

# 2007 University of Florida Research and Extension and Florida A&M University Extension Combined Plan of Work

## Brief Summary about Plan of Work

Florida is a unique and diverse agricultural state. The Sunshine State, with over 280 different crops being produced, is second only to California in agricultural diversity. This diversity assures that agriculture provides stability to Florida's economy. We consistently rank in the top 10 states nationally with farm cash receipts. Our farmers by and large do not benefit from Federal Farm Programs that raise other states' farm cash receipts. Florida's 44,000 farms are primarily family farms that manage more than 10 million acres of land. This, combined with commercial forestland, accounts for about 75 percent of the state's 35 million acres that are managed as some form of agricultural and natural resource enterprise.

Farmers operate in a classic supply and demand market and are more price-takers than price-makers. Even though agriculture has a \$54 billion impact on Florida's economy, there are sectors that have not prospered. In general, Florida's farmers were not participants in the economic boom of the 1990's. The economic pressure on our farmers has caused them to turn to IFAS for help in building profitability back into the agricultural operations. IFAS serves as the research and development arm for this diverse and broad-based industry. Small, limited resources and new farmers just establishing a farm learn about and can utilize the same technology that larger farmers utilize. This access to research and technology transfer through the extension function is because of IFAS and its land grant mission (Cockrell, 2003, Florida Farm Bureau, FAIR Report).

### The Institute of Food and Agricultural Sciences

Florida's governing body for higher education created the Institute of Food and Agricultural Sciences in April 1964, by reorganizing UF's College of Agriculture, School of Forestry, Agricultural Experiment Station, and the Cooperative Extension Service into a single unit. Today, UF/IFAS includes Extension in each of the state's 67 counties, the Agriculture Experiment Station with 13 research and education centers and a total of 19 locations throughout Florida, the College of Agricultural and Life Sciences, the School of Forest Resources and Conservation, the Center for Tropical Agriculture, portions of the College of Veterinary Medicine, the Florida Sea Grant Program and the International Program for Food, Agriculture and Natural Resources.

UF/IFAS Research and the Florida Cooperative Extension (comprised of UF/IFAS Extension and FAMU/CESTA Extension) provide Floridians with science-based research and life-long learning programs in cooperation with county and state governments, and the United States Department of Agriculture.

### Extension

From its inception, as intended, the Florida Cooperative Extension has extended research-based knowledge to communities across the state to solve problems. Extension continues to analyze and synthesize the results of university research and put that information in the hands of the public to improve the quality of life in Florida and does this through a variety of mechanisms and relationships. The most obvious of these is the continued partnership with county governments and the shared responsibility with counties to keep in place viable educational programs at the local level. Local needs often drive Extension's program and these needs frequently require resources from disciplines beyond those encompassed in Extension's university home in the Institute of Food and Agricultural Sciences.

Extension in Florida is defined by the cooperative efforts of Florida A&M University and the University of Florida. The universities operate under a memorandum of agreement which creates the "Center for Coordinated Agricultural Programs (CCAP). This agreement encompasses research, teaching and extension. The CCAP council meets annually to discuss project funding and other matters related to academic programs. Outside of this agreement FAMU extension and UF extension conduct programs in counties under the same parameters as outlined in the state statute 1004.37. There is no funding mechanism in the state university system to allocate funding to faculty with contact hours with non-enrolled or informal students.

The organizational structure of Extension is complex but very effective in engendering support from its most important partners. The core of extension program remains as its original conception. It is based on the delivery of university based research to the citizens of the state of Florida. The responsibility of the Dean for Extension is to coordinate the activities of the Extension faculty to engage in the production and delivery of educational programs. In the past, Florida has done this through design teams that support "state major programs (SMPs)", in-service training, publications, collaborative programming and county operations. Following a long-range strategic planning effort in 2003-2004 and an external review of the Extension organizational structure, Florida Extension has moved towards a more focused structure composed of 6 major goals that more clearly identifies the formal ties between research and Extension and is based on prioritizing the needs of the stakeholders.

The administrative team that manages this effort consists of the State Extension Director, the 1890 Administrator, state program leaders, 5 district directors, County Extension Directors and other support personnel.

Extension has actively tried to serve the state by utilizing the resources of other colleges and schools on the campus as well as nationally and internationally to provide educational programs to the public. Faculty are encouraged to become involved in both multistate and integrated activities with research to improve programs while reducing the need for fiscal and human resources.

For additional information, see <http://extadmin.ifas.ufl.edu/>

### Research

The UF/IFAS research mission is to invent, discover and develop knowledge to enhance the people and economy of Florida. Faculty members pursue fundamental and applied research that furthers understanding of natural and human systems. Research is supported by state and federal- appropriated funds and supplemented by grants and contracts. IFAS research expenditures in the 2002-2003 year exceeded

\$125 million.

The Florida Agricultural Experiment Station administers and supports research programs in UF/IFAS. The research program was created by federal legislation known as the Hatch Act, a follow-up to the Morrill Act that established US land-grant universities. The ultimate achievement of research is its contribution of new knowledge to the welfare of people. Within the UF/IFAS research organization the scope of research can be interpreted to include a broad range of activities that are related to agriculture and natural resources; the interrelationships among all people as suppliers of inputs and users of these products; the effects of agricultural and natural resource industries on people through environmental interfaces; and the social welfare of people as consumers.

The research programs support approximately 350 full-time equivalent faculty members in 20 academic departments on UF's Gainesville campus and at 13 research and education centers around the state many of them holding joint appointments in Extension and Teaching. There are more than 700 active IFAS research projects across the state. There is no formula funding within the state university system for this research component.

For additional information, see <http://research.ifas.ufl.edu/>

Research and Education Centers

There are 13 Research and Education Centers in the state. These are the facilities that house state faculty (research, teaching and extension) and some multi-county agents.

Citrus Research and Education Center

Everglades Research and Education Center

Florida Medical Entomology Lab

Ft. Lauderdale Research and Education Center

Gulf Coast Research and Education Center

Indian River Research and Education Center

Mid-Florida Research and Education Center

North Florida Research and Education Center

Range Cattle Research and Education Center

Southwest Florida Research and Education Center

Subtropical Agricultural Research Station

Tropical Research and Education Center

West Florida Research and Education Center

Departments

There are 19 academic discipline departments based on the Gainesville campus.

Agricultural Education and Communication

Agricultural and Biological Engineering

Agricultural Education and Communication

Agronomy

Animal Sciences

Entomology and Nematology

Environmental Horticulture

Family, Youth, and Community Sciences

Fisheries and Aquatic Sciences

Food and Resource Economics

Food Science and Human Nutrition

**Estimated number of professional FTEs/SYs to be budgeted for this plan.**

Year	Extension		Research	
	1862	1890	1862	1890
2007	32.0	8.0	67.0	0.0
2008	32.5	8.2	67.5	0.0
2009	32.7	8.5	67.7	0.0
2010	33.0	9.0	68.0	0.0
2011	33.5	9.2	68.5	0.0

## Merit Review Process

### The merit review process that will be employed during the 5-Year Plan of Work cycle

- Internal University Panel
- Expert Peer Review

### Brief explanation

Prior to the initiation of any research project or extension program that will be wholly, or in part, funded by federal formula funding, the designated review coordinator (or, in the case of some multi-institutional, regional or multi-state projects, the administrative advisor) will call for a peer review of the proposed research or extension project. A minimum of three peer scientists (i.e., individuals qualified by their status in the same discipline, or a closely related field of science) will be selected to read and provide written comments to the appropriate administrator on the proposed project. The focus goal team made up of focus team leaders will read and provide written comments to the appropriate administrator on proposed programs (focus areas).

The terms of reference for the reviewers will focus their attention on questions of the quality of the proposed science, technical feasibility of the research or extension program, the validity of the approach, and the likelihood for completing the stated objectives. Other equally important comments will include relevance to the state's priorities, the degree of integration between extension and research (as appropriate), responsiveness to stakeholders identified critical need areas, and the accuracy of any claims for multi-disciplinary, multi-institutional and multi-state collaboration.

Peer and Merit reviewers may be selected from the same campus or from another institution or organization at the discretion of the research and/or Extension dean(s), or by their delegated authority. Consideration will be given to the expenses associated with the reviewing individual proposal in the selection of reviewers. Additional consideration will be given to appointing reviewers who are without any apparent conflicts of interest and who are without personal or professional bias. Consideration may also be given in selecting reviewers that can protect confidential business information. The anonymity of the reviewers will not be preserved except in very special circumstances.

Peer and Merit reviewers may be selected from the same campus or from another institution or organization at the discretion of the research and/or Extension dean(s), or by their delegated authority. Consideration will be given to the expenses associated with the reviewing individual proposal in the selection of reviewers. Additional consideration will be given to appointing reviewers who are without any apparent conflicts of interest and who are without personal or professional bias. Consideration may also be given in selecting reviewers that can protect confidential business information. The anonymity of the reviewers will not be preserved except in very special circumstances.

Reviewers will be asked to present their findings in either paper or electronic format, and records of the reviewers comments will be preserved for the life of the project, or for a period of three years in the event that a project is not initiated. Document storage of all materials related to the Peer and Merit Review will be paper and/or electronic.

## Evaluation of Multis & Joint Activities

### 1. How will the planned programs address the critical issues of strategic importance, including those identified by the stakeholders?

Planned programs address the critical issues of strategic importance in several ways including integration between research and Extension and through collaboration and cooperation between states and regions.

Following each five year long range planning cycle which involves input by stakeholders from the grassroots to the state and national level, critical needs are identified, prioritized and separated into manageable focus areas. Critical issues requiring research are provided to research for further discussion and action.

In Extension goal teams are developed around these critical need areas. Critical issues are further divided into three to five focus teams related to each goal area. Presently Extension has a total of seven goal areas and 28 focus teams. These focus teams lead the statewide effort to find and implement solutions to the critical issues. These teams include faculty with research, teaching and Extension appointments. Both UF/IFAS and FAMU/CESTA faculty are included on these teams as well as some ag commodity and industry representatives.

Besides obtaining critical need issues from Extension research also works closely with stakeholders, regulatory agencies and international agencies to monitor other issues and critical needs that have been revealed as problems or potential. Projects are then developed that may be state, regional, national or international in composition.

Extension uses the scientific based results of research as they plan programs. Extension also works with other states in developing multi-state programs. One highlight are the yearly multi-state meetings held in the panhandle area of Florida between Florida, Alabama and Georgia. Several other states have expressed a desire to be involved. As can be seen, all of Florida's Extension programs and many research projects related directly to critical issues identified by stakeholders.

## **2. How will the planned programs address the needs of under-served and under-represented populations of the State(s)?**

As part of the strategic plan Extension identifies under-served and under-represented clientele. Issues are identified both by these populations and by organizations and services that work with and for them. Through this process Florida is aware of whether these issues are county specific or state-wide. Focus teams are provided with all of this information before they begin to design state-wide programs. Target audiences are identified as part of this process and special emphasis is placed on including under-served and under-represented populations.

## **3. How will the planned programs describe the expected outcomes and impacts?**

In Extension, as part of the program planning process state outcomes and impacts are developed by Extension focus teams to be used by all Extension faculty across the state. This allows for the collection of data that can be state aggregated. Outcomes and impacts may be measured and described in a multitude of ways. Some outcomes are obtained through qualitative or quantitative measures. Case studies identify others. Some outcomes are provided through observation.

Research identifies potential outcomes at the time the research project is developed and approved. For both Extension and research the expected outcomes and impacts described based on the critical issue that has been identified.

## **4. How will the planned programs result in improved program effectiveness and/or efficiency?**

The planned programs as they relate to integrated and multi-state activities result in improved program effectiveness and efficiency through:

The development of better solutions through the integration of research and extension

A broader knowledge base

A wider network of human resources

A wider more diverse audience reached

Less time spend by individual faculty in developing and implementing programs

## **Stakeholder Input**

### **1. Actions taken to seek stakeholder input that encourages their participation (Check all that apply)**

- 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 of selected individuals from the general public

### **Brief explanation.**

The strategic planning committee and the Extension and Research advisory committees help to identify ways to encourage participation in long range planning. The strategic planning committee was composed of county and state faculty with research, extension and teaching appointments. There was also professional staff included who have experience in strategic planning. This committee laid out a list of stakeholders and stakeholder groups who needed to participate. The research advisory committee also includes agriculture commodity and industry leaders who were able to provide additional input. District directors, county extension directors and educational research and extension center directors from around the state were also asked to provide names of stakeholders or organizations that needed to be included in identifying critical issues.

**2(A). A brief statement of the process that will be 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
- Needs Assessments
- Use Surveys

**Brief explanation.**

**Involving People in Long-range Planning**

Florida Extension underwent a long-range planning process that covered the period 2004-2007, a series of listening sessions were conducted with a variety of individuals and groups. Participants of these listening sessions will be asked to help translate Extension's purpose, vision and strategy into tangible future results. In support of that task, listening sessions will be conducted with the following groups:

1. Target audiences of Extension programs (both current and potential). This group of ultimate users must find relevance in our products and services or they will not use them. One way to insure relevance of purpose and direction of our educational programs is to ask those for whom such programs are targeted.
2. Extension advisory committees. Individual committee members who understand both the Extension program development process and the needs and concerns of their community can be a most valuable asset. In addition, their involvement in planning can foster greater commitment to programs they help develop.
3. Research, Teaching and Extension faculty. One of the long-standing missions of the land-grant university is to enhance economic well-being and quality of life of those the university is charged to serve. Keeping people abreast of current and emerging research and the educational experiences resulting from adaptations of that research is crucial to this mission.
4. Stakeholders of local, state and national priorities. Stakeholders (external and internal) play a key role in providing financial and other support for Extension programs. Listening sessions provide an opportunity to both obtain their input and make them aware of effective programs and changes/challenges that may impact Extension.

**County Listening Sessions**

The input from targeted audiences, stakeholders and County Extension Advisory Committees will be collected through listening sessions conducted within each county and sponsored by the County Extension Advisory Committee. Local citizens who are knowledgeable of the community—its important features, changes impacting it and what the community values—will be invited to participate in their county's listening session. The purpose of each listening session is to develop a community vision<sup>2</sup> that begins with answers to the following questions:

1. What do we value about our community?
2. What trends and issues are impacting what we value?
3. If current directions persist, is this where we want to go? If not, are there local resources that can best address each trend or issue?
4. Of those issues and/or concerns that can best be addressed through the expertise of Extension educators, what priority should be placed on each issue or concern?

**2(B). A brief statement of the process that will be used by the recipient institution to identify individuals and groups 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 with the general public (open meeting advertised to all)
- Meeting specifically with non-traditional groups
- Survey specifically with non-traditional groups
- Survey of selected individuals from the general public

**Brief explanation**

Every four years, the Florida Cooperative Extension Service develops a long range plan. The purpose of this plan is to help prepare for the challenges and changes facing the people of Florida over the next four years. It also is a time for Extension to reflect upon our purpose, vision, and strategies for carrying out our mission. By examining our past while looking to the future, we can better determine how well-prepared we are in helping people cope with the changing world.

One step of the planning process is to ask stakeholders, county extension advisory committees, traditional and potential audiences and Extension faculty to come together and help translate Extension’s purpose, vision, and strategies into tangible future programs that address economic, environmental and life quality issues facing individuals, families and youth, and communities in this county. Attention also focuses on how such issues affect those involved in the food and agricultural system and natural resources and the environment in which we live and work. This process included an external review conducted by administrators from other land grant universities, county listening sessions, customer satisfaction surveys, open meetings open to all, and calls for meetings in communities made up of non-traditional individuals. The information generated during this listening session is used by the county Extension faculty and the county Extension advisory committee in developing long-range objectives and action plans to guide our educational programs for future years. Research surveys traditional stakeholder groups and also holds informational meetings with traditional and non-traditional stakeholder individuals and groups in order to gather pertinent information. Both Extension and research have ongoing advisor committees made up of a wide diversity of members who provide and/or identify information related to critical issues affecting the state of Florida.

**3. A statement of how the input will be considered**

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

**Brief explanation.**

Both Extension and Research use the information obtained through stakeholder input to identify critical need priorities. In the most recent long range planning Extension identified over 800 need specific needs. Some of these were county specific and some require state-wide attention. Emerging issues also become obvious. Once priorities are identified administration and faculty are able to identify needs as short term, intermediate and long term. Once needs are identified both research and Extension are able to redirect programs as needed. For example over the past few years it became obvious that a department dealing with poultry was no longer needed however almost every county identified needs related to community development and sustainability. Priorities also identify the need for additional faculty and staff in specific areas where research or educational programs are required. These needs affect the budget and are taken into consideration as increase revenue is requested..

