning and Development	63%		25%	
610	Domestic Policy Analysis	5%		0%	
704	Nutrition and Hunger in the Population	10%		0%	
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	5%		25%	
Total		100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	6.5	0.0	6.0	0.0
Actual Paid Professional	13.8	0.0	3.5	0.0
Actual Volunteer	1.8	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
20212	0	428265	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
20212	0	428265	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
27366	0	1629569	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

- Training for Extension personnel in community mobilization, facilitation, economic development.
- Working with rural communities on a regional approach to small town tourism including making optimal use of environmental resources, respecting the socio-cultural authenticity of host communities while conserving their built and living cultural heritage and traditional values, and ensuring viable, long-term economic operations, including stable employment and income-earning opportunities.
- Conducting basic and applied research in areas exploring the interface between agribusiness, rural development, and natural-resource-amenity-based opportunities.
- Conducting workshops and other educational activities with Extension professionals and community stakeholders.

2. Brief description of the target audience

Community members, general public, consumers, community organizations. The intuitive success of Extension professionals in community/economic development will be enhanced for formalized training and opportunities to accurately report these on-going efforts.

3. How was eXtension used?

{No Data Entered}

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	7928	2073904	60	678

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

Year: 2013
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	1	49	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of training opportunities for community members

Year	Actual
2013	308

Output #2

Output Measure

- FSYS 19) Number of Agencies Partnering/Collaborating (Colorado Dept. of Ag, CO Dept of Public Health, RealFood Colorado, LiveWell Colorado, Rocky Mountain Farmers Union, Colorado Farm Bureau, USDA Rural Development)
 Not reporting on this Output for this Annual Report

Output #3

Output Measure

- Number of new technologies adopted by participants/communities.
 Not reporting on this Output for this Annual Report

Output #4

Output Measure

- Number of collaborative projects implemented.
 Not reporting on this Output for this Annual Report

Output #5

Output Measure

- CD 2) Number of Trainings for Volunteers (Educational Classes, Workshops, Group Discussions).
 Not reporting on this Output for this Annual Report

Output #6

Output Measure

- CD 20) Number of times Presented and translated information to increase public understanding and use data more strategically.
Not reporting on this Output for this Annual Report

Output #7

Output Measure

- CD 10) Number Website hits (not number of sites)

Year	Actual
2013	2010156

Output #8

Output Measure

- CD 11); FSYS 14) Number of Press/News Releases or Columns submitted

Year	Actual
2013	64

Output #9

Output Measure

- CD 12) Number of Volunteers (total) in Planned Program
Not reporting on this Output for this Annual Report

Output #10

Output Measure

- CD 13); FSYS 17) External Grant Dollars
Not reporting on this Output for this Annual Report

Output #11

Output Measure

- CD 14); FSYS 18) User Fees
Not reporting on this Output for this Annual Report

Output #12

Output Measure

- CD 15) Number of times Providing coaching and/or individual consulting.

Year	Actual
2013	152

Output #13

Output Measure

- CD 16) Number of web-based resources and/or learning modules developed.

Year	Actual
2013	50

Output #14

Output Measure

- CD 17) Number of community assessments, surveys or other community analysis tools developed.

Year	Actual
2013	2

Output #15

Output Measure

- CD 18) Number of community assessments, surveys, asset mapping and other analysis processes, including secondary data and trend analysis, conducted.

Year	Actual
2013	21

Output #16

Output Measure

- CD 19) Number of community actions plans, developed, coordinated, and implemented.

Year	Actual
2013	54

Output #17

Output Measure

- CD 2) Number of Trainings for Volunteers (Educational Class, Workshop, Group Discussion. Not reporting on this Output for this Annual Report

Output #18

Output Measure

- CD 21) Number of white papers, reports, summaries, etc. (not peer reviewed) developed.

Year	Actual
2013	6

Output #19

Output Measure

- CD 3); FSYS 2) Number of Trainings for Extension Staff (Education Class, Workshop, Group Discussion).

Year	Actual
2013	14

Output #20

Output Measure

- CD 4); FSYS 3) Number of Community Meetings Convened [examples: Advisory Groups, Councils, Coalition Meetings, Boards].

Year	Actual
2013	0

Output #21

Output Measure

- CD 5); FSYS 4) Number of Community Meetings Facilitated [examples: Focus Group, Citizen Forum, Round Table Dialogue, Strategic Planning Process]

Year	Actual
2013	0

Output #22

Output Measure

- CD 6); FSYS 5) Number of Community Coalitions, Collaborations, Alliances Formed to Address a Specific Issue [list specific groups/issue]

Year	Actual
2013	53

Output #23

Output Measure

- CD 7); FSYS 6) Number of Direct Communications/Education by telephone and/or e-mail

Year	Actual
2013	0

Output #24

Output Measure

- CD 8); FSYS 11) Number of Newsletters (This is number of newsletters created and sent, not number mailed or number of Coloradans who received them.)

Year	Actual
2013	12

Output #25

Output Measure

- CD 90; CD 9) Websites (number of Websites, not number of hits)
Not reporting on this Output for this Annual Report

Output #26

Output Measure

- FSYS 1) Number Trainings/Classes/Workshops, Field Days, Activity Days

Year	Actual
2013	38

Output #27

Output Measure

- FSYS 10) Number of times CSU personnel led or partnered in efforts to build a stronger community and networks of those involved in more localized food systems (producers, resource providers, policy makers, input providers, marketing partners).

Year	Actual
2013	37

Output #28

Output Measure

- FSYS 7) Number of times Extension staff facilitate community discourse that includes ag producers and other food system stakeholders to improve public understanding about the food system

Year	Actual
2013	51

Output #29

Output Measure

- FSYS 8) Number of times CSU Extension provides training, publications and leads discussions on nutrition, food safety and public health implications of marketing, production and policy innovations in the food system

Year	Actual
2013	33

Output #30

Output Measure

- FSYS 9) Number of times CSU Extension personnel provide tools, publications and assistance in developing and translating applied research to food system planning activities.

Year	Actual
2013	19

Output #31

Output Measure

- Amount of grant dollars garnered to support community development research and outreach
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	CD 1.1: The number of Communities that assess community needs, assets and available resources.
2	CD 2.6: Number of Community members participating in community decision making processes shaping natural and built environments.
3	CD 2.1: Number of Community members actively influencing the development of their communities through engagement in participatory community processes. (public issue deliberation, decision-making processes, action planning and evaluation)
4	CD 1.2: Number of Community members engaging in community and economic development, planning and action.
5	CD 1.3: Number in Communities who network and partner with others in community and economic development, planning and action (regional approach).
6	CD 1.4: Number of Communities that develop plans targeting specific interests, actions and community resources towards maintaining and growing economic base.
7	CD 1.6: Number of Entrepreneurs who are coached in development and initiation of new small business ventures.
8	CD 1.8: Number of Jobs that are created.
9	CD 2.2: Number of Community members reporting increased connections with other community residents and organizations.
10	CD 2.3: Number of Communities where plans are developed using participatory community processes.
11	CD 2.4: Number of Communities where plans are implemented following participatory community processes.
12	CD 2.5: Number of Community members who are actively involved in the development of public policy to effect positive change for a healthy and vital community.
13	CD 2.7: Number of Communities that promote diverse, healthy, and sustainable environments through community design and plans.
14	CD 3.1: Number of Communities that provide leadership development training, programs or activities.
15	CD 3.2: Number of communities in which Diversity of community leadership is increased.
16	CD 3.3: Number of Community members reporting increased connection to, and relationship with, local and state government.
17	CD 4.10: Number of Volunteer community members reporting they contribute to increased public service in their communities.

