

A Vision and Plan for the Department of Agricultural Economics

I. Introduction and Current Status

The department, currently known as Agricultural Economics, is engaged in a visioning process to set its course for the future. We started this process by thinking about the future and the issues and challenges we will be facing. For example:

- The interests of our undergraduates are changing. We are facing unprecedented demand from majors and non-majors for management and economics training. New career opportunities are opening for our students requiring new skills and expertise. Employers are paying premiums for internships and international experiences.
- The emphasis in our graduate programs is changing to agribusiness management and economics with our new Master of Agribusiness degree program. Also, the focus of our PhD program is changing with the potential demand for our graduates to add value to the huge amounts of data that are being collected in this new information-technology world.
- Research is increasingly driven by the availability of grant and contract funding from federal, state, private, and international sources. The potential for significant changes in technology and industry structure calls for forward-looking analyses of policy implications.
- Our extension programs are responding to the needs for training in marketing and management skills and evaluation of risk management strategies. This work has been expanded with additional funding from the state legislature. As we look to the future, we are being challenged to make more effective use of the Internet and distance education technology.

We need a clearer vision of how we should adjust our programs to respond to these future challenges and maintain a high standard of excellence. The source of creativity and innovation is our students, faculty, and staff. To take full advantage of this potential, however, we must convince them that they have permission to change, that they must look further into the future, that they must not become complacent, and that we must make change a habit.

Overview of Programs

The Department's 63 faculty members work in the areas of agribusiness management, marketing, finance, policy, economic development, natural resource economics, and production economics. Faculty appointments are divided among teaching (30%), extension (46%), and research (24%). Significant emphasis is given to the international dimensions of these programs.

Centers. The Department has a number of related centers, programs, and offices. These entities are used to organize and focus particular activities and provide effective linkages to programs, collaborators, and customers.

- Texas Agricultural Market Research Center (Gary Williams, Director)
- Agriculture and Food Policy Center (Ron Knutson, Director)
- Center for North American Studies (Parr Rosson, Director)
- Center for Consumer and Food Marketing Issues (John Nichols, Director)
- Agribusiness Education in Americas Program (Lonnie Jones, Director)
- Food and Agricultural Education Information Systems (Kerry Litzenberg, Director)
- International Agribusiness Management Association (Russell Garrett, Manager)

Research. Research programs in the Department are partially funded through the Texas Agricultural Experiment Station. External grants and contracts provide a major source of research program support. New research grant and contract awards are approximately \$2.0 million per year. Faculty publications in all refereed journals have established the Department among the top five in the country in research output. Major research programs are conducted in several areas: resource and environmental impacts, marketing and transportation, production economics and risk management, public policy, and agricultural finance. Many research projects also emphasize extensive multidisciplinary collaboration.

Undergraduate Teaching. The Department's undergraduate program includes traditional emphasis on Agricultural Economics and a rapidly growing program in Agribusiness. The undergraduate degree in Agribusiness is jointly offered by the College of Agricultural and Life Sciences and the College of Business, the first of its kind in the country. Undergraduate enrollment for Fall 2000 is expected to be over 800 students. Increasing emphasis is being given to service courses in agricultural marketing, management, and finance for students in other College majors.

Graduate Teaching. Graduate programs of the Department are well established and closely linked to research and extension education activities. Enrollment in the graduate program stands at about 110 students and there are over 65 in the masters programs. The Master of Agribusiness (MAB) program, which is jointly administered with the College and Graduate School of Business, has grown significantly in its first two years of existence (current enrollment is over 40 students). The Master of Science degree provides professional training for students seeking the skills in marketing, policy analysis, and decision-making needed in today's business world. The PhD degree in Agricultural Economics is tailored to produce highly skilled applied economists focused on quantitatively-based economic research and analyses of managerial and policy questions.

Extension Education. Extension education programs within the Department respond to the increasing complexity of the issues facing agriculture, agribusiness, and rural communities. This complexity arises, in part, from the increase industrialization and globalization of the agricultural sector. On-going, in-depth programs to address needs of farmers, ranchers, agribusinesses, and communities, are nationally recognized in agricultural policy, financial and risk management assistance, marketing education, computer applications, and economic development. Success in obtaining external grants, contracts, and user fees have contributed to the development of these highly innovative programs. Extension faculty contribute measurably to the competitiveness of Texas agriculture through economic evaluation of technology, adoption policy alternatives, and risk management strategies at the farm and agribusiness levels.

International Programs. The Department's complement of international programs is rapidly expanding thanks to the increasing reputation of its faculty. Recently, international activities and involvement of the faculty have reflected growing global economic interdependence in agriculture, agribusiness, and natural resource management. International dimensions are reflected in as much as 25 percent of the Department's overall teaching, research and extension activities. Examples of current international efforts include a collaborative support program with the Armenian Agricultural Academy, an assessment of South American inland transportation systems, a partnership with the Russian Ministry of Agriculture and Food, a project with the Ministry of Agriculture, Land, and Marine Resources of Trinidad and Tobago, and technical assistance to the Ecuador Ministry of Agriculture.

Nature of discipline

The discipline of agricultural economics is concerned with improving the economic rationality of decisions made within the agriculture, food, fiber, natural resource, and public sectors of the economy. This includes both group decision making and individual firm decision making. Policy analysis provides input into group decision making processes at the federal, state, and

community levels. Work in management, marketing, and finance, for example, provide input to the decisions of individuals and business firms. In today's information-based economy, one of the Department's most important roles is to create, apply, interpret and communicate new knowledge for the well-being of all Texans.