Input collected will be used to:

- Identifying emerging issues
- Redirect Extension programs as critical issues change
- Redirect research programs as critical areas evolve and change
- Set new priorities based on findings

## 1. Name of the Planned Program

Animals and their Systems--research

## 2. Program knowledge areas

- 312 10% External Parasites and Pests of Animals
- 301 10% Reproductive Performance of Animals
- 307 20% Animal Management Systems
- 303 10% Genetic Improvement of Animals
- 302 20% Nutrient Utilization in Animals
- 304 10% Animal Genome
- 311 10% Animal Diseases
- 305 10% Animal Physiological Processes

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

## 5. Brief summary about Planned Program

Reproduction performance  
Nutrient utilization in animals  
Animal physiological Process

## 6. Situation and priorities

The primary mission of the IFAS statewide animal sciences program in the area of research is to provide critical information needed to assist the livestock industries of Florida to achieve efficient production by contributing to the solution of livestock production problems through research. This mission is accomplished through the integration of research both at the University of Florida and research facilities such as the Department of Animal Sciences, the Range Cattle Research and Education Center (Ona), the North Florida Research and Education Center (Marianna), the Subtropical agricultural

Research Station, USDA-ARS (Brooksville) and the sixty-seven county extension facilities. Research in the area of animals includes issues related to animal production and protection. Included in this area but not inclusive are:

### Reproduction Performance

The advancement in vitro embryo technologies are still quite inefficient due to associated problems with early embryonic loss, large offspring syndrome, and postnatal mortality. The purpose of one project in Florida is twofold: 1) to devise rapid methods for assessing viability in preimplantation bovine embryos for increased survival; and 2) determine how in vitro culture conditions effect the expression of Insulin-like Growth Factor (IGF) family members.

### Nutrient utilization in animals

Management practices, diets fed and shortened dry periods are being evaluated in several projects involving dairy cows. The purpose of one of the studies is to examine the effectiveness of available technology, feeding management, and short dry periods to improve the feed intake of dairy cows around calving. The purpose is to improve their intake of feed, reduce their health problems and allow high milk production after calving. The project also examines whether it is possible to speed-up the dry-off of mammary tissue by using estrogen at the time of dry-off and thereby reduce the standard 60-day dry period in half.

## 7. Assumptions made for the Program

Research will uncover critical information needed to assist the livestock industries of Florida to achieve efficient production by contributing to the solutions of livestock production problems.

## 8. Ultimate goal(s) of this Program

Some goals include:

Examine the effectiveness of available technology, feeding management, and short dry periods to improve the feed intake of dairy cows around calving.

Improve their intake of feed, reduce their health problems and allow high milk production in cows after calving

Decrease early embryonic loss, large offspring syndrome, and postnatal mortality in meat and milk animals  
 Understand how the equine GnRH receptor can tolerate continuous

**9. Scope of Program**

- In-State Research
- Integrated Research and Extension
- Multistate Integrated Research and Extension
- Multistate Research

**Inputs for the Program**

10. Expending formula funds or state-matching funds : Yes

11. Expending other than formula funds or state-matching funds : No

**12. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2007	0.0	0.0	32.0	0.0
2008	0.0	0.0	32.5	0.0
2009	0.0	0.0	33.0	0.0
2010	0.0	0.0	33.5	0.0
2011	0.0	0.0	34.0	0.0

**Outputs for the Program**

**13. Activity (What will be done?)**

Conduct research experiments  
 Partnering

**14. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
● {NO DATA ENTERED}	● {NO DATA ENTERED}

**15. Description of targeted audience**

residents of Florida interested in animals and animal science. This includes  
 Growers//Ranchers  
 Producers/packaging  
 General public  
 Government officials  
 Scientists

**16. Standard output measures**

**Target for the number of persons(contacts) to be reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	0	0	0	0
2008	0	0	0	0
2009	0	0	0	0
2010	0	0	0	0
2011	0	0	0	0

**17. (Standard Research Target) Number of Patents**

**Expected Patents**

2007 : 1                      2008 : 1                      2009 : 1                      2010 : 1                      2011 : 1

**18. Output measures**

**Output Target**

{NO DATA ENTERED}

: {NO DATA ENTERED}                      : {NO DATA ENTERED}                      : {NO DATA ENTERED}                      : {NO DATA ENTERED}                      : {NO DATA ENTERED}

**Outcomes for the Program**

**19. Outcome measures**

**Outcome Text: Awareness created**

**Outcome Target**

{NO DATA ENTERED}

**Outcome Type:**

2007: {NO DATA ENTERED}    2008: {NO DATA ENTERED}    2009: {NO DATA ENTERED}    2010: {NO DATA ENTERED}    2011: {NO DATA ENTERED}

**20. External factors which may affect outcomes**

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

**Description**

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. Florida also has other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant research outcomes.

Changes may occur because of:

The loss of test sites from storm damage

An invasive species that requires priority

Changes in public priorities

Changes in state, county and federal appropriations

Changes in governmental regulations

## 21. Evaluation studies planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparison between locales where the program operates and sites without program intervention

### Description

Florida IFAS/research understands the importance of evaluating projects to provide scientifically accurate information and recommendations. Accepted research guidelines and procedures are followed.

## 22. Data Collection Methods

- Sampling
- Whole population
- Mail
- Telephone
- On-Site
- Structured
- Unstructured
- Case Study
- Observation
- Portfolio Reviews
- Tests
- Journals

### Description

Florida IFAS/research uses acceptable forms of qualitative and quantitative data collection methods.

## 1. Name of the Planned Program

Assist Individuals and Families to Achieve Economic Well-being and Life Quality

## 2. Program knowledge areas

- 602 10% Business Management, Finance, and Taxation
- 723 10% Hazards to Human Health and Safety
- 703 10% Nutrition Education and Behavior
- 604 10% Marketing and Distribution Practices
- 608 10% Community Resource Planning and Development
- 112 10% Watershed Protection and Management
- 712 10% Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occuring Toxi
- 701 10% Nutrient Composition of Food
- 136 10% Conservation of Biological Diversity
- 603 10% Market Economics

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

## 5. Brief summary about Planned Program

Planned programs relate to the following areas:

Personal and Family Well-being

Financial Management and Economic Well-being

Nutrition Food Safety and Health

Housing and Environment

Non-profit Organizations, Leadership and Volunteer Development

## 6. Situation and priorities

The population of Florida has mushroomed from a little over half a million (528,542) in 1900 to almost 16 million (15,982,378) in 2000 (750 people move to Florida every day). It is projected that by 2025 there will be 20.7 million people living in Florida. No other state in the Southern region even comes close to this rapid increase in population. The population of Florida continues to grow older as residents age and as aging individuals and couples move to Florida. It is projected that almost half of Florida's population growth in the next 25 years will be people age 65 and over, that is by 2025 the over 65 group will make up 26.33 percent of Florida's population. The Employee Benefit Research Institute projects that, if the current trend continues, by 2030 there will be a \$45 billion short fall in funds needed to cover basic expenses of retirees. Most at risk are low-income single women, who typically lack the resources needed to save for their retirement years. Many Floridians are relying on Social Security as their retirement income even though it is designed as a supplement and not the total retirement income. Average Social Security benefits for all of Florida's beneficiaries age 65 and older in 2000 was only \$818.89 per month. This is below poverty level. According to the National Fraud Center, Florida is one of the 10 states experiencing the greatest problem with fraud. Older Floridians are especially vulnerable to con artist and fraudulent scams. In 1998, 13.6 percent of Florida's population lived in poverty. That same year 22 percent of Florida's children under 18 lived in poverty. Florida's per capita income in 2001 was \$28,493, only 94 percent of the national average. As we begin the 21st century the family faces many challenges. The highest national debt level in history, a staggering consumer debt load, and runaway health care costs are major problems facing all Americans. Also of great concern is poor money management skills, overextended credit, limited life skills, a soaring school dropout rate the continuous move toward a service economy, and public issues of urban and rural families, the elderly, minorities, individuals, youth, farmers, and displaced farmers. Credit has become a way of postponing financial crises. According to the Federal Reserve household debt has hit a record high - 109 percent of household income; personal savings - a all time low; and personal bankruptcies are up 29 percent in the past five years. In 2003, 32,170 non-business bankruptcies were filed in Florida- up 5% from 2002. Last year American teenagers spent over \$172 billion. That is about \$5,400 each. Findings from a recent study sponsored by Jump Start [www.jumpstart.org](http://www.jumpstart.org) show that teenagers receive a failing grade in money management. That is students could answer only half (50.2%) of financial management questions correctly. Recent studies indicate a growing need for families to become more sophisticated in their financial decision making skills. The management of personal finance has become very complex with intricate tax laws, fluctuating interest rates, increase in the use of electronic technology by the financial industry, and proliferation of insurance products. At the same time, 28% of the adult population cannot correctly make change in a financial transaction. The Consumer Federation of America conducted a nationwide survey of consumer knowledge and found that participants gave correct answers to only 54% of 249 questions. (Adults fared little better

than teens.) Results showed that Americans are somewhat knowledgeable about taking prescriptions and over the counter drugs, about automobile repairs and maintenance and rental housing. On the other hand, they knew relatively little about purchasing a house and only slightly more about life insurance, checking and savings accounts, and food purchases. Eighty-seven percent of today's consumers are value conscious, they want top quality. But one in three find shopping stressful and consider it to be an inefficient use of their time. The cost of housing has increased from 20.2% of the family budget in the 1900's to about 35% in 2000. This includes utilities, furnishings and repairs as well as the cost of housing. Health care costs have steadily increased and there is no sign of this stabilizing or reversing. The cost of health care is beyond the reach of many families. In 2000, 20.5 percent of Floridians under 65 had no health insurance. Long-term health care is not affordable for most people. Nursing home stays average as much as \$40,000 per year, with long term health care insurance topping \$2,000 per year. Modern medicine and technology have extended the life expectancy, but living longer does not necessarily mean living better. The issues concerning Floridians today include outliving retirement benefits, threats to Social Security, asset transfer and estate management, elder care cost, affordable health insurance and the growing number of children and adults with no health insurance. Limited resource families, individuals, and youth lack consumer education and life-long skills such as decision making, financial management, time management and management of other resources. Most consumers are interested in inequities of family legal matters. Yet studies show that two-thirds of Floridians die without a will and one third of Floridian are unbanked.

Florida's children, youth and families are facing many risks in the 21st century. Diverse family structures such as teenage parents, single parents, dual earner families, stepfamilies, grandparents raising grandchildren, aging adults and caregiving families are increasing. Thirty percent of Florida's families are headed by a single parent (Kids Count, 2003). The number of teen parents (age 15-17) in Florida is extremely high; Florida ranks 34th in the nation (Kids Count, 2003). Nationally, 9.3% of US families are stepfamilies (Census Bureau, 2003). Among the states, Florida ranks 1st in the percentage of residents over the age of 65 (Current Population Surveys, 2002). The majority of Florida's families are working parents. In Florida, 57% of women with a child under the age of 6 are in the labor force and approximately 66% of mothers with children 6-17 years old work outside the home (Kids Count, 2003). Working parents need assistance in caring for dependent family members, including quality, affordable childcare and after-school care, as well as elder care. Families also face problems such as poverty, social isolation, parental substance abuse, stress, child abuse, and domestic violence. For example, 19% of Florida's children are poor (Kids Count, 2003). Florida is ranked 35th among states for the percentage of children in poverty (Children's Defense Fund, 2003). According to the U.S. Census Bureau, 18% of Florida's population is over the age of 65. Rising healthcare costs, changing health status and medical needs, depression, legal issues, and financial concerns impact this age group and their families. Increasingly, elders are also faced with raising their grandchildren (Kids Count, 2003). These demographic and social trends indicate a range of social and economic challenges facing Florida's families and communities. Devoting more resources to prevention education could minimize many of these challenges (Children's Defense Fund, 2003).

Nutrition, Food Safety, and Health Extension education programs address critical issues that affect the health and well-being of individuals, families and communities in Florida. Floridians who adopt healthful lifestyle behaviors will improve their nutritional status and health, and help reduce Florida's \$77 billion annual health care bill. Chronic diseases such as heart disease, cancer, stroke, and diabetes are related to lifestyle choices, and risk for these conditions can be reduced through behavior change. Heart disease and stroke are consistently the number one and three causes of death in the state, with 48,129 and 9,873 deaths, respectively, occurring in 2003. Cancer is the second leading cause of death in Florida, with 39,238 deaths occurring in 2003. Diabetes, the seventh leading cause of death in Florida, is one of the most expensive of the chronic diseases, with nationwide costs of \$92 billion for direct medical expenditures in 2002. An estimated 1 million adults in Florida have diagnosed diabetes and another 300,000 to 400,000 have undiagnosed diabetes. The incidence of overweight and obesity in Florida is rising. Among adults in the state, 35.1% are overweight and an additional 22.3% are obese. Obesity increases risk for diabetes, and risk of death from cardiovascular disease and cancer. Dramatic increases in overweight among children and youth need to be addressed to reduce risk of lifelong health problems. According to the Centers for Disease Control and Prevention, 76 millions cases of foodborne illness occur each year in the U.S., with over 500,000 hospitalizations and 5000 deaths. Each year the economic impact of foodborne illnesses ranges from \$6.5 to \$35 billion. Florida ranks as one of the top 10 states in the incidence of foodborne disease. National CDC surveillance data show that more than 50% of reported foodborne illness cases are attributed to foodservice operations. Proper nutrition and safe food is important for people at all stages of life and in all life conditions, but is especially critical during pregnancy, for young children and elders, for persons with limited resources, and for persons with conditions that compromise their immune systems. Pregnant women are at increased risk for severe effects of certain food borne pathogens that can adversely affect their bab

## **7. Assumptions made for the Program**

For the economically disadvantaged, a large majority of the elderly, and many families the quality of life in Florida needs to improve. Research has confirmed that providing education and support services to families significantly reduces many problems such as child abuse, debt, and bad eating habits. Reducing and/or improving these issues can result in better health physically and financially, a better outlook on life and more functional family units.

**8. Ultimate goal(s) of this Program**

Increasing cost effective returns to society through improved family intervention and prevention programs  
 Respond more quickly to the needs of Florida's families  
 collaborate and form strong partnerships with other not for profit, service and educational organization to improve the quality of life for Floridians  
 provide knowledge, motivation, and skills stakeholders need to adopt behavior changes that promote positive nutritional status and reduce health risks throughout the life cycle.  
 provide educational programs that teach stakeholders to better manage their available resources and resolve credit problems

**9. Scope of Program**

- In-State Extension
- Integrated Research and Extension
- Multistate Extension
- Multistate Integrated Research and Extension

**Inputs for the Program**

10. Expending formula funds or state-matching funds :            Yes
11. Expending other then formula funds or state-matching funds :            No
12. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	63.0	1.0	0.0	0.0
2008	63.2	1.2	0.0	0.0
2009	63.5	1.5	0.0	0.0
2010	63.9	1.9	0.0	0.0
2011	64.0	2.0	0.0	0.0

**Outputs for the Program**

**13. Activity (What will be done?)**

Conduct workshops and meetings  
 Deliver services  
 Develop products, curriculum, resources  
 Provide training  
 provide counseling  
 Make assessments  
 work with the media  
 develop partnerships

**14. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Education Class</li> <li>● Workshop</li> <li>● Group Discussion</li> <li>● One-on-One Intervention</li> </ul>	<ul style="list-style-type: none"> <li>● Public Service Announcement</li> <li>● Newsletters</li> <li>● TV Media Programs</li> <li>● Web sites</li> </ul>

- Demonstrations
- Other 1 (telephone calls)

- Other 1 (radio)

**15. Description of targeted audience**

Individuals/families  
 Families  
 Parents  
 Young Children  
 Youth  
 Couples  
 Caregivers  
 Individuals  
 Elders  
 Grandparents  
 Professionals/practitioners  
 County Faculty  
 Family Service Providers  
 Child Care Providers  
 After School Providers  
 Elder Care Providers  
 Teachers  
 Volunteers

**16. Standard output measures**

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults		Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target		Target	Target
2007	138126	6496614		0	0
2008	130000	6000000		0	0
2009	130000	6000000		0	0
2010	130000	6000000		0	0
2011	130000	6000000		0	0

**17. (Standard Research Target) Number of Patents**

**Expected Patents**

2007 : 0                      2008 : 0                      2009 : 0                      2010 : 0                      2011 : 0

**18. Output measures**

**Output Target**

classroom

2007 : 1                      2008 : 1                      2009 : 1                      2010 : 1                      2011 : 1

**Outcomes for the Program**

**19. Outcome measures**

**Outcome Text: Awareness created**

**Outcome Target**

Family members will learn strategies to prepare for the changes they face over the course of family life (e.g. marriage, parenting, retirement, etc.).

Individuals will develop the skills needed to manage stress effectively, thereby improving their personal health and relationships.

Individuals will learn the knowledge and skills necessary to attain strong, healthy family relationships.

Program participants will achieve an acceptable quality of life by managing available resources well enough to live within their incomes, by budgeting to achieve family goals, and by debt management.

Demonstrate increased knowledge of basic nutrition.

Demonstrate increased knowledge of healthy lifestyle practices.

