**PROGRAMMATIC GOALS AND OBJECTIVES**

**Agriculture – Food, Fiber, and Green Industries**

**Imperative 1:** Texas agricultural producers effectively evaluate and adopt research-based technology applications and best management practices for crop and forage systems to enhance their economic competitiveness in the global marketplace.

**Statement of Support:** Texas agricultural producers must compete globally. This requires rapid adoption of technology-based systems to improve quality and quantity of outputs at competitive costs per unit. Extension Data Summits and Texas commodity association leadership identified educational needs to achieve this goal.

**Goal 1:** Producers improve their knowledge of agricultural production systems to improve profitability and conserve resources.

**Benchmark:** At least 50% of producers that were surveyed said they intended to adopt various crop production practices. Common practices included: use of Roundup Ready Flex cotton, new varieties, soil sample methods, and use of herbicides.

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<tbody>
<tr>
<td>Provide science-based, multidisciplinary programs to producers and associated agribusiness professionals relative to technology transfer in crop and forage systems.</td>
<td>2010–2014: Producers increase knowledge and/or utilize best management practices for crop and forage systems. This includes soil testing, weed identification, Integrated Pest Management practices and tools, plant disease identification and management, management of conventional and reduced tillage systems, improved crop and forage genetics. <em>(OUTCOME)</em></td>
<td>T Miller C Allen C Sansone D Appel</td>
<td></td>
<td>YES</td>
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<td></td>
<td>2010–2014: Producer adoption of IPM compatible tools to manage weeds, insects, and diseases will increase. <em>(OUTCOME)</em></td>
<td>C Allen C Sansone D Appel</td>
<td></td>
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<td></td>
<td>2010–2014: Cow-calf producers will increase knowledge of year-round grazing systems by 5%. <em>(OUTCOME)</em></td>
<td>T Miller</td>
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<td></td>
<td>2010-2014: 55% of producers attending educational programs increase their knowledge of irrigation technologies, management of irrigation technologies, and water use efficiency in their production system (crop production per unit of water). <em>(OUTCOME)</em></td>
<td>B Lesikar</td>
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<td>2010-2014: 20% of producers attending educational programs indicate a willingness to utilize ET networks and other irrigation decision aids to determine water requirements for crops grown. <em>(OUTCOME)</em></td>
<td>B Lesikar</td>
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<td>2010–2014: Producers and commercial operators receive education required to maintain pesticide applicator licenses. <em>(OUTPUT)</em></td>
<td>D Renchie</td>
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YES NO
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<tr>
<td>Producers increase knowledge of cropping alternatives and production systems to meet the demands for feedstocks for the renewable fuel industry.</td>
<td>2010 - 2014: Producers increase their knowledge of bioenergy and biofuel crops and cropping systems by 10% annually. <em>(OUTCOME)</em></td>
<td>T Miller</td>
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<td>YES</td>
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<td>Producers increase knowledge on cellulosic alcohol to reduce soil losses due to the harvest of crop residues.</td>
<td>2010: Producers will gain knowledge of soil and water conserving production systems for cellulosic crop production by 2% per year. <em>(OUTCOME)</em></td>
<td>T Miller</td>
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<tr>
<td>Update Extension enterprise budgets for major crops, alternative production systems, and by geographic region.</td>
<td>2010–2014: Enterprise budgets updated and available on the Web for producers and county faculty by January 31 of each year. <em>(OUTPUT)</em></td>
<td>M Waller</td>
<td></td>
<td>YES</td>
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<td>Expand the use of distance technology to effectively reach producers and associated agribusiness professionals with relevant and timely educational information.</td>
<td>2010–2014: The number of educational sessions on Extension Web sites increases each year by 3%. <em>(OUTPUT)</em></td>
<td>P Gibbs</td>
<td></td>
<td>YES</td>
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</table>
**Goal 2:** Develop and conduct professional development programs for county and specialist faculty to enable them to effectively support educational programs on cropping systems.

**Benchmarks:** Under the leadership of the Regional Program Directors, over 50 professional development trainings were conducted by Departments / Units targeting County Extension Agents.

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<tr>
<td>Work with regional program directors to determine professional development trainings to be offered in each region.</td>
<td>2010–2014: By September 1 each year, planned professional development opportunities in cropping systems scheduled for the next calendar year. (OUTPUT)</td>
<td>T Miller, C Sansone, D Appel, B Lesikar</td>
<td></td>
<td>YES NO</td>
</tr>
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</table>

**Results/Narrative**

**Goal 3:** Provide science-based, multidisciplinary programs for post-harvest/value-added food industry professionals including enterprises in the following major sectors: storage, processing, manufacturing, quality assurance, inspection, and distribution.

**Benchmarks:** Fifty-six people received this training and certification during 2008. Also, over 260 products were evaluated with lab results.

