2007 University of Illinois Combined Research and Extension Plan of Work

Brief Summary about Plan of Work

The mission of the College of Agricultural, Consumer and Environmental Sciences is discovering, advancing, and integrating new knowledge to ensure nutritious and safe food, sustainable and innovative agriculture, strong families and communities, and environmentally sound natural resource management to benefit the people of Illinois and the world. To fulfill the University's land-grant mission, ACES is responsible for the Illinois Agricultural Experiment Station and University of Illinois Extension, subsidiary units authorized by federal and state statutes that complement the academic departments in the College.

Examples of excellence in ACES include:

< A second scientist from ACES was named to the National Academy of Sciences for exemplary contributions to animal and human nutrition.
< An ACES researcher has been named a Guggenheim Foundation 2006 scholar for studies of plant-based vaccines.
< Another ACES scholar was elected as a 2005 AAAS Fellow for distinguished contributions to the field of animal structural, functional and comparative genomics, and for providing leadership to the International Swine Genome Sequencing Initiative. .
< Nine ACES faculty members were recognized as ISI Highly Cited Researchers.
< An ACES scholar chaired the Agriculture Task Force for the Chicago Council on Foreign Relations, contributing to policy formation in the Doha Round of multilateral trade negotiations and in anticipation of the 2007 federal agricultural legislation.
< An ACES researcher obtained $10.4 million from NIH and the Department of Defense to fund a multidisciplinary team of UIUC scientists investigating the effects on various body tissues of soy isoflavones found in dietary supplements.
< The Dean of the ACES was among four experts appointed by President George W. Bush to serve as a member of the Board for International Food and Agricultural Development.
< ACES researchers were awarded $10 million by the USDA to provide the initial genome sequence of the pig.
< The Division of Nutritional Sciences received the 2005 Bristol Myers Squibb Freedom to Discover Grant.
< The INTSOY program received the Bor S. Luh International Award from the Institute of Food Technologists, and an ACES scholar was named an IFT Fellow.
< ACES scholars serve as leaders of professional societies, including President of the American Agricultural Economics Association, President of the AAEA Foundation, President of the American Agricultural Law Association, and the President-Elect of the Society for Research in Adolescence.

Other examples include continuing leadership for campus initiatives in food security, aging, and family resiliency, international leadership in sequencing the genome of cattle, national training grants from NIH and USDA, collaborative leadership with the U.S. Department of Energy, Purdue, and Argonne National Laboratory in bio-based process development, center funding from the National Institutes of Health for investigations in food bioactivity and disease interactions, and nationally recognized efforts to manage several leading crop pests, including corn rootworm, soybean rust, and soybean cyst nematode.

Strengths/Initiatives: The key strength of ACES is the capability to combine high-impact integrative research and education with cutting-edge scholarship across disciplines that are defined by our

interrelated domains of interest, serving needs of global and local audiences.

Among the many major initiatives, a few are particularly noteworthy for future support:
< South Farm Modernization – creating the integrative field-scale laboratory of the future.
< Council on Food and Agricultural Research (C-FAR) – fostering stakeholder engagement in translational research.
< U of I Extension – supporting the integrity of and increasing entrepreneurship in the system of engagement that serves as the University's face to all of the citizens of Illinois.
< Food and Nutrition Institute – building the platform for expanding opportunities in an area of established excellence.

Others are well along the path to success:
< The Institute for Genomic Biology is operational, with the spectacular new facilities due to open this year. ACES faculty members are well represented among the IGB leaders.
< The innovative Family Resiliency Program, led by ACES faculty, has just moved into its new home in Doris Kelley Christopher Hall.

Partnership value: Partner relationships are highly valued in ACES. Private and public organizations regularly seek assistance from ACES faculty and draw on unique expertise in entities such as the National Soybean Research Laboratory. Policy makers have called upon the College for input on issues such as federal farm and agricultural research policy, food security/safety, animal industry development, and global climate change. Numerous other examples indicate that stakeholders value direct relationships with the College, both on-campus and off-campus. Reach is extended with tools like Farmdoc, an acclaimed online source for research-based outreach, www.farmdoc.uiuc.edu. Other efforts such as the Midwest Dairy Consortium, leverages teaching and outreach capabilities in several Midwestern states. In some areas, the dwindling faculty research base threatens the ability to keep pace with demands for outreach programs.

U of I Extension: Extension provides educational programs throughout the state, in local units, in regional centers, and from campus specialists. Loss of center educators and faculty specialists threaten capability to meet needs in core program areas and weaken stakeholder connections. Local support and associated county board match from the state is critical to local units. Local Extension programs in Cook County received a major boost in the FY 2006 state appropriation process, with a new $5.0 million budget line item through the Illinois Department of Agriculture earmarked for Cook County Extension. In response, University of Illinois Extension is currently ramping up its Cook County efforts up in strategic program areas.

University of Illinois Extension reaches more than 2.6 million people face-to-face in Illinois with educational outreach programs in agriculture and natural resources; nutrition, family, and consumer sciences; 4-H youth development; and community and economic development. The statewide Extension system employs approximately 300 professional field staff, assisted by over 25,000 volunteers in all 102 counties in the state. Extension web sites receive well in excess of three million page views each month, accessed by users from nearly every country in the world.

IllinoisAgricultural Experiment Station (IAES): The experiment station manages a portfolio of research projects underwritten by federal and state appropriations that are made by statute, as well as grants and

contracts. IAES research encompasses programs in the College of ACES and in other units funded in part through the IAES. These units include the Colleges of Veterinary Medicine, Engineering, LAS, and Law, as well as the Illinois Natural History Survey.

Faculty and staff with research responsibilities in the College of ACES have some percentage of their appointment in the Illinois Agricultural Experiment Station, which is established by federal statute. In identifying and responding to new opportunities, the IAES plays a leadership role in shaping the research efforts of faculty, departments, and programs in the College. The long-term strategic goal is to undertake new investments in research that are balanced between discovery and application, as well as between long-term and short-term outcomes, to ensure both creativity and relevance to the state's food, agricultural, environmental, and human interests. To produce science that matters, the research portfolio demands strong entrepreneurial motivation, as well as elements that are very responsive to those with a stake in the food system. More than ever, our research must respond swiftly to the rapid pace of change in today's era of globalization.

Research and extension coordination: The critical links between research and extension are the campus-based subject matter specialists and the center educators located throughout the state. These linkages are formalized through the Extension program team structure that links faculty and extension staff through program team membership. Many of the faculty appointments in the College of ACES include joint research and extension appointments.

Field research and educational facilities: The South Farm offers not only a classical research and education site, but it represents a tremendous opportunity for an integrated landscape model of research and as a resource for the whole campus, affirming the decision to locate the new South Farm near the campus. Novel opportunities for long-term agricultural, ecological, and industrial research and education stem from the unique 4,500 acre site adjacent to both a great university and an urban area, with the presence of riparian headwaters, diverse uses of natural resources, and ideal timing. Land acquisition for the second and future phases of the South Farms has progressed, infrastructure has been installed, and the new beef and sheep unit on Race Street was commissioned in August 2004. Despite a lack of state capital funding, innovative proposals are being considered to relocate the poultry unit and to potentially relocate the dairy with a private partner using a lease to own arrangement. Emerging elements of the South Campus Master Plan offer significant opportunities that the University must balance with important research and education programs.

South Farms is the largest component of the statewide system of food and agricultural research and education centers. Research and education centers suffer from deferred maintenance, old equipment, and shortages of land for modern experimentation, and programs are currently at risk. Revolving and recurring operating resources are inadequate to properly sustain the research and education centers, including the South Farms. Knowledge and information produced is valuable for opportunities such as those in the "green" industry, alternative agriculture, urban landscapes, bioprocessing, and animal industry development. For example, a recent agreement with the Department of Corrections allowed urgently needed expansion of horticultural programs at the St. Charles Horticultural Center, gaining support of the industry in the metropolitan area. Several years have passed since the Board of Trustees approved the South Farm modernization plan, so the College has commissioned an externally-led blue ribbon panel to evaluate the current and future statewide needs for research and education centers.

Opportunities to Address

Consistent with our strategic intent to be “Globally Preeminent and Locally Relevant,” ACES will invest its discretionary resources to achieve a desired leadership position and exceptional value in key areas of strategic opportunity, including:

< Bioscience innovation: processes, products, environment, and energy
< Progressive food and agricultural systems with sustainable landscapes
< Complementary advances in food, nutrition, and health
< Resilient families and communities
< Decision support for people, enterprises, and public policy

The College will invest to achieve its intent to be globally preeminent and locally relevant in domains that are consistent with our mission, have a fundamental base of excellence in advanced areas of discovery, contribute to our educational enterprise, and create value for our stakeholders.

Bioscience Innovation: Processes, Products, Environment, and Energy:

Biotechnology: Commitment to molecular biology remains a top priority, including investment in genomics and its functional derivatives. The Institute for Genomic Biology will enhance dimensions from animal and plant genomics and bioinformatics, to metabolism, comparative physiology and nutrition, and whole organism biology, to the socioeconomic implications of biotechnology. Unique opportunities exist to translate new knowledge from molecular biology with field scale studies of whole organisms and biophysical systems on the new South Farms.

Bio-based initiatives: The College is well positioned to lead on issues related to the management and use of bio-based resources to benefit society and the environment. Significant research efforts exist in ACES and among Midwest collaborators, related to air, water, renewable energy, bio-based resources, and bio-refining. The College has the potential to bring together a nationally prominent critical mass around sustainable agricultural,

food, and energy systems.

Progressive Food and Agricultural Systems with Sustainable Landscapes:

Food systems: The College of ACES has redoubled efforts to lever strengths in food value chains and consumer behavior where we can truly be a globally preeminent intellectual center. Food systems are viewed in ACES from multiple perspectives, from sustainable local production systems to global supply chains.