**Outcome Type:** Short

2007: 1                                      2008: 1                                      2009: 1                                      2010: 1                                      2011: 1

**20. External factors which may affect outcomes**

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

**Description**

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. We also have other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida is a state with constant demographic changes. The influx of immigrants, elderly, increasing birthrates and changing demographics that occur because of natural disasters such as hurricanes can change population demographics quickly.

Dwindling resources can have an effect on public priorities that directly affect dollars earmarked for individual and family educational programs.

Changes in state, county and federal appropriations can also affect the outcomes.

**21. Evaluation studies planned**

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals,group,organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.
- Comparison between locales where the program operates and sites without program intervention

**Description**

The Florida land-grant college understands the value of evaluation in our annual program plan. Methods of evaluation are included as part of the annual faculty activity plan of work and report of accomplishment process (unifas). This information is collected as part of the logic model used in our Florida system and will be available for the CSREES reports of accomplishment on a yearly basis.

**22. Data Collection Methods**

- Sampling
- Whole population
- Mail
- Telephone
- On-Site
- Structured
- Unstructured
- Case Study
- Observation
- Tests

**Description**

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods.

## 1. Name of the Planned Program

Create and Maintain Florida Friendly Landscapes: The Smart Way to Grow

## 2. Program knowledge areas

- 112 10% Watershed Protection and Management
- 211 10% Insects, Mites, and Other Arthropods Affecting Plants
- 201 10% Plant Genome, Genetics, and Genetic Mechanisms
- 101 10% Appraisal of Soil Resources
- 204 10% Plant Product Quality and Utility (Preharvest)
- 205 10% Plant Management Systems
- 133 10% Pollution Prevention and Mitigation
- 102 10% Soil, Plant, Water, Nutrient Relationships
- 212 10% Pathogens and Nematodes Affecting Plants
- 206 10% Basic Plant Biology

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

## 5. Brief summary about Planned Program

Commercial horticulture/urban forestry services  
Residential landscapes  
Florida Yards and Neighborhoods (FYN)

## 6. Situation and priorities

The state of Florida includes 19 million residents, 58 million annual visitors, a unique ecology and climate, and a wide range of plant material grown year round. Frequently the residents, visitors and property managers have unrealistic expectations. These expectations may encourage customers to use landscape maintenance practices that have negative impacts on Florida's environment. Many of these people are dependent on professional horticulture service providers to make decisions regarding the landscape management of their properties. The professional horticulture services industry in Florida has a tremendous economic impact. According to the 2002 FNGA/IFAS Economic Impact Study this industry generates \$7.6 billion per year in estimated revenues. This industry also employs more than 120,000 people who make thousands of horticulture and pest management decisions daily. A large and growing portion of this work force is Hispanic. IFAS/Extension research and science-based educational programs can provide the green industry with best management practices and skills necessary to create and manage landscapes with reduced risk to the environment.

Florida has just over 5 million acres of lawns, many of which are in close proximity to water bodies. To reduce non-point source pollution and preserve these water resources and natural areas, it is critical that lawns and landscapes are managed with an environmental emphasis. Development of Best Management Practices (BMPs) for lawns and landscapes is one way to achieve this. How fertilizer is handled, stored, and applied and how water is used in the landscape can have a large effect on reduction of non-point source pollution. These principles should be followed by commercial horticulture services as well as homeowners. Many Florida residents - new, permanent, and temporary - share misperceptions about proper landscape care. Some Green Industry/Development professionals also have inaccurate conceptions about Florida-friendly landscaping practices. Faced with Florida's diverse and often unfamiliar conditions, well-meaning individuals often waste water, fertilizers, pesticides, and energy through inappropriate landscape designs and improper landscape practices. These existing practices can contribute to the degradation of the environment through runoff, leaching, and misuse of resources.

## 7. Assumptions made for the Program

People will be motivated by workshops and other educational activities to learn/change  
Information on best practices related to healthy landscapes show that these approaches work well for these target audiences  
Changes suggested in activities related to this program will improve quality of life for participants

## 8. Ultimate goal(s) of this Program

The overall goal of the Florida Yards and Neighborhoods (FYN) program is to educate Florida residents, visitors and Green Industry/Development professionals on how to create and maintain attractive and sustainable landscapes in Florida. FYN landscapes will improve Floridians' and visitors' quality of life while conserving the State's natural resources. Our specific goals are that Florida residents will: (1) incorporate environmental considerations in their landscape planning, design and

management and (2) adopt lawn and landscape maintenance practices that minimize negative environmental impacts and conserve natural resources. The FYN program addresses these goals by establishing and promoting educational programs to provide horticulturally-sound guidelines for Florida-friendly design and management of landscapes in Florida. FYN programs encourage residents and other stakeholders to water efficiently, mulch, recycle yard wastes, manage pests through IPM (Integrated Pest Management), put the right plant in the right spot, fertilize as needed, provide food, water and shelter for wildlife, protect ground water and surface water bodies (i.e., bays, rivers, lakes, ponds, etc.), improve stormwater quality and minimize stormwater runoff.

IFAS / Extension is the only organization in Florida with the ability to deliver research-based, unbiased technical information to the professional horticulture service industries on a county-by-county basis. Teaching the green industry current knowledge and skills will:

Encourage landscape design, installation and management practices that minimize negative environmental impacts and conserve natural resources.

Improve business profitability and longevity by providing business and management skills.

Improve Florida's economy through successful business growth.

Improve quality of life in Florida by protecting the environment

Improve property values through installation of Florida Friendly landscapes and their correct management.

Increase green industry professionalism through continuing education and certification programs.

Through improvement of the green industry's professionalism, the gap between unrealistic landscape expectations and the reality of a Florida Friendly landscape can be narrowed. In addition, the professional can pass on to the property owner the knowledge and skills appropriate for Florida conditions. With adoption of best management practices, the customer can realize the aesthetic, environmental and economic benefits of a healthy landscape.

IFAS has currently taken a leadership position in development of the BMPs and in the educational component of the program.

The goals of the BMP program are:

To reduce non-point source pollution resulting from lawn and landscape management

To provide guidance for cities and counties in developing ordinances or restrictions relating to lawn and landscape management

To provide a consistent educational program to be used statewide with modifications to be made by county faculty as needed locally

To encourage commercial horticulture services to think about not only keeping the landscapes looking manicured and making a profit, but also about the impact that their activities might have on the environment

**9. Scope of Program**

- In-State Extension
- Integrated Research and Extension
- Multistate Extension
- Multistate Integrated Research and Extension

**Inputs for the Program**

10. Expending formula funds or state-matching funds : Yes

11. Expending other than formula funds or state-matching funds : No

**12. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2007	60.9	0.5	0.0	0.0
2008	70.0	0.5	0.0	0.0
2009	70.2	0.5	0.0	0.0
2010	70.5	0.5	0.0	0.0
2011	70.9	0.5	0.0	0.0

## Outputs for the Program

### 13. Activity (What will be done?)

Conduct workshops and meetings  
 Deliver services  
 Develop products, curriculum, resources  
 Provide training  
 provide counseling  
 Make assessments  
 work with the media  
 develop partnerships

### 14. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Education Class</li> <li>● Workshop</li> <li>● Group Discussion</li> <li>● One-on-One Intervention</li> <li>● Demonstrations</li> <li>● Other 1 (telephone calls)</li> </ul>	<ul style="list-style-type: none"> <li>● Public Service Announcement</li> <li>● Newsletters</li> <li>● Billboards</li> <li>● TV Media Programs</li> <li>● Web sites</li> <li>● Other 1 (radio)</li> </ul>

### 15. Description of targeted audience

Professional Horticulture Services/Urban Forestry  
 Builders and Developers  
 Business Owners and Managers  
 County Faculty  
 Pesticide Applicators  
 Professional Horticulture Services  
 Property Managers  
 Recreational Turf Managers  
 Regulators and Policy Makers  
 Retail and Allied Services  
 Florida Residents  
 Homeowners  
 Landscape managers  
 Master gardeners  
 Commercial diagnostic service  
 Lawn maintenance service  
 Landscape design, installation, and maintenance service  
 Urban forestry service  
 Private and public golf clubs  
 Parks and trails  
 Solicitors of professional landscape services  
 Homeowners  
 Commercial residential property managers  
 Homeowners associations  
 Rental property managers  
 Business owners  
 Golf clubs  
 Beach resorts  
 Parks and trails (government agency)  
 Department of Transportation  
 Government and educators  
 Extension faculty  
 Public lands managers  
 Community educators and planners

Funding agencies  
 Regulators and policy makers  
 Master Gardeners/Florida Yard Advisors  
 Schools/school boards

**16. Standard output measures**

**Target for the number of persons(contacts) to be reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	370048	200036865	0	0
2008	370000	200000000	0	0
2009	370000	200000000	0	0
2010	370000	200000000	0	0
2011	370000	200000000	0	0

**17. (Standard Research Target) Number of Patents**

**Expected Patents**

2007 : 0                      2008 : 0                      2009 : 0                      2010 : 0                      2011 : 0

**18. Output measures**

**Output Target**

Field trials  
 classroom enrichment

2007 : 10                      2008 : 10                      2009 : 10                      2010 : 10                      2011 : 10

**Outcomes for the Program**

**19. Outcome measures**

**Outcome Text: Awareness created**

**Outcome Target**

Decreased landscape costs, pesticide usage, landscape call backs, disease problems, improper pesticide usage (industry, survey)  
 Improved basic diagnostic/identification skills, diagnostic/identification services, landscape maintenance services provided, pesticide usage, Florida landscapes (measured through clientele testimony, comment, survey).  
 Increase usage of diagnostic services, demand for professional services that utilize diagnostic services (measured by usage data from clinics, EDIS publications demand)  
 Increased awareness of plant pest problems, available diagnostic services, biosecurity risks, control choices (measured with "before and after" questions or surveys)

**Outcome Type:** Long

2007: 30                      2008: 30                      2009: 30                      2010: 30                      2011: 30

**20. External factors which may affect outcomes**

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

### **Description**

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. We also have other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida also has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant outcomes.

Changes in state, county and federal appropriations can also affect the outcomes.

### **21. Evaluation studies planned**

- Before-After (before and after program)
- During (during program)
- Case Study

### **Description**

The Florida land-grant college understands the value of evaluation in our annual program plan. Methods of evaluation are included as part of the annual faculty activity plan of work and report of accomplishment process (unifas). This information is collected as part of the logic model used in our Florida system and will be available for the CSREES reports of accomplishment on a yearly basis.

### **22. Data Collection Methods**

- On-Site
- Structured
- Unstructured
- Case Study
- Observation
- Tests

### **Description**

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods.

## 1. Name of the Planned Program

Developing Responsible and Productive Youth Through 4-H and Other Youth Programs

## 2. Program knowledge areas

- 806 100% Youth Development

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

## 5. Brief summary about Planned Program

Life skills developed in youth through subject matter experience  
Organizational strategies and learning environment to support youth programs  
Volunteer development and systems to support youth

## 6. Situation and priorities

4-H utilizes a variety of project and subject matter skills to engage youth in areas of interest. Subject matter programs and projects, additionally, become the "vehicle" through which youth engage with other adults, become self-directed learners, set goals, make independent choices and decisions, and gain mastery and accomplishment from their experiences. Florida 4-H programs target youth development "life skills" as outcomes for young people through the outreach education of subject matter educational programs and projects of the land-grant university. Youth will be able to:

Effectively communicate with others;

Develop and maintain positive relationships with others;

Process information to make effective decisions and positive choices;

Lead and contribute to others (peers, family, community);

Demonstrate marketable/productive skills for work and family life.

Florida 4-H annually educates over 240,000 youth enrolled in programs in all 67 Florida counties, reaching youth 5 to 18 years of age. Programs include clubs, day camps, overnight camping programs, school enrichment, and after-school programs. The goal of organizational strategies and learning environments is to support youth programs through developing a structure that effectively manages staff and volunteers.

Yearly over 13,000 adult volunteers and 1,200 teen volunteers shared their time, energy and talents in support of 4-H youth development programs in Florida. These Florida 4-H volunteers are steadfast in creating supportive environments for diverse youth and adults to reach their fullest potential. Volunteers frequently encounter new challenges and opportunities as they attempt to understand how to work effectively with diverse youth and adults, such as: language, philosophy, religion, income, style, status, education, age, gender, ethnic heritage, race, mental and physical abilities, and sexual orientation. Last year, 2005 new volunteers became involved in 4-H. Because of the complexity of the program and varying degrees of volunteer management systems in place, all volunteers may not receive sufficient orientation and training to meet their needs and to effectively guide positive youth development using the experiential learning model. As a result, some methods, procedures and policies may appear inconsistent. Further, 1574 volunteers provided project-specific education for youth, but due to the limited number of subject matter specialists at the state level, agents have few resources to support these valuable volunteers in project-specific education. Numerous partnerships are being created to maximize the collaborative potential of youth and adults within the 4-H organization at the state, district, county, club and community levels. There are a variety of youth-serving organizations, and many are competing for the same pool of volunteers and financial resources. Florida 4-H programs suffer from a continual reduction of funding and other resources. Currently there are opportunities for youth to apply volunteer skills, while working with adults in community service. There is even greater opportunity to promote and support in-depth civic engagement. To celebrate that community connection, 4-H groups need a mechanism to track these learning experiences.

## 7. Assumptions made for the Program

Youth will be motivated by workshops, projects and other educational activities to learn/change

Volunteers will learn to provide effective and efficient guidance to youth

Changes suggested in activities related to this program will increase knowledge and experience for Florida youth involved in 4-H and other land-grant college activities.

## 8. Ultimate goal(s) of this Program

Youth and volunteers will value, respect, and practice an appreciation for diversity.

Youth are actively engaged in their own development.

Youth are physically and emotionally safe

Youth develop a sense of belonging, in an inclusive environment

Youth develop knowledge and skills necessary for work and family life.  
 Youth develop personal competencies of decision-making, goalsetting, planning, organizing, managing resources, and self.  
 Youth grow and contribute as active citizens through service and leadership.  
 Youth develop and maintain positive relationships.  
 Youth develop personal competencies for self-reliance, independence and autonomy.  
 Youth develop marketable, productive skills and competencies for work and family life.

**9. Scope of Program**

- In-State Extension
- Integrated Research and Extension
- Multistate Extension
- Multistate Integrated Research and Extension

**Inputs for the Program**

10. Expending formula funds or state-matching funds : Yes
11. Expending other then formula funds or state-matching funds : No
12. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	83.0	1.0	0.0	0.0
2008	83.2	1.5	0.0	0.0
2009	83.5	1.9	0.0	0.0
2010	83.9	2.0	0.0	0.0
2011	84.0	2.2	0.0	0.0

**Outputs for the Program**

**13. Activity (What will be done?)**

Conduct workshops and meetings  
 Deliver services  
 Develop products, curriculum, resources  
 Provide training  
 provide counseling  
 Make assessments  
 work with the media  
 develop partnerships

**14. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Education Class</li> <li>● Workshop</li> <li>● Group Discussion</li> <li>● One-on-One Intervention</li> <li>● Demonstrations</li> <li>● Other 1 (telephone calls)</li> </ul>	<ul style="list-style-type: none"> <li>● Public Service Announcement</li> <li>● Newsletters</li> <li>● TV Media Programs</li> <li>● Web sites</li> <li>● Other 1 (radio)</li> </ul>

**15. Description of targeted audience**

- Youth
- Youth all ages (K-12)
- Youth, 4H EFNEP
- Youth, ages 8-18
- Youth 5-7 (grades K-2) years of age
- Youth 8-10 (grades 3-5) years of age
- Youth 11-13 (grades 6-8) years of age
- Youth 14-18 (grades 9-12) years of age
- Extension Staff and Faculty
- Extension Staff and Faculty
- Donors
- Donors
- Volunteers
- Teachers
- 4H EFNEP Volunteers
- School Administrators
- Judges/Coaches for Events and Activities
- Club Volunteers
- Teams of Volunteers
- Certified, Master, or Key Project Volunteers
- Resource Volunteers
- Community Organizations
- Youth Volunteers all ages

**16. Standard output measures**

**Target for the number of persons(contacts) to be reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	354937	9357276	0	0
2008	350000	9000000	0	0
2009	350000	9000000	0	0
2010	350000	9000000	0	0
2011	350000	9000000	0	0

**17. (Standard Research Target) Number of Patents**

**Expected Patents**

2007 : 0                      2008 : 0                      2009 : 0                      2010 : 0                      2011 : 0

**18. Output measures**

**Output Target**

- Field trials
- classroom enrichment

2007 : 30                      2008 : 30                      2009 : 30                      2010 : 30                      2011 : 30

## Outcomes for the Program

### 19. Outcome measures

#### Outcome Text: Awareness created

##### Outcome Target

Youth improve communication skills.  
 Youth develop decision-making, problem-solving and critical thinking skills  
 Youth develop improved competencies of goal-setting, planning and organizing  
 Youth develop positive relationship skills with others  
 Youth develop leadership skills  
 Youth develop competencies in citizenship and civic engagement  
 Youth develop employability and workforce preparation skills  
 Youth develop positive personal competencies of self-esteem and self-confidence  
 Youth develop increased self-responsibility  
 Youth develop increased competencies in personal ethics/character  
 Youth develop positive social skills  
 Youth improve agricultural and environmental knowledge/skills  
 Youth improve skills in animal sciences  
 Youth develop improved family and consumer skills  
 Youth develop healthy lifestyle choices  
 Youth develop science and technology skills  
 Staff/volunteers improved competencies to deliver youth program

Outcome Type: Long

2007: 25                      2008: 25                      2009: 25                      2010: 25                      2011: 25

### 20. External factors which may affect outcomes

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

#### Description

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. We also have other weather extremes such as floods leading to large scale damage especially along the coastal regions. All of these can have a direct and indirect impact on youth programs.