18	CD 4.12: Number of Volunteer community members reporting they increase the social, emotional, and learning skills in the audience with which they work.
19	CD 4.1: Number of Communities providing organizational development training for non-profits and community organizations in planning, decision making, management, and evaluation efforts.
20	CD 4.4: Number of Non-profits and community organizations report increased revenue generated through grant dollars.
21	CD 4.5: Number of Non-profits and community organizations increase partnerships and connections.
22	CD 4.6: Number of Non-profits and community organizations reporting increased number of volunteers involved in organization activities.
23	CD 4.8: Number of Volunteer community members reporting they foster life skill development in the youth in their communities.
24	CD 4.9: Number of Volunteer community members reporting they increased the effectiveness of Extension and other community programs.
25	FSYS 1.1) Colorado food systems stakeholders report they have increased capacity to dialogue and plan for more effective food systems
26	FSYS 1.2) Number of Food system stakeholders who report participating in more education and professional development to improve their understanding of linkages between public health and food safety and emerging food models
27	FSYS 1.3) Number of Food system stakeholders reporting they will engage CSU as a partner in determining data, research, resource partners and other program needs for assessment and strategic planning exercises related to agriculture or food.

Outcome #1

1. Outcome Measures

CD 1.1: The number of Communities that assess community needs, assets and available resources.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #2

1. Outcome Measures

CD 2.6: Number of Community members participating in community decision making processes shaping natural and built environments.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #3

1. Outcome Measures

CD 2.1: Number of Community members actively influencing the development of their communities through engagement in participatory community processes. (public issue deliberation, decision-making processes, action planning and evaluation)

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #4

1. Outcome Measures

CD 1.2: Number of Community members engaging in community and economic development, planning and action.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #5

1. Outcome Measures

CD 1.3: Number in Communities who network and partner with others in community and economic development, planning and action (regional approach).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #6

1. Outcome Measures

CD 1.4: Number of Communities that develop plans targeting specific interests, actions and community resources towards maintaining and growing economic base.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

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

2013 0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #7

1. Outcome Measures

CD 1.6: Number of Entrepreneurs who are coached in development and initiation of new small business ventures.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #8

1. Outcome Measures

CD 1.8: Number of Jobs that are created.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #9

1. Outcome Measures

CD 2.2: Number of Community members reporting increased connections with other community residents and organizations.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #10

1. Outcome Measures

CD 2.3: Number of Communities where plans are developed using participatory community processes.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #11

1. Outcome Measures

CD 2.4: Number of Communities where plans are implemented following participatory community processes.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

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

2013 0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #12

1. Outcome Measures

CD 2.5: Number of Community members who are actively involved in the development of public policy to effect positive change for a healthy and vital community.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
610	Domestic Policy Analysis

Outcome #13

1. Outcome Measures

CD 2.7: Number of Communities that promote diverse, healthy, and sustainable environments through community design and plans.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #14

1. Outcome Measures

CD 3.1: Number of Communities that provide leadership development training, programs or activities.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #15

1. Outcome Measures

CD 3.2: Number of communities in which Diversity of community leadership is increased.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #16

1. Outcome Measures

CD 3.3: Number of Community members reporting increased connection to, and relationship with, local and state government.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

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

2013 0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #17

1. Outcome Measures

CD 4.10: Number of Volunteer community members reporting they contribute to increased public service in their communities.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #18

1. Outcome Measures

CD 4.12: Number of Volunteer community members reporting they increase the social, emotional, and learning skills in the audience with which they work.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #19

1. Outcome Measures

CD 4.1: Number of Communities providing organizational development training for non-profits and community organizations in planning, decision making, management, and evaluation efforts.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #20

1. Outcome Measures

CD 4.4: Number of Non-profits and community organizations report increased revenue generated through grant dollars.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

Outcome #21

1. Outcome Measures

CD 4.5: Number of Non-profits and community organizations increase partnerships and connections.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #22

1. Outcome Measures

CD 4.6: Number of Non-profits and community organizations reporting increased number of volunteers involved in organization activities.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #23

1. Outcome Measures

CD 4.8: Number of Volunteer community members reporting they foster life skill development in the youth in their communities.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
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608 Community Resource Planning and Development

Outcome #24

1. Outcome Measures

CD 4.9: Number of Volunteer community members reporting they increased the effectiveness of Extension and other community programs.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
{No Data Entered}

What has been done
{No Data Entered}

Results
{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #25

1. Outcome Measures

FSYS 1.1) Colorado food systems stakeholders report they have increased capacity to dialogue and plan for more effective food systems

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	202

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The local food movement was very disorganized prior to 2009.

What has been done

One example: ...we have developed strong local, regional, and even statewide working groups. Attendees at programs aimed at increasing awareness and access to local and healthy food have numbered in the 100's; we have established a well-organized Food Policy Council; and also have a regional food alliance that meets quarterly to discuss food and agricultural issues.

Results

Across the state, 202 participants reported they have increased capacity to dialogue and plan for more effective food systems. One example: "...establish[ed] a cohesive working group related to food systems. This group, which is working very well with a tremendous amount of cross-participation, encompasses multiple counties in SW CO and northern NM. These organizational methods have helped to secure significant levels of resources (grants totaling over \$100k annually) with the hope for potentially much more coming in the next 5 years.

4. Associated Knowledge Areas

KA Code	Knowledge Area
604	Marketing and Distribution Practices
608	Community Resource Planning and Development

Outcome #26

1. Outcome Measures

FSYS 1.2) Number of Food system stakeholders who report participating in more education and professional development to improve their understanding of linkages between public health and food safety and emerging food models

Not Reporting on this Outcome Measure

Outcome #27

1. Outcome Measures

FSYS 1.3) Number of Food system stakeholders reporting they will engage CSU as a partner in determining data, research, resource partners and other program needs for assessment and strategic planning exercises related to agriculture or food.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	173

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The agriculture and food issues, clientele and level of community engagement that Extension personnel are being asked to provide knowledge and assistance on, or facilitate discussions around, are changing.

What has been done

To complement more traditional efforts in agricultural operations, crop and livestock production, food safety and nutrition, CSU Extension has facilitated several programs targeted at new clientele which draw from a broad set of disciplines (for example, Public Deliberation on Food System and Farm Labor issues, Building Farmers, Regulatory Mapping for Farmers Markets, Small Scale Livestock Marketing and Environment Issues, Farm to School Programs).

