

2010 University of Florida Research and Extension and Florida A&M University Extension Combined Plan of Work

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I. Plan Overview

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2010-2014 Plan of Work Summary For UF/IFAS Extension and Research and FAMU/CESTA Extension

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Florida is a unique tropical state whose climate has in the past drawn thousands of people to relocate here each year. The population has now reached almost 18 million. Recent projections show that this growth has been severely curtailed during the past year and growth rates in a recent report by the state was at near zero. Because of the climate and year-round activities Florida also generally attracts nearly 88 million tourists annually. Recent reports show that these numbers have also been reduced and are expected to continue to drop for several years to come based on the economic crisis now affecting the US. In a state where agriculture is second to tourism, sustaining and making agriculture profitable will be of prime importance.

The resident and tourist populations are extremely diverse in age, ethnic background and economic level which can lead to complex issues and barriers that must be addressed along with dealing with issues related to the economy and agriculture. Loss of jobs, poverty and homelessness are on the rise. Many of the issues relating to these changing trends fall under the mission of the land grant colleges.

The Florida land grant colleges are the Institute of Food and Agricultural Sciences (IFAS) at the University of Florida (UF) and the College of Engineering Sciences, Technology and Agriculture (CESTA) at Florida Agricultural and Mechanical University (FAMU). Their mission is to carry out grassroots, strategic planning through the use of advisory committees, formal meetings with industry, politicians and residents of the state including representative of the underserved and underrepresented. These are just a few of the ways that IFAS and CESTA identify the needs and issues that require research-based solutions. As the state becomes more populated and complex, the structure of the land grant colleges have been modified to meet these needs. It is through the close interaction between UF/IFAS, FAMU/CESTA and the 67 counties, and the networking through multi-state and other integrated collaborations worldwide that best management practices are identified, tested and then provided as solutions to problems Florida citizens deal with on a daily basis.

Florida, for example, is a major gateway between the world and the rest of the United States. The mild climate and huge volume of imports make Florida susceptible to many uninvited diseases, pests, plants and other elements that can be detrimental to Florida's environment and quality of life. IFAS and CESTA work hard to monitor possible hazards that could become potential problems far into the future. They partner with other states and counties to look for solution to these problems before they reach Florida's borders. IFAS and CESTA identify and provide solutions for critical needs that affect the quality of life and the environment in Florida from health and finance to clean and abundant water and air. They search for solutions and methods of communication that keep us on the cutting edge from the initial identification of a potential problem to the ultimate outcome of finding the best management practices that will protect Florida's people and environment.

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 helps provides stability to Florida's economy especially when tourism is affected. Florida consistently ranks in the top 10 states nationally with farm cash receipts. Florida 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 72 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 with the present economic crisis this trend will continue. IFAS and FAMUs 1890 land grant college serve as the research and development arm for this diverse and broad-based industry. Small, limited resources and new farmers just establishing a farm are able to 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 UF/IFAS and FAMU/CESTA and their land grant mission (Cockrell, 2003, Florida Farm Bureau, FAIR Report).

University of Florida Institute of Food and Agricultural Science (IFAS)

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 located 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 (FAMU) and the University of Florida (UF). 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 83 design teams that supported "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 (IFAS and CESTA) have moved towards a more focused structure composed of 7 major goals that more clearly identifies the formal ties between research and Extension and is based on prioritizing the needs of the stakeholders at all levels including grassroots. These seven teams have been developed around the goals of CSREES, the University of Florida, and IFAS and FAMU/Extension. Membership on the teams include both UF/IFAS and FAMU/CESTA faculty and staff, as well as stakeholders and others who can provide knowledge needed to problem solve in the areas of focus.

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

The seven major goal areas include:

To enhance and maintain agricultural, natural resources and food systems With the high volume of fresh market fruits and vegetables, food safety issues are a major concern food safety issues.

- To maintain, conserve and enhance Florida's natural environment
- To develop responsible and productive youth through 4-H and other youth programs
- To create and maintain resource efficient landscapes: the smart way to grow
- To promote individual, family, and community well-being and economic security

- To maintain, enhance and establish sustainable communities
- To promote professional development to enhance organizational efficiency and efficiency

Each of these goal areas include three to five focus teams and multiple action teams whose responsibility is to identify (or use problems previously identified) and solve problems in these specific areas of need related to their focus (<http://pdec.ifas.ufl.edu/foci/u.pl>). To this purpose these focus teams are closely integrated with research faculty, and other entities in the problem solving process and the management of change. Goal/Focus teams have been empowered by administration to not only find solutions but to develop state-wide initiatives that lead to better communication and accountability of best management practices and outcomes and to interact with faculty across the state dealing with problems related to individual focus areas.

Extension has actively tried to serve the state and will continue 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 multi-state and integrated activities with research to improve programs while reducing the need for fiscal and human resources.

Extension has developed a website, <http://solutionsforyourlife.com>, to provide these solutions 24/7 for Florida's clientele. For additional information, see <http://extadmin.ifas.ufl.edu/Agriculture> contributes more than \$100 billion dollars to the economy of Florida. Florida producers utilize a little more than 10 million or about 30% of the state's 35 million acres for agriculture production. Commercial forests account for about 37% of the states acreage, national and state forests account for about 10%, and urban/suburban/industrial entities account for the remaining 22.4%. Continued sustainability and profitability of agriculture and natural resources is extremely important for Florida. There has been continued stress on natural resources, particularly water supply and agricultural lands. Land-extensive agriculture is being replaced in part by high-value specialty fruits, vegetables and nursery products. Agricultural sectors will continue to feel impacts of emerging product forms; shifting consumer preferences; heightened environmental, health and safety concerns; and changing lifestyles. Alternative crops, value-added products, global competition, new processing technologies, and biotechnology will stimulate change and increase opportunities for growth in Florida's agricultural sector. The major issues impacting agricultural industries in Florida and important to its continued sustainability and profitability are:

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 \$129 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

UF Departments made up of Research, Teaching And Extension Faculty include:

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
School of Forest Resources and Conservation
University of Florida Herbarium
Horticultural Sciences
Microbiology and Cell Science
Plant Pathology
Plant Molecular and Cellular Biology
Soil and Water Science
Statistics
Veterinary Medicine
Wildlife Ecology and Conservation

Recognized Centers of Excellence

Agricultural Law Center
Center for Aquatic and Invasive Plants
Interdisciplinary Center for Biotechnical Research
Center for Cooperative Agricultural Programs
Energy Extension Service
Florida Organics Recycling Center for Excellence
Florida Sea Grant
Center for Distribution and Retailing
International Agricultural Trade and Policy Center
Center for Nutritional Sciences
Center for Organic Agriculture
Center for Remote Sensing
Center for Renewable Chemicals and Fuels
The Center for Subtropical Agroforestry
Center for Tropical Agriculture
Tropical and Subtropical Agriculture Research (T-STAR)
UF Juice and Beverage Center

County Operations

Florida Extension has divided the state's 67 counties into five geographic Extension Districts. A "District Extension Director,

(DED)" is responsible for an average of 70+ county extension faculty, their duties include hiring, assisting in programming and evaluation for all County Extension Faculty in each respective district. DEDs work with County Extension Directors (CEDs) and county agencies, commodity groups and local government relations. In addition DEDs take on leadership roles in statewide programming including topics of Internationalizing Extension, Information Technology, Natural Resource programming, Community Development programming, Leadership Development and Local Government Relations. Two of the DEDs are located on campus; three are housed at UF IFAS Research and Education Centers (RECs) in the Northwest, South Central and South. The DED's work closely with the Extension Program Leaders, UF IFAS Department Chairs and REC Directors, their immediate supervisor is the Associate Dean for Extension.

The Board of County Commissioners (BOCCs), administrators, managers, coordinators and clerks are all critical partners with Florida Cooperative Extension as they make recommendations and decisions related to the local extension financial contribution. In fiscal year (FY) 2006, local finances to fund extension in Florida amounted to \$33.5 million (excluding the value of office space and facilities) and show the importance Florida counties place on the existence of the Florida land-grant college at the grassroots level. FY 2002 represented the first time that county government provided the greatest share of operating revenue of the three (federal, state, local) financial partners. There are 379 county faculty positions in the state. Of these 302 are joint paid (state or grant) (60% state / 40% county on average). County Extension Faculty receive paychecks from UF and from County Government, this process gives the Counties an increased ownership of these positions. In 2006, seventy-two county positions were 100% county paid. In many instances, county government has agreed to fully fund positions until such time that the University can provide the resources to pay a percentage. Approximately 26 joint positions are vacant as of this writing, due to normal retirements and resignations, each year it is becoming increasingly difficult to recruit qualified candidates to fill open positions. Starting salaries for new faculty are among the highest in the nation, county extension faculty are eligible for promotion that parallels the UF tenure and promotion system. In Florida there is no state mandated relationship between county government and the University to operate an Extension program in the respective counties. The Florida Statute sets forth that each county must annually determine the extent of participation in Extension programs. There is also no mandated formula between the University and counties with regard to staffing levels in county offices, although 42 of the counties operate under a formal memorandum of understanding (MOU). The legislation does state that county agents who are jointly paid for by the state are officially employees of the university. Every other aspect of the relationship between the University and the Counties is a matter of discussion and mutual agreement

UF/IFAS Extension Program Areas

Agriculture and Horticulture

Commercial Agricultural Programs: Florida has 47,463 commercial farms, utilizing 9.2 million acres according to the 2007 Census of Agriculture. Florida producers continue to provide a wide array of agricultural products that are safe and dependable. Due to Florida's diversity in climatic conditions, ranging from tropical in the South to temperate in the North, and soil types (7 soil types), more than 280 commodities are produced. In the current census, Florida ranked 11th in the nation with total value of agricultural products sold with cash receipts of \$7.8 billion. Florida ranked 7th in the nation in total value of agricultural products sold if nursery and greenhouse crops were included. Florida ranks 1st in citrus (oranges, grapefruit, and tangerines), snap beans, fresh market tomatoes, cucumbers, squash, peppers, and watermelons; 2nd in greenhouse and nursery products, sweet corn, sugarcane, and strawberries and 4th in honey production.

Urban Horticultural Programs: The current population of Florida is just over 18 million. There are 70 million annual visitors, a unique ecology and climate, and a wide range of plant material grown year round. According to the recent FNGLA/IFAS impact study (2005) the 'green' industries generated and estimated \$15.24 billion. This included wholesale nurseries, landscape services and horticultural retail sales. Direct employment in the industry was 190,000 full-time jobs, plus nearly 104,000 temporary, part-time or seasonal jobs.

Continued growth will alter and stress our agricultural and natural resource industries. With approximately 5 million acres of

home lawns and landscapes in the state, it is critical that homeowners and associated landscape service industries follow best management practices. Demands for water in some counties may well exceed local water resource availability. As a result, UF/IFAS/Extension has a commitment to urban horticultural programs. The programs have a tremendous amount of diversity. Best Management Practices for sustainable landscapes is one of the most important educational programs we conduct. Judicious use of fertilizers and water to maintain aesthetic landscapes is key to a sustainable 'green' Florida.

Master Gardener Programs: Since 1979, Cooperative Extension agents in Florida counties have maximized resources using a "learn and return" program developed in Washington: the Florida Master Gardener Program. By providing education-based instruction methods incorporated with the latest scientific research, the program capitalizes on the desire of Florida citizens to learn more about horticulture in exchange for a predetermined number of volunteer hours returned to the individual county.

Florida Master Gardeners are University of Florida-trained volunteer teachers. Master Gardeners provide research-based information to Floridians about gardening-America's most popular pastime. Their information about planning and maintaining urban, suburban, and rural landscapes emphasizes environmental stewardship.

The state does not require Florida counties to have the program. Rather, each individual county extension office determines the focus and structure of the program. The volunteers execute a variety of outreach tasks as determined by the program leader (usually the consumer horticultural agent). Duties include: answering horticultural questions over the phone, in person or through the media; participating in public service projects; giving educational programs; supporting youth activities, performing soil sample evaluations and assisting in field research. The ultimate end to all these activities is to extend the vision of the UF/IFAS - protecting and sustaining natural resources and environmental systems, enhancing the development of human resources, and improving the quality of human life through the development of knowledge in agriculture, human and natural resources and making that knowledge accessible.

Florida Master Gardener Volunteers assisted horticulture agents in developing and promoting noncommercial horticulture ultimately increasing environmental action and awareness in 53 counties. From 1979 to 2009, more than 5.4 million volunteer hours have been contributed for a value of over \$72 million. In 2008, 3,822 volunteers contributed 349,039 hours for a value of a little more than \$7 million.

Florida Yard and Neighborhoods Program (FYN)/ Florida Friendly Landscapes: The FYN/Florida Friendly Landscape Program was developed to address serious problems of pollution and disappearing habitats by enlisting homeowners to save our natural environment. This program provides special educational and outreach activities directed at the community to help residents reduce non-point pollution and enhance their environment by improving home and landscape management and is funded by the UF/IFAS/ Extension, United State Department of Agriculture, the Water Management Districts, the National Estuary Program, Environmental Protection Agency, The Florida Department of Environmental Protection, Homeowner Associations, and city and county governments. The objectives of the program are to reduce storm water runoff, decrease non-point source pollution, conserve water, enhance wildlife habitat, and create beautiful landscapes. Currently, 43 counties have active programs. These programs involve individual homeowners, homeowner associations, builders, landscapers, and condominium associations.

In addition to the above programs, urban horticultural agents are also involved with programs such as 'Build Green and Profit', Hurricane Preparedness and Disaster Management, and Botanical Gardens.

The major issue facing the 'green' industries and homeowners is the design, installation and maintenance of sustainable, aesthetic landscapes while reducing water use and maintaining water quality.

Family and Consumer Sciences

Family and Consumer Sciences Extension programs are designed to empower individuals, families and communities to solve problems and address issues related to quality of life in Florida and focus on a broad spectrum of issues affecting Floridians that can be addressed through educational programs.

The Family and Consumer County faculty represent 26% of all Florida county faculty. Currently there are 77 FTEs at the county level devoted to programming in FCS. At the state level the situation is quite different since state specialists with FCS background only represent seven percent of the state specialists. Currently there are 5.3 FTEs at the state level who provide leadership and support to the major programs in FCS.

Challenges for the Future

- Inadequate FTE allocation at the state and county level to lead and support program needs in each program area within FCS. Limited visibility for Family and Consumer Science Extension Programs.

- To meet the needs of Florida's diverse and rapidly growing population, FCS faculty target many of their programs to ethnically and culturally diverse persons, those with limited resources, and other vulnerable populations such as the elderly and very young children. These groups are under-represented when it comes to communicating with decision makers

- In difficult economic times there is a very limited budget to support programming. Program growth occurs by faculty being successful in obtaining grant funding to enhance development and implementation of FCS programs.
- Lack of understanding and support for FCS programs by both internal and external groups.

Florida Sea Grant Extension (MARINE & COASTAL PROGRAMS)

Florida is a coastal state full of opportunities and challenges. Florida has a longer linear coastline (1,350 miles) than all the other Atlantic states combined from Georgia to Maine. Within its over 8,000 miles of tidal shoreline, there is a wide diversity of living and non-living marine resources unmatched by any in the United States. It has both temperate and tropical ecosystems, and is the only state in North America with a shallow water marine ecosystem containing mangroves, sea grasses and coral reefs.

Florida's marine and coastal educational programs are delivered through Florida Sea Grant Extension (FSGE). Major funding is from the National Oceanic and Atmospheric Administration's National Sea Grant College Program. This funding is augmented by state and county support. Programmatic overview is through the Associate Director of Extension with the Florida Sea Grant Program. Administratively, county-based agents report through their respective county extension directors and district extension directors. On-campus specialists report through their respective department chairs.

Challenges for the Future

- Key marine/coastal issues in Florida not being addressed due to fact we do not have state specialist coverage in critical content areas (Ecosystem Health, Coastal hazards - Engineering) or due to fact we do not have coverage by county faculty in key geographic areas (Ft. Lauderdale, Palm Beach, Jacksonville, St. Petersburg).
- Pressure to compete for grant dollars to supplement base programs. (Competition is intensifying, even for Sea Grant funds allocated to the individual states). Faculty are also facing this issue; with more time spent on grant development and management vs. program delivery.
- Increased user demands will continue to place stress on marine and coastal resources, critical habitat, and land/water interface.

Natural Resource Extension Programs

Florida has 38.2 million acres of land area with 11 million in land and water conservation, 2 million acres in open water not in conservation areas, 6 million acres in urban development, and 19.5 million acres in agriculture, open space and undeveloped lands. If Florida's population doubles by 2060, as projected, this will cause a dramatic shift in land use patterns statewide, impacting our natural resources.

Florida's natural resource issues are addressed through campus-based specialists and county faculty, most of whom have partial assignments in the natural resource area. These partial assignments prohibit comprehensive programs in the natural resource areas. Programmatic overview is through the Associate Extension Dean for Environmental and Natural Resources Programs. Administratively, county-based agents report through their respective county extension directors and district extension directors. On-campus specialists report through their respective department chairs.

Challenges for the Future

- Increased user demands will continue to place stress on natural resources including the land, native plants and wildlife.
- User demands for water in some counties may well exceed water resource availabilities.
- Continued development and growth will force traditional agricultural and forestry lands to be converted for residential use.

Florida 4-H Youth Development Program

In 2008 the Florida 4-H program involved 263,156 young people ages 5-18 (non-duplicated). 4-H community clubs involved 27,788 youth. Day and residential camping programs involved 12,924 youth. Special interest groups involved 18,796 youth, while 4-H in-the-classroom programs provided quality educational programs to 240,702 youth. Individual 4-H project study enrolled 938 youth and 6302 youth participated in SACC education programs.

Forty percent of youth impacted by Florida 4-H programs last year were from minority racial or ethnic groups (22.85 % African-American, 0.5% American Indian, 14.78 % Hispanic, and 1.78 % Asian). A slight increase in 4-H membership occurred in school enrichment programs for the past year.

Youth in 4-H lived on farms (down from 3.8% to 2.95%), in towns under 10,000 and in open country (down from 24.3% to 19.75%), in towns and cities of 10,000-50,000 residents (up from 28.9% to 29.96%), in suburbs (from 17.8% to 17.60%) and in

central cities (up from 25.2% to 29.73%). Nearly 68 percent of young people impacted by 4-H in Florida last year were in grades K-5. Middle school and high school youth made up 32.1%.

4-H programs remain strong at the county level supported by the State 4-H Office, five Regional Specialized 4-H Agents, and the resources of National 4-H Headquarters. Traditional 4-H program areas remain strong, although project areas have diversified substantially. UF specialists are instrumental in assisting the Florida 4-H program expand into science, engineering, and technology projects, as well as environmental programs. The program also works to support 4-H on Military Installations as well as through National Guard families. Many counties conduct agricultural literacy programs as part of their special interest programming, working closely with the Florida Ag In the Classroom organization. Judging teams are active in horticulture, wildlife ecology, forest ecology, meat science, dairy, land, livestock judging, poultry and other areas.

4-H in-the-classroom programs promote collaboration with county school districts. More than 240,000 youth experience 4-H's "learn by doing" in a formal school environment. One school enrichment program that has gained in popularity is our Florida 4-H/Tropicana Public Speaking contest. It allows youth in 4th through 6th grades to gain speech writing and public speaking skills. School winners go on to compete at county competitions.

The Florida 4-H Legislature program remains a nationally recognized (USDA Programs of Distinction) leadership and citizenship educational program. As a youth/adult partnership planned program, it engages youth in the bill making process, policy decision making, and hands-on practice at the state capitol to enact a mock legislature. Youth carry out the roles of legislators, lobbyists, justices, governor, and news reporters. Several counties provide preparatory programs for Florida 4-H Legislature, resulting in grassroots education of youth in how government functions. For example, in Duval County, Legislature attendees must participate in the county government day. The Florida 4-H Congress continues annually, with more than 350 youth attending a week of educational and competitive programs on campus at UF last summer.