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<tr>
<td>Identify industry groups and work with their leadership to prioritize relevant educational opportunities for entrepreneurs and other targeted audiences in value-added industry segments.</td>
<td>2010–2014: By September 1 each year, schedule completed for the next calendar year for continuing education targeting food industry professionals. (OUTPUT)</td>
<td>D Welsh</td>
<td></td>
<td>YES NO</td>
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<td></td>
<td>2010-2014: 55% of participants in the Better Processors School increase knowledge pertaining to low-acid and acidified foods as indicated by passing a 15 part certification exam.</td>
<td>D Welsh, A Wagner</td>
<td></td>
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</table>
**Agriculture – Food, Fiber, and Green Industries**

**Imperative 2:** Texas livestock and poultry product producers and related agribusinesses effectively evaluate and adopt research-based technology applications and best management practices by region for sustainable and profitable livestock and poultry management systems.

**Statement of Support:** The diversity of the Texas landscape and environment markedly impact the potential for utilizing land resources for the production of livestock, as well as livestock and poultry products. Therefore, research-based technology must be adapted by region to meet the economic goals and environmental needs of producers and other groups within the livestock and poultry sectors. The Beef Roundtables and the Extension Data Summits identified this goal as highly important.

**Goal 1:** Livestock producers improve knowledge of production and management systems to improve quality, profitability, and sustainability.

**Benchmarks:** Over 65,000 livestock producers and owners were educated by Texas AgriLife Extension Service in 2008. At least 50% of livestock producers surveyed in 2007 said they intended to adopt various practices. These include: vaccine handling procedures, preconditioning of stocker cattle, adoption of research-based principles in feeding and managing horses, sheep and goats, evaluation of livestock for selection and for performance parameters, and animal identification.

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<tr>
<td>Provide science-based, multidisciplinary programs to producers and associated agribusiness professionals relative to technology transfer in livestock systems through a variety of targeted and/or named educational programs.</td>
<td>2010–2014: Livestock producers attending educational programs will increase knowledge, skills, and/or utilize best management practices to improve quality or profitability. (OUTCOME) 2010–2014: Ten percent of livestock owners/producers attending educational programs report a savings in money or increased profit due to adopting best management practices. (OUTCOME) 2010 - 2014: Livestock producers acquire the knowledge to utilize decision aid software and management information systems technology to effectively evaluate technology adoption and other management decision-based alternatives in the livestock production operation. (OUTCOME) 2010–2014: Twenty technical service providers trained per year to assist concentrated animal feeding operations (CAFOs) to obtain and maintain permits for environmentally sound disposal of animal wastes. (OUTCOME)</td>
<td>R Gill  B Faries  R Gill  M Waller  B Lesikar</td>
<td>YES NO</td>
<td>YES NO</td>
</tr>
</tbody>
</table>

**Results/Narrative**

Update Extension enterprise budgets for major livestock species in the state, including alternative production and management systems, for various geographic regions.

2010–2014: Enterprise budgets updated and available on the Web for producers and county faculty by January 31 of each year. (OUTPUT)  

Results/Narrative

M Waller

YES NO
| Expand the use of distance technology to effectively reach producers and associated agribusiness professionals with relevant and timely educational information. | 2010–2014: The number of educational sessions on Extension Web sites increases each year by 3%.  (OUTPUT) | P Gibbs | YES NO |

**Results/Narrative**

| Research planned, conducted and published with translational value for livestock production, management and use. Addresses improved management and/or decreased costs and/or alternative strategies relevant to modern day livestock ownership and production. | 2010-2014 Research conducted by specialists as appropriate and published in both scientific and industry sources to support adoption of new practices and/or savings in time and money for livestock producers, owners and users.  (OUTPUT) | R Gill | YES NO |
**Goal 2:** Develop and conduct professional development programs for county and specialist faculty to enable them to effectively develop, deliver and support relevant educational programs on livestock production systems.

**Benchmark:** Thirteen professional development programs were delivered to County Extension Agents in 2008. In addition, several Centras were conducted to address emerging issues.

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<tr>
<td>Work with regional program directors to determine professional development trainings to be offered in each region related to livestock production.</td>
<td>2010–2014: By September 1 each year, planned professional development opportunities in livestock production and management systems are scheduled for the next calendar year. (OUTPUT) &lt;br&gt;2010: Contact hours of professional development increase by 5% every two years throughout planning cycle. (OUTPUT)</td>
<td>R Gill &lt;br&gt;B Faries</td>
<td>R Gill &lt;br&gt;B Faries</td>
<td>YES &lt;br&gt;NO</td>
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**Results/Narrative**

Establish and maintain commodity committees and develop introductory professional development training or direct livestock industry support materials online for major Texas livestock species and enterprises.

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**Results/Narrative**

Develop educational support for County Extension Agents, veterinarians and livestock owners and producers.

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<td></td>
<td>2010 – 2014: Resource materials developed for each IRT, and for distribution through AgriLife Bookstore and Drought JIC. (OUTPUT)</td>
<td>A Vestal</td>
<td></td>
<td>YES &lt;br&gt;NO</td>
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</table>
Goal 3: Poultry industry participants increase understanding of waste management responsibilities and knowledge of best practices for reducing potential air and water quality problems.