Results

173 food system stakeholders reported they will engage CSU as a partner in determining data, research, resource partners and other program needs for assessment and strategic planning exercises related to agriculture or food.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

CD:

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

With new emerging opportunities in communities, programs may shift in response to community need.

Extension role in community development is emerging and it may take three to five years to establish strong programs with measurable outcomes.

FSYS:

USDA has Global Food Security as a National priority, and not all the activities needed to support such a goal are addressed through production-oriented teams. One consideration listed in national outcomes is the need for food system resiliency, and given current global market pressures, pest pressures, supply chain risks (food safety, transportation costs), it would suggest a more diverse set of food production models is needed. So, the planning activities and efforts to build stronger networks across all agricultural stakeholders (beginning or established, small or large) address the resiliency issue.

USDA food security priorities also address natural resources and the long-term management of ag lands. Some of the policy discussions, assessment activities and facilitation of community processes to develop economic development and community development plans that may include land use will address this issue.

Finally, there a number of Colorado, statewide efforts, to address food system issues, including the Food Systems Advisory Council, new Economic Development cluster focused on agricultural and food sectors, Farm to School and Farmers Market working groups. All of these processes seek CSU's voice at the table, and members of this team will represent our organization, and be able to better serve in those roles because of discussions among

the group about concerns and priorities emerging in different communities.

The external factors taken into consideration with our work plan include:

- Economy
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Populations changes (immigration, new cultural groupings, etc.)

V(I). Planned Program (Evaluation Studies)

Evaluation Results

CD: Pre-assessment, focus groups, interviews, and surveys will be conducted to provide base line data. Metrics will be tracked for number of trainings, participants, consulting sessions, partnerships, grant \$, etc. Pre-and post-surveys of workshop participants will be conducted to capture immediate changes in knowledge and attitudes, short-term changes based on identified indicators of this plan of work. A combination of case studies, community visits, and focus groups will be conducted to measure longer-term impacts.

FSYS: Evaluation for this team will fall in three key categories:

1) Surveys of CSU Extension staff to determine the types, depth and changes in engagement from food system partnership they are a part of, as facilitator, moderator or convener. This will allow us to evaluate whether work by team members is being valued and recognized among community members, even if the main purpose of CSU is not in a traditional educator role.

2) Surveys of program participants on any workshops, panels, speakers or courses where CSU Extension has at least a 25% planning role will allow us to evaluate knowledge and behavioral change, immediately post program. On rare occasions, on programs where CSU investment is high, follow up surveying at 3, 6 or 12 months may also be undertaken. For programs where CSU is more lightly involved, the team will simply collect information that is collected by the lead organization in their evaluation, but provide assistance in developing such materials. (For example, being a panelist for an Ag organization conference, where CSU may ask to have one question asked in the organization's evaluation.

3) Targeted case studies and ad hoc evaluations will be used in cases where CSU Extension is engaged fairly rapidly in a community priority discussion (for instance a food safety outbreak). These evaluations will be necessarily less structured, but allow us to describe how CSU provided technical assistance, facilitation or moderating support for a community-wide food issue or event.

Key Items of Evaluation

One Example (CD): The Cortez Heart and Soul project, supported by the Orton Family Foundation, was begun in 2012. One of the project's Community Advisory Team's (CAT) early goals is to gather input from community members on the values and perceptions of Cortez and what they would like to see (change) about the Cortez community. It is imperative that all community groups be reached and given the opportunity to provide input to the project. Through the efforts of Monica (CAT member) outreach was successful to the Hispanic community, however, Tom (also a member of the CAT) recognized that vital members of the Cortez community, Native Americans, did not

have a presence on the team and had only provided minimal input to the project through CAT outreach efforts. Through existing contacts, Tom participated in Human Relations/SW Intertribal Voice meetings to encourage participation of the Native American community. Tom specifically invited Native American representatives to a following CAT meeting. When leaders of the CAT were informed of the invitations, they were enthusiastically supportive and indeed, surprised. Six Native American representatives arrived at the next CAT meeting and true participation of the Native American community in the Heart and Soul project was begun. As a result, outreach efforts in Towaoc on the Ute Mountain Ute reservation, and at neighboring Chapter Houses on the Navajo reservation are in the planning process. Tom will continue to stress and work towards the importance of including the vital participation of Native Americans in the community development process.

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
132	Weather and Climate	25%		0%	
402	Engineering Systems and Equipment	25%		0%	
605	Natural Resource and Environmental Economics	25%		0%	
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	25%		0%	
	Total	100%		0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	4.9	0.0	0.0	0.0
Actual Paid Professional	2.0	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
20212	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
20212	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
27366	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

- Clean Energy - Ag - "Plug and play" media presentations made available to Extension agents
- Clean Energy - Ag - Agricultural energy audits conducted
- Clean Energy - Ag - Agricultural energy research projects
- Clean Energy - Ag - Gallons of on-farm biofuels consumed
- Clean Energy - Ag - Graduate students working in bioenergy labs
- Clean Energy - Ag - Increased revenue estimated from bioenergy crops and/or production (in dollars)
- Clean Energy - Ag - Number of acres for oilseed crops as biofuels
- Clean Energy - Ag - Undergraduates working in bioenergy labs
- Clean Energy - Ag - Number of variety trials for crops as biofuels
- Clean Energy - Annual savings estimated from investments in energy efficiency and/or renewable energy (in dollars)
 - Clean Energy - Capital invested in energy efficiency and/or renewable energy (in dollars)
 - Clean Energy - Certified Master Volunteers (of those related to Volunteers)
 - Clean Energy - Community Coalitions, Collaborations, Alliances Formed to Address a Specific Issue [list specific groups/issue]
 - Clean Energy - Community Meetings Convened [examples: Advisory Groups, Councils, Coalition Meetings, Boards]
 - Clean Energy - Community Meetings Facilitated [examples: Focus Group, Citizen Forum, Round Table Dialogue, Strategic Planning Process]
 - Clean Energy - Direct Communication/Education by telephone and/or e-mail
 - Clean Energy - Educational materials distributed
 - Clean Energy - Energy Masters - Certificates of completion for teacher license renewals
 - Clean Energy - Energy Masters - CEUs earned by realtors in the Colorado Association of Realtors
 - Clean Energy - Energy Masters - Counties offering the Colorado Energy Master program
 - Clean Energy - Energy Masters - Educational contacts
 - Clean Energy - Energy Masters - Energy block parties
 - Clean Energy - Energy Masters - Home energy assessments
 - Clean Energy - Energy Masters - Non-volunteers successfully completing all Energy Master coursework
 - Clean Energy - Energy Masters - Value of volunteer hours
 - Clean Energy - Energy Masters - Volunteer hours
 - Clean Energy - Energy Masters - CEUs earned by US Green Building Council LEED professionals
 - Clean Energy - External Grant Dollars
 - Clean Energy - New Technologies Expected to be Adopted by Producers
 - Clean Energy - Newsletters (This is number of newsletters, not number mailed or number of Coloradoans who received them.)
 - Clean Energy - Peer Reviewed Publications, including Fact Sheets & Curricula
 - Clean Energy - Press/News Release or Column (number submitted)
 - Clean Energy - Trainings for Extension Staff
 - Clean Energy - Trainings for Volunteers
 - Clean Energy - Trainings/Classes/Workshops, Field Days, Activity Days
 - Clean Energy - User Fees
 - Clean Energy - Volunteers (total) in Planned Program
 - Clean Energy - Websites (number of hits)
 - Clean Energy - Websites (number of Websites)

2. Brief description of the target audience

1) We have two main audiences - agricultural professionals such as Extension agents and NRCS personnel as well as the agricultural producers they serve.