Integrated landscapes: Continuous rather than bounded systems, integrated landscapes focus on issues ranging from systems biology and biocomplexity to precision technology and management. Global issues pertaining to urban-rural interface are critical, due to changing demographics, urbanization, land use, environmental impacts of agriculture and human activity, economies of scale and scope in the food and agricultural sector, and emerging opportunities for “green” industries (horticulture to turf grass), companion animals, and restoration ecology and wildlife. Given the ideal laboratory of the South Farms and transfer of the arboretum to ACES, exciting concepts for green spaces and multiple uses can become features of the integrated landscape.

Complementary Advances in Food, Nutrition, and Health:

Food, nutrition, & health: Interdisciplinary opportunities to investigate disease prevention, obesity, food bioactivity, and global nutrition are manifest on this campus. Interdisciplinary collaboration is clearly evident in nutritional sciences, the World Initiative on Soy in Human Health, work in bioactive foods, and chemo-prevention of cancer and other diseases. The effort to establish the Food and Nutrition Institute will pay substantial dividends to the University.

Food security: Institutionalized as a campus initiative, the food security initiative is creating novel approaches to complex systematic problems. This area is of keen interest to public and private partners, who are forging new relationships with the College and the University.

Resilient Families and Communities:

Human development and family resiliency: The mission of the College of ACES explicitly emphasizes a commitment to quality of life for people. The commitment to family resiliency is supported by the campus initiative and major donations for Christopher Hall and the endowed chair in family resiliency, building a platform for unparalleled scholarship.

Leadership: Leadership studies are being institutionalized with the arrival of new faculty in leadership and community development, in tandem with our communications, agricultural education, and agribusiness management programs. Programs in Extension provide the outreach basis for individual and community leadership development. The College will provide intellectual and structural underpinnings to partner with

the campus to develop the leadership curricula and programs that will serve students across campus. The new doctoral program in community studies and outreach will provide an intellectual home for scholarship.

Scientific literacy and communications: Raising the level of scientific understanding, increasing awareness of the role of science in society, and translating scientific knowledge for adaptation and application is an important opportunity for a next-generation land-grant institution. ACES and Extension have unique capabilities to move in this direction. A high-visibility global outreach program on biotechnology already raises the University's profile in substantive policy forums.

Engagement and outreach: Significant opportunities exist to expand the knowledge and tools available to individuals and enterprises to make informed and substantially improved decisions. For example, the Farmdoc program offers producers excellent practical tools for business decision making.

eXtension: Internet and related technologies portend huge opportunities to expand the reach and impact of education and extension activities. University of Illinois Extension participates in national planning for innovation in educational delivery methodology.

Council for Food and Agricultural Research (C-FAR): Funding for C-FAR remains highly vulnerable in the state budget environment. The C-FAR appropriation declined by nearly three-fourths from FY 2002 to FY 2005, staying at that level in FY 2006. Not only does this limit the near-term ability of our faculty and research professionals to investigate problems of interest to stakeholders in Illinois, but it also affects decisions on faculty hiring and research orientation.

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

Year	Extenion		Research	
	1862	1890	1862	1890
2007	361.0	0.0	160.0	0.0
2008	361.0	0.0	160.0	0.0
2009	361.0	0.0	165.0	0.0
2010	361.0	0.0	165.0	0.0
2011	361.0	0.0	170.0	0.0

Merit Review Process

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

- Internal University Panel
- Combined External and Internal University Panel

Brief explanation

Research and outreach projects and programs have always been exposed to a review process. Formulae funded research projects undergo a merit review process at the departmental level by at least three faculty members in a related discipline to insure the projects are scientifically sound, relevant to society's needs and not duplicative of efforts undertaken elsewhere. Formula projects are then submitted to CSREES for final review and approval. Internal research grants are all reviewed internally.
In Extension all projects are reviewed at several points in the system. Whenever local programming involves the delivery of programming

by Extension educators, as it usually does, the programs are reviewed by the teams, including specialists. In addition, during annual performance reviews much attention is given to programming quality, and department heads are involved on a bi-annual basis in reviewing the disciplinary competence of the programming delivered by the educators associated with those departments. Finally, Extension programs are continuously evaluated in terms of inputs, program content and delivery, outputs and outcomes. While not every project is evaluated in this fashion, programming in all core program areas is reviewed extensively on an annual basis.

Evaluation of Multis & Joint Activities

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

As noted in the stakeholder input process, extensive consultation is ongoing with stakeholders on both a formal and informal basis to help establish program priorites. Current the College of Agricultural, Consumer and Environmental Sciences (ACES) is in the final stages of drafting a strategic plan to guide the college within the context of the larger University of Illinois community.
The development of research and extension agendas are driven by the needs of the state as expressed by advisory councils at the state (such as C-FAR), departmental and local level.

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

Considerable efforts have been made and continue to be made to insure that nontradional stakeholders are given a voice in identifying needs to be addressed and in shaping the research and programatic responses to these needs.
For example, the input from youth not currently being served by informal youth organizations have influenced the revision and development of curricula to address the needs of these youth and the volunteers needed to support these youth.
Programming is provided in a variety of ways to increase access by nontraditional audiences. For example, 11 percent of the web page "hits" received by the Urban Extension website are now for Spanish sites. Additional sites are being translated in Spanish and an Arabic site has just been opened.

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

Outputs and outcomes for each of the planned programs have been defined and targets for program performance have been established.

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

Output targets in terms of participation, academic publications and research projects completed provide a basis for monitoring research and extension program implementation. Measures of outcomes provide a basis for estimating program effectiveness. The monitoring of both kinds of measures provides a basis for determining effectiveness, a necessary precursor to determining efficiency.

Stakeholder Input

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

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

Brief explanation.

It should be noted that not every technique is used every year.
All programs in the College of ACES are continually subjected to a diverse process of stakeholder input. The College, the Office of Research, the Office of Extension and Outreach, academic departments, and many programs within the College have advisory groups and

councils made up of stakeholders. In this context, stakeholders may represent organized entities in the state with a particular interest in a program area, but they also include individual stakeholders.

The office of research has an especially powerful process of stakeholder input through the Illinois Council on Food and Agricultural Research (C-FAR) process. C-FAR represents stakeholders throughout the state such as organizations dealing with environmental quality and resource conservation issues, sustainable agriculture groups, commodity groups, and rural development interests. The membership of C-FAR has had an ongoing, very active and very influential role in defining needed research and outreach outcomes for the work of the College.

Extension, in addition to its advisory council structure, from local (county-level) councils through regional councils and a statewide council also has other mechanisms in place for continuous stakeholder input.

Local councils are volunteers nominated locally and appointed by the College to provide advice on educational programming. The makeup of the councils reflects local populations and local participation in Extension programs.
In addition, University of Illinois Extension has an ongoing process of program planning. In this process, on a rotating annual basis, one of the four core program areas (Agriculture and Natural Resources; Nutrition, Family and Consumer Sciences; 4-H Youth and Development; and Community and Economic Development) is reviewed in-depth in terms of programming needs and program delivery. The program planning process starts at the local level and is characterized by systematic collection of information from a wide variety of sources and from stakeholders who are particularly interested in program delivery in that area. During the program planning process, special effort is made to include representatives from diverse and potential audiences in the program planning process.

2(A). A brief statement of the process that will be used by the recipient institution to identify individuals and groups stakeholders and to collect input from them

1. Method to identify individuals and groups

- Use Advisory Committees
- Use Internal Focus Groups
- Use External Focus Groups
- Needs Assessments
- Use Surveys

Brief explanation.

A variety of methods and techniques are used to identify individuals and groups. As part of the U of I Extension Affirmative Action plan County Extension Directors, Extension Educators and Specialists identify individuals and groups who are potential stakeholders for research and extension programs. These individuals are then involved in formal needs assessment, interviews and other methods for program input.
For example in 2005, Extension staff completed 180 focus groups with youth, many of whom were not a member of any informal youth organization. A total of 1,313 youth participated in these focus groups. More than one-fourth of the participants were members of minority groups.

2(B). A brief statement of the process that will be used by the recipient institution to identify individuals and groups stakeholders and to collect input from them

1. Methods for collecting Stakeholder Input

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

Brief explanation

While not every approach is used every year, all of the approaches listed above are employed within a 3-5 year period. Individuals and groups are identified in a variety of ways. Often personal or individual contacts are used to identify members of potential audiences and stakeholder groups (e.g., migrant worker councils) which in turn lead to more formal contacts.

3. A statement of how the input will be considered

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

Brief explanation.

{NO DATA ENTERED}

1. Name of the Planned Program

Plant Heath, Systems and Production

2. Program knowledge areas

- 211 Insects, Mites, and Other Arthropods Affecting Plants 8 %
- 214 Vertebrates, Mollusks, and Other Pests Affecting Plants 5 %
- 201 Plant Genome, Genetics, and Genetic Mechanisms 12 %
- 205 Plant Management Systems 37 %
- 216 Integrated Pest Management Systems 32 %
- 202 Plant Genetic Resources 6 %

3. Program existence

- Mature (More then five years)

4. Program duration

- Long-Term (More than five years)

5. Brief summary about Planned Program

Both the Agricultural and Horticultural industries contribute significantly to the Illinois economy. In 2005, Illinois ranked second in the nation in both corn and soybean production. In 2004, cash receipts from marketing all crops totaled $7.8 billion. Protecting Illinois crops from pests such as soybean rust and root cut worm are major concerns.
In 1999, the combined value of the Illinois green industry was $3.95 billion, total workforce numbered about 160,000, and the industry's payroll totaled just over $1.74 billion. The fair market value of green industry assets was estimated at just over $8 billion as of December 31, 1999. Horticultural crops provide essential food products for good nutrition. Further horticulture plays a critical role in bringing the natural environment to both commercial and home settings.
Research at the University of Illinois and its partners cover the gamut of approaches from basic genome apple research to applied research all leading to improving production both commercially and for the home grower. Through the Illinois-Missouri Biotechnology Alliance Illinois partners with others to strengthen the agriculture and food sectors of the American Midwest while seeking to improve food quality and safety.
As a contributing partner to the North Central states Integrated Pest Management Program (IPM), Illinois research and extension supports the combination of research/extension implementation projects, the development of individual pest control tactics as well as extension education and training. Funded research addresses emerging concerns such as the control of exotic, invasive weeds and pest management for the production of organic vegetable crops.
Extension program teams (Crops, IPM and Horticulture) are composed of both Extension Educators and State Extension Specialists who are both faculty members and research scientists. This provides the opportunity for further integration of research and extension functions.