Because of limited resources in Florida and continuing devolution youth programs can always be affected by changing public and governemental priorities. These can include appropriations. Natural and national disasters can also affect the number of volunteers available to work with youth.

Changes in state, county and federal appropriations can also affect the outcomes related to youth.

### 21. Evaluation studies planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals,group,organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.
- Comparison between locales where the program operates and sites without program intervention

#### **Description**

The Florida land-grant college understands the value of evaluation in our annual program plan. Methods of evaluation are included as part of the annual faculty activity plan of work and report of accomplishment process (unifas). This information is collected as part of the logic model used in our Florida system and will be available for the CSREES reports of accomplishment on a yearly basis.

#### **22. Data Collection Methods**

- Sampling
- Whole population
- Mail
- Telephone
- On-Site
- Structured
- Unstructured
- Case Study
- Observation
- Portfolio Reviews
- Tests

#### **Description**

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods.

**1. Name of the Planned Program**

Economics, Markets and Policy--research

**2. Program knowledge areas**

- 609 10% Economic Theory and Methods
- 610 10% Domestic Policy Analysis
- 605 10% Natural Resource and Environmental Economics
- 603 20% Market Economics
- 601 10% Economics of Agricultural Production and Farm Management
- 606 10% International Trade and Development
- 607 10% Consumer Economics
- 604 20% Marketing and Distribution Practices

**3. Program existence :** Intermediate (One to five years)

**4. Program duration :** Long-Term (More than five years)

**5. Brief summary about Planned Program**

Economics of Agricultural production and farm management

Marketing and distribution practices

International trade and development

**6. Situation and priorities**

Economic development generally refers to targeted programs designed to enable people to raise overall per capita incomes or to improve circumstances for specific disadvantaged populations. The emphasis of the area is the enhancement of people's capacity to acquire and manage re-sources effectively, understand markets and policy related to these elements. Presently, economic transitions underway in rural Florida result in pockets of economic disadvantage. Public and private managers must cope with the costs of economic change and must be able to influence both the pattern and pace of growth. Insights are sometimes obtained from problem-solving work in other locations that may be applicable in Florida. Rural economic development, in-ternational development, economic impact analysis, domestic policy analysis and agricultural labor subject matter are also of interest. Some specific areas where Hatch research is taking place in IFAS include:

**Economics of Agricultural Production and Farm Management**

Citrus remains the most important crop produced in Florida. Florida citrus producers face a number of challenges including increased foreign competition, adoption of new technology including mechanical harvesting, and threats from invasive pests. This intent of one project in this area is to provide economic analysis of the issues confronting Florida including assessment of the competitive position of the citrus industry.

**Marketing and Distribution Practices**

Understanding more about the factors that influence consumers' subjective perceptions about food consumption will allow agribusinesses, agricultural producers, and policy makers to respond more effectively to consumer concerns. One Hatch project is designed to improve our understanding of the effects of consumer tastes and preferences, including food safety, on Florida agriculture.

**International Trade and Development**

International trade and development of new markets is important to Florida's agricultural industries. This includes the understanding and development of policy necessary for improved development of international trade. One project seeks to evaluate how the relative economic size of Caribbean Basin countries will condition their ability to realize the full economic benefits of trade liberalization and integration efforts in the Western Hemisphere.

**7. Assumptions made for the Program**

Improvements provided by these research projects will improve the quality of life for Florida residents

Improvements provided by these research projects will improve markets and policies for Florida stakeholders involved in international sales of Florida agricultural products

Information provided by these research projects will improve the economic well-being of Florida residents

**8. Ultimate goal(s) of this Program**

Provide economic analysis of issues confronting Florida stakeholders including assessment of the competitive position of Florida crops in the international market place.  
 Research factors that influence consumers' subjective perceptions about food consumption that will allow agribusiness, ag producers, and policy makers to respond more effectively to consumer and producer concerns  
 Understand and develop policy necessary for improved development of international trade

**9. Scope of Program**

- In-State Research
- Integrated Research and Extension
- Multistate Integrated Research and Extension
- Multistate Research

**Inputs for the Program**

10. Expending formula funds or state-matching funds : Yes
11. Expending other than formula funds or state-matching funds : No
12. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	0.0	0.0	11.5	0.0
2008	0.0	0.0	12.0	0.0
2009	0.0	0.0	12.4	0.0
2010	0.0	0.0	12.8	0.0
2011	0.0	0.0	13.0	0.0

**Outputs for the Program**

**13. Activity (What will be done?)**

Conduct Research Experiments  
 Partnering on an international level

**14. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
● {NO DATA ENTERED}	● {NO DATA ENTERED}

**15. Description of targeted audience**

international:  
 Agribusiness  
 producers  
 policy makers (county, state, regional, national, international)

**16. Standard output measures**

**Target for the number of persons(contacts) to be reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	0	0	0	0
2008	0	0	0	0
2009	0	0	0	0
2010	0	0	0	0
2011	0	0	0	0

**17. (Standard Research Target) Number of Patents**

**Expected Patents**

2007 : 1                      2008 : 1                      2009 : 1                      2010 : 1                      2011 : 1

**18. Output measures**

**Output Target**

{NO DATA ENTERED}

: {NO DATA ENTERED}                      : {NO DATA ENTERED}                      : {NO DATA ENTERED}                      : {NO DATA ENTERED}                      : {NO DATA ENTERED}

**Outcomes for the Program**

**19. Outcome measures**

**Outcome Text: Awareness created**

**Outcome Target**

{NO DATA ENTERED}

**Outcome Type:**

2007: {NO DATA ENTERED}    2008: {NO DATA ENTERED}    2009: {NO DATA ENTERED}    2010: {NO DATA ENTERED}    2011: {NO DATA ENTERED}

**20. External factors which may affect outcomes**

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

**Description**

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. Florida also has other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us

the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant research outcomes.

Changes may occur because of:

The loss of test sites from storm damage

An invasive species that requires priority

Changes in public priorities

Changes in state, county and federal appropriations

Changes in governmental regulations

Loss of public or private funding opportunities

Changes in international policy or trade agreements

## 21. Evaluation studies planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals,group,organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.
- Comparison between locales where the program operates and sites without program intervention

### Description

Florida IFAS/research understands the importance of evaluating projects to provide scientifically accurate information and recommendations. Accepted research guidelines and procedures are followed.

## 22. Data Collection Methods

- Sampling
- Whole population
- Mail
- Telephone
- On-Site
- Structured
- Unstructured
- Case Study
- Observation
- Portfolio Reviews
- Tests
- Journals

### Description

Florida IFAS/research uses a variety of acceptable forms of qualitative and quantitative data collection methods.

## 1. Name of the Planned Program

Enhance and Maintain Agricultural and Food Systems

## 2. Program knowledge areas

- 111 10% Conservation and Efficient Use of Water
- 104 10% Protect Soil from Harmful Effects of Natural Elements
- 211 10% Insects, Mites, and Other Arthropods Affecting Plants
- 141 10% Air Resource Protection and Management
- 136 10% Conservation of Biological Diversity
- 205 10% Plant Management Systems
- 204 10% Plant Product Quality and Utility (Preharvest)
- 201 10% Plant Genome, Genetics, and Genetic Mechanisms
- 133 10% Pollution Prevention and Mitigation
- 132 10% Weather and Climate

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

## 5. Brief summary about Planned Program

Planned programs relate to:

Agricultural profitability and sustainable use of environmental resources;

Awareness of agriculture's importance to an economy that ranges from local to global

Processing, distribution, safety and security of food systems

Plant, animal and human protection

Safety for agricultural operation and equipment

Some of the major commodity areas included are:

Agronomic row crops

Animal sciences and forages

Aquaculture

Citrus

Forestry

Fruits and Vegetables

Ornamentals and Turf

Small Farms and Alternative Enterprises (including small crop profitability)

Sugarcane and Rice

Small animal production (including goat)

## 6. Situation and priorities

Florida's agriculture and natural resources industry comprises a wide array of economic activities. This industry represents numerous value-added stages, including production, processing, wholesale distribution, retailing, and associated inputs and services. Some of the major production groups are fruits and vegetables, livestock, meat and dairy, forestry, environmental horticulture, seafood, and sugar. In addition, a variety of input and service businesses provide critical supporting roles. In 2002, the agriculture and natural resource industry generated over 60 billion dollars of output or sales impacts, \$21 billion in exports, \$3 billion in tax contributions and 650,000 jobs that provided \$20 billion in labor income.

The economic competitiveness of the agricultural industry is being impacted by many forces, both domestic and international. Domestic issues include falling real prices, increasing costs of inputs labor availability, environmental regulations, land use conversions to non agricultural activities. International issues include reduction of trade barriers, reducing agricultural subsidies to farm commodities, outsourcing of inputs (including labor) and finished products across national boundaries, all of which place pressure on the economic viability of the farm sector. Educational programs are needed that address the scope and depth of these issues.

Food safety and security are critical components of a sustainable industry. According to the Centers for Disease Control and Prevention (CDC), there are over 250 known different foodborne diseases. These diseases are caused by viruses, chemicals, toxins, and fungi, as well as bacteria which are the major source of illness. In the United States, where the food supply is one of the safest in the world, it is estimated that there are 76 million incidences of foodborne illness and approximately 5000 deaths yearly. These issues surrounding safety and security span the entire food sector, ranging from consumers to the food service

and processing industries. Increasingly, food safety and security are a focus of government, industry, media and consumer awareness. The need for accurate, easy to understand, accessible information is paramount to the success of the entire industry and the health and welfare of the entire population.

Food processing, service, preparation, and distribution are all vital activities that support the people of Florida and the state's agricultural industry. New and value-added product development contributes to a viable market for Florida products and provides for the array of products consumers expect. Effective distribution systems also enhance the state's ability to compete effectively in the domestic and global marketplace.

Plant, animal and human protection is becoming increasingly important as Florida's urban areas continue to grow rapidly and the more isolated farm population shrinks. The extension community is helping to provide this protection through partnerships across the continuum from farmers to households, including researchers, extension agents, agricultural producers, Master Gardeners, and Doctors of Plant Medicine. The mechanism for delivery is integrated pest management (IPM), the effective management of pests by using a variety of options that minimize risks to human health and the environment, e.g., pest resistant cultivars, selected growing practices, commercial natural enemies, antagonist microorganisms, and biorational pesticides. Available pest management options are diverse but virtually all of them rely on timely and accurate pest identification and diagnosis. To assure that IPM action is rapid and appropriate, the University of Florida, Institute of Food and Agricultural Sciences (IFAS) has established plant and animal pest diagnostic clinics and networks, such as Florida Plant Diagnostic Network (FPDN) and the Distance Diagnostic and Identification Information System (DDIS) that collaborate with Southern Plant Diagnostic Network (SPDN) and the Florida Department of Agriculture and Consumer Services (FDACS). When pesticides are used as a pest management option, the UF/IFAS Pesticide Safety Education Program (PSEP) provides training and information to applicators on safe, environmentally sound pesticide application practices, personal safety, and regulations. PSEP also assists applicators in meeting state and federal certification and licensing requirements to use pesticides in Florida. Agriculture remains one of the nation's and the state's most dangerous occupations. Typically, farmers are more likely to be injured or killed on the job than policeman or firefighters. Contrary to the popular image, agriculture is an industrial activity which exposes Florida's 200,000 farmers and farm workers to a wide variety of hazards -- some obvious and some well hidden. Safety is especially critical to the small farm and the family farm. A major injury or death can mean the end of such an enterprise. It is usual on these farms that every person is productively engaged in farm activities. Small farms often feel pressured to put children to work at very young ages because it is believed that their labor is needed to keep the farm from failing. A serious injury can critically wound farm operations because a worker is unable to perform and often, another worker or family member is diverted to care-taking. All this leads to reduced income and increased medical expenses. Most agricultural workers in Florida are employed by large corporations. The turnover may be moderate to high, and each worker brings his or her own set of safety standards to the job. It is important for producers to establish safety programs and safety standards so that injuries and deaths are minimized. Every injury in this kind of operation means worker compensation and lost productivity. The problem is compounded if lawsuits are involved, and an injury incident can have a long-term impact on morale and worker-manager relations.

## 7. Assumptions made for the Program

People will be motivated by workshops and other educational activities to learn/change  
Information on best practices shows that these approaches work well for these target audiences  
Changes suggested in activities related to this program will improve quality of life for participants

## 8. Ultimate goal(s) of this Program

Accurate use of enterprise budgets and analysis  
Adoption of alternative enterprises for increased profit or improved sustainability  
Adoption of appropriate fertility programs  
Adoption of appropriate varieties/breeds/cultivars/rootstock  
Adoption of efficient irrigation systems and technologies  
Attainment of advanced certification and/or license  
Correct identification of pests and proper use of control strategies  
Greater understanding and compliance with laws and regulations  
Greater understanding of domestic and international competition, markets, and policies  
Implementation of integrated pest management strategies  
Implementation of sustainable rotation systems  
Improved economic efficiency  
Improved management of animal health and welfare  
Improved processing systems for agricultural products  
Improved waste management practices  
Improved water management  
Increased adoption of BMPs  
Increased adoption of precision agriculture practices  
Increased application of management practices for prevention of agroterrorism and food safety issues

Increased application of management practices that enhance product yield and efficiency  
Increased communication and interaction with stakeholders  
Increased knowledge of effective marketing practices for agricultural products  
Increased public awareness of environmental stewardship by agricultural producers  
Increased safety of handling fuel, fertilizers, and pesticides  
Increased use of record keeping and financial planning systems  
Increased value added product development  
Increased wildlife habitat availability  
Reduced contamination of natural resource systems  
Greater appreciation for the goods and services from agriculture and natural resources  
Greater political support for agriculture and natural resources  
Increased awareness of economic impacts of agriculture and natural resources  
Increased awareness of environmental impacts of agriculture and natural resources  
Increased communication and interaction with stakeholders  
Increased consumer confidence in Florida's agricultural products  
Increased public awareness of environmental stewardship practices by agricultural and natural resource entities  
Improved food handling practices  
Improved food processing  
Improved food quality  
Improved food safety and security  
Improved market potential  
Improved safety and quality of imports/exports  
Improved safety and security at the retail level  
Improved security of imports/exports  
Improved transportation efficiency  
Improved transportation technology  
Improved understanding of import/export regulations  
Understanding of food regulations, domestic and/or international  
Adoption of appropriate pesticide programs  
Adoption of appropriate pest management tools  
Implementation of sustainable systems  
Increased knowledge of identification of pest species  
Increased usage of diagnostic services  
Increased knowledge of sampling and monitoring procedures and pest thresholds

**9. Scope of Program**

- In-State Extension
- Integrated Research and Extension
- Multistate Extension
- Multistate Integrated Research and Extension

**Inputs for the Program**

10. Expending formula funds or state-matching funds : Yes

11. Expending other than formula funds or state-matching funds : No

12. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	98.0	3.0	0.0	0.0
2008	98.2	3.0	0.0	0.0
2009	99.0	3.0	0.0	0.0
2010	99.2	3.5	0.0	0.0
2011	99.8	3.5	0.0	0.0

**Outputs for the Program**

**13. Activity (What will be done?)**

- Conduct workshops and meetings
- Deliver services
- Develop products, curriculum, resources
- Provide training
- provide counseling
- Make assessments
- work with the media
- develop partnerships

**14. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Education Class</li> <li>● Workshop</li> <li>● Group Discussion</li> <li>● One-on-One Intervention</li> <li>● Demonstrations</li> <li>● Other 1 (telephone calls)</li> </ul>	<ul style="list-style-type: none"> <li>● Public Service Announcement</li> <li>● Newsletters</li> <li>● TV Media Programs</li> <li>● Web sites</li> <li>● Other 1 (radio)</li> </ul>

**15. Description of targeted audience**

- Producers
- Commodity Associations
- Owners/Operators
- Managers/Supervisors
- Workers/Laborers
- Allied Industry Representatives
- Small Farmers
- Government/Regulatory
- County government
- State government
- Federal government
- Tribal government
- International governing bodies
- Harvesting/Packing/Processing/Distribution
- Harvesters/Packers
- Processors
- Distributors/Transporters
- Retailers

Importers/Exporters  
 Youth  
 4H(K-12)  
 Other Youth  
 Youth Educators  
 Extension Faculty  
 Extension Faculty

**16. Standard output measures**

**Target for the number of persons(contacts) to be reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	381678	29038877	0	0
2008	380000	29000000	0	0
2009	380000	29000000	0	0
2010	380000	29000000	0	0
2011	380000	29000000	0	0

**17. (Standard Research Target) Number of Patents**

**Expected Patents**

2007 : 0                      2008 : 0                      2009 : 0                      2010 : 0                      2011 : 0

**18. Output measures**

**Output Target**

Field trials  
 classroom enrichment

2007 : 30                      2008 : 30                      2009 : 30                      2010 : 30                      2011 : 30

**Outcomes for the Program**

**19. Outcome measures**

**Outcome Text: Awareness created**

**Outcome Target**

- Accurate use of enterprise budgets and analysis
- Adoption of alternative enterprises for increased profit or improved sustainability
- Adoption of appropriate fertility programs
- Adoption of appropriate varieties/breeds/cultivars/rootstock
- Adoption of efficient irrigation systems and technologies
- Attainment of advanced certification and/or license
- Correct identification of pests and proper use of control strategies
- Greater understanding and compliance with laws and regulations
- Greater understanding of domestic and international competition, markets, and policies
- Implementation of integrated pest management strategies
- Implementation of sustainable rotation systems
- Improved economic efficiency
- Improved management of animal health and welfare
- Improved processing systems for agricultural products

Improved waste management practices  
 Improved water management  
 Greater appreciation for the goods and services from agriculture and natural resources  
 Greater political support for agriculture and natural resources  
 Increased awareness of economic impacts of agriculture and natural resources  
 Increased awareness of environmental impacts of agriculture and natural resources  
 Increased communication and interaction with stakeholders  
 Increased consumer confidence in Florida's agricultural products  
 Increased public awareness of environmental stewardship practices by agricultural and natural resource entities

**Outcome Type:** Long

2007: 6                      2008: 6                      2009: 6                      2010: 6                      2011: 6

**20. External factors which may affect 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.)

**Description**

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. We also have other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida also has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant outcomes.