Adult and youth volunteers this year numbered 11,797. Develop Responsible and Productive Youth Through 4-H and Other Youth Programs

Goal and Objectives for 4-H Youth Development

The goals and objectives for the 4-H program were reaffirmed this year by the leadership charged with Extension Goal 3. The overall goal remains to:

Objectives are:

- Life Skills Developed in Youth Through Subject Matter Experiences
- Organizational Strategies and Learning Environments for Youth Programs
- Volunteer Development and Systems to Support Youth

Opportunities for the Future

In 2009 Florida 4-H celebrates its 100th anniversary. The theme for the year-long celebration is *A Century of Youth Success*.

Challenges for 4-H have been identified through a 4-H Summit, focus groups, a program development committee, and through discussions with volunteers and staff. The priorities identified for Florida 4-H include the following areas of emphasis:

- Within the Land-Grant system, reconnect the 4-H youth development program with department chairs and discipline based specialists with emphasis on curriculum development and training for volunteer adults and youth.
- Engaging all stakeholders in the 4-H movement at the state level as a unified body to guide the 4-H movement in Florida. As part of this effort, the creation of a structure to carry the tasks is an important component.
- Expanding the use of quality indicators for evaluation and accountability and creating a better understanding of agent

responsibilities.

- Focusing on curriculum development and/or enhancement in four priority areas: healthy choices (in food, health decisions, etc.), financial literacy, agriculture awareness, and youth / adult partnerships (including civic engagement).

Energy

The Program for Resource Efficient Communities has strong sponsorship and contract ties to water and electric utilities, the St. Johns River Water Management District, the Florida Department of Environmental Protection, the Florida Office of Insurance Regulation, the Florida and many others. In addition PREC has conducted applied research studies for Certaineed Corporation, EPA, FEMA, Mercedes Homes and HUD.

It is much more difficult to retrofit an existing home for energy efficiency than it is build efficiency into a home during construction. Over the last 10 years approximately 100,000 new homes have been built annually in Florida. Only a small fraction of these homes have been built to readily applicable resource efficiency standards like the EPA/DOE Energy Star home program. Homes stay in the environment for decades, so the benefit of resource efficient homes persists long into the future. In Florida the single greatest energy challenge is to substantially increase the baseline for acceptable efficiency standards.

Community Development

There are hundreds of municipalities in Florida, ranging from Islandia with 5 residents to the Greater Miami area with well over one million. Each Florida community has its own history and special flavor, as well as plans and hopes. The citizens of any community have the goal of working together to improve the quality of their lives and increase their opportunities. For communities to grow, they must have the active interest and involvement of citizens in the form of a rich civic life. In this way, citizens come together to discuss and debate the needs and directions for their community. Then, once the decisions are made, citizens must come together to make and execute their plans. Another requirement for growth and opportunity is a robust economy.

In Florida, a significant basis for such an economy is the natural environment, in terms of natural resources and natural beauty. Together, these account for much of Florida's overall economy in the forms of tourism, industry, recreation and agriculture. Most communities in Florida are looking to one or more of these areas as sources of economic growth. As much as citizens and leaders might desire to have vibrant, cooperative communities, the skills needed to achieve this must be learned. Communities need guidance and expertise. They need support and information. Hanging over all plans and achievements, however, is the possibility of disaster. In the last ten years or so, Florida has sustained major natural disasters, including devastating hurricanes and drought. These disasters have challenged –and in several cases—leveled communities.

A hurricane or tornado can cause irreparable damage to a community, and a severe drought can change the economic welfare of an entire region. The past few years have made all Floridians aware of other threats to the stability of our communities. Every community must now have some response ready in case of an intentional attack. These attacks can take many forms, including bombings and the introduction of disease agents. Central to the life of our communities are the lives of their citizens, and that means working for their safety in the everyday hazards they face in their homes and workplaces. Florida's natural environment and large agricultural sector expose Florida citizens to a wide range of personal hazards or the possibility of creating hazards for others. As concerned as we are about large-scale emergencies, Floridians are much more likely to face death or injury through equipment or situations they encounter everyday. Whatever our communities are confronted with, Extension must be ready to play its role. Through its reputation for community involvement and quality information, Extension has special capabilities that can assist communities in valuable ways during good times and bad. Currently there are 11 FTEs at the county level devoted to programming in community development and 1.70 FTEs at the state level who provide leadership and support to the major programs in community development.

Challenges for the Future

1. Issues surrounding the rural-urban interface (Growth Management, Land Use Planning, Resource Conservation)

2. Economic development issues (rural-urban disparities, job quality)
3. Community capacity issues (Education, Leadership, Healthcare, Infrastructure)

Changes in Policy and Accountability in IFAS

Along with identifying critical needs from Florida stakeholders, IFAS has also identified the need to develop a method of better capturing accountability and evaluating these programs. To this end Florida continues to evolve and perfect a faculty accountability system based on a logic model that provides information needed for state and federal reporting. Extension has also been updating policy and developing policy related to this process.

Florida A&M University/ College of Engineering Sciences, Technology and Agriculture (CESTA)

The Cooperative Extension Program in the College of Engineering Sciences, Technology and Agriculture functions as the proactive and programmatic outreach arm of Florida A&M University (FAMU) that links teaching, research, and public service to improve the quality of life for Florida citizens.

The program goals are:

The extension program areas are:

The extension programs are as follows:

The Marketing and Small Outreach program provides access to information and opportunities to change attitudes, gain knowledge, develop skills and change behaviors so that clientele can enhance income generating potential. The Community Resource & Economic Development program area focuses on initiating and implementing strategic development opportunities, which are designed to promote community and economic growth that leads toward establishing progressive community goals and action plans with the local clientele. The mission of this program is to offer support which contributes to enterprise development, job opportunities and access to self-employment for limited resource citizens pursuing economic independence through various economic ventures. The services provided by faculty and staff include: Information Exchange, Professional Development (Seminars and workshops), and Counseling Services.

Success:

From February 4, 2004 to the present, FAMU's CRD program served over 371,918 rural residents. A contingent of the clients served generated over \$700,100.00 to operate their rural business enterprises in industry sectors to include, child care, personal home care assistance, pregnancy prevention, land grading, meat production and processing, entertainment, and education. The statewide small ruminant program focuses on research and extension activities to include; promotion and development of an organized marketing infrastructure that includes the distribution of livestock products from the "farm" to the consumer, development of efficient production/management systems for reducing feed and herd health cost and the development of value added products. (For second consecutive year, the program has been asked to coordinate SunBelt sheep and goat program. National Goat Conference scheduled for Oct. 2010. The program is a key participant in eXtension Community of Practice. For the goat industry. The Family Resource Management program focuses on the large minority population of limited

resource families and individuals needing assistance in parenting, resource management in foods and nutrition. Seminars are conducted on topics pertinent to practical living and survival such as: Financial Management, Diet and Nutrition, Personal Development, and Self Esteem Dressing for Success. This program also focuses on research, collaboration and training to identify, evaluate and analyze health belief practices in order to decrease the high mortality rate of illness such as heart disease, strokes, diabetes, certain cancer, violent crimes and overall quality of life in agricultural communities. The 4-H and Youth Development places emphasis on the systematic development of youth in response to the critical need for highly trained leaders throughout the land-grant community. Workshops, seminars and other activities are sponsored as preventative measures to reduce the high incidence of low birth weight of infants, juvenile crime, school dropout rates, and violent crimes arrests, violent death rates among teenagers and youth adults, and improved nutrition and health.

A major challenge the program is facing is lack of personnel at the county level to reach underserved population in the counties supported by the program. We are also hampered by meeting the matching requirement to compete for many of the external funding opportunities.

Long Range Planning, Ag Summits, Multi-State Collaborations, Stakeholder Involvements, and Meeting the Needs of the Under-Served and Under-Represented at UF and FAMU.

Both FAMU and UF Extension completed a long range planning process in early 2004 and have continued to do yearly updates since then. For example, in 2007 Extension obtained a list of county goals to use to update critical needs and additional updating was done through the goal and focus team merit review and team review processes. Research has been involved in a series of Ag Summits across the state. These grass roots processes provide valuable information for teaching, research and extension to disseminate into needed research projects, and for the development of teaching courses and Extension programs and activities. A formal process is used and guidance through documents such as "Preparing for Challenge and Change in the 21st Century" and 9 Step Process ensure standardization of the process as well as assuring that all populations including the underserved and underrepresented have the opportunity to provide input. Research has also begun a formal planning process in 2008 which should be completed by the end of the year and will give a clearer picture of research needs in the state especially those impacted by energy and climate change.

Florida has also initiated the development of multi-state meetings between counties located along the Alabama, Georgia state lines. These annual meetings have allowed faculty from the three states to increase multi-state and multi-state integrated programs in the areas of 4-H, Agriculture, Family and Consumer Sciences, and natural resources. Florida also continues to look for opportunities on the state, regional and national level to increase our multi-state and multi-state integrated activities in an effort to better utilize time and resources.

Meeting priority needs while facing challenges at both Florida Land-grant Universities

Like most of the rest of the country, Florida has been impacted by increases in fuel costs, devolution, and the mortgage crisis that has led to recession. The Florida tax system is tied closely to increasing sales in homes and increased revenue from property taxes and has, as of the Fall of 2007 entered into a budget crisis because the slowdown in the housing market. This reduction in revenue has directly impacted the University system and the landgrant colleges in Florida. Since the fall of 2007 4% or almost \$6 million has been returned to the state by Extension and Research and another 6% is expected to be requested before the end of the fiscal year. Additional money's are expected to be lost through 2009-2010. County Government has also been impacted by this same crisis and legislative rules forcing reductions in their tax structures. This is impacting travel which may affect multistate activities over the next few years. It may also cause a reduction in faculty positions which could impact integrated activities. Even within these severe restrictions UF/IFAS and FAMU/CESTA administrators and faculty, through carefully prepared reorganization processes and prioritizing needs assessments are striving to provide the necessary research projects and Extension programs requested by Florida's citizens and at the same balance the needs of the remaining faculty who are being asked to accept additional responsibilities into already full schedules. It is yet to be seen how this will play out over the next few years.

Through multiple stakeholder opportunities for input at the grassroots level, as well as through interaction with business and industry, 1862 research and Extension and 1890 Extension have identified needs for research projects and Extension programs that will be the focus for the Florida land-grant college through the next five to ten years. There have been several new trends that have been added to the priorities including those related to climate and energy and areas such as carbon trading. Faculty will continue to increase integration between research and Extension and develop additional collaborations outside of Florida—regional, national, and international to find solutions to the problems we face, many of which are unique to Florida while others have worldwide ramifications. Florida IFAS and FAMU are also increasing their involvement in interdisciplinary and inter-county activities as we continue to strive for excellence, efficiency and an effective organization that meets the needs of our clientele.

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- Training county agents and volunteers in both program leadership & curriculum leadership utilizing current research in positive community-based youth programs such as essential elements and best practices. Providing state and district leadership and for key program leadership positions including organizational development, staff training and mentoring, leadership and

citizenship education, etc.

- **Support is primarily** provided in fourteen counties in north and northwest Florida, including: Bay, Calhoun, Columbia, Gadsden, Gulf, Hamilton, Jackson, Jefferson, Leon, Liberty, Madison, Manatee, Suwannee and Wakulla. Some programs have statewide focus. Develop and disseminate up-to-date research based and Relevant information in agriculture, 4-H, family resource and consumer science, and community resource and economic development. Improve farm efficiency and profitability to include viability and competitiveness. Attract and serve small businesses through relevant and high quality Extension programs and community based activities. Improve decision-making by consumers to ensure a sustainable, safe, affordable, and nutritious food supply through enhanced research, education and extension activities. Enhance the capacity of communities and individuals to more effectively manage natural resources and sustain the environment for future generations. Empower youth, families, and communities to enhance their economic and social wellbeing. Agriculture Community Resource Development Youth Development Family and Consumer Science Natural Resources The Herd Health program provides information on the prudent use of antibiotics and other drugs, medicated feeds, sound agriculture and efficient production practices for reducing the risk of illness while maintaining a healthy livestock herd and reducing production cost. Emphasis is placed on consumer awareness of livestock production practices and their effects on animal/human health. (One Medicine) The program has consistently provided herd health and food safety information through various mediums to include workshops, field days activities, farm visits, web based information, publications, and presentations. Capabilities will be enhanced with addition of Animal Health Facility. The Statewide Small Farm Program uses a holistic and systems approach to research and extension for emphasizing improved viability and profitability of small farms as well as improving the quality of life of Florida's under served and underrepresented small farm populations. The program focuses on areas including farm financial management and analysis, alternative enterprise development, market development and risk management. Also, the program provides formal and non-formal learning opportunities, which are provided to participants through field-scheduled training, distance learning, videotapes, and workshops. Marketing the 4-H Program within our land grant system and within IFAS, UF, and Florida.

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- Economic viability for producers locally and within the global community.
- Rural/urban interface and land-use issues.
- The design and implementation of pest management (plant, animal, and human) strategies, the detection and design of control strategies of new invasive pest entering the state and pesticide resistance management are important for the sustainability of Florida's agricultural industries.
- Water quality, quantity, allocation; and the development, implementation and adoption of Best Management Practices (BMPs).
- The tremendous diversity of clientele, commodities (280), size of operation, and sophistication of operations and producers within the state make it difficult to meet all clientele needs.

Estimated Number of Professional FTEs/SYs total in the State.

Year	Extension		Research	
	1862	1890	1862	1890
2010	345.0	8.0	90.0	0.0
2011	345.0	8.0	90.0	0.0
2012	345.0	8.0	90.0	0.0
2013	345.0	8.0	90.0	0.0
2014	345.0	8.0	90.0	0.0

II. Merit Review Process**1. The Merit Review Process that will be Employed during the 5-Year POW Cycle**

- Internal University Panel
- External University Panel
- Expert Peer Review

2. Brief Explanation

Prior to the initiation of any research project 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 or programs, the administrative advisor) will call for a peer review of the proposed research project. Biennially, Extension state-level programs (Goal/focus areas) that will be wholly, or in part, funded by federal formula funding, will undergo a merit review. If significant changes are made to the structure of the state-level program during the off year, the designated administrative advisor may call for a merit review of the state-level program. 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. A minimum of three peer Extension faculty affiliated with a state-level goal or focus area will be selected to read and provide comments to the appropriate program leader, goal and focus team leaders and review coordinator.

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 project 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. FAMU Extension faculty are members of the Extension goal and focus teams and their involvement in merit review may be considered external to the process although within the state they are considered to be equal members on the goal and focus teams. 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.

Extension reviewers may be asked to complete their reviews electronically via polycom or at an online website located at <http://pdec.ifas.ufl.edu/meritreview>. Reviewers will be asked to present their findings in either paper or electronic format, and records of the peer 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. Extension results from the merit review will be held for a period of five years. Document storage of all materials related to the Peer and Merit Review will be paper and/or electronic.

III. 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 seven manageable goal 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. As specialists in these focus areas their responsibility is to identify both problems and solutions. They will design a logic model of this information that can be used as a road map by any faculty in the state working in these critical areas.

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 and both UF and FAMU Extension identify objectives and potential outcomes at the time the research project or goal and focus plan of action is developed and approved. For both Extension and research the expected outcomes and impacts described are based on the critical issues and situation surrounding the critical issues that have 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

IV. Stakeholder Input

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

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

The entire process used by Florida for the Extension Strategic Plan can be found at <http://pdec.ifas.ufl.edu>

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

- Needs Assessments
- Use External Focus Groups
- Open Listening Sessions
- Use Surveys
- Use Internal Focus Groups
- Use Advisory Committees

Brief explanation.

Involving People in Long-range Planning

Florida Extension underwent a long-range planning process that included a series of listening sessions which 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 vision²

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 who are stakeholders and to collect input from them

1. Methods for collecting Stakeholder Input

- Survey of selected individuals from the general public
- Survey of traditional Stakeholder individuals
- Meeting with the general public (open meeting advertised to all)
- Survey specifically with non-traditional groups
- Meeting specifically with non-traditional groups
- Meeting with traditional Stakeholder individuals
- Meeting with traditional Stakeholder groups
- Survey of traditional Stakeholder groups

Brief explanation

Because of the economic crisis Florida will not implement a new strategic planning session for at least the next two years. Because of this Florida has found other ways to keep the previous strategic planning dynamic. One method was to survey county commissioners to check their goals for the next few years to see if there were any changes in needs. Focus teams are made up of faculty and industry leaders from around the state. Using their knowledge of which faculty are expending time in their focus area they meet once a year to review what is going on across the state. They identify changing trends and needs through this interaction with county faculty. County faculty in turn are working on a daily basis with industry, government, advisory committees, representatives of the underserved and under-represented. They are asked on a yearly basis to review the needs assessment. based on information provided from these grassroot sources.

3. A statement of how the input will be considered

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

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

V. Planned Program Table of Content

S. NO.	PROGRAM NAME
1	Enhance and Maintain Agricultural, Natural Resources, and Food Systems
2	Maintain, Conserve and Enhance Florida's Natural Environment
3	Develop Responsible and Productive Youth Through 4-H and Other Youth Programs
4	Create and Maintain Resource Effective Landscapes: The Smart Way to Grow
5	Promote Individual, family, and community well-being and economic security
6	Maintain, Enhance and Establish Sustainable Communities
7	Promote Professional Development to Enhance Organizational Efficiency and Effectiveness
8	Natural Resources and Environment--research
9	Plants and Their Systems--research
10	Animals and their Systems--research
11	Food and Non-Food Products: Development, Processing, Quality, and Delivery--research
12	Economics, Markets and Policy--research
13	Human Nutrition, Food Safety, and Human Health--research
14	Families, Youth. and Communities--research
15	Agricultural, Natural Resource, and Biological Engineering--research
16	Program and Project Support, and Administration, Education, and Communication--research

V(A). Planned Program (Summary)

Program #1

1. Name of the Planned Program

Enhance and Maintain Agricultural, Natural Resources, and Food Systems

2. 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
- Protecting Florida from existing and emerging pests and diseases
- Bio-energy-sustaining and Fueling Florida.

Some of the major commodity areas found in Florida include:

- 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)

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 2003, the agriculture and natural resource industry generated over 50.8 billion dollars of output or sales impacts, \$27.6 billion in exports, \$2.6 billion in tax contributions and 756,993 jobs that provided \$25.1 billion in labor income.

These economic benefits are felt at local, state and international levels. In some rural counties, agriculture is the largest component of the economy. Much of Florida's agricultural produce is exported outside the state, contributing to a \$1.5 trillion national agricultural economy. In addition to economic contributions, these industries provide the state with various non-monetary benefits, such as wildlife habitat, aquifer recharge areas and areas of open space. These environmental attributes also support the state's large eco-tourism industry. Surveys indicate that over 50 percent of Florida visitors engage in some form of nature-related activity.

According to Lyons (2006), a large and growing number of Floridians are unaware of the numerous contributions of the state's agricultural industry. Rapid population growth places increasing pressures on land, water and environmental quality. As a consequence, the agricultural sector continues to be challenged for resources including land, water, labor, and other farm inputs.

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.

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 food borne 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 food borne illness and approximately 5,000 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.