**Benchmark:** One meeting was conducted in 2007.

| Conduct educational programs for broiler producers on the permitting process and the need for water quality management plans. | 2010–2014: 50% of program participants indicate an increase in knowledge related to environmental responsibilities.  **(OUTCOME)** | M Farnell | YES | NO |

Results/Narrative

Goal 4: Poultry processing, broiler industry and layer production audiences adopt technology and management systems that improve product quality, profitability, and food safety.

**Benchmark:** NA

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<tbody>
<tr>
<td>Develop and deliver curriculum to clientele on Hazard Analysis and Critical Control Point (HACCP) procedures, food safety, and plant efficiency.</td>
<td>2010–2014: Poultry processing personnel will participate in a HACCP program  <strong>(OUTPUT)</strong></td>
<td>M Farnell</td>
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<td>YES</td>
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Results/Narrative

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<tr>
<td>Provide educational programs to the layer industry through the Texas Commercial Egg Clinic</td>
<td>2010-2014: 50% or program participants indicate an increase in knowledge in the areas of general food safety issues related to egg production, increased production, regulatory control, and other areas deemed appropriate from emerging issues.  <strong>(OUTCOME)</strong></td>
<td>M Farnell</td>
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<td>YES</td>
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Results/Narrative

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<tr>
<td>Continue to provide expert advice and troubleshooting for the layer industry</td>
<td>2010-2014: Conduct site visits and applied research to assist the Texas Layer Industry with issues such as waste management.  <strong>(OUTPUT)</strong></td>
<td>M Farnell</td>
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Results/Narrative
Provide educational programs to the broiler industry through the Texas Broiler Symposium

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<td></td>
<td>2010-2014: 50% of broiler symposium participants indicate an increase in knowledge of specific topics taught at the symposium. (OUTCOME)</td>
<td>M Farnell</td>
<td>YES</td>
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**Results/Narrative**

Continue to provide expert advice and troubleshooting for the broiler industry

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<tr>
<td></td>
<td>2010-2014: Conduct site visits and applied research to assist the Texas Broiler Industry with issues such as waste management. (OUTPUT)</td>
<td>M Farnell</td>
<td>YES</td>
<td>NO</td>
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**Results/Narrative**

**Goal 5:** Poultry growers increase adoption of best practices for improved competitiveness.

**Benchmark:** Eight educational meetings regarding best management resources in 2007.

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<tr>
<td></td>
<td>2010–2014: 50% of growers attending educational programs indicate an increase in general knowledge related to husbandry and facilities. (OUTCOME)</td>
<td>M Farnell</td>
<td>YES</td>
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**Results/Narrative**

Provide industry clientele with resources to train their personnel.

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<td></td>
<td>2010–2014: 50% of Poultry Industry personnel attending programs indicate an increase in knowledge or Intent to Adopt practices recommended for training poultry industry employees. (OUTCOME)</td>
<td>M Farnell</td>
<td>YES</td>
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</table>
**Goal 6: 4-H Poultry exhibitors will increase adoption of best practices for exhibition.**

**Benchmark:** NA.

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<tr>
<td>Develop and deliver the embryology program,</td>
<td>2010-2014: Conduct adult leader and teacher training in support of the embryology/Egg to chick program. Measures include: site visits, contact numbers, and number of educational methods <em>(OUTPUT)</em></td>
<td>M Farnell</td>
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**Results/Narrative**

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<tr>
<td>Develop and deliver market poultry workshops</td>
<td>2010-2014: Conduct yearly meeting to cover aspects of raising show poultry to novice and other growers. <em>(OUTPUT)</em></td>
<td>M Farnell</td>
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<tr>
<td>2010-2014: 50% of youth and adult participants increase knowledge related to the raising of poultry for local, county and major poultry shows within Texas. <em>(OUTCOME)</em></td>
<td>M Farnell</td>
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**Results/Narrative**

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<tr>
<td>Assist with major livestock poultry shows</td>
<td>2010-2014: Continue with assistance for major Livestock Shows within Texas (Houston Livestock Show &amp; Rodeo, San Antonio Stock Show &amp; Rodeo, Star of Texas Fair &amp; Rodeo). This includes ordering birds, wing banding and give-out of birds, show set-up, and show data compilation. <em>(OUTPUT)</em></td>
<td>M Farnell</td>
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**Results/Narrative**

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<tr>
<td>Develop and implement the Ag Science Teacher Institute</td>
<td>2010-2014: 50% of Ag Science Teachers attending the Institute indicate an increase in knowledge of the specific topics covered at the Institute <em>(OUTCOME)</em></td>
<td>M Farnell</td>
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<td>YES</td>
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<tr>
<td>Results/Narrative</td>
<td>2010-2014: 50% of participants indicate an increase in knowledge related to specific topics taught at the Institute for Youth. (OUTCOME)</td>
<td>M Farnell</td>
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Develop and implement the Institute for Youth
Agriculture – Food, Fiber, and Green Industries

**Imperative 3:** Texas producers, agribusiness professionals, and landowners become more knowledgeable on approaches to assess risk and rewards in agriculture and natural resource-related operations, and how to evaluate and implement available risk-management alternatives based on personal and business enterprise goals.