2) The program is available to all adults as well as to high school juniors and seniors so as to offer youth an opportunity to get involved in their communities and pursue a topic not traditionally taught in school.

- The program offers professional development credits (CEUs) for realtors, LEED professionals, and teachers. In addition to these groups, retirees (particularly retired engineers), sustainability professionals, environmental educators, other CSU "Master" volunteers, and community college, University, and high school students will be targeted.

- The program will be capable of training individuals with little prior knowledge of energy issues in the basics of energy efficiency and renewable energy as well as how to conduct a basic home energy assessment, possibly to include a home "solar audit" using utility bill history, a rooftop analysis, a Solar Pathfinder, and web-based analysis tools.

3) In the Western Region Extension Survey of 2008, energy efficiency/conservation on the farm/ranch, wind energy, and bioenergy were identified as the three most common requests for information among Colorado agents. These requests were closely followed by energy efficiency/conservation in the home, solar PV, and energy costs and comparisons. Based on survey results, it is clear that our primary audiences are 1) rural energy users and 2) residents

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	801	16267	100	0

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

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	9	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of volunteers supporting clean energy

Year	Actual
2013	27

Output #2

Output Measure

- Number of partnering agencies/organizations around clean energy

Year	Actual
2013	27

Output #3

Output Measure

- Number of Extension Agents trained
Not reporting on this Output for this Annual Report

Output #4

Output Measure

- Clean Energy - Energy Masters - CEUs earned by realtors in the Colorado Association of Realtors
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- Clean Energy - Energy Masters - Certificates of completion for teacher license renewals
Not reporting on this Output for this Annual Report

Output #6

Output Measure

- Clean Energy - Energy Masters - Number of Counties offering the Colorado Energy Master program
Not reporting on this Output for this Annual Report

Output #7

Output Measure

- Clean Energy - Energy Masters - Number of Non-volunteers successfully completing all Energy Master coursework
Not reporting on this Output for this Annual Report

Output #8

Output Measure

- Clean Energy - Energy Masters - CEUs earned by US Green Building Council LEED professionals
Not reporting on this Output for this Annual Report

Output #9

Output Measure

- Clean Energy - Number of Community Coalitions, Collaborations, Alliances Formed to Address a Specific Issue

Year	Actual
2013	2

Output #10

Output Measure

- Clean Energy - Number of Community Meetings Convened [examples: Advisory Groups, Councils, Coalition Meetings, Boards]

Year	Actual
2013	2

Output #11

Output Measure

- Clean Energy - Number of Community Meetings Facilitated [examples: Focus Group, Citizen Forum, Round Table Dialogue, Strategic Planning Process]

Year	Actual
2013	1

Output #12

Output Measure

- Clean Energy - Energy Masters - Number of Energy block parties
Not reporting on this Output for this Annual Report

Output #13

Output Measure

- Clean Energy - Number of Press/News Releases or Columns submitted

Year	Actual
2013	6

Output #14

Output Measure

- Clean Energy - Number of Newsletters (This is number of newsletters, not number mailed or number of Coloradans who received them.)

Year	Actual
2013	1

Output #15

Output Measure

- Clean Energy - Ag - Number of Agricultural energy audits conducted
Not reporting on this Output for this Annual Report

Output #16

Output Measure

- Clean Energy - Number of Direct Communications/Education by telephone and/or e-mail

Year	Actual
2013	297

Output #17

Output Measure

- Clean Energy - Number of Educational materials distributed
Not reporting on this Output for this Annual Report

Output #18

Output Measure

- Clean Energy - Energy Masters - Number of Home energy assessments
Not reporting on this Output for this Annual Report

Output #19

Output Measure

- Clean Energy - Energy Masters - Value of volunteer hours (hours x \$21.62 nationally recognized value of volunteer time/hour, adjusted for Colorado)
Not reporting on this Output for this Annual Report

Output #20

Output Measure

- Consumer - Number of Loans of energy audit equipment

Year	Actual
2013	44

Output #21

Output Measure

- Consumer - Number of Loans of power monitors
Not reporting on this Output for this Annual Report

Output #22

Output Measure

- Clean Energy - Energy Masters - Number of Educational contacts
Not reporting on this Output for this Annual Report

Output #23

Output Measure

- Clean Energy - Energy Masters - Number of Volunteer hours
Not reporting on this Output for this Annual Report

Output #24

Output Measure

- Clean Energy - Amount of External Grant Dollars
Not reporting on this Output for this Annual Report

Output #25

Output Measure

- Clean Energy - Amount of User Fees Collected

Year	Actual
2013	260

Output #26

Output Measure

- Clean Energy - Number of Websites (not number of Website hits)
Not reporting on this Output for this Annual Report

Output #27

Output Measure

- Clean Energy - Number of Websites hits (not number of Websites)

Year	Actual
2013	104594

Output #28

Output Measure

- Consumer and Ag Energy - Number of Uploads of multimedia
Not reporting on this Output for this Annual Report

Output #29

Output Measure

- Consumer and Energy Masters - Number of Entries using social media

Year	Actual
2013	80

Output #30

Output Measure

- Clean Energy - Annual savings in dollars) estimated from investments in energy efficiency and/or renewable energy
Not reporting on this Output for this Annual Report

Output #31

Output Measure

- Clean Energy - Capital invested in energy efficiency and/or renewable energy (in dollars)
Not reporting on this Output for this Annual Report

Output #32

Output Measure

- Clean Energy - Number of Certified Master Volunteers (of those related to Volunteers)
Not reporting on this Output for this Annual Report

Output #33

Output Measure

- Clean Energy - Number of New Technologies Expected to be Adopted by Producers

Year	Actual
2013	1

Output #34

Output Measure

- Clean Energy - Number of Trainings for Extension Staff

Year	Actual
2013	4

Output #35

Output Measure

- Clean Energy - Number of Trainings for Volunteers

Year	Actual
2013	47

Output #36

Output Measure

- Clean Energy - Number of Trainings/Classes/Workshops, Field Days, Activity Days

Year	Actual
2013	42

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Clean Energy 1.1) Participants analyze options for cost-effective energy conservation, efficiency, and/or renewable energy measures.
2	Clean Energy 1.2) Participants take advantage of financial incentives for energy efficiency and/or renewable energy.
3	Clean Energy 1.3) Participants conduct a basic energy assessment.
4	Clean Energy 1.4) Participants implement cost-effective energy conservation, efficiency, and/or renewable energy measures.
5	Energy Masters 2.1) Participants more closely follow and better comprehend energy-related news.