**21. Evaluation studies planned**

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals,group,organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.
- Comparison between locales where the program operates and sites without program intervention

**Description**

The Florida land-grant college understands the value of evaluation in our annual program plan. Methods of evaluation are included as part of the annual faculty activity plan of work and report of accomplishment process (unifas). This information is collected as part of the logic model used in our Florida system and will be available for the CSREES reports of accomplishment on a yearly basis.

**22. Data Collection Methods**

- Sampling
- Whole population
- Mail
- Telephone
- On-Site
- Structured
- Unstructured
- Case Study
- Observation
- Portfolio Reviews
- Tests
- Journals

**Description**

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods.

**1. Name of the Planned Program**

Families, Youth, and Communities--research

**2. Program knowledge areas**

- 802 100% Human Development and Family Well-Being

**3. Program existence :** Intermediate (One to five years)

**4. Program duration :** Long-Term (More than five years)

**5. Brief summary about Planned Program**

Youth Development

**6. Situation and priorities**

A major strength of the area of families, youth and communities is the diversity of disciplines that operate in collaborative and complementary ways to address issues of importance to individuals, families, and communities. This diversity allows human development to be considered from a broad perspective, giving consideration to the key contextual setting in which people are embedded. These contextual factors include families, neighborhoods, schools, communities, and extra-community linkages. These elements form the conceptual foundation for the research that takes place in this area.

Youth Development

Some IFAS faculty focus their Hatch research on youth development issues such as crime and violence prevention in public schools. This research has led to the development of a safe school survey and school climate survey model for Florida schools, an analysis of school crime and violence data quality systems, longitudinal studies on trends of youth crime and violence, and research on youth risk prevention program effectiveness. Other youth development research has focused on investigating partnerships that adults and youth form, for the purpose of addressing the goals of a local organization, community, or government entity.

Florida youth and adults expand and learn leadership skills through partnerships that promote community volunteerism, more specifically, engagement in civic governance. The research examines the knowledge, attitudes and skills of youth and adults regarding willingness to be involved in partnerships and how they apply leadership skills in partnerships for community governance.

**7. Assumptions made for the Program**

Through research human development can be considered from a broad perspective, giving consideration to the complex systems in which humans are embedded. These complex systems include families, neighborhoods, schools, communities, the state, the nation and the world.

**8. Ultimate goal(s) of this Program**

decrease crime and violence in youth populations

**9. Scope of Program**

- In-State Research
- Integrated Research and Extension
- Multistate Integrated Research and Extension
- Multistate Research

**Inputs for the Program**

**10. Expending formula funds or state-matching funds :** Yes

**11. Expending other than formula funds or state-matching funds :** No

**12. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2007	0.0	0.0	0.2	0.0
2008	0.0	0.0	0.4	0.0
2009	0.0	0.0	0.5	0.0
2010	0.0	0.0	0.6	0.0
2011	0.0	0.0	0.7	0.0

**Outputs for the Program**

**13. Activity (What will be done?)**

{NO DATA ENTERED}

**14. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
● {NO DATA ENTERED}	● {NO DATA ENTERED}

**15. Description of targeted audience**

{NO DATA ENTERED}

**16. Standard output measures**

**Target for the number of persons(contacts) to be reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	0	0	0	0
2008	0	0	0	0
2009	0	0	0	0
2010	0	0	0	0
2011	0	0	0	0

**17. (Standard Research Target) Number of Patents**

**Expected Patents**

2007 : 0                      2008 : 0                      2009 : 0                      2010 : 0                      2011 : 0

**18. Output measures**

**Output Target**

{NO DATA ENTERED}

: {NO DATA ENTERED}

: {NO DATA ENTERED}

: {NO DATA ENTERED}

: {NO DATA ENTERED}

: {NO DATA ENTERED}

**Outcomes for the Program**

**19. Outcome measures**

**Outcome Text: Awareness created**

**Outcome Target**

{NO DATA ENTERED}

**Outcome Type:**

2007: {NO DATA ENTERED}

2008: {NO DATA ENTERED}

2009: {NO DATA ENTERED}

2010: {NO DATA ENTERED}

2011: {NO DATA ENTERED}

**20. External factors which may affect outcomes**

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

**Description**

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. Florida also has other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant research outcomes. All of these can cause disruption in families that impact research on youth.

Changes may occur because of:

- Displacement of subjects
- Problem with changing populations because of economy impacts
- Chaos and disorder caused by natural and national disasters
- Loss of computer systems and data collections

**21. Evaluation studies planned**

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals,group,organizations) and non-participants

**Description**

Florida IFAS/research understands the importance of evaluating projects to provide scientifically accurate information and recommendations.

Accepted research guidelines and procedures are followed.

## **22. Data Collection Methods**

- Sampling
- Whole population
- Mail
- Telephone
- On-Site
- Structured
- Unstructured
- Case Study
- Observation
- Portfolio Reviews
- Tests
- Journals

### **Description**

Florida IFAS/Research uses a variety of acceptable forms of qualitative and quantitative data collection methods.

### 1. Name of the Planned Program

Food and Non-Food Products: Development, Processing, Quality, and Delivery--research

### 2. Program knowledge areas

- 504 5% Home and Commercial Food Service
- 501 20% New and Improved Food Processing Technologies
- 503 20% Quality Maintenance in Storing and Marketing Food Products
- 512 20% Quality Maintenance in Storing and Marketing Non-Food Products
- 502 20% New and Improved Food Products
- 511 15% New and Improved Non-Food Products and Processes

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

### 5. Brief summary about Planned Program

Post-harvest/post production

Food and Agriculture

New and Improved Food Processing Technologies

New and Improved Non-Food Products and Processes

### 6. Situation and priorities

This area addresses the needs in the development, processing, quality and delivery of food and non-food products. In this area Hatch research projects have been conducted in both areas. Some examples include:

Postharvest/Post Production

Research in this area address the needs of the foli-age and floriculture market chain. Currently the best interior evaluation facilities in the US are located within IFAS and IFAS has the only department with a program nationally addressing whole plant longevity on a broad scale. Major emphasis is placed on research to improve the performance of fresh cut flowers for the consumer.

Food and Agriculture

Florida ranks as a major agricultural state and often leads the nation in the production of a wide variety of agricultural commodities. Before reaching the consumer, each product moves through a unique marketing channel often involving grading, processing, packaging, transporting, international trade, wholesaling and retailing. The provision of inputs and services to the agricultural sector also involves significant economic activity. Agricultural businesses must cope with increased regulatory pressure, shifting consumer preferences regarding food safety and environmental protection as well as dealing with emerging opportunities through biotechnology. Agribusiness, farm management and production economics, marketing, international trade and competition, and consumer economics are among the subject matter that is the concern of Florida IFAS research.

New and Improved Food Processing Technologies

Value-added by-products research requires strong product utilization and processing industry support to maintain industry prominence in International markets. By-products research allows development of processing and utilization schemes to profitably deal with waste utilization, rather than pay disposal costs.

New and Improved Non-Food Products and Processes

Genetic manipulations to improve ethanol production in *Z. mobilis* are complicated by enzymes that prevent introduction of foreign DNA into the bacteria. The purpose of some projects in this area is to determine the factors that limit the efficiency of transfer of foreign genes into *Z. mobilis* and to produce new strains which will be more amenable to genetic engineering which may be used to enhance their fuel ethanol production.

### 7. Assumptions made for the Program

Improvements provided by these research projects will improve the quality of life for Florida residents

Improvements provided by these research projects will improve the development, processing, quality and delivery of food and non-food products

Information provided by these research projects will improve the economic well-being of Florida residents and agricultural industries

**8. Ultimate goal(s) of this Program**

Improve and better understand unique marketing channels that include grading, processing, packaging, transporting, international trade, wholesaling and retailing.  
 Understand and identify regulatory pressure, shifting consumer preferences regarding food safety and environmental protection as well as dealing with emerging opportunities through biotechnology  
 Identify and improve value-added by-products through strong product utilization and processing industry support to maintain industry prominence in International markets

**9. Scope of Program**

- In-State Research
- Integrated Research and Extension
- Multistate Integrated Research and Extension
- Multistate Research

**Inputs for the Program**

10. Expending formula funds or state-matching funds : Yes  
 11. Expending other than formula funds or state-matching funds : No

**12. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2007	0.0	0.0	11.0	0.0
2008	0.0	0.0	11.5	0.0
2009	0.0	0.0	12.0	0.0
2010	0.0	0.0	12.4	0.0
2011	0.0	0.0	12.8	0.0

**Outputs for the Program**

**13. Activity (What will be done?)**

Conduct research experiments  
 Partner  
 Work with stakeholders in processing areas to create and construct research facilities

**14. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
● {NO DATA ENTERED}	● {NO DATA ENTERED}

**15. Description of targeted audience**

State, national and international stakeholders affected by food and non-food developing, processing, quality and delivery. These may include but are not limited to:  
 producers

regulatory bodies  
 consumer groups

**16. Standard output measures**

**Target for the number of persons(contacts) to be reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	0	0	0	0
2008	0	0	0	0
2009	0	0	0	0
2010	0	0	0	0
2011	0	0	0	0

**17. (Standard Research Target) Number of Patents**

**Expected Patents**

2007 : 1                      2008 : 1                      2009 : 1                      2010 : 1                      2011 : 1

**18. Output measures**

**Output Target**

{NO DATA ENTERED}

: {NO DATA ENTERED}                      : {NO DATA ENTERED}                      : {NO DATA ENTERED}                      : {NO DATA ENTERED}                      : {NO DATA ENTERED}

**Outcomes for the Program**

**19. Outcome measures**

**Outcome Text: Awareness created**

**Outcome Target**

{NO DATA ENTERED}

**Outcome Type:**

2007: {NO DATA ENTERED}    2008: {NO DATA ENTERED}    2009: {NO DATA ENTERED}    2010: {NO DATA ENTERED}    2011: {NO DATA ENTERED}

**20. External factors which may affect outcomes**

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

**Description**

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state.

Severe weather conditions such as droughts frequently led to large-scale fires. Florida also has other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant research outcomes.

Changes may occur because of:

The loss of test sites from storm damage

An invasive species that requires priority

Changes in public priorities

Changes in state, county and federal appropriations

Changes in governmental regulations

Loss of public or private funding opportunities

## 21. Evaluation studies planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals,group,organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

### Description

Florida IFAS/research understands the importance of evaluating projects to provide scientifically accurate information and recommendations. Accepted research guidelines and procedures are followed.

## 22. Data Collection Methods

- Sampling
- Whole population
- Mail
- Telephone
- On-Site
- Structured
- Unstructured
- Case Study
- Observation
- Portfolio Reviews
- Tests
- Journals

### Description

Florida IFAS/research uses a variety of acceptable forms of qualitative and quantitative data collection methods.

**1. Name of the Planned Program**

Healthy Communities

**2. Program knowledge areas**

- 803 15% Sociological and Technological Change Affecting Individuals, Families and Communities
- 610 20% Domestic Policy Analysis
- 608 20% Community Resource Planning and Development
- 802 10% Human Development and Family Well-Being
- 805 10% Community Institutions, Health, and Social Services
- 806 5% Youth Development
- 903 20% Communication, Education, and Information Delivery

**3. Program existence :** Intermediate (One to five years)

**4. Program duration :** Long-Term (More than five years)

**5. Brief summary about Planned Program**

Addressing the urban/rural interface  
 Broad-based citizen participation and active communities  
 Economic diversity  
 Community Preparedness

**6. Situation and priorities**

As population growth and demands for natural resources continue to dramatically impact the state of Florida, it is vital that our communities be able to adequately plan for and manage related pressures. This is particularly true in areas where urban and rural areas intersect. Florida continues to be one of the most rapidly growing states in the nation with an estimated 17,397,161 residents, an increase of 4,461,090 since 1990 . Every county in Florida experienced an increase in population between 1990 and 2004. More than half of the state's 67 counties grew by more than 25 percent during this period and 59 grew by more than the national growth rate average of 13.2 percent. Five counties grew by more than 60 percent (Flagler, Sumter, Collier, Wakulla, and Osecola), while another five grew by 40-60 percent (Gilchrist, St. John's, Walton, Santa Rosa, and Hendry) .In many areas of Florida the pace of population growth and rapid urbanization has defied our best efforts to plan for or manage it. Impacts of population growth and development include low-density sprawled housing, traffic congestion, loss of agricultural lands and open space, and degradation of critical habitat . In addition, skyrocketing land values, particularly within Florida's coastal communities, have fueled the conversion of agricultural and commercial properties to 'highest best uses' in the form of high-end homes and condominiums that effectively eliminate working waterfronts, and public access to water resources. Loss of community identity is another unintended consequence of soaring land values and rapid sprawled development, with many locals no longer able to maintain businesses or afford to live in the communities where they work. Education and extension related to growth management was identified as a top need by, community officials, stakeholders, County Extension Advisory Committees, and faculty in a series of 'listening sessions' hosted by the University of Florida's Institute of Food and Agricultural Sciences, in 2003. In addition, issues related to population growth and development - particularly along the urban and rural interface - were ranked as a high priority for extension and education programming during the first annual IFAS Community Development Summit, which took place in January 2005. Faced with the variety of economic, social, and environmental issues present in Florida, the ability of local residents to come together to address community issues is vital to the long-term viability and sustainability of our communities and cultures. The cornerstone of effective community development is the active involvement of local citizens in planning, decision-making, and efforts to enhance local well-being. The development of volunteers, leadership, and social change mechanisms is best facilitated by community action. Community action serves as a catalyst for transforming routine interaction into purposive efforts that contribute to the emergence of community. This adaptive capacity is reflected in the ability of people to manage, utilize, and enhance those resources available to them in addressing local issues and needs. This component will focus on the importance of community action, as well as present a discussion of the process by which it takes place.

Communities in Florida are impacted by a number of forces that are national or international in scope, and they face a range of problems including growth management, affordable housing, economic development, overcrowded schools, and environmental protection while trying to provide adequate care for children, the elderly, and low income families and individuals. Florida is the nation's fourth largest state with a current population that exceeds 16 million, and population is expected to reach 20 million by the year 2020. The largest absolute population gains will be in existing urban areas, the fastest growth rates are expected in more rural counties located near the urban areas, and other smaller, rural counties in the southern interior and in the northern parts of the state will experience lower levels of population growth and economic development. Communities also face pressure

from a number of broader social and economic trends. There is a restructuring of the traditional family towards single-parent households and towards households where both parents work, local governments are becoming more specialized in response to more complex state and federal regulatory requirements, economic restructuring has resulted in the decline of traditional jobs and increased numbers of jobs in knowledge oriented industries. Agriculture in rural areas is increasingly dependent on the local economy to provide off farm income, and in urban areas of Florida, high-value crops are competing with urban interests for land and water resources.