**Statement of Support:** Risk is inherent at all levels of the food and fiber system. For the Texas food and fiber system to become more competitive, profitable, and sustainable, farmers, ranchers, and organizations, as well as communities that depend upon agriculture, must be better able to weigh the risks and projected impacts of alternative decisions on profitability and competitiveness. This issue was identified in the Extension Data Summits.

**Goal 1:** Producers and agribusiness professionals increase their knowledge and adoption of risk management alternatives and strategies.

**Benchmark:** 2007 Master Marketer data revealed a 21% increase in knowledge of 41 graduates and an expected additional income of $33,640 per acre.

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<tr>
<td>Develop and conduct in-depth risk management training programs, such as Master Marketer, Advanced Topic Series (ATS), The Executive Program for Agricultural Producers (TEPAP), Profitability Workshops, and Personnel Management.</td>
<td>2010-2014: Producers and agribusiness professionals attending in-depth programs increase knowledge of risk management strategies by 10%. (OUTCOME)</td>
<td>M Waller</td>
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<td>YES NO</td>
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**Narrative Update**

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<tbody>
<tr>
<td>Develop educational and technical assistance programs for producer groups or agribusinesses that are considering coordinated production or marketing systems.</td>
<td>2010-2014: Funding obtained to initiate an educational and technical assistance program for producer groups or agribusinesses that are considering ways to manage risk and add value to products.</td>
<td>M. Waller J. Park</td>
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<td>YES NO</td>
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**Narrative Update**
**Goal 2:** Producers and agribusiness professionals improve their risk assessment and business management skills.

**Benchmark:** In 2006, the Farm Assistance Program completed 159 reports.

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<tr>
<td>Utilize the FARM Assistance database to analyze risk management practices and publish the results of these analyses.</td>
<td>2010–2014: An annual FARM Assistance program report published that illustrates the practices, structure, and characteristics of the most successful producers. <em>(OUTPUT)</em>&lt;br&gt;2010–2014: At least five applied research articles, Extension bulletins, or fact sheets published each year focusing on specific types of producers or specific issues important to risk management in Texas agriculture. <em>(OUTPUT)</em></td>
<td>M Waller&lt;br&gt;S Klose</td>
<td>M Waller&lt;br&gt;S Klose</td>
<td>YES&lt;br&gt;NO</td>
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**Narrative Update**
**Agriculture – Food, Fiber, and Green Industries**

**Imperative 4:** Texas’ green industry sectors, including nursery, floral, landscape, and turf, will move toward their economic potential through demonstrations and evaluation of research-based technology and best management practices that meet economic and competitiveness criteria for business success.

**Statement of Support:** The green industry, including the nursery, floral, landscape, and turf sectors, is a rapidly changing segment of agribusiness with opportunities for expansion in several regions of the state. Technical and economic information is needed on alternative production practices pertaining to culture and nutrition, water quantity and quality, and pest management, etc., to encourage sustainability and additional business development. This goal supports Texas Community Futures Forum (TCFF) issues in economic competitiveness and viability, environmental stewardship, and agricultural diversification.

**Goal 1:** Promote the use of environmentally sensitive nutrient management programs in turf and landscape systems by homeowners, public turfgrass and landscape managers, and managers of sports venues.

**Benchmark:** In 2007, 75 turf grass educational programs were provided to Master Gardener and non-Master Gardener audiences reaching over 3,600 participants.

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<tr>
<td>Conduct workshops for sports turf and green space managers.</td>
<td>2010–2014: Sports turf managers participating in turfgrass field days and workshops will increase knowledge and/or adopt best management practices on water conservation and water audits. (OUTCOME)</td>
<td>T Miller</td>
<td></td>
<td>YES</td>
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<td><strong>Results/Narrative</strong></td>
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<tr>
<td>Implement the Sports Athletic Field Education (SAFE) program working with managers of sports turf venues.</td>
<td>2010–2014: Participation in demonstration programs by sports venue managers increases 2% per year. (OUTPUT)</td>
<td>T Miller J McAfee</td>
<td></td>
<td>YES</td>
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<td><strong>Results/Narrative</strong></td>
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<tr>
<td>Conduct educational programming for turfgrass professionals and homeowners on the management and selection of water-efficient landscapes and irrigation systems.</td>
<td>2010–2014: Increase knowledge of turfgrass professionals and homeowners by 2% per year relative to the efficient use of water through audits and other educational programming. (OUTCOME)</td>
<td>T Miller</td>
<td></td>
<td>YES</td>
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</table>
**Goal 2:** Nursery, floral, and landscape professionals improve their knowledge of alternative production practices and management systems to improve quality, profitability, and sustainability.

**Benchmark:** In 2007, participants revealed a 40.0% increase in knowledge on items taught at the Taller-MIP-IPM Workshop. These changes were in the area of basic IPM, sanitation and cultural practices, basic biology and ecology of pests, disease management, and basic pesticide toxicology.

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<tr>
<td>Conduct workshops and other educational methods for nursery, floral and landscape professionals, focusing on sustainable principles and practices, with special emphasis on risk management.</td>
<td>2010-2014: 55% of participants increase knowledge relative to sustainable principles and practices, with special emphasis on risk management. <em>(OUTCOME)</em></td>
<td>D Welsh D Wilkerson C Hall</td>
<td></td>
<td>YES NO</td>
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**Results/Narrative**

**Goal 3:** Promoting agricultural awareness and the development of positive relationships among youth and caring adults.