Outcome #1

1. Outcome Measures

Clean Energy 1.1) Participants analyze options for cost-effective energy conservation, efficiency, and/or renewable energy measures.

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Clean Energy 1.2) Participants take advantage of financial incentives for energy efficiency and/or renewable energy.

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

Clean Energy 1.3) Participants conduct a basic energy assessment.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	105

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Consumers tend to be most directly concerned with rising energy prices and financing renewable energy systems. To help consumers make financially sound energy decisions that also reduce greenhouse gas emissions, the Consumer Energy team directed its focus on creating and disseminating appropriate decision tools and publications.

What has been done

Created a DIY Home Energy Audit, a home energy audit loan program, and solar and wind decision tools.

Results

105 participants conducted a basic energy assessment. We held a DIY energy audit class on Feb 9 (partnering with CSU Extension specialist Cary Weiner, Clear Creek Extension, and United Power), where 28 people from Gilpin and Clear Creek learned about energy efficiency and how to use the website diyenergy.colostate.edu to find inefficiencies in their houses. Each household also received attic insulation (donated by an anonymous donor to Eagle Rock Youth with a Mission, and passed on to us). We also gave insulation to a few people who were not originally able to attend the class. In all, over 55,000 sf of insulation was given out, at a value of over \$10,000. 100% of the class attendees learned information they could use, and 100% indicated that they intended to make changes to improve the efficiency in their house. The Maintenance Department and Public Works were instrumental in moving the insulation from Eagle Rock to the old Road and Bridge building. -- Gilpin County

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

Outcome #4

1. Outcome Measures

Clean Energy 1.4) Participants implement cost-effective energy conservation, efficiency, and/or renewable energy measures.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	49

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Consumers tend to be most directly concerned with rising energy prices and financing renewable energy systems.

What has been done

A network of trained and educated volunteers disseminates information and offers services in Colorado communities. Volunteers serve as energy educators, home energy assessors (energy efficiency, solar, and wind), guest teachers, and in other roles according to their interests and

according to demand.

Results

49 participants reported implement cost-effective energy conservation, efficiency, and/or renewable energy measures. "After having the home energy audit done by the students in the class (with the professional), the homeowner went finished the installation of insulation in the attic of his home. This was a direct response to the information given to him through the energy audit, which will have a direct effect on his heating/cooling bill for the upcoming months." Weld County

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

Outcome #5

1. Outcome Measures

Energy Masters 2.1) Participants more closely follow and better comprehend energy-related news.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

Colorado Extension planning and reporting functions are under revision; reporting against the POW is difficult because many outputs and outcomes have been changed.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Participants report taking action as a result of knowledge gained through Extension programming.

Key Items of Evaluation

- "My participation in Colorado State University's Energy Master program has been richly rewarding. Working among a university staff committed to both educating and to learning made the Energy Master program a dynamic and fulfilling experience. Following my completion of the program, I accepted a position as a Field Energy Consultant with SolarCity, the nation's largest renewable energy utility company. I am looking forward to my continuing association with CSU and the Energy Master staff."

- " CSU's Energy Master Program provides an excellent foundation for learning about energy, energy efficiency, and alternative energies. Cary Weiner did a great job in developing/coordinating/conducting the program. He scheduled top notch speakers, including CSU professors, experts in the field, as well as himself, to conduct the webinars, and coordinated the Saturday field trip sessions. Anne Zander, CSU Boulder County Extension Agent, did an excellent job coordinating participants from six different counties and helping run the sessions, especially the Saturday sessions. Thanks to both of them for all their efforts in conducting this excellent program."

V(A). Planned Program (Summary)

Program # 9

1. Name of the Planned Program

Childhood Obesity

Reporting on this Program

Reason for not reporting

Extension and AES programs addressing childhood obesity are integrated into other planned programs.

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	5.0	0.0	0.0	0.0
Actual Paid Professional	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
Actual Volunteer	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 Matching	1890 Matching	1862 Matching	1890 Matching
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}
1862 All Other	1890 All Other	1862 All Other	1890 All Other
{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}	{NO DATA ENTERED}

V(D). Planned Program (Activity)

1. Brief description of the Activity

Programming to parents and care givers so they can learn and convey the importance of healthful dietary and activity habits to children.

2. Brief description of the target audience

Target audiences include children (birth through high school), parents, teachers and other school staff.

3. How was eXtension used?

{No Data Entered}

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	0	0	0	0

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

Patent Applications Submitted

Year: 2013

Actual: {No Data Entered}

Patents listed

{No Data Entered}

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	5	3	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of Trainings/Classes/Workshops, Field Days, Activity Days delivered to parents and/or care givers concerning healthful dietary and activity habits in children.

Year	Actual
2013	0

Output #2

Output Measure

- Number of participants in workshops

Year	Actual
2013	0

Output #3

Output Measure

- Number of volunteers engaged in this work

Year	Actual
2013	0

Output #4

Output Measure

- Number of external grant dollars generated for this work

Year	Actual
2013	0

Output #5

Output Measure

- Number of agencies partnering in this work

Year	Actual
2013	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of participants who, after learning the importance of healthful dietary and activity habits, convey that to children.
2	Number of participants who change behavior in order to improve healthful dietary and activity habits in children.

Outcome #1

1. Outcome Measures

Number of participants who, after learning the importance of healthful dietary and activity habits, convey that to children.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code	Knowledge Area
{No Data}	null

Outcome #2

1. Outcome Measures

Number of participants who change behavior in order to improve healthful dietary and activity habits in children.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

{No Data Entered}

What has been done

{No Data Entered}

Results

{No Data Entered}

4. Associated Knowledge Areas

KA Code Knowledge Area

{No Data} null

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Public Policy changes
- Competing Programmatic Challenges

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies)

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

V(A). Planned Program (Summary)

Program # 10

1. Name of the Planned Program

Nutrition and Health Promotion

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
703	Nutrition Education and Behavior	30%		0%	
704	Nutrition and Hunger in the Population	5%		0%	
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	5%		20%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	30%		30%	
724	Healthy Lifestyle	30%		50%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	12.0	0.0	2.0	0.0
Actual Paid Professional	12.0	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
242542	0	157253	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
242542	0	157253	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
328387	0	3838571	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Conduct basic and applied research on nutrition and wellness.

Health Promotion/Chronic Disease Prevention programs include:

- Strong Women, Strong Bones
- Heart Disease Awareness & Prevention
- Diabetes Awareness, Prevention and Management
- Nutrition Education for Low-income Audiences
- Nutrition and Wellness
- Multi-lesson series: Dining with Diabetes, Small Changes Make a Big Difference, Strong Women-Strong Bones, Moving Toward a Healthier You, Healthy Heart, Smart-START for a Healthy Heart
- Self-paced program - Self-Care for a Healthy Heart
- Single lessons - Workable Wellness (work site wellness).
- Youth programs: Food Friends-Making New Foods Fun for Kids, Eating Right Is Basic, Chef Combo's Fantastic Adventures in Tasting and Nutrition, Professor Popcorn

2. Brief description of the target audience

Adults in Colorado

3. How was eXtension used?

{No Data Entered}

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	0	0	0	0

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

Year: 2013
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	33	10	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- NH 13) Grant funding (external).
 Not reporting on this Output for this Annual Report

Output #2

Output Measure

- NH 14) User fees generated through these programs.
 Not reporting on this Output for this Annual Report

Output #3

Output Measure

- NH 10) Number of websites (this is sites, not hits)

Year	Actual
2013	1

Output #4

Output Measure

- NH 11) Number of website hits (this is number of hits, not number of sites.