“Disaster” has always been a normal part of community life in Florida because of the annual hurricane season. Florida is also susceptible to river floods, droughts, wildland fires, and freezes. For almost 50 years, Florida has consistently ranked as the top state in terms of the economic impact of natural disaster, with an average cost per year of \$1.7 billion (1999 dollars; data for 1955-1999). The potential impact of disasters on Florida continues to increase with Florida’s growth. One of Florida’s great assets is its extensive coastline. At 1350 miles, it is the longest coastline in the continental United States. Florida’s coast is heavily built, especially on the east and southwest coasts. These areas face special dangers from hurricane-induced storm surges. Florida’s “coastal plain” is also very low-lying and readily subject to flooding. Millions of Florida residents live in areas that could be flooded. In the event of an approaching hurricane, potentially affected coastal communities would have to be evacuated. Increasing population has resulted in considerable development and urban sprawl. There are huge subdivisions and communities where formerly there was only range, forest, or swamp. Large urban populations have put considerable stress on Florida’s water resources, increasing the stress on and competition for resources during drought. Wildfire can be a significant danger in Florida. The 1998 fire season was one of the worst on record. Development exacerbates the problem because so much development is taking place at the ‘wildland-urban interface.’ The last few years have increased awareness of the possibility of intentional disasters, such as attempts to contaminate the food supply or direct attacks against people or buildings. Florida’s role as a worldwide tourist destination might make it an attractive target for acts of terrorism. Florida’s geographic situation, with its extensive coastline and easy access to the Caribbean, make it an ideal gateway for the illegal entry of people or materials.

Communities need guidance and expertise to prepare for, survive, and recover from the many kinds of events that can challenge them. The key to both surviving a disaster and recovering quickly is preparedness. A community cannot prepare for literally “anything,” but good preparedness and planning are powerful ways of mitigating the impact of the kinds of disasters we already know are likely in Florida. Florida Extension is well situated to provide information on preparedness, survival and recovery to a wide variety of audiences. Among the factors that make Extension uniquely suited for this task are Extension’s educational mission, Extension’s tradition of community involvement and the knowledge Extension professionals have of their localities. For example, during and after Hurricane Andrew, the Extension Service played an important role in Miami-Dade County, assisting citizens and linking people and resources. Further, Florida Extension is engaged with many other agencies and groups working on disaster and terrorism issues, and again, is well positioned to bring a wide variety of resources to bear in creating informational and training materials. In short, the story in Florida is one of profound and prolonged change. As a result, Florida communities and their citizens face a complex set of issues that lend themselves to involvement and engagement on the part of concerned citizens and community groups. Such involvement, however, requires educational programs to develop leadership and analytical skills and programs to provide information on alternative methods for approaching problems.

## 7. Assumptions made for the Program

People will be motivated by workshops and other educational activities to learn/change related to community issues.  
Changes suggested in activities related to this program will improve quality of life for participants

## 8. Ultimate goal(s) of this Program

Provide training and expertise in the area of community organization  
Build important skills necessary for bringing local residents together to deal with a diversity of community development processes.  
Train citizen participants and local government officials to deal with a diversity of social and economic changes

## 9. Scope of Program

- In-State Extension
- Integrated Research and Extension
- Multistate Extension
- Multistate Integrated Research and Extension

## Inputs for the Program

10. Expending formula funds or state-matching funds : Yes

11. Expending other than formula funds or state-matching funds : No

**12. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2007	8.0	0.5	0.0	0.0
2008	8.2	0.5	0.0	0.0
2009	8.5	0.5	0.0	0.0
2010	8.8	0.5	0.0	0.0
2011	9.0	0.5	0.0	0.0

**Outputs for the Program**

**13. Activity (What will be done?)**

- Conduct workshops and meetings
- Deliver services
- Develop products, curriculum, resources
- Provide training
- provide counseling
- Make assessments
- work with the media
- develop partnerships

**14. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Education Class</li> <li>● Workshop</li> <li>● Group Discussion</li> <li>● One-on-One Intervention</li> <li>● Demonstrations</li> <li>● Other 1 (telephone calls)</li> </ul>	<ul style="list-style-type: none"> <li>● Public Service Announcement</li> <li>● Newsletters</li> <li>● TV Media Programs</li> <li>● Web sites</li> <li>● Other 1 (radio)</li> </ul>

**15. Description of targeted audience**

- Community audiences
- Government
- Local Government
- State Government
- Regional Agencies
- Non-Governmental Organizations
- Economic Developmental Organizations
- Chambers of Commerce
- Non-Profit Organizations
- Individual Citizens and Citizen Groups
- Clubs, Community and other Civic Organizations
- Individuals
- Quasi-governmental Organizations
- Economic Development Organizations
- Tourism Development Organizations
- Housing Authorities
- Businesses

- Small businesses
- Minority businesses
- Home-based businesses
- Disaster audiences
- Agriculturists
- Agricultural Producers
- Large Animal Owners
- Small Animal Owners
- Boating
- Boaters
- Marina Owners
- Homeowners/Residents
- Adults/Families
- Coastal Residents
- Special Populations
- Children (6-13)
- Non-English Speakers
- Elders
- Disabled
- Extension
- Extension Agents
- Employees
- Workers

**16. Standard output measures**

**Target for the number of persons(contacts) to be reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	42831	10310938	0	0
2008	42000	10000000	0	0
2009	42000	10000000	0	0
2010	42000	10000000	0	0
2011	42000	10000000	0	0

**17. (Standard Research Target) Number of Patents**

**Expected Patents**

2007 : 0                      2008 : 0                      2009 : 0                      2010 : 0                      2011 : 0

**18. Output measures**

**Output Target**

- Field trials
- classroom enrichment

2007 : 10                      2008 : 10                      2009 : 10                      2010 : 10                      2011 : 10

## Outcomes for the Program

### 19. Outcome measures

#### Outcome Text: Awareness created

##### Outcome Target

Field trials  
classroom enrichment

##### Outcome Type: Long

2007: 10                      2008: 10                      2009: 10                      2010: 10                      2011: 10

### 20. External factors which may affect outcomes

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

#### Description

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. We also have other weather extremes such as floods leading to large scale damage especially along the coastal regions. All of these can have serious effects on Florida communities.

Changing government regulations and population changes can impact outcomes of Extension programs. For example the increased urban building in rural counties is impacting population changes that are causing new challenges that may require different programming priorities. Communities are also susceptible to changes in the economy which can change and increase competing public priorities. Changes in state, county and federal appropriations can also affect the outcomes of Extension programs in the area of healthy communities.

### 21. Evaluation studies planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals,group,organizations) and non-participants

#### Description

The Florida land-grant college understands the value of evaluation in our annual program plan. Methods of evaluation are included as part of the annual faculty activity plan of work and report of accomplishment process (unifas). This information is collected as part of the logic model used in our Florida system and will be available for the CSREES reports of accomplishment on a yearly basis.

### 22. Data Collection Methods

- Mail
- Telephone
- On-Site
- Structured
- Unstructured
- Case Study
- Observation
- Tests

**Description**

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods.

### 1. Name of the Planned Program

Human Nutrition, Food Safety, and Human Health--research

### 2. Program knowledge areas

- 723 20% Hazards to Human Health and Safety
- 712 20% Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occuring Toxi
- 721 10% Insects and Other Pests Affecting Humans
- 722 10% Zoonotic Diseases and Parasites Affecting Humans
- 702 20% Requirements and Function of Nutrients and Other Food Components
- 703 20% Nutrition Education and Behavior

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

### 5. Brief summary about Planned Program

Human health

Requirements and function of nutrients and other food components

Food safety

### 6. Situation and priorities

Research in this area can be divided into three broad categories: food science, human nutrition and human health. Research in the area of human nutrition, food safety, and human health and well-being addresses problems and opportunities important to the food industry and quality of life in Florida and throughout the world. Research projects in the area of human nutrition involve many of the commodities important in Florida, including seafood and aquaculture products, citrus, fresh fruits and vegetables, and dairy products. Other research areas include food safety and microbiology issues, food processing and new method development, quality and sensory aspects of foods, and composition and chemistry of foods. Research in the area of human nutrition addresses basic and applied aspects of human nutrition in efforts to improve the health and wellness of Floridians and the world population, and includes studies on gene regulation, immu-nity, and women's health. Research areas include the function and biochemistry of micronutrients, the role of water-soluble vitamins in the health of various populations, the effects of phytochemicals and nutrient supplements on health, and the development of education programs for improved nutrition and health. Some Hatch projects include the following areas:

#### Human Health:

Mosquito-borne pathogens present a significant health risk to Florida residents, domestic animals and wildlife. This project helps identify periods when the risk of disease transmission is unusually high in Florida.

#### Requirements and Function of Nutrients and Other Food Components

Folate is a vitamin with important health implications. Impaired folate status has been associated with increased risk for birth defects, vascular disease, cancer, and cognitive dysfunction. Studying the relationship between folate status, genetic make-up and chronic disease risk may provide clues for improving human health that can be translated into nutrition education programs for the public.

### 7. Assumptions made for the Program

Improvements provided by these research projects will improve the quality of life for Florida residents through a better understanding of requirements and functions of nutrients and other food components

Improvements methods identified by research projects will reduce outbreaks of food pathogens and increase food safety.

Information provided by these research projects will improve the physical well-being of Florida residents

### 8. Ultimate goal(s) of this Program

Research in the area of human nutrition, food safety, and human health and well-being addresses problems and opportunities important to the food industry and quality of life in Florida and throughout the world

### 9. Scope of Program

- In-State Research
- Integrated Research and Extension
- Multistate Integrated Research and Extension
- Multistate Research

**Inputs for the Program**

10. Expending formula funds or state-matching funds : Yes

11. Expending other than formula funds or state-matching funds : No

**12. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2007	0.0	0.0	21.4	0.0
2008	0.0	0.0	21.7	0.0
2009	0.0	0.0	22.0	0.0
2010	0.0	0.0	22.5	0.0
2011	0.0	0.0	23.0	0.0

**Outputs for the Program**

**13. Activity (What will be done?)**

Conduct Research Experiments  
Partnering

**14. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
● {NO DATA ENTERED}	● {NO DATA ENTERED}

**15. Description of targeted audience**

Food Industry  
General public  
regulatory agencies

**16. Standard output measures**

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	0	0	0	0
2008	0	0	0	0
2009	0	0	0	0
2010	0	0	0	0
2011	0	0	0	0

**17. (Standard Research Target) Number of Patents**

**Expected Patents**

2007 : 1                      2008 : 1                      2009 : 1                      2010 : 1                      2011 : 1

**18. Output measures**

**Output Target**

{NO DATA ENTERED}

: {NO DATA ENTERED}                      : {NO DATA ENTERED}                      : {NO DATA ENTERED}                      : {NO DATA ENTERED}                      : {NO DATA ENTERED}

**Outcomes for the Program**

**19. Outcome measures**

**Outcome Text: Awareness created**

**Outcome Target**

{NO DATA ENTERED}

**Outcome Type:**

2007: {NO DATA ENTERED}    2008: {NO DATA ENTERED}    2009: {NO DATA ENTERED}    2010: {NO DATA ENTERED}    2011: {NO DATA ENTERED}

**20. External factors which may affect 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.)

**Description**

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. Florida also has other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant research outcomes.

Changes may occur because of:

- The loss of test sites from storm damage
- An invasive species that requires priority
- Changes in public priorities
- Changes in state, county and federal appropriations
- Changes in governmental regulations
- Loss of public or private funding opportunities

**21. Evaluation studies planned**

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparison between locales where the program operates and sites without program intervention

**Description**

Florida IFAS/research understands the importance of evaluating projects to provide scientifically accurate information and recommendations. Accepted research guidelines and procedures are followed.

**22. Data Collection Methods**

- Sampling
- Whole population
- Mail
- Telephone
- On-Site
- Structured
- Unstructured
- Case Study
- Observation
- Portfolio Reviews
- Tests
- Journals

**Description**

Florida IFAS/research uses a variety of acceptable forms of qualitative and quantitative data collection methods.

**1. Name of the Planned Program**

Maintain and Enhance Florida's Environment

**2. Program knowledge areas**

- 111 10% Conservation and Efficient Use of Water
- 104 10% Protect Soil from Harmful Effects of Natural Elements
- 132 10% Weather and Climate
- 131 10% Alternative Uses of Land
- 102 10% Soil, Plant, Water, Nutrient Relationships
- 133 10% Pollution Prevention and Mitigation
- 135 10% Aquatic and Terrestrial Wildlife
- 134 10% Outdoor Recreation
- 112 10% Watershed Protection and Management
- 103 10% Management of Saline and Sodic Soils and Salinity

**3. Program existence :** New (One year or less)**4. Program duration :** Short-Term (One year or less)**5. Brief summary about Planned Program**

Water resources

Conservation and sustainable use of freshwater and terrestrial natural resources and ecosystems

Environmental education

Conservation and sustainable use of coastal and marine natural resources and ecosystems

**6. Situation and priorities**

Environmental sustainability and economic vitality are keys to maintaining a high quality of life for all Floridians. Water is a critical resource for agriculture, industry, natural systems, and tourism, as well as for the health and convenience of everyone. Although Florida's water supply is currently sufficient, 700 new residents arrive in Florida each day. The demand for water is projected to increase to 9.3 billion gallons per day by 2020, which is 2 billion gallons per day more than in 1995. This rapid increase will put severe pressure on the natural resources of the state due to the loss of open land, the need to protect fragile ecosystems, and the need for high quality domestic water supplies while maintaining water availability for agriculture, tourism and industry. Water management agencies will be seriously challenged to appropriately allocate a finite water resource among all users, including natural systems, while maintaining water quality standards associated with Total Maximum Daily Loads, the National Pollutant Discharge Elimination System, and other standards imposed by legislative bodies.

Natural resources (water, flora, and fauna) contribute significantly to the Florida economy and are important components of the quality of life for many residents and tourists. At least half of the respondents to a 1999 survey indicated that prevention of water pollution (72%), protecting the marine environment (64%), and conservation of wildlife habitat and endangered species (50%) were "high priority" educational program needs for their communities. And yet, many issues threaten these valuable assets. Florida ranks third among states in the number of plants and animals federally listed as being in danger of becoming extinct, and half of all Florida's non-marine vertebrates are declining in number. Problems caused by invasive, non-native species in Florida also rank as some of the most severe in the country and threaten wildlife, habitats, and ecosystems. Florida is also one of the most rapidly growing states in the country and expanding agriculture and urbanization contribute unique challenges to natural resource conservation and ecosystem function.

Florida is a saltwater state. The whole state falls within the legally defined coastal zone. Its estuarine, coastal and marine systems stretch further than all the other Atlantic states from Georgia to New England. Because they cover six degrees of latitude, Florida's estuarine, coastal and marine systems warrant targeted approaches to research, management, outreach and communications that translate generic information to local applications. Florida's estuarine, coastal and marine systems produce over \$5 billion in fisheries and wildlife resources each year, buffer coastal areas from storms, absorb pollutants and provide amenities for coastal settlement, trade and tourism, including over 1 million boaters and divers per year. In addition, over 75% of Florida's population lives in its 35 coastal counties. Hundreds of thousands of acres of seagrass meadows, salt marsh grasses and mangrove forests are critical habitats for sea trout, redfish, oysters and blue crabs, and a total of 80%–90% of the state's commercial and recreational fishery species. If we want these benefits to continue, then we all must act as knowledgeable and concerned stewards. The environmental quality that underpins all of this ecological and economic productivity is under increasing threat from a wide range of human activities. Many of the obvious impacts on coasts and estuaries are being managed more effectively. For example, outright destruction by dredging and reclamation has largely stopped, and point source inputs, such as

sewage and industrial discharges, are being reduced or eliminated. However, the sheer numbers of people living in Florida increase potentially damaging inputs that enter coastal waters via watersheds and non-point sources (e.g., runoff). These diffuse inputs are harder to manage, in part because they involve the actions of numerous, individual citizens including those that live far from the coast. For example, household pesticide use is one factor that leads to five of Florida's estuaries being among the ten U.S. estuaries most threatened by pesticides. In addition, historical losses of 50% of the salt marsh, 60% of the seagrass and 85% of the mangroves in some of Florida's estuaries need to be repaired. The sustainability of coastal systems and the value they provide requires an understanding of their natural functioning, responses to population growth, extractive and non-extractive uses and other anthropogenic pressures and responses to management efforts.

Many environmental challenges are exacerbated by human activity. Extension programs have the capacity to raise awareness, provide information, build skills, demonstrate alternatives, and change behaviors that will enhance the quality and quantity of Florida's natural resources. Enhancing the environmental educators' skills, resources, and programs are the mechanism for enhancing the effectiveness of these Extension programs.