**Benchmark:** In 2007, 26 new JMG programs were implemented in their community.

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<tr>
<td>Implement Junior Master Gardener Program in new areas.</td>
<td>2010-2014: 55% of adult participants increase knowledge relative to garden practices and youth garden education <em>(Junior Master Gardener®)</em>; and 50% of adult participants plan to adopt/begin youth gardening education programs. <em>(OUTCOME)</em></td>
<td>D Welsh L Whittlesey</td>
<td></td>
<td>YES NO</td>
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**Results/Narrative**

**Goal 4:** Turfgrass producers increase their knowledge related to making cost of production estimates and pricing to improve profitability.

**Benchmark:** NA

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<tr>
<td>Provide training to turfgrass producers that will enable them to interpret and develop cost of production estimates for use as a basis for pricing, investment and risk management decision-making.</td>
<td>2010: Workshops will be held for producers to provide hands-on training in the development of cost of production estimates and pricing tools. Monthly surveys will be carried out to provide producers market information on a timely basis. A publication will be developed to help producers utilize price information and make sound pricing and production decisions. <em>(OUTCOME)</em></td>
<td>L. Falconer M. Waller</td>
<td>Workshops will continue to be offered in 2010, and price publication will be completed in 2010.</td>
<td>YES NO</td>
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</table>
Agriculture – Food, Fiber, and Green Industries

**Imperative 5:** Through pesticide safety education, licensed and unlicensed pesticide users (including farmers, ranchers, pest control businesses, and the general public) will understand and adopt safer pesticide and nonchemical management methods for managing pests and will be able to continue their pursuit of business enterprises and employment.

**Statement of Support:** State regulations require farmers, ranchers, structural pest control businesses, government agency employees, political subdivision employees, and others who apply pesticides in their business to receive periodic training to maintain their state licenses. Training also is beneficial in preparing them to take licensing exams. This goal focuses on improving the knowledge of pesticide applicators regarding their own safety and the safety of others while protecting their business investment.

**Goal 1:** The knowledge and skills of pesticide users in Texas will increase while they maintain licenses to maintain their business ventures.

**Benchmark:** Texas AgriLife Extension Service specialists and CEAs in cooperation with other entities (organizations, businesses, volunteers...) conducted more than 305 PSEP certification and recertification activities statewide, as reported by the TExAS system.

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<td>Conduct quality and relevant Pesticide Safety Education Program (PSEP) trainings that support the licensing activities of Texas’ licensing agency (Structural Pest Control and Public Health), and encourage the safe application of pest control products.</td>
<td>2010–2014: Number of specialized trainings maintained at current levels. <strong>(OUTPUT)</strong>&lt;br&gt;2010-2014: 55% Participants in specialized trainings conducted by PSEP specialists demonstrate an increase in knowledge. <strong>(OUTCOME)</strong>&lt;br&gt;2010-2014: Participants in CEA led Pesticide Safety programs will report an adoption of practices or behavior related the safe use of pesticides. <strong>(OUTCOME)</strong></td>
<td>D Renchie</td>
<td>D Renchie&lt;br&gt;D Renchie&lt;br&gt;ANR&lt;br&gt;RPD’s</td>
<td>YES&lt;br&gt;NO</td>
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**Results/Narrative**

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<tr>
<td>Establish and maintain cooperative relationships with organizations to enhance Pesticide Safety Education Program activities.</td>
<td>2010–2014: Licensing agencies contacted regularly by PSEP leadership to assure PSEP program curriculum is relevant. <strong>(OUTPUT)</strong></td>
<td>D Renchie</td>
<td>D Renchie</td>
<td>YES&lt;br&gt;NO</td>
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</table>
Goal 2: Develop and conduct professional development programs for county and specialist faculty so they will be more knowledgeable in providing and managing continuing education programs that support pesticide applicator licensing.


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<td>Update and distribute relevant educational material, including manuals and Web-based programs, to county Extension faculty.</td>
<td>2010–2014: Ninety percent of new agricultural and natural resource county agents trained on PSEP within 12 months of employment. (OUTPUT)</td>
<td>D Renchie</td>
<td>YES</td>
<td>NO</td>
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Results/Narrative

PSEP leadership will coordinate trainings with regional program directors and provide annual updates on regulations and programmatic issues. | 2010–2014: Centra Symposium trainings held each summer and made available to all county Extension agents with responsibilities in this area, resulting in knowledge gain of County faculty. (OUTPUT) | D Renchie | YES | NO |

Results/Narrative
**Goal 3**: Encourage adoption of pesticide safety for pest- and pesticide-sensitive institutions, including schools, child care facilities, hospitals, nursing care facilities, and others.

**Benchmark**: In 2007, 148 participants responded to the School IPM Coordinator Training. Major outcomes included increased knowledge in IPM practices, paperwork requirements, and a better understanding of their role is as the school’s IPM Coordinator.