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 bio-rational pesticides. Available pest management options are diverse but virtually all of them rely on timely and accurate pest identification and diagnosis. The use of IPM is particularly challenging in Florida because of the climate and global agricultural markets that cause the state to be susceptible to the accidental or intentional introduction of invasive pests. To assure that IPM action is rapid and appropriate, the University of Florida, Institute of Food and Agricultural Sciences (IFAS)

3. **Program existence :** Mature (More than five years)

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

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

6. **Expending other than formula funds or state-matching funds :** Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
104	Protect Soil from Harmful Effects of Natural Elements	5%	5%	0%	
111	Conservation and Efficient Use of Water	5%	5%	0%	
132	Weather and Climate	5%	5%	0%	
133	Pollution Prevention and Mitigation	5%	5%	0%	
136	Conservation of Biological Diversity	5%	5%	0%	
141	Air Resource Protection and Management	5%	5%	0%	
201	Plant Genome, Genetics, and Genetic Mechanisms	5%	5%	0%	
204	Plant Product Quality and Utility (Preharvest)	5%	5%	0%	
205	Plant Management Systems	5%	5%	0%	
211	Insects, Mites, and Other Arthropods Affecting Plants	5%	5%	0%	
212	Pathogens and Nematodes Affecting Plants	5%	5%	0%	
213	Weeds Affecting Plants	5%	5%	0%	
214	Vertebrates, Mollusks, and Other Pests Affecting Plants	5%	5%	0%	
216	Integrated Pest Management Systems	5%	5%	0%	
307	Animal Production Management Systems	5%	5%	0%	

315	Animal Welfare, Well-Being and Protection	5%	5%	0%	
402	Engineering Systems and Equipment	5%	5%	0%	
405	Drainage and Irrigation Systems and Facilities	5%	5%	0%	
502	New and Improved Food Products	5%	5%	0%	
603	Market Economics	5%	5%	0%	
	Total	100%	100%	0%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Situation Statement

The scope of challenges facing agriculture and natural resource industries of Florida fall into four primary areas: 1) economic well-being, 2) environmental issues, 3) quality, safety and security issues, and 4) civic engagement.

Economic Well-Being:

- Declining profitability due to stable or falling commodity prices and increasing cost of production.
- Liberalized trade agreements that reduce tariffs and subsidies can benefit both foreign and domestic producers by having greater access to markets.
- Resource limitations resulting from
 - Land loss due to urban sprawl,
 - Increased water consumption due to population growth,
 - Restricted use of farm inputs due to environmental concerns, and
 - Reduced availability of labor due to a growing reliance on migrant labor.
- New and innovative products and processing technologies must be developed for the industry to remain competitive and to adequately meet the rising expectations of consumers.

Environmental issues:

Public concern over the following environmental issues has translated into increasingly stringent and costly environmental regulations on certain agricultural practices that can adversely affect a firm's economic viability in the short run and sustainability in the longer run.

- Water quality, as impacted by agricultural production practices, such as fertilizer and pesticide residue leaching and runoff, and management of waste from livestock and aquaculture production,
- Water availability as impacted by production-related surface and groundwater withdrawals,
- Conservation of the state's natural resource base, including land for production, wildlife habitat, green space, and fresh and saltwater recreation.

Quality, Safety and Security Issues:

- A heightened awareness by agricultural producers and processors concerning safe production practices such as chemical residues, biological safety concerns, and personal hygiene practices.
- Continued development of modern processing, distribution and storage, technologies and the use of improved handling practices that prevent unnecessary food losses while simultaneously ensuring high quality and safety standards;
- Availability of a wide range of wholesome foods that meet the needs of an increasingly unhealthy population;
- At the retail sector, adequate packaging and labeling so that consumers have reliable information to optimize their food choices;
- Development and implementation of food safety and security programs that protect the nation's food supply, and;
- Providing adequate information to the state and country's farm laborers who support agriculture to help them avoid dangers from equipment and exposure to farm chemicals that pose a number of potential risks to their health and safety.

Civic Engagement:

Awareness of agriculture and natural resources and their contribution to the state's economic, environmental, and social well-being. Agricultural awareness efforts can create an informed voting public so that wise choices can be made that benefit Florida's citizens and visitors. The scope of these issues includes:

- Educating the public regarding the role and importance of agriculture in Florida's economy, the stewardship of natural resources, and the relationship between agricultural production and food availability.
- Keeping legislators up-to-date on industry concerns, such as pesticide regulations, worker protection standards, immigration, and international trade.
- Providing public interest groups and the media with objective information regarding the contributions of the agricultural industry,
- Developing information and programs that educate the industry regarding new information on such topics as Best Management Practices, regulatory legislation, and technological advancements.
- Assisting the industry to promote the numerous benefits of agriculture.

2. Scope of the Program

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

V(D). Planned Program (Assumptions and Goals)**1. 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

2. Ultimate goal(s) of this Program

Improve procedures and techniques for managing business operations
 Improve procedures and techniques to increase revenue from agricultural practices
 Improve procedures and techniques to reduce costs from agricultural practices
 Improve management systems, procedures and/or techniques to improve water conservation
 Improve management systems, procedures, and/or techniques to improve water quality
 improve compliance with local, state and federal regulations
 Improve skills in animal sciences
 Improve delivery of Extension programs
 Improve competencies of Extension faculty from inservice training
 Improve agricultural and environmental knowledge/skills
 Improve understanding of agriculture's contribution to the economy by agriculture and natural resources.
 Production of safer food
 Production of food under more secure conditions
 Enhanced technical competence of food producers, packers and processors
 More efficient and effective distribution of food products
 Improved procedures and techniques for identifying and monitoring pests
 Improved procedures and techniques for handling and using agricultural chemicals, fuels, equipment, and other products
 Improved procedures and techniques to reduce costs from agricultural practices
 Improved procedures and techniques for using protective safety equipment

V(E). Planned Program (Inputs)**1. Estimated Number of professional FTE/SYs to be budgeted for this Program**

Year	Extension		Research	
	1862	1890	1862	1890
2010	80.0	3.0	0.0	0.0
2011	80.0	3.0	0.0	0.0
2012	80.0	3.0	0.0	0.0
2013	80.0	3.0	0.0	0.0
2014	80.0	3.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

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

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

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

3. 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

V(G). Planned Program (Outputs)

1. 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
2010	380000	6000000	0	0
2011	380000	6000000	0	0
2012	380000	6000000	0	0
2013	380000	6000000	0	0
2014	380000	6000000	0	0

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

Expected Patent Applications

2010 :0 2011 :0 2012 :0 2013 :0 2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	100	0
2011	0	105	0
2012	0	110	0
2013	0	110	0
2014	0	110	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Change in Knowledge Agricultural and Natural Resource Industry Profitability and the Sustainable Use of Environmental Resources
2	Change in Behavior Agricultural and Natural Resource Industry Profitability and the Sustainable Use of Environmental Resources
3	Change in Condition Agricultural and Natural Resource Industry Profitability and the Sustainable Use of Environmental Resources
4	Change in Knowledge Awareness of Agriculture's and Natural Resource's Importance to an Economy That Ranges From Local to Global
5	Change in Behavior Awareness of Agriculture's and Natural Resource's Importance to an Economy That Ranges From Local to Global
6	Change in Condition Awareness of Agriculture's and Natural Resource's Importance to an Economy That Ranges From Local to Global
7	Change in Knowledge Processing, Distribution, Safety and Security of Food Systems
8	Change in Behavior Processing, Distribution, Safety and Security of Food Systems
9	Change in Condition Processing, Distribution, Safety and Security of Food Systems
10	Change in Knowledge Protecting Florida from Existing and Emerging Pests and Diseases
11	Change in Behavior Protecting Florida from Existing and Emerging Pests and Diseases
12	Change in Condition Protecting Florida from Existing and Emerging Pests and Diseases
13	Change in Knowledge Bio-energy -- Sustaining and Fueling Florida
14	Change in Behavior Bio-energy -- Sustaining and Fueling Florida
15	Change in Condition Bio-energy -- Sustaining and Fueling Florida

Outcome #1

1. Outcome Target

Change in Knowledge Agricultural and Natural Resource Industry Profitability and the Sustainable Use of Environmental Resources

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 104 - Protect Soil from Harmful Effects of Natural Elements
- 111 - Conservation and Efficient Use of Water

Outcome #2

1. Outcome Target

Change in Behavior Agricultural and Natural Resource Industry Profitability and the Sustainable Use of Environmental Resources

2. Outcome Type : Change in Action Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 104 - Protect Soil from Harmful Effects of Natural Elements
- 111 - Conservation and Efficient Use of Water

Outcome #3

1. Outcome Target

Change in Condition Agricultural and Natural Resource Industry Profitability and the Sustainable Use of Environmental Resources

2. Outcome Type : Change in Condition Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 104 - Protect Soil from Harmful Effects of Natural Elements
- 111 - Conservation and Efficient Use of Water

Outcome #4

1. Outcome Target

Change in Knowledge Awareness of Agriculture's and Natural Resource's Importance to an Economy That Ranges From Local to Global

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 104 - Protect Soil from Harmful Effects of Natural Elements
- 111 - Conservation and Efficient Use of Water
- 132 - Weather and Climate
- 133 - Pollution Prevention and Mitigation
- 136 - Conservation of Biological Diversity

Outcome #5

1. Outcome Target

Change in Behavior Awareness of Agriculture's and Natural Resource's Importance to an Economy That Ranges From Local to Global

2. Outcome Type : Change in Action Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 104 - Protect Soil from Harmful Effects of Natural Elements
- 111 - Conservation and Efficient Use of Water
- 132 - Weather and Climate
- 133 - Pollution Prevention and Mitigation
- 136 - Conservation of Biological Diversity

Outcome #6

1. Outcome Target

Change in Condition Awareness of Agriculture's and Natural Resource's Importance to an Economy That Ranges From Local to Global

2. Outcome Type : Change in Condition Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 104 - Protect Soil from Harmful Effects of Natural Elements
- 111 - Conservation and Efficient Use of Water
- 132 - Weather and Climate

- 133 - Pollution Prevention and Mitigation
- 136 - Conservation of Biological Diversity

Outcome #7

1. Outcome Target

Change in Knowledge Processing, Distribution, Safety and Security of Food Systems

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 402 - Engineering Systems and Equipment
- 502 - New and Improved Food Products
- 603 - Market Economics

Outcome #8

1. Outcome Target

Change in Behavior Processing, Distribution, Safety and Security of Food Systems

2. Outcome Type : Change in Action Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water
- 133 - Pollution Prevention and Mitigation
- 136 - Conservation of Biological Diversity
- 141 - Air Resource Protection and Management
- 405 - Drainage and Irrigation Systems and Facilities

Outcome #9

1. Outcome Target

Change in Condition Processing, Distribution, Safety and Security of Food Systems

2. Outcome Type : Change in Condition Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 402 - Engineering Systems and Equipment

- 502 - New and Improved Food Products
- 603 - Market Economics

Outcome #10

1. Outcome Target

Change in Knowledge Protecting Florida from Existing and Emerging Pests and Diseases

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 211 - Insects, Mites, and Other Arthropods Affecting Plants
- 213 - Weeds Affecting Plants
- 214 - Vertebrates, Mollusks, and Other Pests Affecting Plants
- 216 - Integrated Pest Management Systems

Outcome #11

1. Outcome Target

Change in Behavior Protecting Florida from Existing and Emerging Pests and Diseases

2. Outcome Type : Change in Action Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 211 - Insects, Mites, and Other Arthropods Affecting Plants
- 213 - Weeds Affecting Plants
- 214 - Vertebrates, Mollusks, and Other Pests Affecting Plants
- 216 - Integrated Pest Management Systems

Outcome #12

1. Outcome Target

Change in Condition Protecting Florida from Existing and Emerging Pests and Diseases

2. Outcome Type : Change in Condition Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 211 - Insects, Mites, and Other Arthropods Affecting Plants

- 213 - Weeds Affecting Plants
- 214 - Vertebrates, Mollusks, and Other Pests Affecting Plants
- 216 - Integrated Pest Management Systems

Outcome #13

1. Outcome Target

Change in Knowledge Bio-energy -- Sustaining and Fueling Florida

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 136 - Conservation of Biological Diversity
- 402 - Engineering Systems and Equipment

Outcome #14

1. Outcome Target

Change in Behavior Bio-energy -- Sustaining and Fueling Florida

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 136 - Conservation of Biological Diversity
- 402 - Engineering Systems and Equipment

Outcome #15

1. Outcome Target

Change in Condition Bio-energy -- Sustaining and Fueling Florida

2. Outcome Type : Change in Condition Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

V(J). Planned Program (External Factors)**1. External Factors which may affect Outcomes**

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

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.

V(K). Planned Program (Evaluation Studies and Data Collection)**1. Evaluation Studies Planned**

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

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.

2. Data Collection Methods

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

Description

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods. Besides traditional methods of data collection, over the next few years Florida Extension will be developing state level evaluation tools within each focus area. All faculty will be provided with professional development training opportunities in the areas of evaluation and developing evaluation tools. Online databases for collecting survey information will be developed within each goal area providing extensive feedback opportunities for faculty across the state and for reporting purposes.

V(A). Planned Program (Summary)

Program #2

1. Name of the Planned Program

Maintain, Conserve and Enhance Florida's Natural Environment

2. Brief summary about Planned Program

Maintaining and enhancing Florida's environment looks specifically at:

- improve and protect water resources

- Sustainable use of freshwater and terrestrial natural resources and ecosystems

- Provide environmental education

- Sustainable use of coastal and marine ecosystems

- Provide knowledge related to Climate variability and change

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

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

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

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

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	5%	5%	0%	
103	Management of Saline and Sodic Soils and Salinity	5%	5%	0%	
104	Protect Soil from Harmful Effects of Natural Elements	5%	5%	0%	
111	Conservation and Efficient Use of Water	5%	5%	0%	
112	Watershed Protection and Management	5%	5%	0%	
131	Alternative Uses of Land	5%	5%	0%	
132	Weather and Climate	5%	5%	0%	
133	Pollution Prevention and Mitigation	5%	5%	0%	
134	Outdoor Recreation	5%	5%	0%	
135	Aquatic and Terrestrial Wildlife	5%	5%	0%	
136	Conservation of Biological Diversity	5%	5%	0%	
141	Air Resource Protection and Management	5%	5%	0%	
216	Integrated Pest Management Systems	5%	5%	0%	
403	Waste Disposal, Recycling, and Reuse	5%	5%	0%	
605	Natural Resource and Environmental Economics	5%	5%	0%	

608	Community Resource Planning and Development	5%	5%	0%	
610	Domestic Policy Analysis	5%	5%	0%	
723	Hazards to Human Health and Safety	5%	5%	0%	
803	Sociological and Technological Change Affecting Individuals, Families and Communities	5%	5%	0%	
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures	5%	5%	0%	
	Total	100%	100%	0%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Situation Statement

Florida depends heavily on a healthy and sustainable environment. For example, freshwater is a critical resource for agriculture, industry, natural systems, tourism, and the health and convenience of all Floridians. From another view, Florida is a saltwater state. Its estuarine, coastal and marine systems stretch further than all the other Atlantic states from Georgia to New England, and they 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. Terrestrial and freshwater flora and fauna also contribute significantly to Florida's economy and the quality of life enjoyed by residents and tourists. People recognize the value of their environment. For example, prevention of water pollution, protecting the marine environment, and conservation of wildlife habitat and endangered species were rated as high priority educational issues by 72%, 64% and 50% of respondents to a 1999 survey. As shown by this survey, there is an opportunity and need to inform and educate Floridians about their environment.

The sustainability and health of Florida's environment is under pressure from a range of human activities. For example, Florida's water supply is currently sufficient, but experts predict that the 700 new residents arriving in Florida each day will increase demand to 9.3 billion gallons per day by 2020. This increase will put severe pressure on the state's water and other natural resources. The number of people living in Florida also increases potentially damaging inputs that enter coastal waters via watersheds and runoff. 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. Historical losses of 50% of the salt marsh, 60% of the seagrass, and 85% of the mangroves in some of Florida's estuaries also need to be repaired. In addition, 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. Successful management of these threats will require raised awareness, widespread distribution of useful information, suitable skills, and the demonstration of alternative behaviors that can ensure the quality and quantity of Florida's natural resources.

The overall objective of this Goal is to sustain or enhance Florida's environment by increasing relevant knowledge and by motivating citizens, professionals, and agency personnel to take actions that reduce impacts on these valuable resources. The primary impact of this work will be increased efforts to apply sustainable management in Florida. This impact hinges on promoting increased awareness and understanding of ecological, economic, social and management principles and processes among citizens, professionals, and agency personnel. Tangible results include an increased involvement of citizens in monitoring and management, an increased use of key ecological concepts in discussions held by state and federal management agencies, and an increased awareness and use of adaptive and participative management. Programs that improve the skills and resources available to environmental educators also represent critical elements in achieving these objectives.

Environmental Education

Key issues: Florida’s natural resources, both land and water-based, are continually being threatened by growth and development. Florida citizens need high quality, engaging environmental education (EE) programs that promote awareness, understanding, and conservation of our natural resources. For best impact, EE programs must be based on sound science, proven educational methodologies, and make use of today’s educational technologies. This requires that EE educators receive high quality training opportunities in program planning, implementation, and evaluation.

2. Scope of the Program

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

V(D). Planned Program (Assumptions and Goals)

1. 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

2. Ultimate goal(s) of this Program

- Improved management systems, procedures, and/or techniques to improve water conservation
- Improved management systems, procedures, and/or techniques to maintain or improve water quality
- Increase understanding of Florida's coastal and marine environment
- Improved procedures and techniques to reduce environmental impact from human activity
- Improved compliance with local, state and federal regulations
- Improved procedures and techniques to deliver environmental education
- Change behaviors that impact environmental quality
- Develop skills required for effective critical thinking, problem solving and decision making
- Improved skills for developing service learning and other community engaging activities
- Improve agricultural and environmental knowledge/skills
- Increase understanding of how Florida's natural resources ecosystems and how they respond to human activity
- Environmental Education
- GOAL – To promote environmental literacy among Florida’s citizens.

OBJ 1: Increase knowledge and skills in planning, implementing, and evaluating EE programs. (This includes training, curriculum design, distance education, teaching methods, etc.) (Audience - Educators, Extension faculty, Adult volunteers) (See Needs 1)

OBJ 2: To increase understanding and awareness of basic EE principles /core concepts – promote environmental literacy (Audience – ALL) (See Needs 2)

OBJ 3: To increase civic and community engagement in solving locally-based environmental issues (Audience - Volunteers, Residents, Youth, Local governments) (See Needs 3)

OBJ 4: To increase environmental literacy in youth through life skill building EE experiences. (Audience - Youth)

V(E). Planned Program (Inputs)

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

Year	Extension		Research	
	1862	1890	1862	1890
2010	20.0	1.0	0.0	0.0
2011	20.0	1.0	0.0	0.0
2012	20.0	1.0	0.0	0.0
2013	20.0	1.0	0.0	0.0
2014	20.0	1.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Environmental Education 1. Conduct needs assessment

2. Develop collaborative meetings/working partnerships/advisory committees

3. Write grants

4. Develop inservice/training programs for different audiences using

- face to face field institutes

-distance learning (web-based, podcasts, video conferences, polycom, etc.)

5. Establish Extension EE webpage

6. Develop educational materials for EE

7. Assist in development of educational events in EE for youth, volunteers, public, etc. at state, district, and/or county level.