**7. Assumptions made for the Program**

People will be motivated by workshops and other educational activities to learn/change  
 Information on best practices shows that these approaches work well for these target audiences  
 Changes suggested in activities related to this program will improve quality of life for participants

**8. Ultimate goal(s) of this Program**

Identify successful approaches to the challenges facing Florida's estuarine, coastal and marine systems through innovative and collaborative work.

Conserve and sustain the coastal and marine natural resources and ecosystems.

Develop effective educational programs in areas that relate to environmental challenges

develop policies that affect natural resources in Florida

implement education, management, conservation, and restoration actions that influence natural resources and ecosystems in Florida

Identify and implement Best Management Practices (BMPs) that conserve water and protect water quality

Develop research based educational programs that provide end users the science behind BMPs and how to implement them

**9. Scope of Program**

- In-State Extension
- Integrated Research and Extension
- Multistate Extension
- Multistate Integrated Research and Extension

**Inputs for the Program**

10. Expending formula funds or state-matching funds : Yes

11. Expending other than formula funds or state-matching funds : No

**12. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2007	32.9	1.0	0.0	0.0
2008	33.0	1.0	0.0	0.0
2009	33.2	1.0	0.0	0.0
2010	33.5	1.0	0.0	0.0
2011	33.9	1.0	0.0	0.0

## Outputs for the Program

### 13. Activity (What will be done?)

Conduct workshops and meetings  
 Deliver services  
 Develop products, curriculum, resources  
 Provide training  
 provide counseling  
 Make assessments  
 work with the media  
 develop partnerships

### 14. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Education Class</li> <li>● Workshop</li> <li>● Group Discussion</li> <li>● One-on-One Intervention</li> <li>● Demonstrations</li> <li>● Other 1 (telephone calls)</li> </ul>	<ul style="list-style-type: none"> <li>● Public Service Announcement</li> <li>● Newsletters</li> <li>● TV Media Programs</li> <li>● Web sites</li> <li>● Other 1 (radio)</li> </ul>

### 15. Description of targeted audience

Recreational fishing sector  
 Fishing tournament organizers  
 Adult participants in fishing tournaments  
 Youth participants in fishing tournaments  
 Charter boat operators  
 Fishing guides  
 Bait and tackle shop retailers  
 Fishing clubs  
 Recreational fishers  
 Boating sector  
 Navigational districts  
 Port authorities  
 Marina operators  
 Boatyard operators  
 Eco-tourism providers  
 Boat and boat supply retailers  
 Boating groups  
 Recreational boaters  
 Recreational hunting sector  
 Hunting guides  
 Hunting shop operators  
 Hunting clubs  
 Land owners managing for hunting  
 Recreational hunters  
 Non-consumptive recreation sector  
 Hiking clubs  
 Hikers  
 Wildlife and birdwatching groups  
 Wildlife and bird observers  
 Dive clubs  
 Divers  
 Land owners, users and developers  
 Rural, suburban and urban single family owners  
 Suburban and urban multi-family owners

Rural, suburban and urban renters  
Agricultural producers  
Rural ranchette owners  
Lakeshore residents  
Private pond owners  
Homeowner associations  
Developers  
Landscape designers and contractors  
Environmental consultants  
Natural resource policy makers  
Florida Bar Association  
Municipal planners  
County planners  
Regional planners within the state  
State planners  
Municipal elected and appointed officials  
County elected and appointed officials  
State elected and appointed officials  
Federal elected and appointed officials  
Natural resource managers and regulators  
Municipal managers  
County managers  
Regional managers within the state  
State managers  
Multi-state regional managers  
Place-based management partnerships  
Federal managers  
International managers  
Private property managers  
Opinion leaders  
Non-governmental organizations  
Master Gardeners  
Environmental groups  
Wildlife and bird observing groups  
Conservation groups  
Other community groups  
Educators and trainers  
K-5 teachers  
6-8 teachers  
9-12 teachers  
College faculty and other researchers  
4-H leaders  
Extension faculty  
Interpreters  
Other non-formal educators  
Youth  
K-5 students  
6-8 students  
9-12 students  
College students  
4-H participants  
Other youth groups  
Other segments of the public  
Underrepresented groups  
Interested public  
Volunteers for cleanups  
Volunteer monitors  
Volunteer restorers  
Other volunteers  
Seasonal residents and tourists

**16. Standard output measures**

**Target for the number of persons(contacts) to be reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	70799	18592588	0	0
2008	70000	18000000	0	0
2009	70000	18000000	0	0
2010	70000	18000000	0	0
2011	70000	18000000	0	0

**17. (Standard Research Target) Number of Patents**

**Expected Patents**

2007 : 0                      2008 : 0                      2009 : 0                      2010 : 0                      2011 : 0

**18. Output measures**

**Output Target**

Field trials  
classroom enrichment

2007: 30                      2008: 30                      2009: 30                      2010: 30                      2011: 30

**Outcomes for the Program**

**19. Outcome measures**

**Outcome Text: Awareness created**

**Outcome Target**

Field trials  
classroom enrichment

**Outcome Type:** Long

2007: 10                      2008: 10                      2009: 10                      2010: 10                      2011: 10

**20. External factors which may affect outcomes**

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

**Description**

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. We also have other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida also has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with

this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant outcomes.

Changes in state, county and federal appropriations can also affect the outcomes.

## **21. Evaluation studies planned**

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals,group,organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

### **Description**

The Florida land-grant college understands the value of evaluation in our annual program plan. Methods of evaluation are included as part of the annual faculty activity plan of work and report of accomplishment process (unifas). This information is collected as part of the logic model used in our Florida system and will be available for the CSREES reports of accomplishment on a yearly basis.

## **22. Data Collection Methods**

- Sampling
- Whole population
- Mail
- Telephone
- On-Site
- Structured
- Unstructured
- Case Study
- Observation
- Portfolio Reviews
- Tests

### **Description**

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods.

## 1. Name of the Planned Program

Natural Resources and Environment--research

## 2. Program knowledge areas

- 111 10% Conservation and Efficient Use of Water
- 134 10% Outdoor Recreation
- 101 20% Appraisal of Soil Resources
- 135 10% Aquatic and Terrestrial Wildlife
- 133 10% Pollution Prevention and Mitigation
- 121 10% Management of Range Resources
- 122 10% Management and Control of Forest and Range Fires
- 132 10% Weather and Climate
- 102 10% Soil, Plant, Water, Nutrient Relationships

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

## 5. Brief summary about Planned Program

Landscape and Turf-grass management  
Landscape conservation and ecology  
Consumer horticulture--people, plants and environment  
Natural resources and environment  
Soil, plant, water and nutrient relationships  
Forestry  
Management and range resources

## 6. Situation and priorities

Florida's population growth and associated pressure on land, water, and natural resources of Florida in order to sustain the natural systems pose difficult choices. Research in the area of natural resources and environment addresses the use of soil, water, forest and range resources, natural resources and air and helps to provide factual information and direction. These projects can range from aquatic life to the conservation and efficient use of water within the environment. Some research areas of interest include:

Landscape and Turf-grass Management - provides research that will ensure the successful establishment of landscape plants and turf-grass without polluting the environment or wasting resources. These projects range from the proper use of fertilizer in the landscape to the fate of pesticides on golf courses.

The Environmental Horticulture Program addresses the use of ornamental plants and turf-grasses for home and commercial landscapes and for beautification in the home and office. Today, teaching, research and extension programs blend current day recommendations with the need to maintain and enhance our environment and preserve our natural resources. Florida faces many challenges in the future with efficient water use and prevention of runoff, production of a broad range of plant material for distribution world-wide and the need for highly qualified individuals to fill critical industry jobs.

Landscape Conservation and Ecology – Florida, by virtue of its size, diversity, geographic location and multiple climatic zones provides unique opportunities for modeling a sustainable horticultural industry in subtropical and tropical regions throughout the world. The components of the success of this model are development of appropriate propagation and production techniques and introduction of new plants to the industry. Research to develop micropropagation techniques has led to rapid availability of sea oats and wetland plants for beach and landscape restoration. An additional component, invasive plant evaluation, is being addressed for existing plants and new plant introductions.

Consumer Horticulture-People, Plants and the Environment – research has been identifying and producing environmentally sound landscape and gardening practices for the citizens of Florida in order to sustain the natural beauty and protect the natural resources of Florida, and to promote quality of life for residents and tourists.

Natural Resources and Environment: Florida's population growth and associated pressures on land, water, and natural systems pose difficult policy choices for public officials. Environmental and resource problems and policies affect agriculture and Florida's rural communities. The need for research increases as the competition between agricultural and nonagricultural users of land and water intensifies. These conflicting issues are clearly part of the management challenge in commercial agriculture. Natural resource and environmental economics, including marine economics, are the primary subject matter for research projects in this area.

#### Soil, Plant, Water and Nutrient Relationships

Both Pb and arsenic contamination in soils and groundwater has been a concern for the public due to the extensive contamination and toxicity to humans. Some studies in this area were conducted to determine the feasibility of using chemical (P-induced Pb immobilization) and biological (plant-based phytoextraction) methods in cleaning up metal contaminants soils and groundwater.

#### Forestry

Agroecosystems, especially small-scale production systems in the southeastern United States, are challenged as never before with natural resource management problems. According to USDA Census of Agriculture (2002), 88 percent of farms in Florida are considered small farms (annual sales less than \$250,000), 84 percent of which are individually or family owned; but they constitute 56 percent of total agricultural income in the state. Similarly, out of the 6.6 million hectares (16.3 million acres) of forestlands in Florida, 52 percent are non-industrial private lands. Clearly, small farms and timber operations are significant drivers of the state's economy. These small-scale operations are under increasing pressures – if not threats – caused by various changes. The increasing impact of a rapidly urbanizing landscape on the wildland-urban interface creates significant changes in ecosystem characteristics such as increased fire danger, changes in water drainage patterns leading to soil erosion and flooding, and fragmentation of wildlife habitat. Agricultural non-point source pollution is a significant cause of stream and lake contamination and prevents attainment of water quality goals in the Clean Water Act. The problem of phosphorus (P) loss from soil is a major concern in fertilized agricultural and forestry enterprises, particularly in coarse-textured, poorly drained soils of the south-east, where drainage water ultimately mixes with surface water. The potential for P loss from fertilized pastures resulting in water quality degradation is a particularly serious issue. Faced with these consequences of rapid land-use changes, research related to the small-farm community of the Southeast is under pressure identify land management practices that are economically and ecologically sustainable. Integrated systems such as agroforestry that provide economic advantages of diversified production as well as a

#### 7. Assumptions made for the Program

Improvements provided by these research projects will improve the quality of life for Florida residents  
 Improvements provided by these research projects will improve the environment  
 Information provided by these research projects will improve the economic well-being of Florida residents

#### 8. Ultimate goal(s) of this Program

Improve management recommendation to long-term responses of tree and grass populations under experimental treatments of fire and grazing.

Identify land management practices that are economically and ecologically sustainable.

Integrated systems such as agroforestry that provide economic advantages of diversified production as well as ecological benefits of mixed systems seem appropriate in this scenario.

Determine the feasibility of using chemical (P-induced Pb immobilization) and biological (plant-based phytoextraction) methods in cleaning up metal contaminants soils and groundwater

Through research identify viable choices related to policy choices concerning pressures on land, water, and natural systems  
 Identify and produce environmentally sound landscape and gardening practices for the citizens of Florida in order to sustain the natural beauty and protect the natural resources of Florida

Provides unique opportunities for modeling a sustainable horticultural industry in subtropical and tropical regions throughout the world.

pro-vides research that will ensure the successful establishment of landscape plants and turf-grass without polluting the environment or wasting resources.

**9. Scope of Program**

- In-State Research
- Multistate Integrated Research and Extension
- Multistate Research

**Inputs for the Program**

10. Expending formula funds or state-matching funds : Yes

11. Expending other than formula funds or state-matching funds : No

**12. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2007	0.0	0.0	60.0	0.0
2008	0.0	0.0	60.5	0.0
2009	0.0	0.0	61.0	0.0
2010	0.0	0.0	61.5	0.0
2011	0.0	0.0	62.0	0.0

**Outputs for the Program**

**13. Activity (What will be done?)**

Conduct Research Experiments  
 Construct Research Facilities  
 Partnering

**14. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Education Class</li> <li>● Workshop</li> <li>● Group Discussion</li> <li>● One-on-One Intervention</li> <li>● Demonstrations</li> <li>● Other 1 ( )</li> </ul>	<ul style="list-style-type: none"> <li>● Newsletters</li> <li>● Web sites</li> </ul>

**15. Description of targeted audience**

{NO DATA ENTERED}

**16. Standard output measures**

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	0	0	0	0
2008	0	0	0	0
2009	0	0	0	0
2010	0	0	0	0
2011	0	0	0	0

**17. (Standard Research Target) Number of Patents**

**Expected Patents**

2007 : 1                      2008 : 1                      2009 : 1                      2010 : 1                      2011 : 1

**18. Output measures**

**Output Target**

{NO DATA ENTERED}

: {NO DATA ENTERED}                      : {NO DATA ENTERED}                      : {NO DATA ENTERED}                      : {NO DATA ENTERED}                      : {NO DATA ENTERED}

**Outcomes for the Program**

**19. Outcome measures**

**Outcome Text: Awareness created**

**Outcome Target**

{NO DATA ENTERED}

**Outcome Type:**

2007: {NO DATA ENTERED}    2008: {NO DATA ENTERED}    2009: {NO DATA ENTERED}    2010: {NO DATA ENTERED}    2011: {NO DATA ENTERED}

**20. External factors which may affect outcomes**

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

**Description**

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. Florida also has other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant research

outcomes.

Changes may occur because of:

The loss of test sites from storm damage

An invasive species that requires priority

Changes in public priorities

Changes in state, county and federal appropriations

Changes in governmental regulations

Loss of public or private funding opportunities

## 21. Evaluation studies planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals,group,organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.
- Comparison between locales where the program operates and sites without program intervention

### Description

Florida IFAS/research understands the importance of evaluating projects to provide scientifically accurate information and recommendations. Accepted research guidelines and procedures are followed.

## 22. Data Collection Methods

- Sampling
- Whole population
- Mail
- Telephone
- On-Site
- Structured
- Unstructured
- Case Study
- Observation
- Portfolio Reviews
- Tests
- Journals

### Description

Florida IFAS/research uses acceptable forms of qualitative and quantitative data collection methods.

## 1. Name of the Planned Program

Plants and Their Systems-research

## 2. Program knowledge areas

- 212 10% Pathogens and Nematodes Affecting Plants
- 215 10% Biological Control of Pests Affecting Plants
- 204 10% Plant Product Quality and Utility (Preharvest)
- 213 10% Weeds Affecting Plants
- 202 10% Plant Genetic Resources
- 201 10% Plant Genome, Genetics, and Genetic Mechanisms
- 206 10% Basic Plant Biology
- 205 10% Plant Management Systems
- 203 10% Plant Biological Efficiency and Abiotic Stresses Affecting Plants
- 211 10% Insects, Mites, and Other Arthropods Affecting Plants

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

## 5. Brief summary about Planned Program

Biological Control of pests affecting plants

Agronomy

Water management and plant nutrition

Biotechnology, plant breeding and new crop development

plant production management

Horticulture

Plant product quality

## 6. Situation and priorities

Plants and their systems include research in the areas of plant production and plant protection. Without plant life there could be no agriculture, and the systematic production and utilization of a major group of plants – a keystone of agriculture. Florida IFAS research is responsible for investigating and reporting finds necessary to ensure that this keystone remains strong, dynamic, relevant and intact. The size and diversity of the domestic industry and the world-wide importance of fruits and vegetables in human nutrition and economic development related to plants in landscape emphasize the need for consolidation of resources to accomplish this purpose. Some areas of research that are included and use Hatch funds are:

### Biological Control of Pests Affecting Plants

The use of plant pathogens as bioherbicides has been a feasible method of weed control in several cases. Two registered bioherbicides, Collego and DeVine, are sold in the United States. Development and use of bioherbicides can help to diversify weed control options, supplement chemical herbicides, and provide an alternative to methyl bromide. Several projects studies the development of several bioherbicide agents shown to be effective in small-scale and noncommercial trials.

### Agronomy

The main aim of Agronomy research in Florida is to discover, develop, evaluate and disseminate knowledge and information necessary to support the agronomic-related industries of the State and nation, and to promote and enhance the production and utilization of agronomic commodities and the management of pest plant species for the benefit of society.

Water Management and Plant Nutrition – Research in this area is identifying, developing and disseminating environmentally and economically sound technologies that will increase production and utilization efficiencies as well as protect or improve environmental quality. Research is providing significant results leading to water conservation in

nurseries, land-scapes and on golf courses. New research is addressing the water and fertilizer requirements of turf-grasses and landscape plants.