6. Situation and priorities

Illinois Research and Extension is focused on helping Illinois producers to efficiently compete with producers throughout the world. At the same time efforts are underway to provide value added opportunities to producers such as alternatives to commodity production.
Priorities are set based on stakeholder input and the expertise of researchers and educators.
Illinois has a major horticulture industry as well as citizens who use home horticulture to produce food, enhance property values, and provide needed recreation as well as personal satisfaction. Illinois Research and Extension seeks to address related issues with environmentally sound and sustainable production techniques.

7. Assumptions made for the Program

That staffing and resource levels will remain at least constant.

8. Ultimate goal(s) of this Program

Increase the capacity of Illinois field and horticultural crops to address changing demands while contributing to sustainability and economic vitality.

9. Scope of Program

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

Inputs for the Program

10. Expending formula funds or state-matching funds

- Yes

11. Expending other then formula funds or state-matching funds

- Yes

12. Expending amount of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	27.0	0.0	18.0	0.0
2008	27.0	0.0	19.0	0.0
2009	27.0	0.0	20.0	0.0
2010	27.0	0.0	21.0	0.0
2011	27.0	0.0	21.0	0.0

Outputs for the Program

13. Activity (What will be done?)

The University of Illinois has a full research portfolio addressing crop production, horticulture and pest issues. Research and Extension programs are delivered through websites, face-to-face meetings and printed materials.

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

Extension	
Direct Method	Indirect Methods
• Education Class • Workshop • Demonstrations	• Newsletters • Web sites

15. Description of targeted audience

The target audiences include agricultural producers, horticulturists, industry representatives, retailers and members of the general public with a horticultural interest.

16. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	52650	2548000	4000	228000
2008	52750	2549000	4000	228000
2009	52850	2550000	4000	228000
2010	52950	2550000	4000	228000
2011	53050	2550000	4000	228000

17. (Standard Research Target) Number of Patents

Expected Patents	
Year	Target
2007	1
2008	0
2009	1
2010	0
2011	1

18. Output measures

Output Text

Number of research publications.

2007 Target: 92
2008 Target: 95
2009 Target: 98
2010 Target: 103
2011 Target: 105

Output Text

Number of completed research projects

2007 Target: 25
2008 Target: 27
2009 Target: 29
2010 Target: 30
2011 Target: 30

Outcomes for the Program

19. Outcome measures

Outcome Text: Awareness created

Outcome Text
Number of participants demonstrating changes in KASA

Outcome Type: Short

2007 Target:	25300
2008 Target:	25700
2009 Target:	26500
2010 Target:	27300
2011 Target:	28940

Outcome Text
Number of participants exhibiting or reporting changes in practice including improved decision-making.

Outcome Type: Medium

2007 Target:	17070
2008 Target:	17670
2009 Target:	18370
2010 Target:	19170
2011 Target:	20770

20. External factors which may affect outcomes

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

Description
Plant production is always suceptable to weather problems. Other concerns would include the costs of inputs and market changes.
Appropriation changes could reduce the available resources to deliver programs.

21. Evaluation studies planned

- Retrospective (post program)

Description
For some program efforts, evaluation studies have already been completed. Additional follow-up with participants will be used to establish learning and practice change rates.

22. Data Collection Methods

- Sampling
- Whole population
- Mail
- On-Site

Description
{NO DATA ENTERED}

1. Name of the Planned Program

Community Resource Planning and Development

2. Program knowledge areas

- 806 Youth Development 5 %
- 802 Human Development and Family Well-Being 5 %
- 805 Community Institutions, Health, and Social Services 5 %
- 803 Sociological and Technological Change Affecting Individuals, Fam 5 %
- 608 Community Resource Planning and Development 80 %

3. Program existence

- Mature (More then five years)

4. Program duration

- Long-Term (More than five years)

5. Brief summary about Planned Program

Dramatic changes in the United States and around the world are altering individual life courses and the communities in which people live. These fundamental social and economic shifts have created new challenges for communities and their citizens. Leadership for community development in the College of ACES rests with the Department of Human and Community Development (HCD) and the U of I Extension Community and Economic Development Extension program team. Faculty members engage in teaching, research, and outreach to improve the lives of children, youth, and adults in the contexts of their communities and society. Research interests of faculty include community infrastructure, community capacity and leadership, community organizing and small-town change.
University of Illinois Extension through Regional Educators and locally funded Educators helps communities, organizations, businesses and leaders by providing practical, research-based information and programs to local needs whether rural or urban. A unique feature at the University of Illinois is the partnership between the HCD department, U of I Extension and others as expressed through the Laboratory for Community and Economic Development. This venture helps to coordinate research and educational programs in community and economic development. The Lab's staff work with researchers, economic development practitioners, business leaders, Extension Educators and others across the country, bringing information and expertise to state and local policy makers, agricultural and business leaders, community leaders and Illinois citizens.
Extension programs focus on enhancing civic engagement, improving the business climate and economic development, and developing community-based infrastructure and organizations. Within these broad areas are programs on leadership and local leader development and education, organizational development, local governance, community planning, recreation and tourism development, agricultural entrepreneurship, small business development, workforce development, community economic development, and diversity education. Given the challenges faced by Illinois communities whether small towns or villages or an urban neighborhood, this planned program will play an important role in assisting communities and their citizens in addressing these needs.

6. Situation and priorities

Major global forces are reshaping communities both rural and urban. Globalization, changing patterns of work, restructuring of agriculture, movement from an industrial to an information economy are all impacting communities and individuals. Small towns, small communities and even cities are struggling to reinvent themselves in order to survive and remain viable.
Key to responding to these changes is understanding the dynamics of the change and equipping citizens and communities with the assets need to respond and shape their destinies. Research and Extension are well equipped to assist citizens, officials and communities to meet these challenges. Priorities are set through stakeholder input and the expertise of researchers and educators.

7. Assumptions made for the Program

1) Citizens given training and information are best equipped to determine the ultimate solutions to the problems they and their communities face.
2) Local policies and environments can in turn influence business and economic development.
3) Resources (local, state and federal) will remain at a high enough level to fund the needed research and extension programs.

8. Ultimate goal(s) of this Program

To increase our understanding of community development mechanism in the current environment and equip citizens, organizations and communities with the skills to address societal, community and individual concerns.

9. Scope of Program

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

Inputs for the Program

10. Expending formula funds or state-matching funds

- Yes

11. Expending other then formula funds or state-matching funds

- Yes

12. Expending amount of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	12.0	0.0	3.0	0.0
2008	12.0	0.0	3.0	0.0
2009	12.0	0.0	3.5	0.0
2010	12.0	0.0	3.5	0.0
2011	12.0	0.0	4.0	0.0

Outputs for the Program

13. Activity (What will be done?)

The ongoing research by the college's faculty in community development will continue and provide guidance for the informal educational programs of Extension. The Community Economic Development Laboratory and U of I Extension Educators will execute research and outreach to assist communities and citizens to learn, adopt improved practices and ultimately achieve the overall goal of this program.

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

Extension	
Direct Method	Indirect Methods
• Workshop • Group Discussion • One-on-One Intervention	• Web sites

15. Description of targeted audience

The target audiences are individuals, elected officials, businesses, organizations and communities.

16. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	21000	0	500	0
2008	21000	0	500	0
2009	21000	0	500	0
2010	21000	0	500	0
2011	21000	0	500	0

17. (Standard Research Target) Number of Patents

Expected Patents	
Year	Target
2007	0
2008	0
2009	0
2010	0
2011	0

18. Output measures

Output Text

Number of research publications.

2007 Target: 16
2008 Target: 16
2009 Target: 18
2010 Target: 18
2011 Target: 18

Output Text

Number of research projects completed.

2007 Target: 3
2008 Target: 3
2009 Target: 4
2010 Target: 4
2011 Target: 4

Outcomes for the Program

19. Outcome measures

Outcome Text: Awareness created

Outcome Text
Number of individuals demonstrating KASA and related changes.

Outcome Type: Short

2007 Target:	4500
2008 Target:	4500
2009 Target:	4500
2010 Target:	4500
2011 Target:	4500

Outcome Text
Number of individuals demonstrating behavior changes such as improved practices or improved decision-making

Outcome Type: Medium

2007 Target:	2250
2008 Target:	2250
2009 Target:	3000
2010 Target:	3000
2011 Target:	3000

20. External factors which may affect outcomes

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

Description

1) As 2005-6 has demonstrated natural disasters can have a devistating impact on communities.
2) The state of the economy can have a direct impact on efforts in both community and economic development.
3) Changes in appropriations at the federal, state and local levels can impact the availability of resources for programming.
4) Competing public and programmatic priorities can influence the level of attention provided to community economic development by non-subject matter staff such as County Directors.

21. Evaluation studies planned

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

Description

Some evaluation studies of existing program efforts have already been completed. Additional studies will be undertaken to document outcomes of those program efforts where studies have not been completed.