8. Support and assist in assessing impacts of EE programs (in Extension) at state and county level.

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

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

3. Description of targeted audience

Extension faculty and staff
 Formal/nonformal educators

Volunteers and Youth

Residents /visitors

Local governments

V(G). Planned Program (Outputs)

1. 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
2010	100000	100000	0	0
2011	100000	100000	0	0
2012	100000	100000	0	0
2013	100000	100000	0	0
2014	100000	100000	0	0

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

Expected Patent Applications

2010 :0 2011 :0 2012 :0 2013 :0 2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	40	0
2011	0	45	0
2012	0	50	0
2013	0	50	0
2014	0	50	0

V(H). State Defined Outputs

1. Output Target

● {NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Change in Knowledge Water Resources
2	Change in Behavior Water Resources
3	Change in Condition Water Resources
4	Change in Knowledge Sustainable Use of Freshwater and Terrestrial Ecosystems
5	Change in Behavior Sustainable Use of Freshwater and Terrestrial Ecosystems
6	Change in Condition Sustainable Use of Freshwater and Terrestrial Ecosystems
7	Change in Knowledge Environmental Education
8	Change in Behavior Environmental Education
9	Change in Condition Environmental Education
10	Change in Knowledge Sustainable Use of Coastal and Marine Ecosystems
11	Change in Behavior Sustainable Use of Coastal and Marine Ecosystems
12	Change in Condition Sustainable Use of Coastal and Marine Ecosystems
13	Change in Knowledge Climate Variability and Change
14	Change in Behavior Climate Variability and Change
15	Change in Condition Climate Variability and Change

Outcome #1**1. Outcome Target**

Change in Knowledge Water Resources

2. Outcome Type : Change in Knowledge Outcome Measure**2010** :100**2011** : 100**2012** : 100**2013** :100**2014** :100**3. Associated Institute Type(s)**

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 102 - Soil, Plant, Water, Nutrient Relationships
- 103 - Management of Saline and Sodic Soils and Salinity
- 104 - Protect Soil from Harmful Effects of Natural Elements
- 111 - Conservation and Efficient Use of Water
- 112 - Watershed Protection and Management
- 131 - Alternative Uses of Land
- 132 - Weather and Climate
- 135 - Aquatic and Terrestrial Wildlife
- 136 - Conservation of Biological Diversity
- 605 - Natural Resource and Environmental Economics

Outcome #2**1. Outcome Target**

Change in Behavior Water Resources

2. Outcome Type : Change in Action Outcome Measure**2010** 35**2011** : 35**2012** : 35**2013** 35**2014** :35**3. Associated Institute Type(s)**

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 102 - Soil, Plant, Water, Nutrient Relationships
- 103 - Management of Saline and Sodic Soils and Salinity
- 104 - Protect Soil from Harmful Effects of Natural Elements
- 111 - Conservation and Efficient Use of Water
- 112 - Watershed Protection and Management
- 131 - Alternative Uses of Land
- 132 - Weather and Climate
- 135 - Aquatic and Terrestrial Wildlife
- 136 - Conservation of Biological Diversity

- 605 - Natural Resource and Environmental Economics

Outcome #3

1. Outcome Target

Change in Condition Water Resources

2. Outcome Type : Change in Condition Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 102 - Soil, Plant, Water, Nutrient Relationships
- 103 - Management of Saline and Sodic Soils and Salinity
- 104 - Protect Soil from Harmful Effects of Natural Elements
- 111 - Conservation and Efficient Use of Water
- 112 - Watershed Protection and Management
- 131 - Alternative Uses of Land
- 132 - Weather and Climate
- 135 - Aquatic and Terrestrial Wildlife
- 136 - Conservation of Biological Diversity
- 605 - Natural Resource and Environmental Economics

Outcome #4

1. Outcome Target

Change in Knowledge Sustainable Use of Freshwater and Terrestrial Ecosystems

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water
- 135 - Aquatic and Terrestrial Wildlife

Outcome #5

1. Outcome Target

Change in Behavior Sustainable Use of Freshwater and Terrestrial Ecosystems

2. Outcome Type : Change in Action Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water
- 135 - Aquatic and Terrestrial Wildlife

Outcome #6

1. Outcome Target

Change in Condition Sustainable Use of Freshwater and Terrestrial Ecosystems

2. Outcome Type : Change in Condition Outcome Measure

2010 :100 **2011 :** 100 **2012 :** 100 **2013 :**100 **2014 :**100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water
- 135 - Aquatic and Terrestrial Wildlife

Outcome #7

1. Outcome Target

Change in Knowledge Environmental Education

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :100 **2011 :** 100 **2012 :** 100 **2013 :**100 **2014 :**100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 605 - Natural Resource and Environmental Economics

Outcome #8

1. Outcome Target

Change in Behavior Environmental Education

2. Outcome Type : Change in Action Outcome Measure

2010 : 20 **2011 :** 20 **2012 :** 20 **2013 :** 20 **2014 :**20

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 605 - Natural Resource and Environmental Economics

Outcome #9

1. Outcome Target

Change in Condition Environmental Education

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :50 **2011** : 50 **2012** : 50 **2013** : 50 **2014** :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 605 - Natural Resource and Environmental Economics

Outcome #10

1. Outcome Target

Change in Knowledge Sustainable Use of Coastal and Marine Ecosystems

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water
- 135 - Aquatic and Terrestrial Wildlife

Outcome #11

1. Outcome Target

Change in Behavior Sustainable Use of Coastal and Marine Ecosystems

2. Outcome Type : Change in Action Outcome Measure

2010 :50 **2011** : 50 **2012** : 50 **2013** : 50 **2014** :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water
- 135 - Aquatic and Terrestrial Wildlife

Outcome #12

1. Outcome Target

Change in Condition Sustainable Use of Coastal and Marine Ecosystems

2. Outcome Type : Change in Condition Outcome Measure

2010 :200 **2011** : 200 **2012** : 200 **2013** : 200 **2014** :200

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water

- 135 - Aquatic and Terrestrial Wildlife

Outcome #13

1. Outcome Target

Change in Knowledge Climate Variability and Change

2. Outcome Type : Change in Knowledge Outcome Measure

2010 25 **2011** : 200 **2012** : 200 **2013** 200 **2014** :200

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 132 - Weather and Climate
- 133 - Pollution Prevention and Mitigation
- 141 - Air Resource Protection and Management

Outcome #14

1. Outcome Target

Change in Behavior Climate Variability and Change

2. Outcome Type : Change in Action Outcome Measure

2010 20 **2011** : 20 **2012** : 25 **2013** 25 **2014** :25

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 132 - Weather and Climate
- 133 - Pollution Prevention and Mitigation
- 141 - Air Resource Protection and Management

Outcome #15

1. Outcome Target

Change in Condition Climate Variability and Change

2. Outcome Type : Change in Condition Outcome Measure

2010 :150 **2011** : 150 **2012** : 150 **2013** :150 **2014** :150

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 132 - Weather and Climate
- 133 - Pollution Prevention and Mitigation
- 141 - Air Resource Protection and Management

V(J). Planned Program (External Factors)**1. External Factors which may affect Outcomes**

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

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

V(K). Planned Program (Evaluation Studies and Data Collection)**1. Evaluation Studies Planned**

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

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.

2. Data Collection Methods

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

Description

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods. Besides tradition methods of dOver the next few years Florida Extension will be developing state level evaluation tools within each focus area. All faculty will be provided with professional development training opportunities in the areas ofevaluation and developing evaluation tools. Online databases for collecting survey information will be developed within each goal area providing extensive feedback opportunities for faculty across the state and for reporting purposes.

V(A). Planned Program (Summary)

Program #3

1. Name of the Planned Program

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

2. Brief summary about Planned Program

Developing responsible and productive youth through 4-H and other youth programs relates specifically to areas including:
 •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

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

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

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

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

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%	100%	0%	
	Total	100%	100%	0%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Life skills Developed in youth through subject matter experience

To "develop marketable/productive skills for work and family life" has been cited by Connell, Gambone, and Smith (2000) as a major outcome for positive youth development. Learning to be productive; do well in school; develop positive outside interests and acquire fundamental life skills for work; and family life is a basic transition from youth to adulthood.

4-H uses a variety of project skills to engage youth in areas of interests to not only acquire new skills but become the "vehicle" through which youth engage with other adults, engage in self-directed learning, setting goals, making independent choices, and decisions, and gaining a sense of mastery and accomplishment from their experiences. This allows individuals to make informed decisions with a better understanding of long and short-term consequences of their choices and impact on others. The purpose of this program is to build positive support in the community for the 4-H program, while involving more youth and volunteers.

Research studies indicate that the more internal assets and life skills/competencies youth build the more likely they are to grow up healthy, confident and responsible and less likely to become involved in risky behaviors. Active participation in 4-H helps youth develop their assets and life skills. Participation helps to develop assets no matter the delivery mode: community clubs, 4-H in the classroom programs, residential camps, day camps and events/activities.

There is mounting evidence that effective approaches to skill development are sequential, active, focused and explicit (Durlack and Weissber, 2007) and that programs that do so benefit youth in multiple ways.

Previous research provides evidence that 4-H youth who become engaged in the multiple opportunities and experiences through the local club, county, district and state levels of programs provide the ladder for youth to excel through sequenced, active, focused and explicit experiences for skill development. It is these beyond school experiences, planned and executed effectively that provide the learning opportunities for youth to practice and be actively engaged in their learning environments.

Organizational Strategies and Learning Environments for Youth Programs

Sustaining and structuring a quality youth development program requires professional and organizational development including: affirmative action, awards and recognition, marketing, risk management, financial management, and collaborations & partnerships) Florida 4-H programs educate over 260,000 youth enrolled in programs in all 67 counties, the Seminole Tribes, and military bases in Florida, Europe, and Cuba, reaching youth 5-18 years of age. This is done in a variety of delivery methods. These methods include residential/day-camping, advisory committees, afterschool, 4-H in the classroom, 4-H Clubs, military 4-H partnerships, and 4-H expansion and review committees. Research indicates that "youth involvement in structured activities after school can be a productive use of time, and can positively impact academic achievement, self-esteem, civic engagement, and relationships with others." (Cooper, Valentine, Nye, & Lindsay, 1999; Eccles & Barber, 1999; Youniss & Yates, 1997)

Based upon a 2007 analysis of county government priorities, organizational strategies and learning environments may address the following priorities: (1) preserving desired quality of life and cultural amenities, (2) developing the workforce of the future, (3) improving work force performance, (4) water and energy conservation, (5) environmental education in school, (6) promoting self reliance and independence, (7) encouraging community diversity and harmony, (8) improving education at all levels in community, (9) improving personal health and safety, (10) to be accessible, (11) enhance community engagement and awareness of resources.

-It is important to position the 4-H organization and its volunteers to work with and on behalf of young people in their communities.

Volunteer Development and Systems to Support Youth

Volunteers are an essential component of Extension Youth Development Programs (Patton, 1990)

-Volunteers structure the group learning experiences for youth (4-H Program Handbook, 1999)

-More than 50% of the life skills developed by youth are attributed to volunteers (Fogarty et al, 2008)

-Volunteers serve in a variety of capacities in support of 4-H members, other volunteers, and the 4-H program in general.

-Youth have the potential to succeed, but... the likelihood of success is greatest when youth regularly experience positive adult interaction and mentorship and are involved in youth development programs" (Learner, 2007).

-Volunteer positions will identified

Potential volunteers will be screened and selected

-Volunteers will be oriented and

trained in youth development, organizational culture and strategies, recognition, youth project study areas, access & equity, youth program development, and partnerships.

-Volunteers will be supported, recognized, and evaluated in their educational activities

-Extension professionals will teach volunteers to use subject matter, educational methods, and the democratic process to achieve essential elements of youth development.

2. Scope of the Program

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

V(D). Planned Program (Assumptions and Goals)

1. 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.

2. Ultimate goal(s) of this Program

Life Skills developed in youth through subject matter experiences

Youth ages 5-18 will engage in one or more series of 4-H structured learning experiences as reflected on the County ES-237 Youth data report.

2. Youth who participated in a minimum six-hour 4-H in the Classroom experience will increase their skill development (e.g., confidence from public speaking) and knowledge (in specific projects such as embryology, public speaking, Ag in the Classroom) as reported by post /pre surveys or county event data.

3. Residential Camp: youth will demonstrate increased competencies in self-responsibility, social skills, respect for others and diversity, and for counselors, leadership development, as a result of their participation in the 4-H resident camping program as reported/measured by end of camp evaluation.

4. Day Camp: youth will demonstrate increased competencies in at least one of the following areas: Agricultural Literacy, Animals Sciences, Citizenship/Leadership, Communication, Environmental Sciences, Plant Science, Science and Technology, Work Force Preparation and Family Consumer Sciences as a result of participation in day camp programs.

5. Events-Activities: club members will be engaged in at least two or more 4-H youth experiences beyond their club meetings to increase their skill development in one of the following areas: service to others; confidence to speak in public; decision-making or leadership as a result of their county/district/state experiences as evidenced by county event data and post-reflective member survey.

Organizational Strategies and learning environment for youth programs

4-H clubs within a county are formed and chartered(elect officers, plan a program, include one adult volunteer, meet six hours, use democratic process, fiscal compliance)

2. 4-H community clubs meet state standards for affirmative action, marketing, and awards and recognition

3. Volunteers are trained, competent youth and adults who assist and manage 4-H programs.

4-H In the Classroom:

1. Teachers/youth in schools receive education using 4-H subject matter/curriculum

2. Teachers promote the 4-H program through providing subject matter experiences to students in classrooms.

3. Partnerships are formed between the county 4-H program and school-based organizations.

4-H Residential / Day Camping

1: youth will demonstrate increased competencies in self-esteem, peer relationships, character, citizenship, and independence.

2. youth will demonstrate increased competencies in leadership, group facilitation, teamwork, citizenship, and self-esteem as a result of the Counselor training program and their service as a resident camp counselor.

3: youth will demonstrate increased knowledge in at least one of the following project areas as a result of their participation in summer day camp program; Environmental Education, Healthy Living, Agriculture, Natural Science, Leadership, or Family Consumer Sciences.

Advisory Committees

1. Recruit, orient, and engage a diverse group of youth and adults in councils and committees that subsequently lead the 4-H county program.
2. Train council and committee members in social structure management, program operations management, and strategic planning.

Expansion and Review Committee

1. Recruit, orient, and engage a diverse group of youth and adults that subsequently reviews the current 4-H program and offers insight on how to reach underserved audiences.
2. Train Expansion and review committee members on affirmative action, parity, program recruitment, and strategic planning.

Volunteer development and systems to support youth

Volunteers positions will be identified and advertized in counties throughout Florida.

- Volunteers engaged in regular interaction with youth will understand child protection and support background screening
- Current volunteers will sustain and expand their involvement in 4-H group learning experiences.
- The number of volunteers in coordinating and managing roles will increase, particularly in county level positions
- Volunteers will actively participate in orientation and trianing provied by the University of Florida faculty
- Volunteers engaged in project study leadership will increasae in participation numbers.

V(E). Planned Program (Inputs)

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

Year	Extension		Research	
	1862	1890	1862	1890
2010	60.0	2.0	0.0	0.0
2011	60.0	2.2	0.0	0.0
2012	60.0	2.4	0.0	0.0
2013	60.0	2.0	0.0	0.0
2014	60.0	2.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Life skills developed in youth through subject matter experience

- 1.Youth participate in at least 6 hours of learning 4-H subject matter during the year through 4-H club projects, classroom,

afterschool or camping experiences.

2. 4-H Youth participate in beyond Club/ Classroom Experiences such as residential camp, leadership trainings, workshops and experiences, day camps, and structured educational events / activities.

Additional educational methods include: camp counselor training, judging/exhibit workshops, training clinics, youth leadership council, demonstration/project portfolio workshops, recognition programs, community service projects, and county fair experiences.

Organizational strategies and learning environment for youth programs

4-H Clubs:

1. Training volunteers on elements that contribute to club charter, risk management, affirmative action compliance, quality programming, fiscal management, etc.

2. Quality management of chartering process

3. Training clubs to demonstrate excellent in recognition standards, marketing, and community service.

4-H In the Classroom

1. Classroom teachers and/or volunteers are trained and receive curriculum and training to teach students in subject matter area.

2. Students learn 4-H subject matter area during the school year.

3. 4-H marketing materials on subject matter areas & other delivery systems are created and distributed to teachers and students.

4-H Residential / Day Camping

1. Camp committees plan, implement, and evaluate quality camp experiences focused on subject matter and life skill development.

2. Teens will actively participate in and complete 24 hours of Camp Counselor training

3. Subject matter presentations will be delivered/experienced at residential and day camps.

Advisory Committees

1. Community networking for membership. Needs assessment. Handbook development, training in youth program organization.

2. Training of committee members throughout the year. Follow-up and support for members with focused responsibilities.

Expansion and Review Committee

1. Utilize personal and ethnic marketing strategies to reach underserved audiences.

2. Committee training for member which outlines the function of the committee.

3. Agent training to assist agents in developing this committee.

Volunteer Development

- Written position description will be completed.

-Workshops and activities will be completed related to child protection

-Orientation and training workshops and seminars will cover topics in youth development, organizational culture and strategies, recognition, youth project study areas, access & equity, youth program development, and partnerships

- Field and office consultations will be planned for volunteers with expanded roles.

-Project training workshops/seminars will be held.

-Volunteers will be sustained, supported, and recognized for their work.

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

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

3. Description of targeted audience

Youth ages 5-18 enrolled in Florida 4-H programs

Adult and youth volunteers in the 4-H program

Florida families with youth enrolled in the 4-H program between the ages of 5 and 18

-Parents and grandparents of youth ages 5-18 in the 4-H program

-Teens (14-18) in the 4-H program

-Adults interested in engaging in positive youth development

V(G). Planned Program (Outputs)

1. 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
2010	350000	5000000	230000	0
2011	350000	5000000	230000	0
2012	350000	5000000	230000	0
2013	350000	5000000	0	0
2014	350000	5000000	0	0

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

Expected Patent Applications

2010 :0 2011 :0 2012 :0 2013 :0 2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	40	0
2011	0	45	0
2012	0	50	0
2013	0	50	0
2014	0	50	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Change in Knowledge Life Skills Developed in Youth Through Subject Matter Experiences
2	Change in Behavior Life Skills Developed in Youth Through Subject Matter Experiences
3	Change in Condition Life Skills Developed in Youth Through Subject Matter Experiences
4	Change in Knowledge Organizational Strategies and Learning Environments for Youth Programs
5	Change in Behavior Organizational Strategies and Learning Environments for Youth Programs
6	Change in Condition Organizational Strategies and Learning Environments for Youth Programs
7	Change in Knowledge Volunteer Development and Systems to Support Youth
8	Change in Behavior Volunteer Development and Systems to Support Youth
9	Change in Condition Volunteer Development and Systems to Support Youth

Outcome #1

1. Outcome Target

Change in Knowledge Life Skills Developed in Youth Through Subject Matter Experiences

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :100 2011 : 100 2012 : 100 2013 :100 2014 :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #2

1. Outcome Target

Change in Behavior Life Skills Developed in Youth Through Subject Matter Experiences

2. Outcome Type : Change in Action Outcome Measure

2010 :100 2011 : 100 2012 : 100 2013 :100 2014 :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #3

1. Outcome Target

Change in Condition Life Skills Developed in Youth Through Subject Matter Experiences

2. Outcome Type : Change in Condition Outcome Measure

2010 :100 2011 : 100 2012 : 100 2013 :100 2014 :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #4

1. Outcome Target

Change in Knowledge Organizational Strategies and Learning Environments for Youth Programs

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :20 2011 : 20 2012 : 20 2013 :20 2014 :20

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #5

1. Outcome Target

Change in Behavior Organizational Strategies and Learning Environments for Youth Programs

2. Outcome Type : Change in Action Outcome Measure

2010 20 **2011** : 20 **2012** : 20 **2013** 20 **2014** :20

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #6

1. Outcome Target

Change in Condition Organizational Strategies and Learning Environments for Youth Programs

2. Outcome Type : Change in Condition Outcome Measure

2010 20 **2011** : 20 **2012** : 20 **2013** 20 **2014** :20

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #7

1. Outcome Target

Change in Knowledge Volunteer Development and Systems to Support Youth

2. Outcome Type : Change in Knowledge Outcome Measure

2010 50 **2011** : 50 **2012** : 50 **2013** 50 **2014** :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #8

1. Outcome Target

Change in Behavior Volunteer Development and Systems to Support Youth

2. Outcome Type : Change in Action Outcome Measure

2010 25 **2011** : 25 **2012** : 25 **2013** 25 **2014** :25

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #9**1. Outcome Target**

Change in Condition Volunteer Development and Systems to Support Youth

2. Outcome Type : Change in Condition Outcome Measure

2010 :25

2011 : 25

2012 : 25

2013 :25

2014 :25

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

V(J). Planned Program (External Factors)**1. External Factors which may affect Outcomes**

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

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 governmental 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.

V(K). Planned Program (Evaluation Studies and Data Collection)**1. Evaluation Studies Planned**

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

2. Data Collection Methods

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

Description

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods. Besides tradition methods of dOver the next few years Florida Extension will be developing state level evaluation tools within each focus area. All faculty will be provided with professional development training opportunities in the areas ofevaluation and developing evaluation tools. Online databases for collecting survey information will be developed within each goal area providing extensive feedback opportunities for faculty across the state and for reporting purposes.

V(A). Planned Program (Summary)

Program #4

1. Name of the Planned Program

Create and Maintain Resource Effective Landscapes: The Smart Way to Grow

2. Brief summary about Planned Program

In order to create and maintain Florida friendly landscapes Florida Extension teaches how to "grow smart" through educational programs in the areas of:

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

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

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

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

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

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
101	Appraisal of Soil Resources	5%	5%	0%	
102	Soil, Plant, Water, Nutrient Relationships	5%	5%	0%	
112	Watershed Protection and Management	5%	5%	0%	
133	Pollution Prevention and Mitigation	5%	5%	0%	
201	Plant Genome, Genetics, and Genetic Mechanisms	5%	5%	0%	
204	Plant Product Quality and Utility (Preharvest)	5%	5%	0%	
205	Plant Management Systems	5%	5%	0%	
206	Basic Plant Biology	5%	5%	0%	
211	Insects, Mites, and Other Arthropods Affecting Plants	5%	5%	0%	
212	Pathogens and Nematodes Affecting Plants	5%	5%	0%	
213	Weeds Affecting Plants	5%	5%	0%	
216	Integrated Pest Management Systems	5%	5%	0%	
405	Drainage and Irrigation Systems and Facilities	5%	5%	0%	
602	Business Management, Finance, and Taxation	5%	5%	0%	
603	Market Economics	5%	5%	0%	

604	Marketing and Distribution Practices	5%	5%	0%	
608	Community Resource Planning and Development	5%	5%	0%	
610	Domestic Policy Analysis	5%	5%	0%	
723	Hazards to Human Health and Safety	5%	5%	0%	
802	Human Development and Family Well-Being	5%	5%	0%	
	Total	100%	100%	0%	

V(C). Planned Program (Situation and Scope)

1. 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.

2. Scope of the Program

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

V(D). Planned Program (Assumptions and Goals)

1. 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

2. Ultimate goal(s) of this Program

- Improve compliance with local, state and federal regulations
- Improve procedures and techniques for managing business operations
- Use of BMPs for managing Florida landscapes
- Improve procedures and techniques for handling and using agricultural chemicals, fuels, and other product
- Improve delivery of Extension programs
- Improve competencies of Extension faculty from inservice training
- Improve agricultural and environmental knowledge/skills
- Improve volunteer development procedures and techniques

V(E). Planned Program (Inputs)

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

Year	Extension		Research	
	1862	1890	1862	1890
2010	40.0	0.0	0.0	0.0
2011	40.0	0.0	0.0	0.0
2012	40.0	0.0	0.0	0.0
2013	40.0	0.0	0.0	0.0
2014	40.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

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

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

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

3. Description of targeted audience

Business and Industry

Florida Residents

Government and Regulatory Agencies

UFIFAS Faculty & Staff

V(G). Planned Program (Outputs)

1. 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
2010	5000000	6000000	0	0
2011	5000000	6000000	0	0
2012	5000000	6000000	0	0
2013	5000000	6000000	0	0
2014	5000000	6000000	0	0

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

Expected Patent Applications

2010 :0 2011 :0 2012 :0 2013 :0 2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	35	0
2011	0	40	0
2012	0	45	0
2013	0	45	0
2014	0	45	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Change in Knowledge Commercial Horticulture/Urban Forestry Services
2	Change in Behavior Commercial Horticulture/Urban Forestry Services
3	Change in Condition Commercial Horticulture/Urban Forestry Services
4	Change in Knowledge Residential Landscapes including Florida Yards and Neighborhoods (FFL/FYN)
5	Change in Behavior Residential Landscapes including Florida Yards and Neighborhoods (FFL/FYN)
6	Change in Condition Residential Landscapes including Florida Yards and Neighborhoods (FFL/FYN)

Outcome #1**1. Outcome Target**

Change in Knowledge Commercial Horticulture/Urban Forestry Services

2. Outcome Type : Change in Knowledge Outcome Measure**2010** 50**2011** : 50**2012** : 50**2013** 50**2014** :50**3. Associated Institute Type(s)**

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

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

Outcome #2**1. Outcome Target**

Change in Behavior Commercial Horticulture/Urban Forestry Services

2. Outcome Type : Change in Action Outcome Measure**2010** 50**2011** : 50**2012** : 50**2013** 50**2014** :50**3. Associated Institute Type(s)**

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 101 - Appraisal of Soil Resources
- 102 - Soil, Plant, Water, Nutrient Relationships
- 112 - Watershed Protection and Management
- 133 - Pollution Prevention and Mitigation
- 201 - Plant Genome, Genetics, and Genetic Mechanisms
- 204 - Plant Product Quality and Utility (Preharvest)
- 205 - Plant Management Systems

- 206 - Basic Plant Biology
- 211 - Insects, Mites, and Other Arthropods Affecting Plants
- 212 - Pathogens and Nematodes Affecting Plants
- 213 - Weeds Affecting Plants
- 216 - Integrated Pest Management Systems

Outcome #3

1. Outcome Target

Change in Condition Commercial Horticulture/Urban Forestry Services

2. Outcome Type : Change in Condition Outcome Measure

2010 :50 2011 : 50 2012 : 50 2013 : 50 2014 :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

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

Outcome #4

1. Outcome Target

Change in Knowledge Residential Landscapes including Florida Yards and Neighborhoods (FFL/FYN)

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :100 2011 : 100 2012 : 100 2013 :100 2014 :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development

Outcome #5

1. Outcome Target

Change in Behavior Residential Landscapes including Florida Yards and Neighborhoods (FFL/FYN)

2. Outcome Type : Change in Action Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development

Outcome #6

1. Outcome Target

Change in Condition Residential Landscapes including Florida Yards and Neighborhoods (FFL/FYN)

2. Outcome Type : Change in Condition Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

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

V(K). Planned Program (Evaluation Studies and Data Collection)

1. 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.

2. Data Collection Methods

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

Description

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods. Besides traditional methods of data collection, over the next few years Florida Extension will be developing state level evaluation tools within each focus area. All faculty will be provided with professional development training opportunities in the areas of evaluation and developing evaluation tools. Online databases for collecting survey information will be developed within each goal area providing extensive feedback opportunities for faculty across the state and for reporting purposes.

V(A). Planned Program (Summary)

Program #5

1. Name of the Planned Program

Promote Individual, family, and community well-being and economic security

2. Brief summary about Planned Program

In the program designed to assist individuals and families to achieve economic well-being and life quality the following areas must be considered:

•Personal and family well-being •Personal financial education •Health, nutrition, and food safety •Sustainable housing and home environment •Sustainable organizations and communities

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

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

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

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

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
112	Watershed Protection and Management	5%	5%	0%	
136	Conservation of Biological Diversity	5%	5%	0%	
602	Business Management, Finance, and Taxation	5%	5%	0%	
603	Market Economics	5%	5%	0%	
604	Marketing and Distribution Practices	5%	5%	0%	
608	Community Resource Planning and Development	5%	5%	0%	
701	Nutrient Composition of Food	5%	5%	0%	
703	Nutrition Education and Behavior	5%	5%	0%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	5%	5%	0%	
723	Hazards to Human Health and Safety	5%	5%	0%	
724	Healthy Lifestyle	5%	5%	0%	
801	Individual and Family Resource Management	5%	5%	0%	
802	Human Development and Family Well-Being	5%	5%	0%	
803	Sociological and Technological Change Affecting Individuals, Families and Communities	5%	5%	0%	
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures	5%	5%	0%	

805	Community Institutions, Health, and Social Services	5%	5%	0%	
806	Youth Development	5%	5%	0%	
901	Program and Project Design, and Statistics	5%	5%	0%	
902	Administration of Projects and Programs	5%	5%	0%	
903	Communication, Education, and Information Delivery	5%	5%	0%	
	Total	100%	100%	0%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Personal and Family Well-Being

Diverse family structures such as teenage parents, single parents, dual earner families, stepfamilies, grandparents raising grandchildren, aging adults and caregiving families are increasing in Florida, along with problems such as poverty, social isolation, parental substance abuse, stress, child abuse, and domestic violence. Devoting more resources to prevention education could minimize many of these challenges

Personal Financial Education

Families today bear greater personal responsibility for their own financial security. For example, changes in retirement benefits have made families responsible for funding their own retirement. Many Floridians are reliant on Social Security, designed to have been a supplemental source of retirement. While home ownership has improved, foreclosures have never been higher and Florida is having one of the greatest struggles with foreclosure in the nation. The highest national debt level in history, a staggering consumer debt load, and runaway health care costs are major problems facing all Americans. According to the Federal Reserve, household debt has hit a record high of 109 percent of household income. Personal savings is at an 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. 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. . This problem is not likely to improve as the population of Florida continues to grow older as Florida residents are aging and Florida continues to be a retirement destination for many. It is projected that by 2025 the over 65 group will make up 26.33 percent of Florida's population. Furthermore, according to the National Fraud Center, Florida is one of the 10 states experiencing the greatest problem with fraud; many older Floridians are especially vulnerable. There is a clear need to prepare Florida's youth for fiscal responsibility given poor performance on financial literacy assessments and increasing bankruptcy rates for those under 25.

Agencies such as the Federal Reserve, US Dept of the Treasury, Florida Department of Financial Services and many statewide asset building coalitions look to ally themselves with extension to bring scholarly based programs to communities.

Health, Nutrition, and Food safety

Health- Helping Floridians Lead Healthy Sustainable Lifestyles

Twelve percent of Florida's population (7% of children) lives below the poverty level. As poverty levels rise, the nutritional and health risks to people of all ages increase. Hungry children often have learning and behavioral problems; expectant mothers with inadequate nutrition are more likely to have low birth weight babies.

Additionally, Florida adults with the lowest incomes and the least education have the highest prevalence of obesity (26.5% for those earning less than \$25,000/yr and 30.7% for those with less than a high school diploma). This disparity, along with the persistent increase in obesity rates over the last two decades, is cause for concern as obesity is linked to increased risk for a number of chronic diseases, including heart disease, hypertension, diabetes, and some cancers.

In Florida, more than 1.2 million people receive Supplemental Nutrition Assistance Program (SNAP) benefits (formerly Food Stamps); most exhaust these benefits five to ten days before the end of the month. Extension receives federal dollars from

USDA to provide nutrition education to SNAP participants and eligibles in Florida to help them understand how to eat a healthy diet on a limited food budget using SNAP benefits and to choose a physically active lifestyle. Additionally, thirteen Florida counties receive funding to provide nutrition education to limited resource populations through the Expanded Food and Nutrition Education Program (EFNEP.)

Nutrition- Preventing and Managing Chronic Diseases and Conditions

Chronic diseases and conditions such as heart disease, cancer, stroke, diabetes, and obesity are leading causes of disability and death and contribute to the rising cost of health care. Risk for these conditions can be reduced through changes in lifestyle behaviors, including eating behaviors, physical activity, and participation in health screenings.

Extension lifestyle intervention programs provide people with the knowledge, motivation, and skills they need to adopt behavior changes that promote positive nutritional status and reduced health risks, which may result in lower health care costs. In addition to in-depth programs, Extension provides research-based information designed to increase awareness about these diseases and conditions to a wider audience through written and other media. Increased awareness can motivate these individuals to participate in Extension lifestyle intervention programs.

Food Safety and Quality

Foodborne illnesses continue to be a major health concern (CDC data), especially for persons with compromised immunity such as infants, young children, older adults and persons with certain medical conditions. A majority of foodborne illnesses in the US are due to microbial causes. In Florida the majority of foodborne illnesses are attributed to commercial food service and foods prepared in private homes. Fresh produce is crucial to a healthy diet, but in the last three decades, the number of foodborne illness outbreaks associated with fresh produce has increased. Home food preservation is returning as a popular activity across Florida. Many home food processors are using practices that put them at high risk for foodborne illness and economic losses due to food spoilage. This fact is confirmed in Florida by the incidence of botulism cases in recent years due to improper canning and preservation of garlic in oil.

The food safety action team is proposing three educational programs that would make a difference to improve food safety in Florida.

1) Improving fresh produce safety/ Small farm food safety

Sustainable Housing

A home has various meanings for mankind: from a very basic meaning as a shelter that provides protection from external harms to a social and psychological meaning as a symbol of a household's social and economic status and as a place of self-expression. Most people in the United States spend more than half of their lives in housing and many households spend more than 30% of their household income for housing. Thus, a house can impact the health and financial situation as well as the social and emotional well-being of its occupants. Many households are affected by current economic conditions and Florida is listed as one of the top states with high foreclosure rates which results in declining home and neighborhood environments. Because of its demographic, geographical and current economic situation, Florida faces several different housing challenges including:

- Availability of affordable and durable housing;
- Sustainability of homeownership;
- Housing for the elderly and physically challenged;
- Maintenance of homes that are seasonally occupied;
- Environmentally-friendly building and remodeling;
- Making wise choices for equipping the interior of the home;
- Home care and maintenance;
- Maintaining neighborhood vitality and stability;
- Structurally sound housing to withstand extreme weather conditions;

- Energy efficiency; and
- Indoor environmental quality
 - Sustainable Organizations and Communities
 - Community Based Organizations (CBOs)

need a better understanding of effective organizational governance.2. Boards of Directors, councils, and officers need to know what their role is and how to carry it out.3. Organizations frequently do not know how to work effectively in a partner or collaborative relationship. This includes County Extension offices and Extension Sponsored 501c3s and other CBOs.4. Extension county faculty need core competencies to work effectively with all CBOs. These include, but are not limited to, strategic planning, governance, marketing, public relations, volunteer development and fund raising.

2. Scope of the Program

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

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

For the economically disadvantage, 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.

2. Ultimate goal(s) of this Program

- Improve competencies of Extension faculty from inservice training
- improved delivery of Extension programs
- Improved practices to strengthen individuals, couples, and families
- Improved knowledge and skills of professionals who work with individuals, couples and families
- Promote self reliance and independence
- Encourage community diversity and harmony
- Improve and enhance responsiveness to community
- Enhance community engagement and awareness of resources
- improved procedures and techniques to manage debt
- improved procedures and techniques to manage assets
- improved procedures and techniques to reduce fraud
- Develop improved family and consumer skills
- Improve nutrition and other lifestyle behaviors
- Improved procedures and techniques for handling and preparing food
- Improved management of food resources
- Develop improved family and consumer skills
- Develop healthy lifestyle choices
- Improve procedures and techniques to improve home ownership
- Improve procedures and techniques to maintain a healthy and safe home
- Improve procedures and techniques to increas low-impact development (LID)
- Improve compliance with local, state, and federal regulations
- Improve construction and/or developmen/redevelopment procedures and techniques

V(E). Planned Program (Inputs)

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

Year	Extension		Research	
	1862	1890	1862	1890
2010	40.0	8.0	0.0	0.0
2011	40.0	8.0	0.0	0.0
2012	40.0	8.0	0.0	0.0
2013	40.0	8.0	0.0	0.0
2014	40.0	8.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

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

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

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

3. Description of targeted audience

Childcare, after-school, and elder care providers;
 Individual and family service personnel;
 Parents, couples, and individuals;
 UF/IFAS county and state faculty.

Children and adolescents, families with children, adults of all ages including those with special needs.

At-risk persons including older adults and persons who are obese, have a family or personal history, or are in a high-risk ethnic group.

Persons with type 2 diabetes

Food service operators: food handlers (adults; youth); consumers; volunteers, and county faculty

· Consumers

- Homeowners

- Prospective homeowners

- Renters

- Temporary/seasonal residents

- Households with child(ren) age 6 years and younger

- Seniors

- Persons with disabilities

Housing professionals

- Developers
- Building/construction professionals
- Housing sales professionals
- Residential property management professionals
- Non-government organizations
- UF/IFAS faculty and staff

Extension county faculty

Community organizations

V(G). Planned Program (Outputs)

1. 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
2010	700000	9000000	0	0
2011	700000	9000000	0	0
2012	700000	9000000	0	0
2013	300000	9000000	0	0
2014	300000	9000000	0	0

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

Expected Patent Applications

2010 :0 2011 :0 2012 :0 2013 :0 2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	40	0
2011	0	45	0
2012	0	50	0
2013	0	50	0
2014	0	50	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Change in Knowledge Personal and Family Well-Being
2	Change in Behavior Personal and Family Well-Being
3	Change in Condition Personal and Family Well-Being
4	Change in Knowledge Personal Financial Education
5	Change in Behavior Personal Financial Education
6	Change in Condition Personal Financial Education
7	Change in Knowledge Health, Nutrition, and Food Safety
8	Change in Behavior Health, Nutrition, and Food Safety
9	Change in Condition Health, Nutrition, and Food Safety
10	Change in Knowledge Sustainable Housing and Home Environment
11	Change in Behavior Sustainable Housing and Home Environment
12	Change in Condition Sustainable Housing and Home Environment
13	Change in Knowledge Sustainable Organizations and Communities
14	Change in Behavior Sustainable Organizations and Communities
15	Change in Condition Sustainable Organizations and Communities

Outcome #1

1. Outcome Target

Change in Knowledge Personal and Family Well-Being

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :115 **2011** : 115 **2012** : 115 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 801 - Individual and Family Resource Management
- 802 - Human Development and Family Well-Being
- 803 - Sociological and Technological Change Affecting Individuals, Families and Communities

Outcome #2

1. Outcome Target

Change in Behavior Personal and Family Well-Being

2. Outcome Type : Change in Action Outcome Measure

2010 :115 **2011** : 100 **2012** : 115 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 801 - Individual and Family Resource Management
- 802 - Human Development and Family Well-Being
- 803 - Sociological and Technological Change Affecting Individuals, Families and Communities

Outcome #3

1. Outcome Target

Change in Condition Personal and Family Well-Being

2. Outcome Type : Change in Condition Outcome Measure

2010 :100 **2011** : 50 **2012** : 50 **2013** :50 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 801 - Individual and Family Resource Management
- 802 - Human Development and Family Well-Being
- 803 - Sociological and Technological Change Affecting Individuals, Families and Communities

Outcome #4

1. Outcome Target

Change in Knowledge Personal Financial Education

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 801 - Individual and Family Resource Management

Outcome #5

1. Outcome Target

Change in Behavior Personal Financial Education

2. Outcome Type : Change in Action Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 801 - Individual and Family Resource Management

Outcome #6

1. Outcome Target

Change in Condition Personal Financial Education

2. Outcome Type : Change in Condition Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 801 - Individual and Family Resource Management

Outcome #7

1. Outcome Target

Change in Knowledge Health, Nutrition, and Food Safety

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :50 **2011** : 50 **2012** : 50 **2013** :50 **2014** :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 701 - Nutrient Composition of Food
- 703 - Nutrition Education and Behavior
- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

- 723 - Hazards to Human Health and Safety
- 724 - Healthy Lifestyle

Outcome #8

1. Outcome Target

Change in Behavior Health, Nutrition, and Food Safety

2. Outcome Type : Change in Knowledge Outcome Measure

2010 50 **2011** : 50 **2012** : 50 **2013** 50 **2014** :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 701 - Nutrient Composition of Food
- 703 - Nutrition Education and Behavior
- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
- 723 - Hazards to Human Health and Safety
- 724 - Healthy Lifestyle

Outcome #9

1. Outcome Target

Change in Condition Health, Nutrition, and Food Safety

2. Outcome Type : Change in Condition Outcome Measure

2010 50 **2011** : 50 **2012** : 50 **2013** 50 **2014** :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 701 - Nutrient Composition of Food
- 703 - Nutrition Education and Behavior
- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
- 723 - Hazards to Human Health and Safety
- 724 - Healthy Lifestyle

Outcome #10

1. Outcome Target

Change in Knowledge Sustainable Housing and Home Environment

2. Outcome Type : Change in Knowledge Outcome Measure

2010 50 **2011** : 50 **2012** : 50 **2013** 50 **2014** :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 804 - Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

Outcome #11

1. Outcome Target

Change in Behavior Sustainable Housing and Home Environment

2. Outcome Type : Change in Action Outcome Measure

2010 :50 2011 : 50 2012 : 50 2013 : 50 2014 :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 804 - Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

Outcome #12

1. Outcome Target

Change in Condition Sustainable Housing and Home Environment

2. Outcome Type : Change in Condition Outcome Measure

2010 :50 2011 : 50 2012 : 50 2013 : 50 2014 :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 804 - Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

Outcome #13

1. Outcome Target

Change in Knowledge Sustainable Organizations and Communities

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :50 2011 : 50 2012 : 50 2013 : 50 2014 :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 803 - Sociological and Technological Change Affecting Individuals, Families and Communities
- 805 - Community Institutions, Health, and Social Services

Outcome #14

1. Outcome Target

Change in Behavior Sustainable Organizations and Communities

2. Outcome Type : Change in Action Outcome Measure

2010 25 **2011** :25 **2012** : 25 **2013** 25 **2014** :25

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 803 - Sociological and Technological Change Affecting Individuals, Families and Communities
- 805 - Community Institutions, Health, and Social Services

Outcome #15

1. Outcome Target

Change in Condition Sustainable Organizations and Communities

2. Outcome Type : Change in Knowledge Outcome Measure

2010 50 **2011** :50 **2012** : 50 **2013** 50 **2014** :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 803 - Sociological and Technological Change Affecting Individuals, Families and Communities
- 805 - Community Institutions, Health, and Social Services

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

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

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

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

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.

2. Data Collection Methods

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

Description

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods. Besides tradition methods of dOver the next few years Florida Extension will be developing state level evaluation tools within each focus area. All faculty will be provided with professional development training opportunities in the areas ofevaluation and developing evaluation tools. Online databases for collecting survey information will be developed within each goal area providing extensive feedback opportunities for faculty across the state and for reporting purposes.

V(A). Planned Program (Summary)

Program #6

1. Name of the Planned Program

Maintain, Enhance and Establish Sustainable Communities

2. Brief summary about Planned Program

Healthy communities are developed by increasing knowledge and changing behaviors related to the following areas:

- Growth management and land use policy

- Citizen engagement to build active communities

- Economic development

- Leadership development

- Water and Energy resource efficiency

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

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

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

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

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
608	Community Resource Planning and Development	20%	20%	0%	
610	Domestic Policy Analysis	20%	20%	0%	
723	Hazards to Human Health and Safety	10%	10%	0%	
724	Healthy Lifestyle	5%	5%	0%	
802	Human Development and Family Well-Being	10%	10%	0%	
803	Sociological and Technological Change Affecting Individuals, Families and Communities	10%	10%	0%	
805	Community Institutions, Health, and Social Services	5%	5%	0%	
806	Youth Development	5%	5%	0%	
902	Administration of Projects and Programs	5%	5%	0%	
903	Communication, Education, and Information Delivery	10%	10%	0%	
	Total	100%	100%	0%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Situation Statement

There are hundreds of municipalities in Florida, ranging from Islandia with 5 residents to the Greater Miami area with well over one million. Each Florida community has its own history and special flavor, as well as plans and hopes. The citizens of any community have the goal of working together to improve the quality of their lives and increase their opportunities.

For communities to grow, they must have the active interest and involvement of citizens in the form of a rich civic life. In this way, citizens come together to discuss and debate the needs and directions for their community. Then, once the decisions are made, citizens must come together to make and execute their plans. Another requirement for growth and opportunity is a robust economy. In Florida, a significant basis for such an economy is the natural environment, in terms of natural resources and natural beauty. Together, these account for much of Florida’s overall economy in the forms of tourism, industry, recreation and agriculture. Most communities in Florida are looking to one or more of these areas as sources of economic growth.

As much as citizens and leaders might desire to have vibrant, cooperative communities, the skills needed to achieve this must be learned. Communities need guidance and expertise. They need support and information.

Hanging over all plans and achievements, however, is the possibility of disaster. In the last ten years or so, Florida has sustained major natural disasters, including devastating hurricanes and drought. These disasters have challenged --- and in one case, leveled --- communities. A hurricane or tornado can cause irreparable damage to a community, and a severe drought can change the economic welfare of an entire region.

The past two years have made all Floridians aware of other threats to the stability of our communities. Every community must now have some response ready in case of an intentional attack. These attacks can take many forms, including bombings and the introduction of disease agents.

Central to the life of our communities are the lives of their citizens, and that means working for their safety in the everyday hazards they face in their homes and workplaces. Florida's natural environment and large agricultural sector expose Florida citizens to a wide range of personal hazards or the possibility of creating hazards for others. As concerned as we are about large-scale emergencies, Floridians are much more likely to face death or injury through equipment or situations they encounter everyday.

Whatever our communities are confronted with, Extension must be ready to play its role. Through its reputation for community involvement and quality information, Extension has special capabilities that can assist communities in valuable ways during good times and bad.

2. Scope of the Program

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

V(D). Planned Program (Assumptions and Goals)

1. 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

2. Ultimate goal(s) of this Program

Improve delivery of Extension programs
Florida citizens participate more fully and effectively in the decision making that affect their communities
Improve procedures and techniques to resolve conflict
Improve competencies of Extension faculty from in-service training
Improved procedures and techniques to retain and expand businesses
Improved business environment
improved business management practices

V(E). Planned Program (Inputs)

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

Year	Extension		Research	
	1862	1890	1862	1890
2010	5.0	0.5	0.0	0.0
2011	5.0	0.5	0.0	0.0
2012	5.0	0.5	0.0	0.0
2013	5.0	0.5	0.0	0.0
2014	5.0	0.5	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

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

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

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

3. Description of targeted audience

- Planners/Zoning officials
- General public
- Citizen committees
- Elected officials
- Regional Planning Councils
- Local government
- Technical users such as developers/builders/landowners/engineers
- Florida Association of Counties
- Extension faculty
- League of Cities
- State Legislators
- Post-secondary Students

V(G). Planned Program (Outputs)

1. 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
2010	42000	2800000	0	0
2011	42000	2800000	0	0
2012	42000	2800000	0	0
2013	42000	2800000	0	0
2014	42000	2800000	0	0

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

Expected Patent Applications

2010 :0 2011 :0 2012 :0 2013 :0 2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	7	0
2011	0	8	0
2012	0	9	0
2013	0	9	0
2014	0	9	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

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

V(I). State Defined Outcome

O. No	Outcome Name
1	Change in Knowledge Growth Management and Land Use Policy
2	Change in Behavior Growth Management and Land Use Policy
3	Change in Condition Growth Management and Land Use Policy
4	Change in Knowledge Civic Engagement, Leadership, and Community Development
5	Change in Behavior Civic Engagement, Leadership, and Community Development
6	Change in Condition Civic Engagement, Leadership, and Community Development
7	Change in Knowledge Economic Development
8	Change in Behavior Economic Development
9	Change in Condition Economic Development
10	Change in Knowledge Water and Energy Resource Efficiency
11	Change in Behavior Water and Energy Resource Efficiency
12	Change in Condition Water and Energy Resource Efficiency

Outcome #1

1. Outcome Target

Change in Knowledge Growth Management and Land Use Policy

2. Outcome Type : Change in Knowledge Outcome Measure

2010 50 **2011** : 50 **2012** : 50 **2013** 50 **2014** :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development

Outcome #2

1. Outcome Target

Change in Behavior Growth Management and Land Use Policy

2. Outcome Type : Change in Action Outcome Measure

2010 25 **2011** : 25 **2012** : 25 **2013** 25 **2014** :25

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development

Outcome #3

1. Outcome Target

Change in Condition Growth Management and Land Use Policy

2. Outcome Type : Change in Condition Outcome Measure

2010 25 **2011** : 25 **2012** : 25 **2013** 25 **2014** :25

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development

Outcome #4

1. Outcome Target

Change in Knowledge Civic Engagement, Leadership, and Community Development

2. Outcome Type : Change in Knowledge Outcome Measure

2010 25 **2011** : 25 **2012** : 25 **2013** 25 **2014** :25

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development
- 805 - Community Institutions, Health, and Social Services

Outcome #5

1. Outcome Target

Change in Behavior Civic Engagement, Leadership, and Community Development

2. Outcome Type : Change in Action Outcome Measure

2010 25 **2011** : 25 **2012** : 25 **2013** 25 **2014** :25

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development
- 805 - Community Institutions, Health, and Social Services

Outcome #6

1. Outcome Target

Change in Condition Civic Engagement, Leadership, and Community Development

2. Outcome Type : Change in Condition Outcome Measure

2010 25 **2011** : 25 **2012** : 25 **2013** 25 **2014** :25

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development
- 805 - Community Institutions, Health, and Social Services

Outcome #7

1. Outcome Target

Change in Knowledge Economic Development

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development

Outcome #8

1. Outcome Target

Change in Behavior Economic Development

2. Outcome Type : Change in Action Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development

Outcome #9

1. Outcome Target

Change in Condition Economic Development

2. Outcome Type : Change in Condition Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development

Outcome #10

1. Outcome Target

Change in Knowledge Water and Energy Resource Efficiency

2. Outcome Type : Change in Knowledge Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development

Outcome #11

1. Outcome Target

Change in Behavior Water and Energy Resource Efficiency

2. Outcome Type : Change in Action Outcome Measure

2010 :100 **2011** : 100 **2012** : 100 **2013** :100 **2014** :100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development

Outcome #12**1. Outcome Target**

Change in Condition Water and Energy Resource Efficiency

2. Outcome Type : Change in Condition Outcome Measure**2010** :100**2011** : 100**2012** : 100**2013** :100**2014** :100**3. Associated Institute Type(s)**

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development

V(J). Planned Program (External Factors)**1. External Factors which may affect Outcomes**

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

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

usceptible 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.

V(K). Planned Program (Evaluation Studies and Data Collection)**1. Evaluation Studies Planned**

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

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.

2. Data Collection Methods

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

Description

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods. Besides tradition methods of dOver the next few years Florida Extension will be developing state level evaluation tools within each focus area. All faculty will be provided with professional development training opportunities in the areas ofevaluation and developing evaluation tools. Online databases for collecting survey information will be developed within each goal area providing extensive feedback opportunities for faculty across the state and for reporting purposes.

V(A). Planned Program (Summary)

Program #7

1. Name of the Planned Program

Promote Professional Development to Enhance Organizational Efficiency and Effectiveness

2. Brief summary about Planned Program

Florida Landgrant faculty need the opportunity for personal improvement through planned programs designed to enhance organizational efficiency and effectiveness through participation in:

- Program development, implementation and evaluation

- Faculty orientation and career training

- Effective communication and technology use

- Personal and organizational health

- Administration and leadership

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

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

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

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

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
604	Marketing and Distribution Practices	10%	10%	0%	
610	Domestic Policy Analysis	10%	10%	0%	
802	Human Development and Family Well-Being	10%	10%	0%	
803	Sociological and Technological Change Affecting Individuals, Families and Communities	10%	10%	0%	
805	Community Institutions, Health, and Social Services	10%	10%	0%	
806	Youth Development	10%	10%	0%	
901	Program and Project Design, and Statistics	10%	10%	0%	
902	Administration of Projects and Programs	20%	20%	0%	
903	Communication, Education, and Information Delivery	10%	10%	0%	
	Total	100%	100%	0%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

The UF/IFAS Extension Service (CES) is a large and dynamic organization consisting of local, regional, and state educators, administrators, and support professionals. As such, its personnel needs are diverse, extensive, and changing. This is particularly true at the local level where over 360 (2004) county faculty work across multiple program areas with adults and youth. Like many other organizations, the rate of turnover in CES is a concern as an average of 25-30 new county faculty are hired each year. In addition, a large majority of new CES faculty at both the county and state levels have limited professional experience and academic preparation in the process dimensions that are fundamental to the success of Florida CES (UF/IFAS CES Professional Development Task Force, 1998).

Technical, interpersonal, and programming skills are necessary to ensure the effectiveness of Extension program development, delivery, and accountability. An organization with knowledge development and education as its base must have an effective process in place to continually develop its own intellectual capital (Van Buren, 2001). Professional development opportunities that reflect relevant organizational needs will prepare new faculty members to assess customer needs – then develop, deliver, evaluate and revise educational program effort. Veteran professionals will enhance skills in delivering relevant programs for citizens in Florida and elsewhere.

2. Scope of the Program

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

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

•People will be motivated by internal workshops and other educational activities to learn/change practices shows that these approaches work well for employees of Florida Extension
 •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

2. Ultimate goal(s) of this Program

Improved delivery of Extension programs
 Improved procedures and techniques to evaluate Extension programs
 Improved faculty and staff satisfaction
 Improved competencies of Extension faculty and staff through inservice training and other professional learning opportunities

V(E). Planned Program (Inputs)

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

Year	Extension		Research	
	1862	1890	1862	1890
2010	20.0	0.0	0.0	0.0
2011	20.0	0.0	0.0	0.0
2012	20.0	0.0	0.0	0.0
2013	20.0	0.0	0.0	0.0
2014	20.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

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

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

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

3. Description of targeted audience

All UF/IFAS extension professionals in 67 counties and State faculty with extension appointments.
 UF/IFAS Faculty & Staff
 County faculty and staff

Administration

State Faculty and staff

CEDs & DEDs

Advisory Committee Members

Volunteers

Local Industry Leaders

Local UF/IFAS Supporters, Alumni and Gator Club Members

Local Media Outlets

Local Government Officials

V(G). Planned Program (Outputs)

1. 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
2010	64000	2500000	0	0
2011	64000	2500000	0	0
2012	64000	2500000	0	0
2013	64000	2500000	0	0
2014	64000	2500000	0	0

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

Expected Patent Applications

2010 :0 2011 :0 2012 :0 2013 :0 2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	0	20	0
2011	0	25	0
2012	0	30	0
2013	0	30	0
2014	0	30	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Change in Knowledge Program Development, Implementation and Evaluation
2	Change in Behavior Program Development, Implementation and Evaluation
3	Change in Condition Program Development, Implementation and Evaluation
4	Change in Knowledge Faculty Orientation and Career Training
5	Change in Behavior Faculty Orientation and Career Training
6	Change in Condition Faculty Orientation and Career Training
7	Change in Knowledge Effective Communication and Technology Use
8	Change in Behavior Effective Communication and Technology Use
9	Change in Condition Effective Communication and Technology Use
10	Change in Knowledge Personal and Organizational Health
11	Change in Knowledge Administration and Leadership
12	Change in Behavior Administration and Leadership
13	Change in Condition Administration and Leadership

Outcome #1

1. Outcome Target

Change in Knowledge Program Development, Implementation and Evaluation

2. Outcome Type : Change in Knowledge Outcome Measure

2010 50 **2011** : 50 **2012** : 50 **2013** 50 **2014** :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 901 - Program and Project Design, and Statistics
- 902 - Administration of Projects and Programs
- 903 - Communication, Education, and Information Delivery

Outcome #2

1. Outcome Target

Change in Behavior Program Development, Implementation and Evaluation

2. Outcome Type : Change in Action Outcome Measure

2010 50 **2011** : 50 **2012** : 50 **2013** 50 **2014** :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 901 - Program and Project Design, and Statistics
- 902 - Administration of Projects and Programs
- 903 - Communication, Education, and Information Delivery

Outcome #3

1. Outcome Target

Change in Condition Program Development, Implementation and Evaluation

2. Outcome Type : Change in Condition Outcome Measure

2010 50 **2011** : 50 **2012** : 50 **2013** 50 **2014** :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 901 - Program and Project Design, and Statistics
- 902 - Administration of Projects and Programs
- 903 - Communication, Education, and Information Delivery

Outcome #4

1. Outcome Target

Change in Knowledge Faculty Orientation and Career Training

2. Outcome Type : Change in Knowledge Outcome Measure

2010 50 **2011** : 50 **2012** : 50 **2013** 50 **2014** :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 901 - Program and Project Design, and Statistics
- 902 - Administration of Projects and Programs
- 903 - Communication, Education, and Information Delivery

Outcome #5

1. Outcome Target

Change in Behavior Faculty Orientation and Career Training

2. Outcome Type : Change in Action Outcome Measure

2010 50 **2011** : 50 **2012** : 50 **2013** 50 **2014** :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 901 - Program and Project Design, and Statistics
- 902 - Administration of Projects and Programs
- 903 - Communication, Education, and Information Delivery

Outcome #6

1. Outcome Target

Change in Condition Faculty Orientation and Career Training

2. Outcome Type : Change in Condition Outcome Measure

2010 50 **2011** : 50 **2012** : 50 **2013** 50 **2014** :50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 901 - Program and Project Design, and Statistics
- 902 - Administration of Projects and Programs
- 903 - Communication, Education, and Information Delivery

Outcome #7

1. Outcome Target

Change in Knowledge Effective Communication and Technology Use

2. Outcome Type : Change in Knowledge Outcome Measure

2010 25 **2011** : 25 **2012** : 25 **2013** 25 **2014** :25

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 901 - Program and Project Design, and Statistics
- 902 - Administration of Projects and Programs
- 903 - Communication, Education, and Information Delivery

Outcome #8

1. Outcome Target

Change in Behavior Effective Communication and Technology Use

2. Outcome Type : Change in Action Outcome Measure

2010 25 **2011** : 25 **2012** : 25 **2013** 25 **2014** :25

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 901 - Program and Project Design, and Statistics
- 902 - Administration of Projects and Programs
- 903 - Communication, Education, and Information Delivery

Outcome #9

1. Outcome Target

Change in Condition Effective Communication and Technology Use

2. Outcome Type : Change in Knowledge Outcome Measure

2010 25 **2011** : 25 **2012** : 25 **2013** 25 **2014** :25

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 901 - Program and Project Design, and Statistics
- 902 - Administration of Projects and Programs
- 903 - Communication, Education, and Information Delivery

Outcome #10

1. Outcome Target

Change in Knowledge Personal and Organizational Health

2. Outcome Type : Change in Knowledge Outcome Measure

2010 25 **2011** : 25 **2012** : 25 **2013** 25 **2014** :25

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 901 - Program and Project Design, and Statistics
- 902 - Administration of Projects and Programs
- 903 - Communication, Education, and Information Delivery

Outcome #11

1. Outcome Target

Change in Knowledge Administration and Leadership

2. Outcome Type : Change in Knowledge Outcome Measure

2010 25 **2011** : 25 **2012** : 25 **2013** 25 **2014** :25

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 901 - Program and Project Design, and Statistics
- 902 - Administration of Projects and Programs
- 903 - Communication, Education, and Information Delivery

Outcome #12

1. Outcome Target

Change in Behavior Administration and Leadership

2. Outcome Type : Change in Action Outcome Measure

2010 25 **2011** : 25 **2012** : 25 **2013** 25 **2014** :25

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 901 - Program and Project Design, and Statistics
- 902 - Administration of Projects and Programs
- 903 - Communication, Education, and Information Delivery

Outcome #13

1. Outcome Target

Change in Condition Administration and Leadership

2. Outcome Type : Change in Condition Outcome Measure**2010** 25**2011** :25**2012** : 25**2013** 25**2014** :25**3. Associated Institute Type(s)**

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 901 - Program and Project Design, and Statistics
- 902 - Administration of Projects and Programs
- 903 - Communication, Education, and Information Delivery

V(J). Planned Program (External Factors)**1. External Factors which may affect Outcomes**

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

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.

V(K). Planned Program (Evaluation Studies and Data Collection)**1. Evaluation Studies Planned**

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

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.

2. Data Collection Methods

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

Description

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods. Besides tradition methods of dOver the next few years Florida Extension will be developing state level evaluation tools within each focus area. All faculty will be provided with professional development training opportunities in the areas ofevaluation and developing evaluation tools. Online databases for collecting survey information will be developed within each goal area providing extensive feedback opportunities for faculty across the state and for reporting purposes.

V(A). Planned Program (Summary)

Program #8

1. Name of the Planned Program

Natural Resources and Environment--research

2. Brief summary about Planned Program

This planned program includes research in the areas of :

- 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

Tourism is the number one source of revenue in Florida follow second by agriculture. Tourists come to Florida primarily because of the unique tropical landscape and coastline. Florida soil and water are essential to supporting the infrastructure and providing nutrients necessary to produce some of the leading products produced in Florida agriculture including forestry products and consumer-related horticultural plants. For example, Florida is a major producer of green house plants and other ornamentals.

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

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

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

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

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
101	Appraisal of Soil Resources	0%	0%	5%	
102	Soil, Plant, Water, Nutrient Relationships	0%	0%	10%	
103	Management of Saline and Sodic Soils and Salinity	0%	0%	5%	
104	Protect Soil from Harmful Effects of Natural Elements	0%	0%	5%	
111	Conservation and Efficient Use of Water	0%	0%	10%	
112	Watershed Protection and Management	0%	0%	5%	
121	Management of Range Resources	0%	0%	5%	
122	Management and Control of Forest and Range Fires	0%	0%	5%	
123	Management and Sustainability of Forest Resources	0%	0%	5%	
124	Urban Forestry	0%	0%	5%	
125	Agroforestry	0%	0%	5%	
131	Alternative Uses of Land	0%	0%	5%	
132	Weather and Climate	0%	0%	5%	
133	Pollution Prevention and Mitigation	0%	0%	5%	
134	Outdoor Recreation	0%	0%	5%	

135	Aquatic and Terrestrial Wildlife	0%	0%	5%	
136	Conservation of Biological Diversity	0%	0%	5%	
141	Air Resource Protection and Management	0%	0%	5%	
	Total	0%	0%	100%	

V(C). Planned Program (Situation and Scope)

1. 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

2. Scope of the Program

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

V(D). Planned Program (Assumptions and Goals)

1. 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

2. Ultimate goal(s) of this Program

Improve methods for appraisal of soil resources
 Improve soil, water and nutrient relationships
 Improve the management of saline and sodic soils and salinity
 Increase protection of soil from harmful effects of natural elements
 Improve conservation and efficient use of water
 Increase watershed protection and management
 Improve methods for managing range resources
 Improve management and control of forest and range fires
 Improve management and sustainability of forest resource
 Improve urban forestry
 Improve Florida agroforestry
 Identify alternative uses of land
 Increase knowledge related to weather and climate
 Improved pollution prevention techniques and mitigation
 Improve methods of protecting aquatic and terrestrial wildlife environment
 Improve conservation of biological diversity
 Increase air resource protection and management

V(E). Planned Program (Inputs)

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

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.0	12.0	0.0
2011	0.0	0.0	12.0	0.0
2012	0.0	0.0	12.0	0.0
2013	0.0	0.0	12.0	0.0
2014	0.0	0.0	12.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

- Conduct Research Experiments
- Construct Research Facilities
- Partnering

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

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

3. Description of targeted audience

- homeowners
- roducers/growers
- olicy regulators
- visitors to the state

V(G). Planned Program (Outputs)

1. 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
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0
2014	0	0	0	0

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

Expected Patent Applications

2010 :1

2011 :1

2012 :1

2013 :1

2014 :1

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	160	0	0
2011	165	0	0
2012	170	0	0
2013	170	0	0
2014	170	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Improve methods for appraisal of soil resources
2	Improve soil, water and nutrient relationships
3	Improve the management of saline and sodic soils and salinity
4	Increase protection of soil from harmful effects of natural elements
5	Improve conservation and efficient use of water
6	Increase watershed protection and management
7	Improve methods for managing range resources
8	Improve management and control of forest and range fires
9	Improve management and sustainability of forest resource
10	Improve urban forestry
11	Improve Florida agroforestry
12	Identify alternative uses of land
13	Increase knowledge related to weather and climate
14	Improved pollution prevention techniques and mitigation
15	Improve methods of protecting aquatic and terrestrial wildlife environment
16	Improve conservation of biological diversity
17	Increase air resource protection and management

Outcome #1

1. Outcome Target

Improve methods for appraisal of soil resources

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 101 - Appraisal of Soil Resources

Outcome #2

1. Outcome Target

Improve soil, water and nutrient relationships

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 102 - Soil, Plant, Water, Nutrient Relationships

Outcome #3

1. Outcome Target

Improve the management of saline and sodic soils and salinity

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 102 - Soil, Plant, Water, Nutrient Relationships

Outcome #4

1. Outcome Target

Increase protection of soil from harmful effects of natural elements

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 102 - Soil, Plant, Water, Nutrient Relationships

Outcome #5

1. Outcome Target

Improve conservation and efficient use of water

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water

Outcome #6

1. Outcome Target

Increase watershed protection and management

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water

Outcome #7

1. Outcome Target

Improve methods for managing range resources

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 121 - Management of Range Resources

Outcome #8

1. Outcome Target

Improve mangement and control of forest and range fires

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 122 - Management and Control of Forest and Range Fires

Outcome #9

1. Outcome Target

Improve management and sustainability of forest resource

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 123 - Management and Sustainability of Forest Resources

Outcome #10

1. Outcome Target

Improve urban forestry

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 124 - Urban Forestry

Outcome #11

1. Outcome Target

Improve Florida agroforestry

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 125 - Agroforestry

Outcome #12

1. Outcome Target

Identify alternative uses of land

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 131 - Alternative Uses of Land

Outcome #13

1. Outcome Target

Increase knowledge related to weather and climate

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 **2011** : 0 **2012** : 0 **2013** 0 **2014** : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 132 - Weather and Climate

Outcome #14

1. Outcome Target

Improved pollution prevention techniques and mitigation

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 **2011** : 0 **2012** : 0 **2013** 0 **2014** : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 133 - Pollution Prevention and Mitigation

Outcome #15

1. Outcome Target

Improve methods of protecting aquatic and terrestrial wildlife environment

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 **2011** : 0 **2012** : 0 **2013** 0 **2014** : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 135 - Aquatic and Terrestrial Wildlife

Outcome #16

1. Outcome Target

Improve conservation of biological diversity

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 **2011** : 0 **2012** : 0 **2013** 0 **2014** : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 136 - Conservation of Biological Diversity

Outcome #17

1. Outcome Target

Increase air resource protection and management

2. Outcome Type : Change in Knowledge Outcome Measure

2010 : 0 **2011 :** 0 **2012 :** 0 **2013 :** 0 **2014 :** 0

3. Associated Institute Type(s)

- 1862 Research

4. Associated Knowledge Area(s)

- 141 - Air Resource Protection and Management

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

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

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.

Floridahas 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

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

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

2. Data Collection Methods

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

Description

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

V(A). Planned Program (Summary)

Program #9

1. Name of the Planned Program

Plants and Their Systems-research

2. 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

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

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

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

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

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
101	Appraisal of Soil Resources	0%	0%	5%	
201	Plant Genome, Genetics, and Genetic Mechanisms	0%	0%	10%	
202	Plant Genetic Resources and Biodiversity	0%	0%	5%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants	0%	0%	5%	
204	Plant Product Quality and Utility (Preharvest)	0%	0%	10%	
205	Plant Management Systems	0%	0%	10%	
206	Basic Plant Biology	0%	0%	5%	
211	Insects, Mites, and Other Arthropods Affecting Plants	0%	0%	10%	
212	Pathogens and Nematodes Affecting Plants	0%	0%	10%	
213	Weeds Affecting Plants	0%	0%	10%	
214	Vertebrates, Mollusks, and Other Pests Affecting Plants	0%	0%	5%	
215	Biological Control of Pests Affecting Plants	0%	0%	10%	
216	Integrated Pest Management Systems	0%	0%	5%	
	Total	0%	0%	100%	

V(C). Planned Program (Situation and Scope)

1. 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.

2. Scope of the Program

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

V(D). Planned Program (Assumptions and Goals)

1. 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

2. 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.

V(E). Planned Program (Inputs)

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

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.0	38.0	0.0
2011	0.0	0.0	38.0	0.0
2012	0.0	0.0	38.0	0.0
2013	0.0	0.0	38.0	0.0
2014	0.0	0.0	38.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

- Conduct Research Experiments
- Partnering

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

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

3. Description of targeted audience

Florida citizens with an interest in plants and plant science
 May include among others:

•growers •producers •general public

V(G). Planned Program (Outputs)

1. 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
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0
2014	0	0	0	0

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

Expected Patent Applications

2010 :1 2011 :1 2012 :1 2013 :0 2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	210	0	0
2011	215	0	0
2012	220	0	0
2013	0	0	0
2014	0	0	0

V(H). State Defined Outputs

1. Output Target

● {NO DATA ENTERED}

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

V(I). State Defined Outcome

O. No	Outcome Name
1	Development and use of bioherbicides can help to diversify weed control options, supplement chemical herbicides, and provide an alternative to methyl bromide
2	Discover, develop, evaluate and disseminate knowledge and information necessary to support the agronomic-related industries of the State and nation,
3	Promote and enhance the production and utilization of agronomic commodities and the management of pest plant species for the benefit of society.
4	Developing and disseminating environmentally and economically sound technologies related to water management and plant nutrition that will increase production and utilization efficiencies
5	Develop horticultural characteristics, disease and host/plant resistance through classical genetics and molecular techniques, allowing the creation of marketable products for consumers
6	Research and develop crop production and physiology information and will set an example for the industry in environmentally safe practices.
7	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
8	Develop new food plant cultivars that have improved quality characteristics.

Outcome #1

1. Outcome Target

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

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 :0 2012 :0 2013 0 2014 :0

3. Associated Institute Type(s)

- 1862 Research

4. Associated Knowledge Area(s)

- 212 - Pathogens and Nematodes Affecting Plants
- 213 - Weeds Affecting Plants

Outcome #2

1. Outcome Target

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

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 :0 2012 :0 2013 0 2014 :0

3. Associated Institute Type(s)

- 1862 Research

4. Associated Knowledge Area(s)

- 205 - Plant Management Systems

Outcome #3

1. Outcome Target

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

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 :0 2012 :0 2013 0 2014 :0

3. Associated Institute Type(s)

- 1862 Research

4. Associated Knowledge Area(s)

- 205 - Plant Management Systems
- 215 - Biological Control of Pests Affecting Plants
- 216 - Integrated Pest Management Systems

Outcome #4

1. Outcome Target

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

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0	2011 : 0	2012 : 0	2013 0	2014 : 0
---------------	-----------------	-----------------	---------------	-----------------

3. Associated Institute Type(s)

•1862 Extension

4. Associated Knowledge Area(s)

- 101 - Appraisal of Soil Resources
- 205 - Plant Management Systems

Outcome #5**1. Outcome Target**

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

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0	2011 : 0	2012 : 0	2013 0	2014 : 0
---------------	-----------------	-----------------	---------------	-----------------

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 201 - Plant Genome, Genetics, and Genetic Mechanisms
- 202 - Plant Genetic Resources and Biodiversity
- 203 - Plant Biological Efficiency and Abiotic Stresses Affecting Plants
- 205 - Plant Management Systems

Outcome #6**1. Outcome Target**

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

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0	2011 : 0	2012 : 0	2013 0	2014 : 0
---------------	-----------------	-----------------	---------------	-----------------

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 101 - Appraisal of Soil Resources
- 201 - Plant Genome, Genetics, and Genetic Mechanisms
- 202 - Plant Genetic Resources and Biodiversity
- 203 - Plant Biological Efficiency and Abiotic Stresses Affecting Plants
- 206 - Basic Plant Biology

Outcome #7**1. Outcome Target**

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

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0	2011 : 0	2012 : 0	2013 0	2014 : 0
---------------	-----------------	-----------------	---------------	-----------------

3. Associated Institute Type(s)

- 1862 Research

4. Associated Knowledge Area(s)

- 204 - Plant Product Quality and Utility (Preharvest)
- 205 - Plant Management Systems

Outcome #8**1. Outcome Target**

Develop new food plant cultivars that have improved quality characteristics.

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0	2011 : 0	2012 : 0	2013 0	2014 : 0
---------------	-----------------	-----------------	---------------	-----------------

3. Associated Institute Type(s)

- 1862 Research

4. Associated Knowledge Area(s)

- 201 - Plant Genome, Genetics, and Genetic Mechanisms
- 202 - Plant Genetic Resources and Biodiversity
- 206 - Basic Plant Biology

V(J). Planned Program (External Factors)**1. External Factors which may affect Outcomes**

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

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

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

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

2. Data Collection Methods

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

Description

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

V(A). Planned Program (Summary)

Program #10

1. Name of the Planned Program

Animals and their Systems--research

2. Brief summary about Planned Program

•Reproduction performance •Nutrient utilization in animals •Animal physiological Process

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

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

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

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

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
301	Reproductive Performance of Animals	0%	0%	10%	
302	Nutrient Utilization in Animals	0%	0%	10%	
303	Genetic Improvement of Animals	0%	0%	10%	
304	Animal Genome	0%	0%	5%	
305	Animal Physiological Processes	0%	0%	10%	
306	Environmental Stress in Animals	0%	0%	5%	
307	Animal Production Management Systems	0%	0%	10%	
308	Improved Animal Products (Before Harvest)	0%	0%	5%	
311	Animal Diseases	0%	0%	10%	
312	External Parasites and Pests of Animals	0%	0%	10%	
313	Internal Parasites in Animals	0%	0%	5%	
314	Toxic Chemicals, Poisonous Plants, Naturally Occurring Toxins, and Other Hazards Affecting Animals	0%	0%	5%	
315	Animal Welfare, Well-Being and Protection	0%	0%	5%	
	Total	0%	0%	100%	

V(C). Planned Program (Situation and Scope)

1. 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.

2. Scope of the Program

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

V(D). Planned Program (Assumptions and Goals)

1. 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.

2. Ultimate goal(s) of this Program

- Improve reproductive performance of animals
- Improve nutrient utilization in animals
- Improve genetics in animals
- Increase knowledge in area of animal genome
- Improve animal physiological processes
- Reduce environmental stress in animals
- Improve animal management systems
- Improve animal products (before harvest)
- Increase knowledge and decrease incidence of animal diseases
- Reduce instances of external parasites and pests of animals
- Reduce internal parasites in animals
- Identify and reduce toxic chemicals, poisonous plants, naturally occurring toxins, and other hazards affecting animals
- Increase animal welfare, well-being and protection through improved BMPs

V(E). Planned Program (Inputs)

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

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.0	2.0	0.0
2011	0.0	0.0	2.0	0.0
2012	0.0	0.0	2.0	0.0
2013	0.0	0.0	2.0	0.0
2014	0.0	0.0	2.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

- Conduct research experiments
- Partnering

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

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

3. Description of targeted audience

residents of Florida interested in animals and animal science.This includes

- Growers//Ranchers
- Producers/packaging
- General public
- Government officials
- Scientists

V(G). Planned Program (Outputs)

1. 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
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0
2014	0	0	0	0

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

Expected Patent Applications

2010 :1 2011 :1 2012 :1 2013 :1 2014 :1

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	140	0	0
2011	145	0	0
2012	150	0	0
2013	150	0	0
2014	150	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Improve reproductive performance of animals
2	Improve nutrient utilization in animals
3	Improve genetics in animals
4	Increase knowledge in area of animal genome
5	Improve animal physiological processes
6	Reduce environmental stress in animals
7	Improve animal management systems
8	Improve animal products (before harvest)
9	Increase knowledge and decrease incidence of animal diseases
10	Reduce instances of external parasites and pests of animals
11	Reduce internal parasites in animals
12	Identify and reduce toxic chemicals, poisonous plants, naturally occurring toxins, and other hazards affecting animals
13	Increase animal welfare,/well-being and protection through improved BMPs

Outcome #1

1. Outcome Target

Improve reproductive performance of animals

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 :0 2012 :0 2013 0 2014 :0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 301 - Reproductive Performance of Animals

Outcome #2

1. Outcome Target

Improve nutrient utilization in animals

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 :0 2012 :0 2013 0 2014 :0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 302 - Nutrient Utilization in Animals

Outcome #3

1. Outcome Target

Improve genetics in animals

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 :0 2012 :0 2013 0 2014 :0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 303 - Genetic Improvement of Animals

Outcome #4

1. Outcome Target

Increase knowledge in area of animal genome

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 :0 2012 :0 2013 0 2014 :0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 304 - Animal Genome

Outcome #5

1. Outcome Target

Improve animal physiological processes

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 :0 2012 :0 2013 0 2014 :0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 305 - Animal Physiological Processes

Outcome #6

1. Outcome Target

Reduce environmental stress in animals

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 :0 2012 :0 2013 0 2014 :0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 306 - Environmental Stress in Animals

Outcome #7

1. Outcome Target

Improve animal management systems

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 :0 2012 :0 2013 0 2014 :0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 307 - Animal Production Management Systems

Outcome #8

1. Outcome Target

Improve animal products (before harvest)

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 :0 2012 :0 2013 0 2014 :0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 308 - Improved Animal Products (Before Harvest)

Outcome #9

1. Outcome Target

Increase knowledge and decrease incidence of animal diseases

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 **2011** : 0 **2012** : 0 **2013** 0 **2014** : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 311 - Animal Diseases

Outcome #10

1. Outcome Target

Reduce instances of external parasites and pests of animals

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 **2011** : 0 **2012** : 0 **2013** 0 **2014** : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 312 - External Parasites and Pests of Animals

Outcome #11

1. Outcome Target

Reduce internal parasites in animals

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 **2011** : 0 **2012** : 0 **2013** 0 **2014** : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 313 - Internal Parasites in Animals

Outcome #12

1. Outcome Target

Identify and reduce toxic chemicals, poisonous plants, naturally occurring toxins, and other hazards affecting animals

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 **2011** : 0 **2012** : 0 **2013** 0 **2014** : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 314 - Toxic Chemicals, Poisonous Plants, Naturally Occurring Toxins, and Other Hazards Affecting Animals

Outcome #13**1. Outcome Target**

Increase animal welfare,/well-being and protection through improved BMPs

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0

2011 :0

2012 :0

2013 0

2014 :0

3. Associated Institute Type(s)

- 1862 Research

4. Associated Knowledge Area(s)

- 305 - Animal Physiological Processes
- 307 - Animal Production Management Systems
- 315 - Animal Welfare, Well-Being and Protection

V(J). Planned Program (External Factors)**1. External Factors which may affect Outcomes**

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

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

V(K). Planned Program (Evaluation Studies and Data Collection)**1. Evaluation Studies Planned**

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

Description

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

recommendations. Accepted research guidelines and procedures are followed.

2. Data Collection Methods

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

Description

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

V(A). Planned Program (Summary)**Program #11****1. Name of the Planned Program**

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

2. 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

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

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

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

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

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
501	New and Improved Food Processing Technologies	0%	0%	20%	
502	New and Improved Food Products	0%	0%	20%	
503	Quality Maintenance in Storing and Marketing Food Products	0%	0%	20%	
504	Home and Commercial Food Service	0%	0%	5%	
511	New and Improved Non-Food Products and Processes	0%	0%	15%	
512	Quality Maintenance in Storing and Marketing Non-Food Products	0%	0%	20%	
	Total	0%	0%	100%	

V(C). Planned Program (Situation and Scope)**1. 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.

2. Scope of the Program

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

V(D). Planned Program (Assumptions and Goals)

1. 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

2. Ultimate goal(s) of this Program

- Develop new and improved food processing techniques
- Develop new and improved food products
- Improve quality maintenance in storing and marketing food products
- Develop new and improved non-food products and processes
- Develop Quality maintenance methods in storing and marketing non-food products

V(E). Planned Program (Inputs)

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

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.0	3.0	0.0
2011	0.0	0.0	3.0	0.0
2012	0.0	0.0	3.0	0.0
2013	0.0	0.0	3.0	0.0
2014	0.0	0.0	3.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

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

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

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

3. 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

V(G). Planned Program (Outputs)

1. 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
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0
2014	0	0	0	0

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

Expected Patent Applications

2010 :1 2011 :1 2012 :1 2013 :1 2014 :1

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	30	0	0
2011	35	0	0
2012	40	0	0
2013	40	0	0
2014	40	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Develop new and improved food processing techniques
2	Develop new and improved food products
3	Improve quality maintenance in storing and marketing food products
4	Develop new and improved non-food products and processes
5	Develop Quality maintenance methods in storing and marketing non-food products

Outcome #1

1. Outcome Target

Develop new and improved food processing techniques

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 :0 2012 :0 2013 0 2014 :0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 501 - New and Improved Food Processing Technologies

Outcome #2

1. Outcome Target

Develop new and improved food products

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 :0 2012 :0 2013 0 2014 :0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 502 - New and Improved Food Products

Outcome #3

1. Outcome Target

Improve quality maintenance in storing and marketing food products

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 :0 2012 :0 2013 0 2014 :0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 503 - Quality Maintenance in Storing and Marketing Food Products

Outcome #4

1. Outcome Target

Develop new and improved non-food products and processes

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 :0 2012 :0 2013 0 2014 :0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 511 - New and Improved Non-Food Products and Processes

Outcome #5**1. Outcome Target**

Develop Quality maintenance methods in storing and marketing non-food products

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0

2011 : 0

2012 : 0

2013 0

2014 : 0

3. Associated Institute Type(s)

- 1862 Research

4. Associated Knowledge Area(s)

- 512 - Quality Maintenance in Storing and Marketing Non-Food Products

V(J). Planned Program (External Factors)**1. External Factors which may affect Outcomes**

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

V(K). Planned Program (Evaluation Studies and Data Collection)**1. Evaluation Studies Planned**

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

Description

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

2. Data Collection Methods

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

Description

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

V(A). Planned Program (Summary)

Program #12

1. Name of the Planned Program

Economics, Markets and Policy--research

2. Brief summary about Planned Program

•Economics of Agricultural production and farm management •Marketing and distribution practices •International trade and development

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

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

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

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

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
601	Economics of Agricultural Production and Farm Management	0%	0%	20%	
602	Business Management, Finance, and Taxation	0%	0%	5%	
603	Market Economics	0%	0%	20%	
604	Marketing and Distribution Practices	0%	0%	10%	
605	Natural Resource and Environmental Economics	0%	0%	10%	
606	International Trade and Development	0%	0%	5%	
607	Consumer Economics	0%	0%	5%	
608	Community Resource Planning and Development	0%	0%	5%	
609	Economic Theory and Methods	0%	0%	10%	
610	Domestic Policy Analysis	0%	0%	5%	
611	Foreign Policy and Programs	0%	0%	5%	
	Total	0%	0%	100%	

V(C). Planned Program (Situation and Scope)

1. 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.

2. Scope of the Program

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

V(D). Planned Program (Assumptions and Goals)

1. 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

2. 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

V(E). Planned Program (Inputs)

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

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.0	1.0	0.0
2011	0.0	0.0	1.0	0.0
2012	0.0	0.0	1.0	0.0
2013	0.0	0.0	1.0	0.0
2014	0.0	0.0	1.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

- Conduct Research Experiments
- Partnering on an international level

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

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

3. Description of targeted audience

international:

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

V(G). Planned Program (Outputs)

1. 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
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0
2014	0	0	0	0

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

Expected Patent Applications

2010 :1 2011 :1 2012 :1 2013 :1 2014 :1

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	60	0	0
2011	65	0	0
2012	70	0	0
2013	70	0	0
2014	70	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Provide economic analysis of issues confronting Florida stakeholders including assessment of the competitive position of Florida crops in the international market place.
2	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
3	Understand and develop policy necessary for improved development of international trade

Outcome #1

1. Outcome Target

Provide economic analysis of issues confronting Florida stakeholders including assessment of the competitive position of Florida crops in the international market place.

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 601 - Economics of Agricultural Production and Farm Management
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 605 - Natural Resource and Environmental Economics
- 606 - International Trade and Development
- 607 - Consumer Economics

Outcome #2

1. Outcome Target

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

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 601 - Economics of Agricultural Production and Farm Management
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 607 - Consumer Economics
- 609 - Economic Theory and Methods
- 610 - Domestic Policy Analysis

Outcome #3

1. Outcome Target

Understand and develop policy necessary for improved development of international trade

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 606 - International Trade and Development
- 609 - Economic Theory and Methods
- 610 - Domestic Policy Analysis

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

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

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

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

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

Description

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

2. Data Collection Methods

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

Description

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

V(A). Planned Program (Summary)

Program #13

1. Name of the Planned Program

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

2. Brief summary about Planned Program

•Human health •Requirements and function of nutrients and other food components •Food safety

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

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

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

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

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
701	Nutrient Composition of Food	0%	0%	5%	
702	Requirements and Function of Nutrients and Other Food Components	0%	0%	20%	
703	Nutrition Education and Behavior	0%	0%	10%	
704	Nutrition and Hunger in the Population	0%	0%	10%	
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources.	0%	0%	5%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	0%	0%	10%	
721	Insects and Other Pests Affecting Humans	0%	0%	10%	
722	Zoonotic Diseases and Parasites Affecting Humans	0%	0%	5%	
723	Hazards to Human Health and Safety	0%	0%	20%	
724	Healthy Lifestyle	0%	0%	5%	
	Total	0%	0%	100%	

V(C). Planned Program (Situation and Scope)

1. 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, immunity, 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.

2. Scope of the Program

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

V(D). Planned Program (Assumptions and Goals)

1. 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

2. 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

V(E). Planned Program (Inputs)

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

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.0	3.0	0.0
2011	0.0	0.0	3.0	0.0
2012	0.0	0.0	3.0	0.0
2013	0.0	0.0	3.0	0.0
2014	0.0	0.0	3.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

- Conduct Research Experiments
- Partnering

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

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

3. Description of targeted audience

•Food Industry •General public •regulatory agencies

V(G). Planned Program (Outputs)

1. 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
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0
2014	0	0	0	0

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

Expected Patent Applications

2010 :1 2011 :1 2012 :1 2013 :1 2014 :1

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	25	0	0
2011	30	0	0
2012	35	0	0
2013	35	0	0
2014	35	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

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

V(I). State Defined Outcome

O. No	Outcome Name
1	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

Outcome #1**1. Outcome Target**

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

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0

2011 :0

2012 :0

2013 0

2014 :0

3. Associated Institute Type(s)

- 1862 Research

4. Associated Knowledge Area(s)

- 702 - Requirements and Function of Nutrients and Other Food Components
- 703 - Nutrition Education and Behavior
- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
- 723 - Hazards to Human Health and Safety

V(J). Planned Program (External Factors)**1. External Factors which may affect Outcomes**

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

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

V(K). Planned Program (Evaluation Studies and Data Collection)**1. Evaluation Studies Planned**

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

Description

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

2. Data Collection Methods

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

Description

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

V(A). Planned Program (Summary)

Program #14

1. Name of the Planned Program

Families, Youth, and Communities--research

2. Brief summary about Planned Program

•Youth Development

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

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

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

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

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
801	Individual and Family Resource Management	0%	0%	10%	
802	Human Development and Family Well-Being	0%	0%	10%	
803	Sociological and Technological Change Affecting Individuals, Families and Communities	0%	0%	10%	
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures	0%	0%	20%	
805	Community Institutions, Health, and Social Services	0%	0%	10%	
806	Youth Development	0%	0%	40%	
	Total	0%	0%	100%	

V(C). Planned Program (Situation and Scope)

1. 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.

2. Scope of the Program

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

V(D). Planned Program (Assumptions and Goals)

1. 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.

2. Ultimate goal(s) of this Program

- decrease crime and violence in youth populations

V(E). Planned Program (Inputs)

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

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.0	1.0	0.0
2011	0.0	0.0	1.0	0.0
2012	0.0	0.0	1.0	0.0
2013	0.0	0.0	1.0	0.0
2014	0.0	0.0	1.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

N/A

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

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

3. Description of targeted audience

- Families
- Family support groups
- Schools
- community leaders
- Businesses (public and private_

V(G). Planned Program (Outputs)

1. 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
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0
2014	0	0	0	0

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

Expected Patent Applications

2010 :0 2011 :0 2012 :0 2013 :0 2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	30	0	0
2011	35	0	0
2012	40	0	0
2013	40	0	0
2014	40	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Decrease crime and violence in youth populations

Outcome #1**1. Outcome Target**

Decrease crime and violence in youth populations

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0	2011 : 0	2012 : 0	2013 0	2014 : 0
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3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 802 - Human Development and Family Well-Being
- 806 - Youth Development

V(J). Planned Program (External Factors)**1. External Factors which may affect Outcomes**

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

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

V(K). Planned Program (Evaluation Studies and Data Collection)**1. Evaluation Studies Planned**

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

Description

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

2. Data Collection Methods

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

Description

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

V(A). Planned Program (Summary)

Program #15

1. Name of the Planned Program

Agricultural, Natural Resource, and Biological Engineering--research

2. Brief summary about Planned Program

Work in this area will relate to the following:

- Structures, facilities and general purpose farm supplies
- Engineering systems and equipment
- Waste disposal, recycling and reuse
- Instrumentation and control systems
- Drainage and irrigation systems and facilities

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

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

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

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
401	Structures, Facilities, and General Purpose Farm Supplies	0%	0%	10%	
402	Engineering Systems and Equipment	0%	0%	20%	
403	Waste Disposal, Recycling, and Reuse	0%	0%	20%	
404	Instrumentation and Control Systems	0%	0%	10%	
405	Drainage and Irrigation Systems and Facilities	0%	0%	40%	
	Total	0%	0%	100%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Florida is a state where agriculture is number two in economic importance with Tourism in the number one slot. Tourism means over 76.8 visitors each year with a revenue exceeding \$57 billion dollars annually. Water quality and quantity, preservation of natural resources unique to Florida, improving and protecting soils soil and effective food production methods including harvesting, processing and storage are all crucial to protecting the economic importance of both agriculture and tourism in the state.

2. Scope of the Program

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

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Tourists want to see the tropical environment when visiting Florida.

Tourists want pristine beaches and water sources (lakes and rivers)

Water quality and quantity can impact both agriculture and tourism.

Proper Waste disposal, recycling and reuse can improve the effectiveness and efficiency of land designated for both agriculture and tourism.

2. Ultimate goal(s) of this Program

To Improve design, construction and cost of facilities for animals, agricultural products, ag inputs, equipment and other materials.

To increase the efficiency and decrease labor requirement in ag and forestry production

To improve methods related to waste disposal, recycling and reuse

To develop effective instrumentation and information that ate important aspects of pre- and post-production agriculture.

To develop effective water management systems that include surface, subsurface drainage and all irrigation systems.

V(E). Planned Program (Inputs)

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

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.0	1.0	0.0
2011	0.0	0.0	1.0	0.0
2012	0.0	0.0	1.0	0.0
2013	0.0	0.0	1.0	0.0
2014	0.0	0.0	1.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

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

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

3. Description of targeted audience

- General public
- Agricultural Producers
- Government officials
- Builders and developers
- Industry

V(G). Planned Program (Outputs)

1. 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
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0
2014	0	0	0	0

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

Expected Patent Applications

2010 :1 2011 :1 2012 :1 2013 :1 2014 :1

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	5	0	5
2011	5	0	5
2012	5	0	5
2013	5	0	5
2014	5	0	5

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

{NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	To Improve design, construction and cost of facilities for animals, agricultural products, ag inputs, equipment and other materials.
2	To improve methods related to waste disposal, recycling and reuse
3	To increase the efficiency and decrease labor requirement in ag and forestry production
4	To develop effective instrumentation and information that ate important aspects of pre- and post-production agriculture.
5	To develop effective water management systems that include surface, subsurface drainage and all irrigation systems.

Outcome #1

1. Outcome Target

To Improve design, construction and cost of facilities for animals, agricultural products, ag inputs, equipment and other materials.

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

- 1862 Research

4. Associated Knowledge Area(s)

- 401 - Structures, Facilities, and General Purpose Farm Supplies

Outcome #2

1. Outcome Target

To improve methods related to waste disposal, recycling and reuse

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

- 1862 Research

4. Associated Knowledge Area(s)

- 403 - Waste Disposal, Recycling, and Reuse
- 404 - Instrumentation and Control Systems
- 405 - Drainage and Irrigation Systems and Facilities

Outcome #3

1. Outcome Target

To increase the efficiency and decrease labor requirement in ag and forestry production

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

- 1862 Research

4. Associated Knowledge Area(s)

- 401 - Structures, Facilities, and General Purpose Farm Supplies
- 402 - Engineering Systems and Equipment
- 404 - Instrumentation and Control Systems
- 405 - Drainage and Irrigation Systems and Facilities

Outcome #4

1. Outcome Target

To develop effective instrumentation and information that ate important aspects of pre- and post-production agriculture.

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 401 - Structures, Facilities, and General Purpose Farm Supplies
- 402 - Engineering Systems and Equipment
- 404 - Instrumentation and Control Systems
- 405 - Drainage and Irrigation Systems and Facilities

Outcome #5

1. Outcome Target

To develop effective water management systems that include surface, subsurface drainage and all irrigation systems.

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0 2011 : 0 2012 : 0 2013 0 2014 : 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 401 - Structures, Facilities, and General Purpose Farm Supplies
- 402 - Engineering Systems and Equipment
- 403 - Waste Disposal, Recycling, and Reuse
- 404 - Instrumentation and Control Systems
- 405 - Drainage and Irrigation Systems and Facilities

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

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

Description

Florida has hurricanes and other serious weather conditions annual. Right now the economic crisis would have the most impact on reaching designated outcomes. There is constant tension between agriculture and urban residents and government regulations, public priorities and appropriation changes related to this could have a profound effect on outcomes.

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

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

Description

Evaluation in this area will be primarily related to irrigation. However instrument and control systems relate to this area as does the development of engineering systems and equipment.

2. Data Collection Methods

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

Description

Methods will be both qualitative and quantitative in nature.

V(A). Planned Program (Summary)

Program #16

1. Name of the Planned Program

Program and Project Support, and Administration, Education, and Communication--research

2. Brief summary about Planned Program

Of particular interest in this area will be the following:
 Project and Program design and statistics
 Administration of projects and programs
 Communication, education and information delivery

3. Program existence : New (One year or less)

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

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

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
901	Program and Project Design, and Statistics	0%	0%	60%	
902	Administration of Projects and Programs	0%	0%	10%	
903	Communication, Education, and Information Delivery	0%	0%	30%	
	Total	0%	0%	100%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

In order to carry out strong programs and projects research is useful in the areas that focus on program and project design and evaluation. Studies also related to the efficiency and effectiveness of research, education and extension methods and proposals are important. This is a relatively new area for the Florida land-grant university to carry out projects but the information obtained is important.

2. Scope of the Program

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

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Project and Program design is essential to successful research and Extension programming .

2. Ultimate goal(s) of this Program

- Improve project and program design
- Improve the evaluation, surveys, sampling methods and statistical analysis used in developing strong research projects and extension programs.
- Improve the efficiency and effectiveness of research, education and extension methods and proposals.
- Improve educational processes, needs and methods needed to achieve educational goals.

V(E). Planned Program (Inputs)

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

Year	Extension		Research	
	1862	1890	1862	1890
2010	0.0	0.0	0.3	0.0
2011	0.0	0.0	0.3	0.0
2012	0.0	0.0	0.3	0.0
2013	0.0	0.0	0.3	0.0
2014	0.0	0.0	0.3	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

{NO DATA ENTERED}

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

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

3. Description of targeted audience

County and state faculty

V(G). Planned Program (Outputs)

1. 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
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0
2014	0	0	0	0

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

Expected Patent Applications

2010 :0 2011 :0 2012 :0 2013 :0 2014 :0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2010	1	0	0
2011	1	0	0
2012	1	0	0
2013	1	0	0
2014	1	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

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

V(I). State Defined Outcome

O. No	Outcome Name
1	Improve project and program design
2	Improve the evaluation, surveys, sampling methods and statistical analysis used in developing strong research projects and extension programs.
3	Improve the evaluation, surveys, sampling methods and statistical analysis used in developing strong research projects and extension programs.
4	Improve educational processes, needs and methods needed to achieve educational goals.

Outcome #1

1. Outcome Target

Improve project and program design

2. Outcome Type : Change in Knowledge Outcome Measure

2010 : 0 **2011 :** 0 **2012 :** 0 **2013 :** 0 **2014 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 901 - Program and Project Design, and Statistics

Outcome #2

1. Outcome Target

Improve the evaluation, surveys, sampling methods and statistical analysis used in developing strong research projects and extension programs.

2. Outcome Type : Change in Knowledge Outcome Measure

2010 : 0 **2011 :** 0 **2012 :** 0 **2013 :** 0 **2014 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 901 - Program and Project Design, and Statistics
- 902 - Administration of Projects and Programs
- 903 - Communication, Education, and Information Delivery

Outcome #3

1. Outcome Target

Improve the evaluation, surveys, sampling methods and statistical analysis used in developing strong research projects and extension programs.

2. Outcome Type : Change in Knowledge Outcome Measure

2010 : 0 **2011 :** 0 **2012 :** 0 **2013 :** 0 **2014 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 901 - Program and Project Design, and Statistics
- 902 - Administration of Projects and Programs
- 903 - Communication, Education, and Information Delivery

Outcome #4

1. Outcome Target

Improve educational processes, needs and methods needed to achieve educational goals.

2. Outcome Type : Change in Knowledge Outcome Measure

2010 0

2011 :0

2012 :0

2013 0

2014 :0

3. Associated Institute Type(s)

- 1862 Research

4. Associated Knowledge Area(s)

- 901 - Program and Project Design, and Statistics
- 902 - Administration of Projects and Programs
- 903 - Communication, Education, and Information Delivery

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

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

Description

The continuing budget crisis is most likely to have a negative impact on reaching these outcomes.

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

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

Description

Areas of work include but are not limited to:

- Program planning, design, and evaluation
- research, and extension organizations
- Methods to measure productivity of educators and researchers, and teaching,
- Criteria and techniques for evaluating proposals and accomplishments
- Design of experiments and statistical analysis of data
-

Improvement in statistical methodology

-

Development of education, research, and extension technologies and procedures

-

Sampling, and design of survey instruments

-

Promotion of teaching, research, and extension creativity and productivity

-

Developing and maintaining the proficiency of educators and researchers

-

Relationships among teaching, research, and extension

-

research results

Communication among researchers and educators, and dissemination of

-

organizations.

Exclude:

Roles of cooperation and competition among scientists, educators, and

- 67 -

-

Development of instrumentation (use KA 404 or 903)

-

Experimental design and statistics (use KA 901)

-

Techniques, procedures, and processes of education

-

The science of teaching, learning, and cognition

-

and media in teaching and learning)

Curriculum design and educational instrumentation (applications of technology

-

Teacher preparation and improvement

-

etworks and distance education

Communication and information systems and delivery, including electronic

-

Technology transfer

-

Educational psychology and human motivation.

Evaluation and assessment (use KA 901).Data gathering, management, and analysis.

2. Data Collection Methods

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

Description

Both qualitative and quantative methods will be used.