Biotechnology, Plant Breeding and New Crop Development – Through research IFAS scientists are striving to develop horticultural characteristics, disease and host/plant resistance through classical genetics and molecular techniques, allowing the creation of marketable products for consumers. Today, the floral biotechnology program is among the leading programs nationally and internationally.

Plant Production Management – Through the work of research plant production management is a source of sound research-based information being made available to the professional horticultural industry, the scientific community and the consumer/student. These projects are viewed as leading in crop production and physiology information and will set an example for the industry in environmentally safe practices.

#### Horticulture

In the area of horticulture, research is solving immediate technical problems facing the fruit and vegetable industries. They are developing new information, materials and techniques to increase the efficiency of production, harvest and post-harvest handling. Their mission is to develop basic information on the genetics, growth, development and senescence of these crops through a continuous reservoir of research in breeding and genetics, biotechnology and molecular biology, biochemistry, and physiology that is at the forefront of knowledge applicable immediately or in the future.

#### Plant Product Quality

In this area plants such as strawberry cultivars are being developed that improve quality characteristics. This is especially important in Florida where strawberries are an important crop.

### 7. Assumptions made for the Program

Improvements provided by these research projects will improve Plants and their systems

Improvements provided by these research projects will improve the environment

Information provided by these research projects will improve the economic well-being of Florida residents

### 8. Ultimate goal(s) of this Program

Development and use of bioherbicides can help to diversify weed control options, supplement chemical herbicides, and provide an alternative to methyl bromide

Discover, develop, evaluate and disseminate knowledge and information necessary to support the agronomic-related industries of the State and nation,

Promote and enhance the production and utilization of agronomic commodities and the management of pest plant species for the benefit of society.

Developing and disseminating environmentally and economically sound technologies related to water management and plant nutrition that will increase production and utilization efficiencies

Develop horticultural characteristics, disease and host/plant resistance through classical genetics and molecular techniques, allowing the creation of marketable products for consumers

Research and develop crop production and physiology information and will set an example for the industry in environmentally safe practices.

Research and solve immediate technical problems facing the fruit and vegetable industries including the development of new information, materials and techniques to increase the efficiency of production, harvest and post-harvest handling

Develop new food plant cultivars that have improved quality characteristics.

**9. Scope of Program**

- In-State Research
- Integrated Research and Extension
- Multistate Integrated Research and Extension
- Multistate Research

**Inputs for the Program**

10. Expending formula funds or state-matching funds : Yes

11. Expending other than formula funds or state-matching funds : No

**12. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2007	0.0	0.0	156.0	0.0
2008	0.0	0.0	156.2	0.0
2009	0.0	0.0	156.4	0.0
2010	0.0	0.0	156.8	0.0
2011	0.0	0.0	157.0	0.0

**Outputs for the Program**

**13. Activity (What will be done?)**

Conduct Research Experiments  
Partnering

**14. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
● {NO DATA ENTERED}	● {NO DATA ENTERED}

**15. Description of targeted audience**

Florida citizens with an interest in plants and plant science  
May include among others:  
growers  
producers  
general public

**16. Standard output measures**

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	0	0	0	0
2008	0	0	0	0
2009	0	0	0	0
2010	0	0	0	0
2011	0	0	0	0

**17. (Standard Research Target) Number of Patents**

**Expected Patents**

2007 : 1                      2008 : 1                      2009 : 1                      2010 : 1                      2011 : 1

**18. Output measures**

**Output Target**

{NO DATA ENTERED}

: {NO DATA ENTERED}                      : {NO DATA ENTERED}                      : {NO DATA ENTERED}                      : {NO DATA ENTERED}                      : {NO DATA ENTERED}

**Outcomes for the Program**

**19. Outcome measures**

**Outcome Text: Awareness created**

**Outcome Target**

New solutions to critical need areas related to plants and their systems will be developed.

**Outcome Type:** Short

2007: 0                      2008: 0                      2009: 0                      2010: 0                      2011: 0

**20. External factors which may affect outcomes**

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

**Description**

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. Florida also has other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant research

outcomes.

Changes may occur because of:

The loss of test sites from storm damage

An invasive species that requires priority

Changes in public priorities

Changes in state, county and federal appropriations

Changes in governmental regulations

Loss of public or private funding opportunities

## 21. Evaluation studies planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals,group,organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.
- Comparison between locales where the program operates and sites without program intervention

### Description

Florida IFAS/research understands the importance of evaluating projects to provide scientifically accurate information and recommendations. Accepted research guidelines and procedures are followed.

## 22. Data Collection Methods

- Sampling
- Whole population
- Mail
- Telephone
- On-Site
- Structured
- Unstructured
- Case Study
- Observation
- Portfolio Reviews
- Tests

### Description

Florida IFAS/research uses acceptable forms of qualitative and quantitative data collection methods.

**1. Name of the Planned Program**

Promoting professional development activities designed to enhance organizational efficiency and effe

**2. Program knowledge areas**

- 805 10% Community Institutions, Health, and Social Services
- 604 10% Marketing and Distribution Practices
- 802 10% Human Development and Family Well-Being
- 901 10% Program and Project Design, and Statistics
- 903 10% Communication, Education, and Information Delivery
- 610 10% Domestic Policy Analysis
- 902 20% Administration of Projects and Programs
- 806 10% Youth Development
- 803 10% Sociological and Technological Change Affecting Individuals, Families and Communities

**3. Program existence :** Intermediate (One to five years)

**4. Program duration :** Long-Term (More than five years)

**5. Brief summary about Planned Program**

Program development, implementation and evaluation

Professional development

Faculty orientation and training

Effective communication and technology use

Personal and organizational health

Administration and leadership

**6. Situation and priorities**

Program development is an ongoing systematic process that Extension professionals follow as they plan, implement and evaluate their educational programs. Patrick Boyle (1985) in his review of program development models noted that most models were similar in that they divided the program development process into three phases - (1) program planning, (2) design and implementation, and (3) evaluation and accountability. In recent years considerable effort has been put into creating Extension Service "cultures" that value evaluation (Arnold, 2002). Extension educators understand that to be as effective as possible in the development and implementation of successful programs, evaluation procedures start at the beginning of a program's development. However, many Extension educators remain unsure of how to take the first steps in developing and evaluating their educational programs. Professional development is more important today than ever before because of rapid turnover, increased demand for competence, the difficulty in developing strong applicant pools, the increased competition for qualified candidates, and the increased expectations for accountability from our clientele, and the rapid change in technology (ECOP, 2000). The rapid growth of new knowledge and technology, the complexity of social issues, and the relationship between the application of knowledge and societal progress all lead to the conclusion that lifelong learning is not only desirable but necessary.

Studies have demonstrated that legislators and the general public do not possess a clear understanding of the mission and funding of Cooperative Extension (Blalock, 1964; Adkins 1981). Extension is perceived as better at carrying out effective programs than at communicating these programs to stakeholders (Warner, 1993). In a study conducted by Warner, Christenson, Dillman, and Salant (1996), 45% of respondents said they had heard of the Cooperative Extension Service, while only 26% said they or a member of their immediate family had ever used the services of Extension. These researchers noted that Extension continues to have a fragmented image and must do a better job of establishing linkages between individual programs within the overall mission of Extension. While Extension is doing great things, John Paluszek, chief executive officer of Ketchum Public Relations of New York City, identified a deficit in Extension's ability to convey this message to consumers and, often more importantly, influential stakeholders (King, 1993). Competition with other sources of information is an issue that Extension faces. While Extension enjoyed many years as the lone provider of information and educational outreach for Americans, education and information are readily available and relatively inexpensive with the advent of new technologies (King and Boehlje, 2000). Extension faces the difficult mission of extending research and education to an increasingly diverse population with diverse needs. Additionally, Extension must communicate its programs and relevance to stakeholders who are, in many cases, removed from seeing or experiencing the benefits of Extension. "Communicating the impacts and accomplishments of the Cooperative Extension programs is vital for the continued support of these programs by legislators, community leaders, and the general public" (Hogan, 1994, p. 3).

Due to demographic shifts in the American workforce, changing values have influenced company organization and business policies and practices. Challenges such as rigid work schedules, child and adult care, time concerns, gaining administrative support, meeting family needs, and work expectations are becoming increasingly more complex for employees in the public sector throughout the world (Kutilek, et. al., 2002). The combination of a structured work environment with competing job and family commitments can negatively effect employees. This negative effect can occur in the form of lowered moral, diminished motivation, reduced productivity, and increased burnout and turnover (Benedict & Taylor, 1995). Each of these is costly to an organization from both an economic and efficiency standpoint. A major challenge for administrators in today's workforce is to be able to compete effectively in the marketplace and provide personal growth opportunities for employees at the same time. Recognizing the relationship between personal well-being and productivity, many employers in the U.S. now provide wellness programs for their employees (U.S. Department of Health and Human Services, 1993). For the Florida CES to stay competitive in today's job market, an effort must be made to address work and life issues.

There is a County Extension Office in each of the 67 counties in Florida and Extension's presence, as a part of county government, varies in each in complexity and significance. In addition to the office facilities and maintenance of those facilities, Florida's counties provide more than \$30 million toward the carry out of Extension's educational programs in respective counties. With nearly 300 County Extension Agents, each county needs an identified person to provide oversight and coordination of the educational programs, budgets, facilities, faculty and support staff. The County Extension Director (CED) provides that oversight as well as serving as liaison between UF/IFAS and county government.

### 7. Assumptions made for the Program

People will be motivated by internal workshops and other educational activities to learn/change  
Information on best practices shows that these approaches work well for employees of Florida Extension  
Changes suggested in activities related to this program will improve quality of life for Extension faculty and staff

### 8. Ultimate goal(s) of this Program

Provide training and technical assistance that enables Florida CES campus and county based faculty and staff to plan, implement and evaluate high quality educational programs  
Provide a variety of learning opportunities for Extension faculty and staff through a variety of professional development opportunities that will maintain and strengthen professional core competencies  
Train Extension faculty and staff in effective communication skills and technological tools that will enable them to deliver critical information to the public  
Promote employee satisfaction, strengthening workplace learning, and helping employees better manage change and transition  
Provide training to enhance skills needed for administrative positions such as those required by county extension directors

### 9. Scope of Program

- In-State Extension
- Integrated Research and Extension
- Multistate Extension
- Multistate Integrated Research and Extension

### Inputs for the Program

10. Expending formula funds or state-matching funds : Yes

11. Expending other then formula funds or state-matching funds : No

12. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	55.0	0.5	0.0	0.0
2008	55.2	0.5	0.0	0.0
2009	55.4	0.5	0.0	0.0
2010	55.6	0.5	0.0	0.0
2011	55.8	0.5	0.0	0.0

**Outputs for the Program**

**13. Activity (What will be done?)**

- Conduct workshops and meetings
- Deliver services
- Develop products, curriculum, resources
- Provide training
- provide counseling
- Make assessments
- work with the media
- develop partnerships

**14. Type(s) of methods to be used to reach direct and indirect contacts**

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> <li>● Education Class</li> <li>● Workshop</li> <li>● Group Discussion</li> <li>● One-on-One Intervention</li> <li>● Demonstrations</li> <li>● Other 1 (telephone calls)</li> </ul>	<ul style="list-style-type: none"> <li>● Newsletters</li> <li>● Web sites</li> </ul>

**15. Description of targeted audience**

- Local Government
- County Commissioners
- County Departments and/or Agencies
- County Administration
- Cities, Towns, and Municipalities
- State Government
- Legislators
- Legislative Delegation
- Legislative Staff
- Governmental Agencies
- Federal Government
- Congressional House & Senators
- Congressional Support Staff
- Federal Agencies
- Faculty and Staff
- Extension Specialists
- Program Assistants
- Clerical Staff
- Extension Faculty

Research Faculty  
Teaching Faculty  
Program Leader, Extension Faculty  
Professional Organizations  
FAEFCS  
NACAA  
FAE4-HA  
FANREP  
FAEP  
ESP  
Volunteers  
Overall Advisory Council/Committee  
Program Advisory Committees  
Volunteers for specific programs/projects  
Media  
Print media  
Television  
Radio  
Benefactors and Donors  
Businesses  
Foundations  
Individuals  
Community Organizations  
Inter-Governmental Agencies & Organizations  
Granting Organizations  
Non-Governmental Organizations (NGO)  
Service Organizations  
Charitable Organizations  
501C-3 Organizations  
County Fair Boards  
State Fair Associations  
Neighborhood Associations  
Environmental Associations  
Farm Bureau  
Commodity Groups  
Private Industry  
Independent Business  
Commodity Producer Groups  
Agribusiness Enterprises  
Students  
Graduate students  
Undergraduate students  
Interns  
Public and Private School Students  
Florida Educational Institutions  
State Universities  
Community Colleges  
Private Universities  
Public & Private Schools  
Other University of Florida Entities  
General Public  
Families  
Youth  
Individuals  
Home Owners

**16. Standard output measures**

**Target for the number of persons(contacts) to be reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	64740	65235768	0	0
2008	64000	65000000	0	0
2009	64000	65000000	0	0
2010	64000	65000000	0	0
2011	64000	65000000	0	0

**17. (Standard Research Target) Number of Patents**

**Expected Patents**

2007 : 0                      2008 : 0                      2009 : 0                      2010 : 0                      2011 : 0

**18. Output measures**

**Output Target**

classroom enrichment

2007: 10                      2008: 10                      2009: 10                      2010: 10                      2011: 10

**Outcomes for the Program**

**19. Outcome measures**

**Outcome Text: Awareness created**

**Outcome Target**

- Conduct meaningful formal and nonformal needs assessment.
- Design appropriate evaluation strategies for educational programs.
- Design programs for appropriate ages and stages of development.
- Increased knowledge of program development, implementation and evaluation.
- Increased knowledge of program planning for diverse audiences.
- Increased understanding of cultural norms, values and beliefs.
- Involve culturally diverse groups in program planning, implementation and evaluation.
- Write measurable educational program objectives.
- Adoption of effective volunteer development and management strategies.
- Ease transition of new UF/IFAS Extension faculty to a new job.
- Foster open communication and dialogue among new and seasoned UF/IFAS Extension professionals.
- Increase knowledge of Extension programming methods.
- Increase knowledge of the role of CES.
- Increase use of basic skills needed to become an effective Extension educator.
- Create an awareness of communication and marketing methods for internal and external audiences.
- Demonstrate the effectiveness of communication and marketing methods.
- Increase the amount and use of communication among internal and external audiences.
- Increased confidence in the use of appropriate technology.
- Increased knowledge of the uses of technology.
- Integrate technology in educational programming.
- Demonstrate appropriate leadership skills.
- Demonstrate appropriate time management skills and use of time management tools and resources.
- Demonstrate responsible use of available personnel resources such as leave systems, employee assistance, and health programs.
- Effectively utilize goal-setting strategies as a tool for prioritizing, decision making, and time management.

- Evaluate program decisions utilizing critical and strategic thinking skills.
- Set personal priorities inclusive of work, family, and personal goals.
- Understand and value the role of Extension as a scholarly contribution to the University community.
- Understand the role of multiple intelligences in program design and delivery.
- Utilize strategic planning skills in designing long-term Extension programs.
- Adequate facilities to meet needs of faculty, staff, and clientele
- Development and implementation of training material
- Enhance interaction with county administration and county government
- Enhanced efforts to recruit, hire, train and retain outstanding faculty and staff
- Enhanced interaction between all levels & divisions of IFAS
- Enhanced interaction with County Commissioners
- Enhanced program productivity resulting from Volunteers and Advisory group assistance
- Improved understanding of UF/IFAS Extension, Research, and Teaching mission
- Increased dependence by county government on Extension expertise
- Increased input into faculty program development
- Increased positive relations and coverage by the media
- Increasing funding
- Interaction between DED's, Center Directors, CED's, Department Chairs and UF/IFAS administration
- Interaction with County Administrators
- Manage a balanced budget
- Number of county/state officials trained
- Orientation of faculty and staff
- Successful collaboration with other agencies or groups
- Successful communication with Volunteers and Advisory groups
- Successful promotion, permanent status and tenure of faculty
- Successfully meeting County and State expectations

**Outcome Type:** Long

2007: 10                      2008: 10                      2009: 10                      2010: 10                      2011: 10

**20. External factors which may affect outcomes**

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

**Description**

Any changes in appropriations could impact Extension profession development activities. Although promoting professional development is important the first line is always providing educational programs in critical need areas to Florida's population.

**21. Evaluation studies planned**

- After Only (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study

**Description**

The Florida land-grant college understands the value of evaluation in our annual program plan. Methods of evaluation are included as part of the annual faculty activity plan of work and report of accomplishment process (unifas). This information is collected as part of the logic model used in our Florida system and will be available for the CSREES reports of accomplishment on a yearly basis.

## 22. Data Collection Methods

- Sampling
- Whole population
- Mail
- Telephone
- On-Site
- Structured
- Unstructured
- Case Study
- Observation
- Portfolio Reviews
- Tests
- Journals

### Description

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods.