

V(A). Planned Program (Summary)

Program # 10

1. Name of the Planned Program

Climate Change

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
132	Weather and Climate	100%	0%	0%	
	Total	100%	0%	0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	4.0	1.0	0.0	0.0
Actual Paid Professional	3.0	0.0	0.0	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
28847	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
28847	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

1. In service training workshops will be developed using research-based information

2. A centralized website will be implemented (as a component of the Florida Climate Institute's website)

containing:

- Resource library of internally vetted articles, government documents, lectures, NGO reports and links to websites
- List and links to existing UF/FSU research programs related to climate variability and change
- In-service training presentations
- Extension curriculum materials (PowerPoint presentations, EDIS publications, other resources)
- Funding opportunities, especially via RFPs which require an Extension component

3. EDIS publications targeting specific sectors, needs assessment reports, and risk assessments for specific industries and geographies

2. Brief description of the target audience

Potential partners include the Florida Climate Institute, the Southeast Climate Consortium, UF Water Institute, Florida's Water Management Districts, NOAA-Sea Grant Program, FL Fish and Wildlife Conservation Commission, Florida Exotic Pest Plant Council, and others.

Target audience includes all UF/IFAS Extension professionals and stakeholders.

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	43460	98829	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	4	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- {No Data Entered}

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Change in knowledge related to climate variability and climate change
2	Change in behavior related to climate variability and climate change
3	Change in condition related to climate variability and climate change

Outcome #1

1. Outcome Measures

Change in knowledge related to climate variability and climate change

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1568

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
132	Weather and Climate

Outcome #2

1. Outcome Measures

Change in behavior related to climate variability and climate change

2. Associated Institution Types

- 1862 Extension
- 1890 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	114

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Adaptive management strategies for agricultural industries are necessary as the science of climate variability and change have become more exacting. Management strategies that make production systems more efficient and or resilient to climate variability are crucial and are ways that producers can be employed adaptive strategies as climate continues to change. The target audiences are agricultural producers.

What has been done

More producers and Extension professionals understand how good management today is a way to prepare for a changed climate in the years ahead. Workshops and field days have been conducted and fact sheets prepared that highlight management strategies that can make production systems more efficient or more resilient to climate variability. These strategy changes are also ways that producers can get ready for climate change. In addition, Publications and presentations at conferences have allowed us to share our knowledge and experience about climate and climate adaptation issues with scientists, farmers, crop consultants and extension personnel in other states and nations. Several climate based decision aid tools have been created and are available on AgroClimate.org (<http://agroclimate.org/tools/strawberry/>).

Results

The strawberry disease tool developed is currently used by over 50 growers in Florida representing more than half of the strawberry acreage in the state. It is credited for reducing by more than 50% of sprays during winters with weather patterns that do not favor the occurrence of diseases in strawberry.

The chill accumulation tools is being used by temperate fruit growers in Florida to track chill accumulation and decide about the application of rest-breaking chemicals.

Youth and teachers have these tools and information in teaching about climate, climate change, and weather in the context of 4-H (<http://www.agroclimate.org/seclimate/wp-content/uploads/2013/07/Weather-and-Climate-Variability-Toolkit.pdf>).

Farmers with the proper knowledge and tools to manage and conserve soil water will be more resilient to climate change and climate variability. The irrigation scheduling tools (both sensor-based and ET-based) developed have improved the efficiency of water-use at the farm level.

4. Associated Knowledge Areas

KA Code	Knowledge Area
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132 Weather and Climate

Outcome #3

1. Outcome Measures

Change in condition related to climate variability and climate change

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

Florida is still heavily impacted by the economic downturn and although the economy appears to be improving it is expected that sequestration will be an issue and this is delaying a stronger economy. Public education in Florida has lost more than 50% of state funding and has been impacted by other losses or increases such as the failure of tuition to be increased to bring the state more into line with other state tuitions. Counties across the state are impacted by devolution from the state level and this also has a direct impact on the land-grant universities.

Natural and national disasters can also affect the number of volunteers available to work with youth and Florida citizens and this is an area that the land-grant universities use to support programs. Natural disasters such as hurricanes, fires, storms and flooding are common within the state leading to many issues that impact the land-grant colleges.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

There are now 2.94 faculty FTEs being expended in the area of Extension education related to climate change. Of those surveyed in climate related programs 1568 increased their knowledge, and 114 made changes in their behaviors. Many of those in educational programs related to climate are decision makers in county and state government and industry accounting for the lower numbers.

Key Items of Evaluation

Issues or Situation and Target Audiences:

Key provisions of the Biggert-Waters Flood Insurance Reform Act of 2012 legislation requires the National Flood Insurance Program (NFIP) to raise rates to reflect true flood risk, make the program more financially stable, and change how Flood Insurance Rate Map updates impact policyholders. The proposed changes would have significant impact on Pinellas County's 142,000 properties with subsidized flood rates provided through the NFIP, more than any other county nationwide. The target audiences for this program were floodplain managers, planners, government leaders and the public.

What we did:

UF/IFAS Extension Agents co-facilitated two public engagement Climate Conversations and a Regional Floodplain Management Workshop for a government audience. Extension agents brought together national, regional, and state subject-matter experts. The workshop included five presentations and a panel discussion that provided participants with an opportunity to ask specific questions to each of the presenters. The presentations covered the Biggert-Waters Act and Changes to the NFIP, Legal Challenges & Impending Legislation, the NEW Community Rating System, Evaluating the Effectiveness of Mitigation Strategies and the Coastal Resilience Index Tool. Continuing education credits were offered for professionals working on flood related issues namely certified floodplain managers and certified planners. Sixty-one floodplain managers, planners, and municipal leaders attended from 13 surrounding counties.

Outcomes/Impacts:

63 Participants attended the Climate Conversations and 55 completed the program evaluation. Of those surveyed, 75% of the participant's demonstrated increased knowledge by listing 2 or more facts they learned as a result of the workshops. 61 floodplain managers, planners, and government leaders from 13 counties attended the Regional Floodplain Management workshop. 82% of attendees who completed the workshop evaluation reported significant knowledge gain (n=45; 29% a lot, 53% moderate). Participants were provided with informational packets which included a program evaluation and a Homeowners Guide to Hurricane Preparedness (Florida Sea Grant). The evaluation revealed that many attendees were not familiar with Extension programs (32%) but 84% attended because of professional credits (AICP CM and CFM CEC) and 100% because of interest in subject matter. Ninety-five percent (95%) indicated that the workshop met their expectations and there was definite interest in other related topics (flood insurance, sea level rise, climate change).

The provision of a regional workshop by UF/IFAS Extension faculty filled a program niche as counties and municipalities struggle with addressing the concerns of citizens as it relates to NFIP. By facilitating these educational workshops, Extension can highlight current research and policies that provide cost effective solutions to local and regional problems.