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<tr>
<td>Conduct annual mandatory and advanced IPM regional trainings for school IPM coordinators and other school IPM stakeholders.</td>
<td>2010–2014: Knowledge and implementation of IPM concepts measured by exam and follow-up surveys, with knowledge gain of 5%. <em>(OUTCOME)</em></td>
<td>C Allen M Merchant D Renchie</td>
<td>YES NO</td>
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<td>Maintain regular communication with school IPM facility managers, school IPM stakeholders, and interested agencies via newsletters, email, and letters.</td>
<td>2010–2014: At least 50% of all school districts annually reached via periodic electronic or print materials. <em>(OUTPUT)</em></td>
<td>C Allen M Merchant D Renchie</td>
<td>YES NO</td>
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<td>Develop IPM techniques and innovative training materials for institutions wanting to improve pest control while minimizing risks for employees and clientele for onsite visits.</td>
<td>2010–2014: 5% percent increase in understanding or adoption of key IPM concepts/measures achieved among institutional decision-makers. <em>(OUTCOME)</em></td>
<td>C Allen M Merchant D Renchie</td>
<td>YES NO</td>
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**Goal 4:** Increase urban pest control and safety education among urban pesticide applicators, including those who provide pest control for structures, turfgrass, and landscapes.

**Benchmark:** In 2007, 13 pesticide applicator trainings (excluding school IPM training programs), presenting approximately 13 talks for 1007 participants (2,385 contact hours).

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<tr>
<td>Conduct regular, Extension-sponsored pest management training programs for structural and landscape pesticide applicators.</td>
<td>2010–2014: Existing pest management workshops for urban pesticide applicators conducted and quality maintained, as measured by meeting attendance and post-program evaluations. Knowledge and skills increase by 15%.  <em>(OUTCOME)</em></td>
<td>D Renchie</td>
<td>C Sansone</td>
<td>D Appel</td>
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<tr>
<td>Minimize the economic and environmental costs of urban pest control for Texans.</td>
<td>2010–2014: Measurable reductions achieved in costs or environmental risks associated with urban pest management practices. Case study to be conducted will reveal reduced costs of 10%. <em>(OUTCOME)</em></td>
<td>C Sansone</td>
<td>C Allen</td>
<td>D Renchie</td>
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**Results/Narrative**

...
Agriculture – Food, Fiber, and Green Industries

**Imperative 6:** Small-scale agricultural operators and commercial producers in rural and suburban areas will become more knowledgeable in effectively identifying and evaluating diversification strategies for risk mitigation and improved economic sustainability based on total management goals and optimal resource-base use.

Statement of Support: Farms and ranches with less than $20,000 of cash receipts make up almost 80% of Texas operations in production agriculture. Recently, this segment has been expanding around urban population centers due to purchases of small acreage tracts. Extension has the opportunity to provide basic agricultural education and awareness to these families that have multiple objectives. This goal addresses an Extension Data Summit issue.

**Goal:** Small-scale agricultural operators and landowners increase their knowledge of traditional and organic production, as well as management alternatives to improve quality of life, sustainability, and environmental practices.

**Benchmark:** In 2007, over 8,000 small and new landowners participated in educational programs. Common practices that are being adopted include: livestock types to purchase for their land, taxing options, and plant identification.

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<td>Pasture and land management (PALMAN) workshop conducted for absentee landowners and those new to agriculture.</td>
<td>2010–2014: Landowners attending PALMAN workshop increase knowledge on best management practices by 10%. (OUTCOME)</td>
<td>T Miller</td>
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<td>Plan and develop a Web-based delivery system to address the needs of the targeted audience.</td>
<td>2010–2014: User sessions on Web site increase by 5% per year after introduction. (OUTPUT)</td>
<td>R Parker M Dozier</td>
<td></td>
<td>YES NO</td>
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| Small Landowner Series conducted for clientele through county and multi-county efforts covering three or more of the following: beef cattle management, agricultural tax incentives, pasture establishment and/or management, pond establishment and/or management; wildlife management; range management; brush control; goat or sheep management; horticultural enterprises; orchard management. | 2010–2014: Small Landowners attend county and multi-county series to increase knowledge of best management practices by 20% Adoption of best management practices will be 5%. (OUTCOME) | R Parker M Dozier M Dozier G Chandler | YES 
NO |
|---|---|---|---|
| Conduct “Prospective Wine Grape Grower Workshops” to educate and assist potential growers in the decision process for entering this industry. | 2010-2014: 55% of participants increase knowledge (OUTCOME) | D Welsh E Hellman | YES 
NO |
| Conduct “Pecan Orchard Management Short Course” to increase knowledge of potential and new pecan growers regarding decisions and processes for risk mitigation and improved economic sustainability based on total management goals and optimal resource-base use. | 2010-2014: 55% of participants increase knowledge (OUTCOME) | D Welsh L Stein | YES 
NO |
| Conduct educational programs targeting small acreage landowners and commercial growers to increase knowledge in effectively identifying and evaluating diversification strategies using horticultural crops for risk mitigation and improved economic sustainability based on total management goals and optimal | 2010-2014: 55% of participants increase knowledge (intent to adopt practices and economic impact is reported also) (OUTCOME) | D Welsh D Wilkerson J Masabni | YES 
NO |
resource-base use.

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Agriculture – Food, Fiber, and Green Industries

**Imperative 7:** Gulf fishers and aquaculture enterprise owners become more knowledgeable of technical and financial feasibility for value-added enterprises and of supply chain issues from production/harvesting to the consumer. The Texas seafood industry (fishermen, vessel owners, and processors) and aquaculture enterprise owners need to become more knowledgeable about (a) assessing the effectiveness of various technologies that either reduce input expenditures, improve ending quality, or both and (b) supply-chain issues that are becoming more important to corporate and consumer interests alike.

**Statement of Support:** Texas shrimp boat operations are facing significant economic stress due to rising fuel costs and increasing import competition. In fact, for two years in a row, the Texas shrimp industry has qualified for Trade Adjustment Assistance funding and education due to import competition. Since 2002, Texas shrimp fishermen have been confronted with record prices – on the low end for shrimp and on the high end for fuel – that are destroying a once vibrant industry. Simultaneously, corporate and consumer interests are taking a greater interest in (a) the sustainability of wild seafood stocks and (b) the “environmental” costs of production including fuel consumption. In fact, shrimp are one of the few North American commercial stocks that are still categorized as healthy. Furthermore, the shrimp industry has an extremely high level of compliance with mandated environmental requirements to protect non-targeted species, and is addressing fuel consumption concerns with new trawl doors. However, the industry has not received much, if any, credit for their “environmental track record” by the market. Thus, future economic viability requires a simultaneous, three-pronged approach. First, applied research and outreach needs to continue that evaluates various input-reducing technologies. Second, applied research and outreach needs to continue that ensures visual quality is on par with that of high-grade imports (much of it farm-raised). Third, applied research and outreach needs to continue to find ways to maximize and promote the value and environmental track record of the Gulf and South Atlantic shrimp fishery. While some aquaculture operations are expanding, others are struggling to add value to their products in order to meet customer needs at competitive prices.

**Goal 1:** Offshore fishery management and marketing education to owners and captains to improve their knowledge of best management practices to improve quality, profitability, and sustainability of their operations. Through cooperative research and outreach with industry, provide educational activities for trade association executives, owners, and captains to improve their knowledge of procedures and practices that enable them to improve output quality, profitability, and sustainability in their operations.

**Benchmark:** Workshops and one-on-one dockside meetings have directly reached over 200 shrimpers in all of the Gulf states during the past year.

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<tr>
<td>Develop and deliver educational curriculum on best management practices to trade associations, industry leaders, and operators.</td>
<td>2010–2014: Program participants will increase their knowledge of best management practices to improve profitability. (OUTCOME)</td>
<td>M Waller L Respess</td>
<td>YES</td>
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**Results/Narrative**

**Goal 2:** Aquaculture and farm raised seafood enterprise owners increase knowledge of best management practices and marketing alternatives to enhance profitability and product quality.

**Benchmark:** Conference held in El Campo

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<tr>
<td>Work with aquaculture producers and the Texas Aquaculture Association in</td>
<td>2010–2014: 65% of program participants will increase their knowledge of best management practices. (OUTCOME)</td>
<td>M Masser</td>
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<td>developing and delivering relevant educational programming either individually or at industry meetings.</td>
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<td>2010-2014: 70% of surveyed participants in individual site visits will increase knowledge and validate satisfaction with the Specialist on a Likert scale. (OUTCOME)</td>
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Agriculture – Food, Fiber, and Green Industries

Imperative 8: Producers, landowners, agribusiness firms, and the organizations that represent them will become more knowledgeable regarding global forces impacting Texas and the agricultural and trade policy alternatives and consequences relative to long-term enterprise profitability and ‘safety net’ opportunities from federal and state sources.

Statement of Support: Large segments of Texas agriculture depend heavily on the ‘safety net’ support of government farm programs. Cotton and rice are more dependent than other commodities, but all program crops certainly benefit from current policies. Many sectors of Texas agriculture are also dependent on export markets or face significant import competition. Large shares of the wheat, sorghum, and cotton crops are exported, while a growing share of beef and poultry product is also sent to foreign markets. In addition, Texas feedlots, stocker operations, and packing plants depend upon Mexican cattle to sustain their operations. Any changes could have significant impacts; therefore, it is important for these groups to monitor agricultural and trade policy alternatives relative to their operations. Extension is uniquely positioned to provide research-based, unbiased information on policy alternatives and consequences for commodity organizations.

Goal 1: Producers, commodity organizations, government policymakers, and agribusiness interests will receive cutting-edge applied research and analysis on U.S. agricultural policy issues.

Benchmark: In 2007, 32 representative farm updates were conducted across the United States. In addition, 20 publications were distributed through AFPC.

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<tr>
<td>Extension faculty will participate with TAES faculty in the Agricultural and Food Policy Center (AFPC) to analyze policy alternatives and provide consequences that are research-based for dissemination to policy makers and agricultural interest groups.</td>
<td>2010–2014: Twenty-five representative farm updates conducted each year. A minimum of two publications will be distributed through AFPC. (OUTPUT) 2010–2014: The Texas Agricultural Forum and other trainings will be conducted and attendees knowledge of policy alternatives and consequences will increase 5% based on exit survey evaluations. (OUTPUT) 2010-2014: Meeting participants will increase knowledge 5% based on a post-evaluation survey. (OUTCOME) 2010-2014: A minimum of five reports disseminated per year. (OUTPUT)</td>
<td>J Outlaw  J Outlaw  M Waller  M Waller</td>
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<td>YES NO</td>
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Results/Narrative

When the new farm bill passes, an intensive educational effort will be conducted by specialists and county Extension agents.

2010: Producers attending Extension educational sessions on new farm bill increase knowledge by 10%. (OUTCOME)  

Results/Narrative
**Goal 2:** Producers, commodity organizations, government policy makers, and agribusiness interests will receive cutting edge applied research and analysis on international trade and policy issues.

**Benchmark:** In 2007, two workshops were conducted on exporting to Cuba.

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<tr>
<td>Specialized conference will be planned and implemented on opportunities such as exporting to Cuba.</td>
<td>2010–2014: Participants in specialized conferences increase knowledge of Cuba export opportunities, government regulations, and processes by 10%. (OUTCOME) 2010: At least one specialized conference planned and conducted in 2010. (OUTPUT)</td>
<td>P Rosson P Rosson</td>
<td>Assess economic impacts of U.S. food exports to Cuba on U.S. and Texas economy and ports.</td>
<td>YES NO</td>
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**Results/Narrative**

**Goal 3:** Commodity Associations, government policy makers and producers / agribusiness will receive Extension education and applied research on impacts of emerging trade and policy issues, and disruptions to trade.

**Benchmark:** Conducted analyses of economic impacts of invasive species on Texas agriculture. Results presented to industry leaders, producer board members of associations and US and state policy makers. Texas Vegetable Association, Texas and Southwestern Cattle Raisers, Texas Farm Bureau and Texas Citrus Mutual received results.

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<td>Extension faculty and CNAS will develop methods to assess impacts and deliver to selected audiences.</td>
<td>2010-2014: Decision makers will receive results of Immigration reform impacts on US dairy farms and impacts of selected invasive species. (OUTPUT)</td>
<td>P Rosson</td>
<td>Assess economic impacts of losses of foreign labor on U.S. dairy farms.</td>
<td>YES NO</td>
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**Results/Narrative**
Agriculture – Food, Fiber, and Green Industries

Imperative 9: Agricultural producers, landowners, agribusiness, and county Extension agents become more knowledgeable of best practices to prevent, detect, and respond to potential biosecurity issues, whether naturally occurring or through bioterrorist action.

Statement of Support: The advent of the 21st century has brought unparalleled concern over the safety of our food and fiber system from natural or bioterrorist introduction of detrimental pathogens. All of agriculture needs to be vigilant. The fact that Texas shares a border with Mexico and has multiple water ports from Beaumont to Brownsville certainly is cause for concern. Early detection and response are critical to saving millions of dollars in economic loss and potential loss of life. This goal responds to an issue identified in the Beef Roundtable and Extension Data Summits.

Goal 1: Livestock and poultry producers, agribusiness owners, and organization leaders will adopt best management practices associated with identifying foreign and emerging animal diseases and developing appropriate resource plans.

Benchmark: In 2007, beef, poultry, equine, and dairy specialists provided biosecurity education through various programs and workshops. Knowledge changes were noted for topics related to enhanced preparedness and early detection of diseases.

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<tr>
<td>Develop educational programs that teach livestock and poultry producers biosecurity awareness, epidemiology, common animal diseases, and media communication strategies.</td>
<td>2010-2014: Best Management practices for bio-security developed and in place for major livestock species to supplement routine educational programs conducted across the state. (OUTPUT)</td>
<td>M Farnell</td>
<td>YES</td>
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<td>2010–2014: Online newsletter series implemented and maintained that provides awareness of materials associated with market protection from foreign and emerging animal diseases. (OUTPUT)</td>
<td>R Gill</td>
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<td>2010-2014: Awareness information fact sheets on foreign and emerging animal diseases to supplement routine educational programs across the state. (OUTPUT)</td>
<td>B Faries</td>
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Results/Narrative
**Goal 2:** County Extension agents and veterinarians will be trained to and/or supported with resources related to foreign and emerging animal diseases and special incidents (IRTs) affecting the livestock industry.

**Benchmark:** In 2007, eight incident resource teams were developed and 14 ANSC specialists served on IRT’s.

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<tr>
<td>Develop educational programs and/or resource materials that teach county Extension agents and veterinarians and support the livestock owner / producer</td>
<td>2010: Verification protocol completed for trained individuals. (OUTPUT)</td>
<td>B Faries</td>
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<td>2010 – 2014: Resource materials developed for each IRT and for individual livestock species as appropriate. (OUTPUT)</td>
<td>A Vestal B Faries R Gill</td>
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**Results/Narrative**