Not reporting on this Output for this Annual Report

Output #5

Output Measure

- NH 12) Number of press releases/columns submitted.

Year	Actual
2013	108

Output #6

Output Measure

- NH 15) EFNEP 1) Adult: Paraprofessional educators provide [Number of]classes to adults in the neighborhoods in which they reside. Educators teach small group classes and one-on-one. Educators use Eating Smart Being Active (ESBA) a nutrition education curriculum developed by EFNEP staff in Colorado and California. In ESBA, participants learn basic nutrition, food safety and food resource management through Adult Learning Theory principles.

Year	Actual
2013	8862

Output #7

Output Measure

- NH 16) EFNEP 2) Youth: Educators teach [Number of] a series of nutritionally related lessons to groups of youth at schools and after school programs such as Boys and Girls club.

Year	Actual
2013	249

Output #8

Output Measure

- NH 17) SNAP-Ed 1) Adult: Paraprofessional educators provide [Number of]classes to adults in the neighborhoods in which they reside. Educators teach small group classes and one-on-one. Educators use Eating Smart Being Active (ESBA) a nutrition education curriculum developed by EFNEP staff in Colorado and California. In ESBA, participants learn basic nutrition, food safety and food resource management through Adult Learning Theory principles.

Year	Actual
2013	4160

Output #9

Output Measure

- NH 2) Number of Trainings/Classes/Workshops, Field Days, Activity Day America on the MoveDining with DiabetesFood Friends/LEAP StudyHealthy YouHealthy KidsSmall Steps to Health and Wealth COStrong Women Strong BonesStrong Women Healthy Hearts

Year	Actual
2013	841

Output #10

Output Measure

- NH 3) Number of Trainings for Volunteers.
Not reporting on this Output for this Annual Report

Output #11

Output Measure

- NH 4) Number of Trainings for Extension Staff.

Year	Actual
2013	4

Output #12

Output Measure

- NH 5) Number of Community Meetings Convened [examples: Advisory Groups, Councils, Coalition Meetings, Boards].

Year	Actual
2013	9

Output #13

Output Measure

- NH 6) Number of Community Meetings Facilitated [examples: Focus Group, Citizen Forum, Round Table Dialogue, Strategic Planning Process].

Year	Actual
2013	34

Output #14

Output Measure

- NH 7) Number of Community Coalitions, Collaborations, Alliances Formed to Address a Specific Issue [list specific groups/issue].

Year	Actual
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2013

70

Output #15

Output Measure

- NH 8) Number of Direct Communication/Education by telephone and/or e-mail.

Year

Actual

2013

1884

Output #16

Output Measure

- NH 9) Number of Newsletters (This is number of newsletters created/written, not number mailed or number of Coloradans who received them.)Family Matters, Other Newsletters.
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	NH 1.1a: The number of Coloradans that reported eating more of healthy foods.
2	NH 1.1b: The number of Coloradans that reported an intention to eat more of healthy foods.
3	NH 1.2a: The number of Coloradans that reported eating less of foods/food components which are commonly eaten in excess.
4	NH 1.2b: The number of Coloradans that reported an intention to eat less of foods/food components which are commonly eaten in excess.
5	NH 1.3a: The number of Coloradans that reported adopting healthy eating patterns.
6	NH 1.3b: The number of Coloradans that reported an intention to adopt healthy eating patterns.
7	NH 2.1a: The number of Coloradans that reported engaging in the recommended amount of physical activity.
8	NH 2.1b: The number of Coloradans that reported increasing their physical activity and/or reducing sedentary time.
9	NH 2.1c: The number of Coloradans that reported an intention to increase their physical activity and/or reducing sedentary time.
10	NH 3.1a: The number of Coloradans that reported knowing individual information on specific health indicators (e.g. blood pressure, cholesterol level, BMI, blood glucose, A1C, etc.).
11	NH 3.1b: The number of Coloradans that reported an intention to find out one or more risk factors (e.g. blood pressure, cholesterol level, BMI, blood glucose, A1C, etc.).
12	NH 4.1a. EFNEP 1) Upon completion of the class, the number of participants reporting improvement in one or more nutrition practices.
13	NH 4.1b. EFNEP 2) Upon completion of the classes, the number of participants showing improvement in one or more food resource management practices.
14	Percent of participants indicating an increase in knowledge regarding health promotion and/or disease prevention
15	Percent of participants reporting a change in behavior following participation in a health promotion/disease prevention program

Outcome #1

1. Outcome Measures

NH 1.1a: The number of Coloradans that reported eating more of healthy foods.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	211

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

EFNEP is a federally funded nutrition education program designed to help low income families choose healthy foods, keep foods safe and manage food dollars. Aggie Cano is the EFNEP Educator in Eagle County.

What has been done

Paraprofessional educators provide classes to adults in the neighborhoods in which they reside. Educators teach small group classes and one-on-one. Educators use Eating Smart Being Active (ESBA) a nutrition education curriculum developed by EFNEP staff in Colorado and California. In ESBA, participants learn basic nutrition, food safety and food resource management through Adult Learning Theory principles.

Results

211 participants reported they eat more of healthy foods.

?EFNEP has made an extreme difference in my life. After taking the classes, I made immediate changes to my diet, to the way I cook, and the groceries I buy.?

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #2

1. Outcome Measures

NH 1.1b: The number of Coloradans that reported an intention to eat more of healthy foods.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	712

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Nutrition and Health Promotion programming provides research-based education to a variety of audiences across Colorado in an effort to promote healthful eating habits, a physically active lifestyle, and management of chronic disease risk factors. Adoption of these behaviors may reduce the incidence of chronic diseases, such as diabetes, heart disease, obesity and cancer. Adoption of healthful eating and activity patterns as well as improved understanding of chronic disease risk factors can enhance the overall health and well-being of children, youth, adults, and the growing senior population.

What has been done

County Extension agents deliver programs that are selected to meet county demand.

Results

712 participants reported they intended to eat more of healthy foods.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #3

1. Outcome Measures

NH 1.2a: The number of Coloradans that reported eating less of foods/food components which are commonly eaten in excess.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	56

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Sugar sweetened high-calorie beverages are displacing other nutrient rich foods in our diets and causing cavities in our teeth. High sugar beverages are low in nutrients and add empty calories to the diet. Rising consumption of sugar sweetened drinks has been a major contributor to the obesity epidemic. Obesity related conditions put us at greater risk of chronic health problems such as: activity limitations, heart disease, high blood pressure, high cholesterol, stroke and diabetes. Many people are not aware of the liquid calories they consume in a day and the concentrated source of calories (or energy) a drink might contain. This presentation provides some insight into the health risks of sugar sweetened beverages.