22. Data Collection Methods

- Sampling
- Whole population
- Mail

Description
{NO DATA ENTERED}

1. Name of the Planned Program

Animal Health and Production

2. Program knowledge areas

- 315 Animal Welfare/Well-Being and Protection 18 %
- 311 Animal Diseases 34 %
- 307 Animal Management Systems 43 %
- 806 Youth Development 5 %

3. Program existence

- Mature (More then five years)

4. Program duration

- Long-Term (More than five years)

5. Brief summary about Planned Program

Domestic animals were an integral element of pioneer life on the Illinois prairie. Animals provided food, clothing materials, power to do farm work and companionship to the early settlers. Our life at the beginning of the 21st century is very different from that of our ancestors, but the fundamental, mutually-beneficial relationships between people and animals remain unaltered.
Animal agriculture was a part of the Land-Grant University mission from its inception. Leadership for programs in animal science is provided by the Department of Animal Sciences of the College of Agricultural, Environmental and Consumer Sciences and the College of Veterinary Medicine.
Research programs range from those at the molecular level (molecular genetics) to applied research on farms and herds throughout the state. These programs cover all major species examples include the molecular mechanisms regulating skeletal muscle growth, tracking antibiotic resistant genes in swine, reproductive health, optimization of animal welfare. Animal sciences are a strong component of the research and outreach efforts of the College of ACES and Veterinary Medicine from the use of animals for food and fiber to their role companions with human beings.
Extension and outreach is conducted by faculty and Extension educators throughout the state. Outreach includes an extensive internet presence through the Illinois TRAILLS portal:http://www.traill.uiuc.edu/. Additionally, extension programs are conducted on both a multi-state and instate basis. Animal related 4-H projects are a strong element of University of Illinois Youth Development program.
The animal system team combines faculty, researchers and extension educators to produce strong programs which integrate research and extension.

6. Situation and priorities

Illinois livestock producers have survived through robust production efficiencies supported by new technology and economies of scale. Until recently, this has minimized the impact of marginal marketing skills and little, if any, business planning. Now producers are faced with new challenges, which threaten their operations. The reality of market access, working capital, and the need for creating value added products for up-chain marketing are all new issues which must be addressed for the industry and producers of all sizes.
Extension will work with producers on enterprise analysis and cost containment, in an effort to produce a product that meets the consumers' needs at an affordable price. The teams will work to standardize reporting of production costs for benchmarking purposes, across enterprise types. Livestock units can improve rural communities by providing stable jobs, expanding the tax base, and increasing the need for service industry (such as veterinarians, equipment dealers, trucking, hardware and lumber, and food markets). Additional challenges facing the areas of animal health and productions are related to food safety, bio security and the possibility of an avian flu pandemic.
Societal conditions and sensitivity to human-animal relationships call for examination of issues of animal well-being and strengthening relationships between humans and animal companions. Program priorities are set with stakeholder input and the expertise of researchers and educators. Available funding is also an issue.

7. Assumptions made for the Program

1) That funding and resource levels will remain at a constant level.
2) That the now traditional multiple delivery methods being used in this program area of electronic and face-to-face program

delivery will continue to be effective.
3) That research will continue to deliver discoveries in areas such as animal health that will provide benefits to producers and consumers.

8. Ultimate goal(s) of this Program

To enhance the human-animal relationship in all its manifestations including use of animals for food and fiber, animal/human relationships and through the 4-H Youth Development program while enhancing the economic viability of livestock industries and the Illinois economy.

9. Scope of Program

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

Inputs for the Program

10. Expending formula funds or state-matching funds

- Yes

11. Expending other then formula funds or state-matching funds

- Yes

12. Expending amount of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	14.0	0.0	18.0	0.0
2008	14.0	0.0	18.0	0.0
2009	14.0	0.0	20.0	0.0
2010	14.0	0.0	20.0	0.0
2011	14.0	0.0	21.0	0.0

Outputs for the Program

13. Activity (What will be done?)

Illinois has a vigorous research program in this area which includes completion of needed research facilities (e.g. Post-Genomic Research Building - across the street from the animal sciences laboratory). The program includes both basic laboratory science and "on-farm research." The intensive Extension program delivery includes meetings, workshops, teleconferences and electronic information delivery.

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

Extension	
Direct Method	**Indirect Methods**
• Education Class • Workshop • One-on-One Intervention • Demonstrations	• Newsletters • Web sites

15. Description of targeted audience

The target audience includes producers, industry support (agribusiness and veterinarians), youth and the general public.

16. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	**Target**	**Target**	**Target**	**Target**
2007	65000	60500	28000	4600
2008	65000	60500	28000	4600
2009	65000	60500	31000	4600
2010	61000	58500	31000	5600
2011	61000	58500	31000	5600

17. (Standard Research Target) Number of Patents

Expected Patents	
Year	Target
2007	0
2008	1
2009	0
2010	1
2011	0

18. Output measures

Output Text

Number of research publications.

2007 Target: 84
2008 Target: 84
2009 Target: 90
2010 Target: 90
2011 Target: 93

Output Text

Number of completed extension projects.

2007 Target: 19
2008 Target: 19
2009 Target: 21
2010 Target: 21
2011 Target: 22

Outcomes for the Program

19. Outcome measures

Outcome Text: Awareness created

Outcome Text
Program participants will exhibit/report KASA changes.

Outcome Type: Short
2007 Target: 85000
2008 Target: 85000
2009 Target: 88000
2010 Target: 100000
2011 Target: 100000

Outcome Text
Number demonstrating/reporting behavior changes including improved decision-making

Outcome Type: Medium
2007 Target: 52500
2008 Target: 52500
2009 Target: 52500
2010 Target: 61000
2011 Target: 61000

20. External factors which may affect outcomes

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

Description
Additional external factors which may affect outputs and outcomes include changes in disease types and transmission.

21. Evaluation studies planned

- Retrospective (post program)
- During (during program)

Description
Data will be collected from program participants. Some of the program efforts have already been evaluated.

22. Data Collection Methods

- Sampling
- Whole population
- Mail
- On-Site

Description
{NO DATA ENTERED}

1. Name of the Planned Program

Natural Resources and the Environment

2. Program knowledge areas

- 112 Watershed Protection and Management 18 %
- 102 Soil, Plant, Water, Nutrient Relationships 30 %
- 133 Pollution Prevention and Mitigation 12 %
- 806 Youth Development 8 %
- 605 Natural Resource and Environmental Economics 12 %
- 405 Drainage and Irrigation Systems and Facilities 8 %
- 123 Management and Sustainability of Forest Resources 12 %

3. Program existence

- Mature (More then five years)

4. Program duration

- Long-Term (More than five years)

5. Brief summary about Planned Program

Leadership for Natural Resource Management programs through the University of Illinois is provided through a multidisciplinary approach as exemplified by the College of ACES Department of Natural Resources and Environmental Sciences (NRES). Research topics of NRES faculty and affiliates explore ranges of subjects from aphids to zebra mussels, and everything from individual genes to the ecosystem of the planet earth. Hatch sponsored projects range from researching the relationship between how humans experience being part of nature and how that in turn influences environmentally responsible behavior to how chemical inputs from atmospheric deposition influence good nutrient management in both crop and forest systems. Of critical interest to both agriculture and ecosystem management is how fertilizer application affects nutrient management under various management scenarios.
Natural Resource Management Extension Educators team with Crops Educators to provide education to producers and others in tillage techniques and soil and water management workshops. Additional programs in watershed management help to protect water quality. Water and overall environmental quality is enhanced by assisting producers in managing manure as a plant nutrient rather than a waste product.

6. Situation and priorities

The utilization of natural resources is essential to human survival. It is how these resources are utilized that is critical. This program seeks to balance the needs and demands of resource utilization with environmental quality and sustainability. Intelligent utilization of resources requires an understanding of the complex interdynamics of living system and the impacts of human behavior on those systems. Priorities are set at a variety of levels. As noted in the stakeholder input section, a wide variety of stakeholders are consulted in the establishment of priorities.

7. Assumptions made for the Program

1) Resources will be maintained at least at the current level.
2) That research is correctly addressing the interrelatedness of the dynamics of natural resource management.
3) That production needs can be balances with economic and environmental needs.

8. Ultimate goal(s) of this Program

To achieve sustainability of natural resources while these resources are utilized to meet human needs.

9. Scope of Program

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

Inputs for the Program

10. Expending formula funds or state-matching funds

- Yes

11. Expending other then formula funds or state-matching funds

- Yes

12. Expending amount of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	14.0	0.0	20.0	0.0
2008	14.0	0.0	20.0	0.0
2009	14.0	0.0	21.0	0.0
2010	14.0	0.0	21.0	0.0
2011	14.0	0.0	23.0	0.0

Outputs for the Program

13. Activity (What will be done?)

As noted, there are significant research efforts being conducted on natural resources and the environment. Extension provides education through meetings, workshops, one-on-one consultations and electronic delivery.

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

Extension	
Direct Method	Indirect Methods
• Education Class • Workshop • One-on-One Intervention • Demonstrations	• Web sites

15. Description of targeted audience

The target audience includes producers and the general public.

16. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	11000	180	15600	3090
2008	10100	180	15400	3060
2009	9800	170	15200	3020
2010	9600	160	14400	2860
2011	9000	160	14100	2800

17. (Standard Research Target) Number of Patents

Expected Patents	
Year	Target
2007	0
2008	1
2009	0
2010	0
2011	1

18. Output measures

Output Text

Number of research publications.

2007 Target: 90
2008 Target: 90
2009 Target: 100
2010 Target: 100
2011 Target: 100

Output Text

Number of completed research projects.

2007 Target: 20
2008 Target: 20
2009 Target: 23
2010 Target: 23
2011 Target: 23

Outcomes for the Program

19. Outcome measures

Outcome Text: Awareness created

Outcome Text

Program participants will report/demonstrate KASA changes.

Outcome Type: Short

2007 Target: 18700
2008 Target: 18100
2009 Target: 17700
2010 Target: 17000
2011 Target: 16400

Outcome Text

Participants will demonstrate behavior changes including improved decision-making.

Outcome Type: Medium

2007 Target: 3300
2008 Target: 3200
2009 Target: 3100
2010 Target: 3000
2011 Target: 2900

20. External factors which may affect outcomes

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

Description

To some extent the adoption of practice changes will be influenced by the economic conditions influencing the cost/benefit ratio of these changes.

21. Evaluation studies planned

- After Only (post program)
- Retrospective (post program)
- During (during program)

Description

{NO DATA ENTERED}

22. Data Collection Methods

- Sampling
- Mail

Description

{NO DATA ENTERED}

1. Name of the Planned Program

Human Nutrition, Diet Adequacy, Health and Wellbeing

2. Program knowledge areas

- 703 Nutrition Education and Behavior 33 %
- 724 Healthy Lifestyle 12 %
- 604 Marketing and Distribution Practices 18 %
- 704 Nutrition and Hunger in the Population 19 %
- 723 Hazards to Human Health and Safety 18 %

3. Program existence

- Mature (More then five years)

4. Program duration

- Long-Term (More than five years)

5. Brief summary about Planned Program

There are strong interrelationships among diet, activity levels and health. Research conducted at the University of Illinois College of Agricultural, Consumer and Environmental Sciences (ACES) seeks to further understand these interrelationships while improving the quality of food and food choices. Since research in isolation is of little value in improving an individual's health, University of Illinois Extension seeks to help consumers improve the quality of their diets through improved food choices.

The interdisciplinary nature of the nutritional sciences is addressed by the Division of Nutritional Sciences at the University of Illinois. The division consists of 60 faculty representing 16 departments in seven Colleges on the Urbana-Champaign and Chicago campuses of the University of Illinois. Principal areas of study include animal nutrition, biochemical and molecular nutrition, community nutrition and nutrition education, dietary bioactive components, food safety and toxicology and human and clinicial nutrition.

The research agenda of the College and the focus of extension programming are heavily influenced by multiple stakeholder groups. Much of the focus is captured by the goals expressed by the Illinois Council on Food and Agricultural Research (C-FAR) for research and outreach:

- Investigate relevant nutrition-related public health issues, for example: "Metabolic Syndrome" (obesity, cardiovascular disease, and diabetes), cancer and specific age-related issues.
- Develop sustainable solutions for nutrition-deficient populations - Investigate issues related to nutrition and wellness and develop effective methods of communicating this information.

Sources of funding for the College's research agenda in foods and nutrition come from a variety of sources including Hatch funding. These efforts cover a wide range of topics. For example, the effects of dietary phytoestrogen on aging, breast cancer progression, obesity and risk of diabetes, and cognitive function. Or, the development of sustainable solutions for improving the diet of populations affected by prolonged undernourishment, malnourishment and devastating chronic diseases.

Extension programs seek to provide education to assist consumers in making wise food choices and achieve and maintain adequate physical activity for good health, since lifestyle choices contribute to 70% of all chronic disease. Consumers must choose from a wide variety of food products each day and be discerning judges of nutrition information. Extension prepares and presents information on general nutrition, food buying, diet and disease, and health related information.

The formal interrelation between extension and the College's research efforts in human nutrition is provided through extension's Nutrition and Wellness Team. This team includes faculty members from the Department of Food and Nutrition Science. In addition to jointly planning programs, the extension team and faculty collaborate on joint research projects.

6. Situation and priorities

While complex, the interrelationships among diet, disease and wellness are well documented. Ongoing research seeks to further clarify these relationships to assist populations to achieve adequate diets and avoid disease. Extension provides a variety of educational options to assist consumers in making wise food choices - and as often as possible tailors these choices to fit the audience. Priorities are established through stakeholder input as noted in the stakeholder input section.

7. Assumptions made for the Program

1) Resource levels will remain at least constant.

2) Social marketing theory, social learning theory, and theory of reasoned action will continue to be useful in leading people to practice change.

8. Ultimate goal(s) of this Program

To assist people to achieve high levels of wellness through an appropriate diet and activity levels.

9. Scope of Program

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

Inputs for the Program

10. Expending formula funds or state-matching funds

- Yes

11. Expending other then formula funds or state-matching funds

- Yes

12. Expending amount of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	10.0	0.0	5.0	0.0
2008	10.0	0.0	5.0	0.0
2009	10.0	0.0	5.0	0.0
2010	10.0	0.0	6.0	0.0
2011	10.0	0.0	6.0	0.0

Outputs for the Program

13. Activity (What will be done?)

As noted the University of Illinois has a full research agenda covering human nutrition. This agenda includes "bench top" science as well as research involving human subjects.
Extension programming relies on meetings, one-on-one consultation, printed materials as well as electronic media. Much of the actual teaching in human nutrition is conducted by highly trained paraprofessionals.

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

Extension	
Direct Method	Indirect Methods
• Education Class • Workshop • One-on-One Intervention • Demonstrations	• Web sites

15. Description of targeted audience

The target audience includes all Illinois citizens.

16. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	283000	600000	334000	400000
2008	291000	608000	342000	408000
2009	299000	616000	350000	416000
2010	307000	624000	358000	424000
2011	315000	632000	366000	432000

17. (Standard Research Target) Number of Patents

Expected Patents	
Year	Target
2007	0
2008	0
2009	1
2010	0
2011	0

18. Output measures

Output Text

Number of research publications.

2007 Target: 27
2008 Target: 27
2009 Target: 27
2010 Target: 30
2011 Target: 30

Output Text

Number of completed research projects.

2007 Target: 5
2008 Target: 5
2009 Target: 5
2010 Target: 6
2011 Target: 6

Outcomes for the Program

19. Outcome measures

Outcome Text: Awareness created

Outcome Text
Number demonstrating or reporting KASA changes.

Outcome Type: Short

2007 Target:	407000
2008 Target:	416000
2009 Target:	425000
2010 Target:	434000
2011 Target:	444000

Outcome Text
Number demonstrating or reporting behavior changes.

Outcome Type: Medium

2007 Target:	10300
2008 Target:	11100
2009 Target:	12000
2010 Target:	12800
2011 Target:	13600

20. External factors which may affect outcomes

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

Description

Natural disasters may influence the availability of desirable food products such as fresh fruit and vegetables.
Appropriation changes may influence the level of resources availalble for programming.
Competing public priorities and programatic challenges may influence the availablity of non-subject matter staff such as County Directors whose support is important to program success.
While efforts are being made to address the various ethnic and cultural groups that make up Illinois, it may be difficult to keep up with population changes.

21. Evaluation studies planned

- After Only (post program)
- Retrospective (post program)
- During (during program)

Description

For some program efforts, evaluation studies have already been completed. Additional follow-up with participants will be used to establish learning and practice change rates.

22. Data Collection Methods

- Sampling
- Whole population
- Mail
- On-Site

Description
{NO DATA ENTERED}

1. Name of the Planned Program

Food Product Development, Processing and Safety

2. Program knowledge areas

- 712 Protect Food from Contamination by Pathogenic Microorganisms, Pa 52 %
- 502 New and Improved Food Products 25 %
- 501 New and Improved Food Processing Technologies 23 %

3. Program existence

- Mature (More then five years)

4. Program duration

- Long-Term (More than five years)

5. Brief summary about Planned Program

Leadership for food product development rests with the College of Agricultural, Consumer and Environmental Sciences (ACES) Department of Food Science and Human Nutrition. Located in the College is the Division of Nutritional Sciences which also addressed food safety issues. (The work of the Division is described under Illinois Planned Program Human Nutrition, Diet Adequacy, Health and Wellbeing.)
The College also hosts the National Soybean Research Laboratory which houses the Illinois Center for Soy Foods. The center has among its interests the study of the efficacy and safety of soy food products to improve human health. Additional research interests in the department include improving the safety of food processing techniques while improving the nutritional quality of food products.
Strongly related to food product development is the overriding issue of food safety. Food safety is an issue for all families regardless of household resource level and affects producers, processors and consumers. Concerns regarding food safety have been expressed by a number of stakeholders including the Illinois Council on Agricultural Research (C-FAR) as well as local extension adivsory councils and other stakeholders.

6. Situation and priorities

According to the Center for Disease Control (CDC) an estimated 76 million cases of foodborne disease occur each year in the United States. Generally these cases are mild and cause symptoms for only a day or two. Some cases are more serious, and CDC estimates that there are 325,000 hospitalizations and 5,000 deaths related to foodborne diseases each year. Even mild cases may have economic losses associated with absence from work. Estimates are that a single outbreak of foodborne illness can cost a restaurant or other food service facility a minimum of $75,000.
As can be noted from the introduction to this planned program, the University of Illinois is conducting basic research to address issues of foodborne illness as well a research on product development and processing. U of I Extension has programs to address food safety issues at the consumer and commercial levels.

7. Assumptions made for the Program

1) That the causes and control of foodborne illnesses and pathogens are well understood.
2) Foodborne illnesses are best controlled through an analysis of how food is handled to avoid contamination and pathogen growth.
3) Additional safety can be assured in what foods are selected for use.

8. Ultimate goal(s) of this Program

To develop safe food products and processing techniques for food preparation, storage and use by the food processing industry, households and consumers.

9. Scope of Program

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

Inputs for the Program

10. Expending formula funds or state-matching funds

- Yes

11. Expending other then formula funds or state-matching funds

- Yes

12. Expending amount of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	5.0	0.0	5.0	0.0
2008	5.0	0.0	5.0	0.0
2009	5.0	0.0	6.0	0.0
2010	5.0	0.0	6.0	0.0
2011	5.0	0.0	6.0	0.0

Outputs for the Program

13. Activity (What will be done?)

Research will continue to be conducted in food product development and determining the safety and efficacy of soy products and other food products in the human diet. Educational efforts will continue to target producers, processors and consumers.

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

Extension	
Direct Method	Indirect Methods
• Education Class • Workshop • One-on-One Intervention	• Newsletters • Web sites

15. Description of targeted audience

Producers, processors and consumers.

16. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	74000	151000	86000	100000
2008	76000	153000	88000	102000
2009	78500	155000	90000	104000
2010	80500	157000	92000	106000
2011	82500	159000	94000	108000

17. (Standard Research Target) Number of Patents

Expected Patents	
Year	Target
2007	0
2008	1
2009	0
2010	1
2011	0

18. Output measures

Output Text

Number of research publications.

2007 Target: 45
2008 Target: 45
2009 Target: 50
2010 Target: 50
2011 Target: 50

Output Text

Number of completed research projects.

2007 Target: 5
2008 Target: 5
2009 Target: 6
2010 Target: 6
2011 Target: 6

Outcomes for the Program

19. Outcome measures

Outcome Text: Awareness created

Outcome Text

Number of people reporting or demonstrating KASA changes.

Outcome Type: Short

2007 Target: 124000
2008 Target: 128000
2009 Target: 131000
2010 Target: 135000
2011 Target: 137000

Outcome Text

Number of people reporting or demonstrating practice changes including improved decision-making.

Outcome Type: Medium

2007 Target: 13400
2008 Target: 14600
2009 Target: 15800
2010 Target: 17000
2011 Target: 17200

20. External factors which may affect outcomes

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

Description

1) Natural disasters may influence the availability of facilities for safely developing, storing, distributing, and using food products.
2) The changes in the economy and appropriation changes may influence the resources available for research/extension programs.
3) Government regulations may influence food product development and processing.
4) Competing priorities (public and programatic) may influence the level of programmatic effort from non-subject matter staff such as County Directors.

21. Evaluation studies planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)

Description

For many of the programmatic efforts evaluation research has already been completed.

22. Data Collection Methods

- Sampling
- Whole population
- Mail

Description

{NO DATA ENTERED}

1. Name of the Planned Program

Agricultural and Consumer Economics

2. Program knowledge areas

- 602 Business Management, Finance, and Taxation 50 %
- 801 Individual and Family Resource Management 50 %

3. Program existence

- Mature (More then five years)

4. Program duration

- Long-Term (More than five years)

5. Brief summary about Planned Program

The College of Agricultural, Consumer and Environmental Science's Department of Agricultural and Consumer Economics targets research and outreach programs aimed at improving the economic and environmental well-being of producers, consumers and families. Drawing on economics, business and law, the department analyzes issues related to individuals and families, agriculture and natural resources, and food -- all ranging in scope from local to global.
Researchers in the department partner with two Extension program teams, the Farm Business Management and Marketing Team and the Consumer and Family Economic Team. Team members work with local Extension councils and stakeholders as well as research faculty in identifying needs and establishing programs to meet those needs. These interactions in turn influence the research agenda of the College.

6. Situation and priorities

Both consumers and agricultural producers face similar concerns when it comes to financial management. Both producers and consumes face increasingly complex and difficult decisions. Often these decisions must be made within the context of a rapidly changing marketplace with competing demands for limited resources.
Producers, including those engaged in horticultural businesses, face many challenges to remain sustainable and profitable. These changes may include new and changing production systems, local and global marketing decisions, financial stability, changing technologies, management efficiency, and risk management.
Specific areas of concern are exploring alternative business opportunities (especially for traditionally underrepresented groups), record keeping and analysis, marketing options and decisions, and coping with government policies and regulations.
Increasingly programs are being offered to serve the needs of specific underserved audiences including Latino/a and the Amish.
An area of concern to both producers and many consumers alike is acquiring health coverage. More than 43 million Americans are uninsured - many of these uninsured are part of the agricultural industry. Both producers and consumers are being served with programs on affording long-term health care.
Other program efforts include money management and credit (especially for low-income audiences) and retirement planning provided through the College's and U of I Extension's award winning web site.

7. Assumptions made for the Program

1) Government policies have a great influence on economic decisions by producers and consumers alike.
2) Resource levels for programs and research will remain at least constant.

8. Ultimate goal(s) of this Program

To improve the economic and environmental well-being of producers, consumers and families.

9. Scope of Program

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

Inputs for the Program

10. Expending formula funds or state-matching funds

- Yes

11. Expending other then formula funds or state-matching funds

- No

12. Expending amount of professional FTE/SYs to be budgeted for this Program

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

Outputs for the Program

13. Activity (What will be done?)

Researchers will continue human subject research as well as studies of trends and policy options.
Extension will continue to deliver programs through a variety of approaches such as the world wide web (e.g., www.farmdoc.uiuc.edu).

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

Extension	
Direct Method	Indirect Methods
• Education Class • Workshop • Group Discussion	• Web sites

15. Description of targeted audience

The target audience includes producers, consumers and those working with producers and consumers on financial management concerns.

16. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	4060	2000000	1250	750
2008	4210	2000000	1250	750
2009	4160	2000000	1240	750
2010	4170	2000000	1230	750
2011	4060	2000000	1220	750

17. (Standard Research Target) Number of Patents

Expected Patents	
Year	Target
2007	0
2008	0
2009	0
2010	0
2011	0

18. Output measures

Output Text

Number of research publications.

2007 Target: 45
2008 Target: 45
2009 Target: 50
2010 Target: 50
2011 Target: 50

Output Text

Number of completed research projects.

2007 Target: 5
2008 Target: 5
2009 Target: 6
2010 Target: 6
2011 Target: 6

Outcomes for the Program

19. Outcome measures

Outcome Text: Awareness created

Outcome Text

Participants will report/demonstrate KASA changes.

Outcome Type: Short

2007 Target: 5700
2008 Target: 2300
2009 Target: 2250
2010 Target: 2400
2011 Target: 2450

Outcome Text

Participants will report/demonstrate practice changes including improved decision-making.

Outcome Type: Medium

2007 Target: 1375
2008 Target: 1445
2009 Target: 1365
2010 Target: 1375
2011 Target: 1325

20. External factors which may affect outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations

Description

{NO DATA ENTERED}

21. Evaluation studies planned

- After Only (post program)
- Retrospective (post program)
- During (during program)

Description

Some evaluation research has already been completed.

22. Data Collection Methods

- Sampling
- Whole population
- Mail

Description

{NO DATA ENTERED}

1. Name of the Planned Program

Animal Genomics

2. Program knowledge areas

- 304 Animal Genome 50 %
- 303 Genetic Improvement of Animals 50 %

3. Program existence

- Mature (More then five years)

4. Program duration

- Long-Term (More than five years)

5. Brief summary about Planned Program

When completed in late 2006, the $75 million, 186,000 square foot University of Illinois Institute for Genomic Biology will house state-of-the-art equipment for conducting genetic research, including a microfabrication lab, a plant growth facility, and a microscopy suite. Research will focus on applications of genomic biology in addressing significant problems in agriculture, medicine and the environment such as identifying genes that influence animal behavior, discovery of new antibiotics and the diagnosis and treatment of chronic human diseases. Currently ongoing is a project funded in part by a $10 million USDA grant to provide the initial sequence of the porcine genome. The pig genome is approximately the same size as the human genome, which took almost ten years to complete at a cost of over $3 billion. Work on the porcine genome will be completed five times faster and at 1/150th of the cost. Genomics work is also being conducted through multistate project NC-1010 with collaborators in eleven states.

6. Situation and priorities

Completion of the human genome sequence provides a foundation for understanding genetic complexity and how it contributes to diverse phenotypes and diseases. It is clear that model organisms will continue to play an invaluable role in the synthesis of this understanding.

7. Assumptions made for the Program

That the robotic sequencing technologies and bioinformatics developed from the Human Gene Initiative will allow future draft sequencing to be completed much more quickly and at a significantly lower cost. We also assume that funding will remain at a constant or increasing level.

8. Ultimate goal(s) of this Program

The ultimate goal of this program is to use animal genetics work to benefit not just the swine and livestock industries through improvements in animal production and animal health but to provide information of biomedical importance as well, such as pig-to-human transplants.

9. Scope of Program

- In-State Research
- Multistate Extension
- Multistate Research

Inputs for the Program

10. Expending formula funds or state-matching funds

- Yes

11. Expending other then formula funds or state-matching funds

- Yes

12. Expending amount of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	0.2	0.0	5.0	0.0
2008	0.2	0.0	5.0	0.0
2009	0.2	0.0	6.0	0.0
2010	0.2	0.0	6.0	0.0
2011	0.2	0.0	6.0	0.0

Outputs for the Program

13. Activity (What will be done?)

Molecular biology has experienced revolutionary changes in the past years with the availability to efficiently sequence and annotate the genomes and study the function of multiple genes.
Comparative genomics makes possible the comparison of genomes from different species and provide insights on genomes using information from other genomes.
Functional genomic studies use this genetic information to measure the levels of gene expression in thousands of genes simultaneously.
Bioinformatics, population and quantitative genetics, and statistical genomics are experiencing remarkable progress prompted by revolutions in computer sciences, genetics, genomics, molecular biology, proteomics, and statistics.
The dimensionality and complexity of information resulting from genetic, genomic and proteomic projects in laboratory and field studies prompt exciting scientific challenges that are best addressed using interdisciplinary approaches. Research teams in the Department of Animal Sciences and across the University of Illinois campuses are conducting pioneering research in these areas, and are generating ground-breaking phenomic, genomic, and proteomic information. Projects providing and using cDNA, oligo, protein arrays, genetic and physical maps, and sequence and molecular biology data require precise analyses and mining to facilitate interpretation of results and generation of new hypotheses. Advances in high-throughput genomics and proteomics, together with tools in computational and statistical biology, allow for understanding of genetic mechanisms that influence complex phenotypes, including behavior, disease, and performance in humans, agricultural and model species, and microorganisms.

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

Extension	
Direct Method	Indirect Methods
• Workshop • Other 1 (video conferences) • Other 2 (national conferences)	• Web sites • Other 1 (Publications) • Other 2 (Release of sequence information)

15. Description of targeted audience

The target audience consists of the international animal genomics community, with work being done in several U.S. sites [Nevada, Illinois, Nebraska, Iowa] and several international sites [United Kingdom, France, Scotland].

16. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	500	5000	0	0
2008	500	5000	0	0
2009	500	5000	0	0
2010	500	5000	0	0
2011	500	5000	0	0

17. (Standard Research Target) Number of Patents

Expected Patents	
Year	Target
2007	0
2008	1
2009	0
2010	1
2011	0

18. Output measures

Output Text

Number of research publications.

2007 Target: 49
2008 Target: 49
2009 Target: 53
2010 Target: 53
2011 Target: 55

Output Text

Number of completed research projects.

2007 Target: 8
2008 Target: 8
2009 Target: 9
2010 Target: 9
2011 Target: 9

Outcomes for the Program

19. Outcome measures

Outcome Text: Awareness created

Outcome Text

Percent of sequence in 3x coverage of the Porcine Genome and deposit it in a public database

Outcome Type: Short

2007 Target: 50
2008 Target: 50
2009 Target: 0
2010 Target: 0
2011 Target: 0

20. External factors which may affect outcomes

- Appropriations changes
- Other

Description

Progress made by cooperating institutions.
Advances that allow genomics work to be done more quickly and at a lower cost will continue to improve efficiency to the benefit of agricultural and non-agricultural stakeholders.

21. Evaluation studies planned

- Other

Description

Sequencing data will be made available to the research community, allowing them to evaluate and build on our results.

22. Data Collection Methods

- Sampling
- Whole population
- Mail

Description

{NO DATA ENTERED}

1. Name of the Planned Program

Biofuels

2. Program knowledge areas

- 201 Plant Genome, Genetics, and Genetic Mechanisms 60 %
- 601 Economics of Agricultural Production and Farm Management 15 %
- 402 Engineering Systems and Equipment 25 %

3. Program existence

- Mature (More then five years)

4. Program duration

- Long-Term (More than five years)

5. Brief summary about Planned Program

The United States is the largest user of energy in the world accounting for about 50% of total consumption. Thus, any change in global energy use will require a change in production and consumption of energy in the U.S. The major renewable energy systems include solar, wind, biomass, hydroelectric, ocean and geothermal. Biofuels have been gaining ground since the 1980's, but several limitations need to be overcome before plant/crop based resources and processes become a viable alternative to petrochemical based systems for chemicals and energy. These include improvements in the efficiency of bioconversion of plant fibers to value added products and extraction of high value products.

6. Situation and priorities

Biobased renewable resources can be obtained from a wide range of agricultural crops, forestry products and processing industries. The U.S. has access to significant amounts of biobased resources, including those of the highly productive corn/soybean cropping system in the central U.S., arguably the largest man-made ecosystem on the planet. This agro-ecosystem is still largely focused on providing raw materials for the food, feed and fiber industries and not on chemicals and fuels, which is the focus of this thematic program.

7. Assumptions made for the Program

There already exists growing support for biofuels as evidenced by the marketing of biodiesel blends in many states, and the provision of tax incentives for its use. We assume that this trend will continue and funding will be available to allow us to take advantage of this trend.

8. Ultimate goal(s) of this Program

The U.S. government has committed the nation to an ambitious plan to triple the use of biobased materials and bioenergy by 2010. As a member of the Midwest Consortium for Biobased Products and Bioenergy, the University of Illinois is committed to working regionally to help meet this goal.

9. Scope of Program

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

Inputs for the Program

10. Expending formula funds or state-matching funds

- Yes

11. Expending other then formula funds or state-matching funds

- Yes

12. Expending amount of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	0.2	0.0	3.0	0.0
2008	0.2	0.0	4.0	0.0
2009	0.3	0.0	5.0	0.0
2010	0.3	0.0	5.0	0.0
2011	0.3	0.0	6.0	0.0

Outputs for the Program

13. Activity (What will be done?)

We will combine and focus the specialized research abilities of faculty members from several disciplines to generate chemicals and biofuels from renewable biomass sources using a comparative and functional genomic approach. Future economic development aspects include technology transfer, biotech startups, attraction of national talents including faculty, students and postdoctoral associates, and training of a first-class workforce. Research is also focusing on perennial rhizomatous grasses, such as switchgrass and Miscanthus, which are particularly well-suited as bioenergy crops. Work is also being conducted to evaluate the impact of biofuels on emissions reducing technologies for off-road diesel engines.

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

Extension	
Direct Method	Indirect Methods
• Workshop • Demonstrations	• Web sites • Other 1 (Peer reviewed publications) • Other 2 (Publications)

15. Description of targeted audience

The beneficiaries of this research will be agriculture and agriculture-based industries in Illinois, although ultimately all of us will benefit as consumers of energy.

16. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	0	0	0	0
2008	0	0	0	0
2009	100	0	0	0
2010	100	0	0	0
2011	100	0	0	0

17. (Standard Research Target) Number of Patents

Expected Patents	
Year	Target
2007	1
2008	0
2009	1
2010	1
2011	0

18. Output measures

Output Text

Number of research publications

2007 Target: 15
2008 Target: 19
2009 Target: 22
2010 Target: 22
2011 Target: 25

Output Text

Number of completed research projects.

2007 Target: 2
2008 Target: 2
2009 Target: 3
2010 Target: 3
2011 Target: 3

Outcomes for the Program

19. Outcome measures

Outcome Text: Awareness created

Outcome Text

Proportion of the Use of Biomass Relative to Total Energy [Currently at 3-4%]

Outcome Type: Long

2007 Target: 4
2008 Target: 6
2009 Target: 8
2010 Target: 10
2011 Target: 12

Outcome Text

Percent reduction in NOx Emissions from Biodiesel

Outcome Type: Long

2007 Target: 15

2008 Target: 35

2009 Target: 50

2010 Target: 65

2011 Target: 90

20. External factors which may affect outcomes

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

Description

{NO DATA ENTERED}

21. Evaluation studies planned

- After Only (post program)
- Retrospective (post program)
- During (during program)

Description

{NO DATA ENTERED}

22. Data Collection Methods

- Sampling
- Whole population
- Mail
- On-Site

Description

{NO DATA ENTERED}

1. Name of the Planned Program

Human Development and Family Wellbeing

2. Program knowledge areas

- 802 Human Development and Family Well-Being 100 %

3. Program existence

- Mature (More then five years)

4. Program duration

- Long-Term (More than five years)

5. Brief summary about Planned Program

The stresses on American families are well known. Although rates of divorce have stabilized in the last 20 years, 40 to 50 percent of all first marriages end in divorce. The number of children growing up in poverty is a breathtaking 16.2 percent. The number of adults raising children while also caring for an aging parent has grown, and rates of children diagnosed with attentional, learning and behavioral problems have soared, particularly as we have become more skilled in recognizing these problems.
Still, there is compelling evidence that many families—including those living under difficult circumstances—manage to raise their children successfully and support their members. Because family strengths tend to be difficult to quantify, they can easily be overlooked or dismissed as unimportant. The result is a significant gap in our knowledge base. We need to know from research the factors that make for strong families.
These resilient families, however constituted, are responsible, positively oriented, self-reliant, committed, confident, and problem-solving social units capable of nurturing children and facing adversity and life's hardships without deteriorating or becoming dysfunctional or disorganized.
"Promoting Family Resiliency" is a cross campus initiative at the University of Illinois Urbana-Champaign campus. An initiative where the College of Agricultural, Consumer, and Environmental Sciences (ACES), the department of Human and Community Develop (HCD) and University of Illinois Extension play major roles.
Within HCD is the Pampered Chef Family Resiliency Program (www.familyresiliency.uiuc.edu). Established in 2000 the program is dedicated to enriching child, individual and family well-being in the context of communities. The program supports innovative research, education, and public engagement outreach activities that hold potential for strengthening families' ability to be resilient in the face of life stressors and to successfully navigate the competing demands of work and family.
Ongoing Extension programs address family issues at all stages of the life cycle from infancy through issues of aging and care of dependent adults.

6. Situation and priorities

As noted in the overview, what determines positive family outcomes is not always easily predictable. The ongoing research being conducted is attempting to determine how family resiliency can be enhanced. In the meantime, there is good evidence that education targeted at critical stages can improve family outcomes. For example, in raising an infant there are predictable challenges such as dealing with separation anxiety, discipline or toilet training where educational interventions can improve parenting skills and improve the quality of family relationships.

7. Assumptions made for the Program

1) That resource levels will remain at levels reasonable enough for achieving the goals for family research and educational programming.
2) That our current understanding of the complex relationships involved among family members is sufficient to provide research based educational programming.

8. Ultimate goal(s) of this Program

To improve the quality of family life (in all the variations of "family) for citizens.

9. Scope of Program

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

Inputs for the Program

10. Expending formula funds or state-matching funds

- Yes

11. Expending other then formula funds or state-matching funds

- Yes

12. Expending amount of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	9.0	0.0	3.0	0.0
2008	9.0	0.0	3.0	0.0
2009	9.0	0.0	3.5	0.0
2010	9.0	0.0	3.5	0.0
2011	9.0	0.0	3.5	0.0

Outputs for the Program

13. Activity (What will be done?)

Research on family resiliency will be conducted within the department of Human and Community Development as well as jointly with other units on campus. Extension Educators will continue to employ multiple approaches to reach families and family members including personal contact, workshops, meetings, newsletters and web sites.

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

Extension	
Direct Method	Indirect Methods
• Education Class • Workshop • Group Discussion • One-on-One Intervention	• Public Service Announcement • Newsletters • TV Media Programs • Web sites • Other 1 (Train the trainer)

15. Description of targeted audience

Families (in all its variations), family members and those working with families such as physicians and child care providers.

16. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	14500	247000	2100	1000
2008	14600	247000	2100	1000
2009	14700	252000	2100	1000
2010	14700	255000	2100	1000
2011	14700	262000	2100	1000

17. (Standard Research Target) Number of Patents

Expected Patents	
Year	Target
2007	0
2008	0
2009	0
2010	0
2011	0

18. Output measures

Output Text

Number of research publications.

2007 Target: 7
2008 Target: 7
2009 Target: 9
2010 Target: 9
2011 Target: 9

Output Text

Number of completed research projects.

2007 Target: 3
2008 Target: 3
2009 Target: 4
2010 Target: 4
2011 Target: 4

Outcomes for the Program

19. Outcome measures

Outcome Text: Awareness created

Outcome Text

Number of persons demonstrating or reporting KASA changes.

Outcome Type: Short

2007 Target: 10800
2008 Target: 10900
2009 Target: 11100
2010 Target: 11100
2011 Target: 11100

Outcome Text
Number of persons reporting or demonstrating behavior changes.

Outcome Type: Medium

2007 Target: 3600
2008 Target: 3600
2009 Target: 3700
2010 Target: 3700
2011 Target: 3700

20. External factors which may affect outcomes

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

Description
Downturns in the economy can negatively impact family relationships.

21. Evaluation studies planned

- After Only (post program)
- Retrospective (post program)
- During (during program)

Description
Some evaluation research has already been completed.

22. Data Collection Methods

- Sampling
- Whole population
- Mail
- On-Site

Description
{NO DATA ENTERED}

1. Name of the Planned Program

4-H Youth Development

2. Program knowledge areas

- 806 Youth Development 100 %

3. Program existence

- Mature (More then five years)

4. Program duration

- Long-Term (More than five years)

5. Brief summary about Planned Program

Illinois has a long history of involvement in youth development through informal education which began in the 19th century. Today, extension and research activities are designed to help meet the needs of youth in the 21st century.
The goal of both extension and research is to be a leader in maximizing community and university resources to help youth, adults and families reach their fullest potential. Extension draws on research developed in the College of Agricultural, Consumer and Environmental Science's (ACES) department of Human and Community Development, through the state 4-H program, other University of Illinois departments as well as elsewhere in the land grant system.
Youth development programs are designed to:
- allow youth and adults to work together in family and community environments to create real life learning laboratories that help youth practice skills they need today and will continue to need for the rest of their lives.
- reach youth in their own neighborhoods and communities with unique, hands-on learning strategies suited to their needs.
- address current youth issues through positive prevention programs.

- value youth as resources by involving them in significant decision making and encouraging their participation in community roles.
- promote positive adult and youth mentor relationships.

Through funding at the state and local levels there is a significant resource commitment in Illinois to serving the needs of youth in rural and urban areas. These investments in youth through informal education are expected to continue to return significant benefits to the public while addressing important issues such as science and youth education.

6. Situation and priorities

Youth in all areas of the state face significant challenges in developing the skills and abilities to become successful in today's global society. By incorporating the research-based elements of positive youth development 4-H serves as a successful model for providing youth both the environment and life skills needed to become successful citizens. The land grant resources are ideal for addressing important youth issues such as healthy lifestyles and science/math education.

7. Assumptions made for the Program

Resource funding will remain at least constant. The level of state funding specifically designated for 4-H youth development funding has varied from year to year.

8. Ultimate goal(s) of this Program

To be a leader in maximizing community and university resources to help youth, adults and families reach their fullest potentials.

9. Scope of Program

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

Inputs for the Program

10. Expending formula funds or state-matching funds

- Yes

11. Expending other then formula funds or state-matching funds

- Yes

12. Expending amount of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	75.0	0.0	3.0	0.0
2008	75.0	0.0	3.0	0.0
2009	75.0	0.0	3.5	0.0
2010	75.0	0.0	3.5	0.0
2011	75.0	0.0	3.5	0.0

Outputs for the Program

13. Activity (What will be done?)

- Research (especially applied evaluation research) in the areas of needs/strengths assessment, best delivery methods and effectiveness in providing a positive youth development environment will continue.
- Training of volunteer leaders will continue.
- Training of teachers and out-of-school program provides will continue.
- Direct work with youth will continue.

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

Extension	
Direct Method	Indirect Methods
• Education Class • Workshop • Group Discussion • One-on-One Intervention	• Public Service Announcement • Newsletters • TV Media Programs • Web sites

15. Description of targeted audience

Youth, youth leaders (paid and volunteer), parents and community members.

16. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	8900	0	107000	0
2008	8900	0	114000	0
2009	9200	0	117000	0
2010	9600	0	121000	0
2011	10000	0	127000	0

17. (Standard Research Target) Number of Patents

Expected Patents	
Year	Target
2007	0
2008	0
2009	0
2010	0
2011	0

18. Output measures

Output Text

Number of publications.

2007 Target: 7
2008 Target: 7
2009 Target: 8
2010 Target: 8
2011 Target: 8

Output Text

Number of completed research projects.

2007 Target: 3
2008 Target: 3
2009 Target: 4
2010 Target: 4
2011 Target: 4

Outcomes for the Program

19. Outcome measures

Outcome Text: Awareness created

Outcome Text

Number demonstrating or reporting KASA changes.

Outcome Type: Short

2007 Target: 87000
2008 Target: 92000
2009 Target: 94000
2010 Target: 98000
2011 Target: 103000

Outcome Text
Number demonstrating or reporting behavior changes.

Outcome Type: Medium

2007 Target: 58000
2008 Target: 61000
2009 Target: 63000
2010 Target: 65000
2011 Target: 68000

20. External factors which may affect outcomes

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

Description
As noted earlier, the level of state budget funding for a budget line item for 4-H youth development positions has been variable as annual state budgets are funded.

21. Evaluation studies planned

- After Only (post program)
- Retrospective (post program)
- During (during program)

Description
{NO DATA ENTERED}

22. Data Collection Methods

- Sampling
- Whole population
- Mail

Description
{NO DATA ENTERED}

1. Name of the Planned Program

Agricultural and Biological Engineering

2. Program knowledge areas

- 405 Drainage and Irrigation Systems and Facilities 8 %
- 403 Waste Disposal, Recycling, and Reuse 42 %
- 404 Instrumentation and Control Systems 17 %
- 511 New and Improved Non-Food Products and Processes 25 %
- 401 Structures, Facilities, and General Purpose Farm Supplies 8 %

3. Program existence

- Mature (More then five years)

4. Program duration

- Long-Term (More than five years)

5. Brief summary about Planned Program

Leadership for Agricultural and Biological Engineering is provided by the College of Agricultural, Environmental and Consumer Sciences (ACES) Department of Agricultural and Biological Engineering. The department contributes to using engineering in an interdisciplinary manner to solve problems in agricultural, food and biological systems. The department is organized into four "groups:"

1) Bioenvironmental Engineering Group

Applying engineering principles to biological systems including air quality, biomass and bioenergy (see Illinois "State Planned Program Biofuels"), engine emission control and animal waste management.

2) Food and Bioprocess Engineering Group

Food and bioprocess engineering is the application of engineering principles to preserve, process, package, and distribute biological materials for human and animal consumption, for biofuels and for biobased products.

Elements related to food and bioprocess engineering are also related to Illinois "State Planned Program Food Product Development, Processing and Safety."

3) Off-road Equipment Engineering

The mission of off-road equipment engineering is to provide research-based engineering information relating to off-road equipment, agricultural production and safety. Faculty, staff and students in this area specialize in agricultural and construction equipment design and the development of precision agricultural technology for production agriculture.

4) Soil and Water Resources Engineering

Soil and Water Resources Engineering involves the management of soil and water resources and water quality. Among the issues addressed by this group are crop nutrient management and understanding the relationships between land use and water quality and the role of natural ecosystems in modern agriculture.

Elements of soil and water resources engineering are also involved in Illinois state planned programs "Natural Resource Management" and "Plant Health, Systems and Production."

Significant research projects are carried out in all four of the department's "groups" and contribute to the extension and outreach program of the College of ACES. In addition to the research noted in other Illinois "state planned program," research is conducted on agricultural infotonic systems, animal waste management, livestock production environments and improving the value of coproducts produced in grain processing.

Extension program teams have Extension Educators partnering with staff and faculty with joint Extension and Research appointments to further integrate research and extension efforts. A major effort included in this planned program is manure management.

Agricultural and Biological Engineering is submitted as a state planned program because of the critical role this area contributes to commercial agriculture and solving the problems facing the state of Illinois.

6. Situation and priorities

Engineering technology plays a major role in developing and maintaining competitive livestock and crops industries in Illinois. It also contributes to increasing worker safety in agricultural and related industries. Such technology is also addressing concerns and problems related to odors, animal waste, animal treatment, and protection and management of water resources.

Priorities are set with stakeholder input and joint work among researchers and extension staff.

7. Assumptions made for the Program

1) Resource and funding levels will remain at least at a constant level.2) Research will continue to discover and document positive technologies to address problems.

8. Ultimate goal(s) of this Program

Employ engineering sciences to solve problems in agricultural, food and biological systems and make the resulting technologies available to users.

9. Scope of Program

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

Inputs for the Program

10. Expending formula funds or state-matching funds

- Yes

11. Expending other then formula funds or state-matching funds

- Yes

12. Expending amount of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2007	1.4	0.0	6.0	0.0
2008	1.4	0.0	6.0	0.0
2009	1.4	0.0	7.0	0.0
2010	1.4	0.0	7.0	0.0
2011	1.4	0.0	8.0	0.0

Outputs for the Program

13. Activity (What will be done?)

As noted there are ongoing research projects, both laboratory and applied. Extension delivers programs through demonstrations, meetings, websites and other delivery methods.

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

Extension	
Direct Method	Indirect Methods
• Education Class • Workshop • Group Discussion • One-on-One Intervention	• Web sites

• Demonstrations	

15. Description of targeted audience

Target audiences include producers and others who can benefit from the technologies developed especially those who purchase, transport, process, and package agricultural commodities.

16. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2007	5500	3000	500	200
2008	5500	2500	400	200
2009	5000	2500	100	100
2010	5000	2500	100	100
2011	5000	2500	100	100

17. (Standard Research Target) Number of Patents

Expected Patents	
Year	Target
2007	1
2008	1
2009	1
2010	1
2011	1

18. Output measures

Output Text

Number of completed research projects.

2007 Target: 9
2008 Target: 9
2009 Target: 10
2010 Target: 10
2011 Target: 12

Output Text

Number of research publications.

2007 Target: 60
2008 Target: 60
2009 Target: 65
2010 Target: 65
2011 Target: 70

Outcomes for the Program

19. Outcome measures

Outcome Text: Awareness created

Outcome Text
Number reporting or demonstrating KASA changes.

Outcome Type: Short

2007 Target:	3500
2008 Target:	3500
2009 Target:	3000
2010 Target:	3000
2011 Target:	3000

Outcome Text
Number demonstrating or reporting practice changes.

Outcome Type: Short

2007 Target:	2800
2008 Target:	2800
2009 Target:	2400
2010 Target:	2400
2011 Target:	2400

20. External factors which may affect outcomes

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

Description
{NO DATA ENTERED}

21. Evaluation studies planned

- After Only (post program)
- Retrospective (post program)
- During (during program)

Description
{NO DATA ENTERED}

22. Data Collection Methods

- Sampling
- Whole population
- Mail

Description
{NO DATA ENTERED}