What has been done

One Example: My goal is to help individuals and parents understand that drinking sugary high calorie beverages could play a role in the risk of being overweight leading to other healthy risks and dental caries. The objective of the presentation is that individuals and parents will figure out how much sugar is in their favorite drink.

Results

56 participants reported they eat less of foods which are commonly eaten in excess.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #4

1. Outcome Measures

NH 1.2b: The number of Coloradans that reported an intention to eat less of foods/food components which are commonly eaten in excess.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	191

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Sugar sweetened high-calorie beverages are displacing other nutrient rich foods in our diets and causing cavities in our teeth. High sugar beverages are low in nutrients and add empty calories to the diet. Rising consumption of sugar sweetened drinks has been a major contributor to the obesity epidemic. Obesity related conditions put us at greater risk of chronic health problems such as: activity limitations, heart disease, high blood pressure, high cholesterol, stroke and diabetes. Many people are not aware of the liquid calories they consume in a day and the concentrated source of calories (or energy) a drink might contain. This presentation provides some insight into the health risks of sugar sweetened beverages.

What has been done

My goal is to help individuals and parents understand that drinking sugary high calorie beverages could play a role in the risk of being overweight leading to other healthy risks and dental caries. The objective of the presentation is that individuals and parents will figure out how much sugar is in their favorite drink.

Results

191 participants reported they intended to eat less of foods/food components which are commonly eaten in excess. After a "Rethink your Drink" or other nutrition tips presentation, participants were asked, "As a result of this lesson, what might you change in your lifestyle?"

Some responses:

*Now, I will calculate how much sugar I eat.

*I would like to change the amount of sugar input I have and only drink H₂O. (No energy drinks & No junk-food!);

*Healthy mind, healthy heart & Soul.

*I'll reduce sugars and calories.

*I will be more aware of my portion sizes.

*I am going to eat more fruits and veggies and cut down on the sugar I eat every day.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #5

1. Outcome Measures

NH 1.3a: The number of Coloradans that reported adopting healthy eating patterns.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	43

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Simple food choices can support a healthy lifestyle.

What has been done

10 Tips to a Great Plate from the 2010 Dietary Guidelines presented at a Head Start Preschool Parent Committee Meeting. The 10 tips concentrated on making simple food choices for a healthy lifestyle.

Results

The parents were asked to record 3 nutritional goals for their family. Some of their goals included:

- *Drink less soda and juice (many stated this).
- *Don't eat as many high fat foods
- *Try 1% milk
- *Eat more fruits and vegetables (many stated this).
- *Cook with less salt
- *Eat more whole grains
- *Control food portions
- *Play outside with my kids

- *Get more exercise
- *Reduce fat and white bread

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #6

1. Outcome Measures

NH 1.3b: The number of Coloradans that reported an intention to adopt healthy eating patterns.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	94

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Simple food choices can support a healthy lifestyle.

What has been done

10 Tips to a Great Plate from the 2010 Dietary Guidelines presented at a Head Start Preschool Parent Committee Meeting. The 10 tips concentrated on making simple food choices for a healthy lifestyle.

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #7

1. Outcome Measures

NH 2.1a: The number of Coloradans that reported engaging in the recommended amount of physical activity.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	268

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

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

Outcome #8

1. Outcome Measures

NH 2.1b: The number of Coloradans that reported increasing their physical activity and/or reducing sedentary time.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	457

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Approximately 400,000 deaths each year in the United States are attributable to physical inactivity and poor nutrition. Fruit and vegetable consumption, calcium and vitamin D intake and physical activity are all lifestyle behaviors that contribute to overall good health.

What has been done

The Nutrition and Health Promotion work team focuses programming on these three lifestyle behaviors: Fruit and vegetable consumption, calcium and vitamin D intake and physical activity.

Results

457 participants reported they increased their physical activity and/or reduced sedentary time.

4. Associated Knowledge Areas

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

Outcome #9

1. Outcome Measures

NH 2.1c: The number of Coloradans that reported an intention to increase their physical activity and/or reducing sedentary time.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
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2013

195

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Approximately 400,000 deaths each year in the United States are attributable to physical inactivity and poor nutrition. Fruit and vegetable consumption, calcium and vitamin D intake and physical activity are all lifestyle behaviors that contribute to overall good health.

What has been done

The Nutrition and Health Promotion work team focuses programming on these three lifestyle behaviors: Fruit and vegetable consumption, calcium and vitamin D intake and physical activity.

Results

195 participants reported they intended to increase their physical activity and/or reduced sedentary time.

4. Associated Knowledge Areas

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

Outcome #10

1. Outcome Measures

NH 3.1a: The number of Coloradans that reported knowing individual information on specific health indicators (e.g. blood pressure, cholesterol level, BMI, blood glucose, A1C, etc.).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	51

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Adoption of healthful eating and activity patterns as well as improved understanding of chronic disease risk factors can enhance the overall health and well-being of children, youth, adults, and the growing senior population.

What has been done

Lifestyle changes can reduce blood pressure. Modifiable risk factors for CVD include lifestyle behaviors (e.g., tobacco use, physical inactivity and improper nutrition), health status (e.g., hypertension, hyperlipidemia, overweight or diabetes) and policies (e.g., smoking policies in restaurants and work sites).

Results

51 participants reported they knew individual information on specific health indicators (e.g. blood pressure, cholesterol level, BMI, blood glucose, A1C, etc.)

4. Associated Knowledge Areas

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

Outcome #11

1. Outcome Measures

NH 3.1b: The number of Coloradans that reported an intention to find out one or more risk factors (e.g. blood pressure, cholesterol level, BMI, blood glucose, A1C, etc.).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	59

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Adoption of healthful eating and activity patterns as well as improved understanding of chronic disease risk factors can enhance the overall health and well-being of children, youth, adults, and the growing senior population.

What has been done

Lifestyle changes can reduce blood pressure. Modifiable risk factors for CVD include lifestyle behaviors (e.g., tobacco use, physical inactivity and improper nutrition), health status (e.g., hypertension, hyperlipidemia, overweight or diabetes) and policies (e.g., smoking policies in restaurants and work sites).

Results

59 participants reported they intended to find out one or more risk factors (e.g. blood pressure, cholesterol level, BMI, blood glucose, A1C, etc.).

4. Associated Knowledge Areas

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

Outcome #12

1. Outcome Measures

NH 4.1a. EFNEP 1) Upon completion of the class, the number of participants reporting improvement in one or more nutrition practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	515

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

EFNEP is a federally funded nutrition education program designed to help low income families choose healthy foods, keep foods safe and manage food dollars.

What has been done

EFNEP Paraprofessional educators provide classes to adults in the neighborhoods in which they reside. Educators teach small group classes and one-on-one. Educators use Eating Smart Being Active (ESBA) a nutrition education curriculum developed by EFNEP staff in Colorado and California. In ESBA, participants learn basic nutrition, food safety and food resource management through Adult Learning Theory principles.

Results

515 participants reported they improved in one or more nutrition practices.

4. Associated Knowledge Areas

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

Outcome #13

1. Outcome Measures

NH 4.1b. EFNEP 2) Upon completion of the classes, the number of participants showing improvement in one or more food resource management practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	571

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

EFNEP is a federally funded nutrition education program designed to help low income families choose healthy foods, keep foods safe and manage food dollars.

What has been done

EFNEP Paraprofessional educators provide classes to adults in the neighborhoods in which they reside. Educators teach small group classes and one-on-one. Educators use Eating Smart Being Active (ESBA) a nutrition education curriculum developed by EFNEP staff in Colorado and California. In ESBA, participants learn basic nutrition, food safety and food resource management through Adult Learning Theory principles.

Results

571 participants showed improvement in one or more food resource management practices.

4. Associated Knowledge Areas

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

Outcome #14

1. Outcome Measures

Percent of participants indicating an increase in knowledge regarding health promotion and/or disease prevention

Not Reporting on this Outcome Measure

Outcome #15

1. Outcome Measures

Percent of participants reporting a change in behavior following participation in a health promotion/disease prevention program

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

Lifestyle factors, such as poor diet, physical inactivity and tobacco use, account for approximately 51% of one's health status. The impact of improved nutrition and physical activity behaviors on chronic diseases can be quite significant. Extension has the potential to improve the health of Colorado citizens by offering programming in Nutrition and Health Promotion which improves knowledge of chronic disease risk, enhances positive dietary and physical activity behaviors, and encourages environmental changes conducive to living a healthy lifestyle. The potential long-term impact of Extension programming includes decreased prevalence of chronic diseases.

- **Public Policy changes**

- Examples may include changes to school wellness policies; training opportunities for school personnel and food service staff, increases in funding for childhood obesity in the state and communities.

Government Regulations

- Funding for SNAP-ED and EFNEP is provided through federal sources. Changes in funding or program guidelines are plausible. Additionally, legislation regarding the School Nutrition program and the Farm bill may influence Extension programming.

Competing Public priorities

- In today's economic climate, Extension staff and partner agencies are being asked

to do more with less. Nutrition and health promotion programming may be a lower priority in some areas due to competing public priorities at both the local and state levels.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Nutrition and Health Promotion programs typically survey participants pre-post, or post presentation.

Key Items of Evaluation

As part of a grant from the Colorado Department of Public Health and Environment, ¡Estoy Sano!, a Spanish language cooking show, is being broadcast on Eagle County ECO TV 18 to bring nutrition and cooking education to the greater Latino population in Eagle County. The show features a local chef and his wife, who engage the audience in selecting healthy foods and proper cooking methods. This program is part of a larger, grant-funded project. The ¡Estoy Sano! project is one opportunity to address the health disparities in the Latino population. . During the first year of the grant, twelve episodes were filmed. The second year of the grant will increase to 20 episodes.

V(A). Planned Program (Summary)

Program # 11

1. Name of the Planned Program

Animal Production Systems

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
301	Reproductive Performance of Animals	30%		15%	
302	Nutrient Utilization in Animals	10%		20%	
303	Genetic Improvement of Animals	10%		20%	
307	Animal Management Systems	20%		20%	
311	Animal Diseases	15%		20%	
315	Animal Welfare/Well-Being and Protection	0%		5%	
601	Economics of Agricultural Production and Farm Management	15%		0%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	0.0	5.0	0.0
Actual Paid Professional	22.0	0.0	7.0	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
0	0	687579	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	687579	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	4765808	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

- Workshops and educational classes for producers
- Demonstration field days to showcase the results
- Individual counseling on producers' specific problems
- Conduct basic and applied research on livestock, primarily beef, dairy, sheep, and horses

2. Brief description of the target audience

Individual agricultural producers, commodity groups, agri-business partners

3. How was eXtension used?

{No Data Entered}

V(E). Planned Program (Outputs)

1. Standard output measures

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

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
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Actual	0	95	0
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V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Amount of grant dollars garnered to support animal research and outreach programs

Year	Actual
2013	0

Output #2

Output Measure

- Number of workshops presented

Year	Actual
2013	0

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Economic impact of the change in behavior reported
2	Change in knowledge with respect to animal production systems and reproductive efficiency
3	Livestock Management Systems
4	Integrated resource Management

Outcome #1

1. Outcome Measures

Economic impact of the change in behavior reported

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Change in knowledge with respect to animal production systems and reproductive efficiency

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

Livestock Management Systems

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The primary goal of this project is to yield a flexible, user-friendly decision support system that enables producers to make selection and mating decisions given their goals, performance, natural resource, and economic conditions specific to their individual marketing and production system that enables breeders to make economically sound selection and mating decisions and ultimately improve their profitability.

What has been done

The beef cattle selection decision support system is intended for use by beef cattle producers to integrate economic and production characteristics of their operation with the selection of breeding

animals in an effort to improve profitability through genetic improvement. Based on feedback from cattle breeders using the system we have been adding new features to streamline its use. That effort continues with the reprogramming and migration of the system to a new platform for delivery.

Results

With appropriate application this system could improve overall profitability of beef production. For instance, bulls are typically used for 3 breeding seasons with an average of 25 offspring produced per season; each of these bulls would produce a total of 75 offspring. If the system yields only an average of \$10 more profit per progeny produced and sold at weaning, this is \$750 per bull put in service. Given that cow-calf producers would likely keep replacements from progeny produced, economic benefits would exceed those estimates. Additionally, such a system would help producers select replacements specifically for the production and economic circumstances on their operation, potentially yielding increased results on an individual rather than a breed-wide basis.

4. Associated Knowledge Areas

KA Code	Knowledge Area
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
303	Genetic Improvement of Animals
307	Animal Management Systems
311	Animal Diseases
315	Animal Welfare/Well-Being and Protection
601	Economics of Agricultural Production and Farm Management

Outcome #4

1. Outcome Measures

Integrated resource Management

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Animal management systems are needed that will enhance the profitability and, therefore, sustainability of Colorado farmers and ranchers. The goal is to utilize the results of all appropriate research for development of integrated livestock management systems and provide this information to students and appropriate clientele groups and to determine the effectiveness of different educational systems in getting producers and/or managers to adapt integrated approaches to resource management.

What has been done

The Western Center for Integrated Resource Management research and educational efforts focus on enhancing profitability and sustainability of animal agriculture in the West to help maintain healthy rural communities. This is accomplished through use of various outlets and methodologies of teaching that combine hands-on and technologically advanced tools. Our customer/student focus has allowed us to become a leader in the online education sphere on the campus due to our continuing enrollment growth.

Results

Our enrollment in the online program continues to grow over previous years and the diversity of our student population has increased through the National Needs Fellowship Award (NNF) program. Through the NNF the program's outreach efforts are heightened among Tribal Colleges and other diverse populations around the globe including students from Africa and those serving in all branches of our Armed Forces overseas. We expect to continue to grow in this field and will work toward making our program better, more applicable and up-to-date.

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems
315	Animal Welfare/Well-Being and Protection
601	Economics of Agricultural Production and Farm Management

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies)

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}