Economics also plays a key role in enhancing the value of publicly funded research. Economists provide research institutions with the tools and analysis they need to be accountable to society and better able to set research priorities and design research programs that are consistent with public policy objectives while meeting the standards of good science.¹

II. Statement of Purpose

Vision

The Department of Agricultural Economics strives to be a premier source of education, research, and leadership development.

This vision statement represents a consensus of the future to which the faculty and staff of the Department aspire. This vision statement is complementary to and supports the collective vision of the Agriculture Program.

Mission

The Department of Agricultural Economics engages people in the use of economic analysis for making private and public decisions involving agribusinesses, natural resources, and communities through the pursuit of learning, leadership, diversity, professional development, and excellence.

This mission statement describes the unique role that the Department serves in providing critical information for decision making purposes. This role supports the broader mission of the Agriculture Program.

III. Visionary Goals and Priority Objectives

Major Goals (5-10 years)

The following major goals support the Department's vision and mission. They represent the general ends toward which the Department will direct its efforts.

1. Respond to high-priority issues facing society in agribusiness (including food and fiber production, supplying inputs, processing products, and marketing), natural resources, environmental quality, and communities.
2. Teach students how to use economic and business principles and develop their leadership and communication skills to prepare them for employment and to continue life-long learning.
3. Conduct applied research programs to analyze business and public policy issues and respond to high-priority societal needs.

¹John M. Antle and Robert J. Wagenet, *Why Scientists Should Talk to Economists: the Role of Economics in Enhancing the Value of Publicly Funded Agricultural Research*, American Agricultural Economics Association and Economic Research Service, U.S. Department of Agriculture, Ames, Iowa, March 1995.

4. Enhance the use of economic principles and research methods in solving economic problems through disciplinary research and graduate and extension education.
5. Develop targeted extension and outreach educational programs to deliver relevant information and teach the use of economic and business principles in making decisions.
6. Collaborate with scientists and educators in other disciplines to incorporate economic analysis into multi-disciplinary programs.
7. Develop a network with former students to enhance student learning experiences and placement and to facilitate achievement of Department goals.
8. Create a professional environment conducive to promoting teamwork among faculty, staff, and students as they strive for excellence in the pursuit of the Department's goals.

Priority Objectives

Several priority objectives will be targeted to support and implement the vision, mission, and goals outlined for the Department. These objectives describe the targets for specific actions. They are quantifiable interim steps toward achieving the Department's mission and goals. They include teaching, research, and extension dimensions. They are not listed in order of importance.

The objectives are organized under two headings: Program Objectives and Operational Objectives. The Program Objectives relate to the changing needs and subject matter emphases for the future. They speak to changing program content.

Program Objectives

1. Create a Center for Technology and Information Management Economics.

- Establish and fund this new Center, which will develop research and graduate education in the economics of biotechnology, information technology, contract design, and supply chain management.
- Secure funding for eight to ten additional graduate research assistants to work in this area.
- Add two faculty positions emphasizing informatics and supply chain management.
- Add two faculty positions emphasizing biotechnology and contract mechanism design.
- Revise graduate coursework to emphasize the economic analysis of biotechnology and information technology impacts.

Background and Justification: Information technology is transforming the marketplace, and biotechnology will have profound effects on agricultural and renewable natural resource markets. This Center will provide a focal point for students, potential employers, outside research entities and the public-at-large to engage in solving the new economic problems that will arise with the new structure of food and agricultural markets. To lift this teaching and research area to national prominence will require new resources.

2. Establish a Natural Resource Economics and Policy Center.

- Establish and fund this new Center, which will:
 - Serve as a central entity for the study of policy issues related to the management of natural resources and environmental quality.
 - Evaluate economic and environmental implications of alternative natural resource and environmental policies and institutions.
 - Provide a forum for engaging stakeholders and public representatives in discussion of critical issues involving natural resource management and environmental quality in Texas.

- Add an extension specialist position to develop outreach and public issues education programs relating to critical issues and tradeoffs involving property rights, land, water, air, and marine resources.
- Expand course offerings in natural resource economics and policy, emphasizing water economics and climate economics, to meet the needs of students throughout the College and University.

Background and Justification: The Department has over ten faculty specializing in teaching and research related to natural resource management and environmental economics, including major programs in water resource management, global climate change, fisheries, and land use. These programs emphasize economic and impact analysis of major policy issues involving the use of natural resources and the stewardship of environmental quality. This center will serve as a focal point for research, teaching, and extension in the area of natural resource economics, environmental economics, and related policy analyses. From its location in the Department of Agricultural Economics, this center would work with federal and state agencies, the Bush School, and other administrative units within the Agriculture Program and the University that can provide expertise in support of policy analysis.

3. Expand Capabilities for Federal and State Public Policy Analysis.

- Increase policy research and education in areas of sector-level modeling, international trade policy modeling, and state-level public policy issues analysis in Texas.
 - Develop capability to conduct economic analysis of impacts of alternative natural resource technologies and policies—both at the sector level, community level, and the associated risk exposure at the firm level.
- Identify and develop resources to add three new faculty positions and expand funding for graduate assistantships and program operations.
- Emphasize the tools of economic and policy analysis in undergraduate and graduate course revisions.

Background and Justification: More informed policy makers lead to a better informed public policy process, which is a goal of policy research, extension and teaching. The emphasis in this areas is on the quantitative and qualitative analysis and description of existing policies and alternative options for dealing with policy problems affecting Texas producers, consumers, policy makers, communities, agribusinesses, and special interest groups. Current emphasis is on federal policies, but significant opportunities exist to expand analysis at the state level, including community impacts of changing policies.

4. Develop an Area of Emphasis in Rural Entrepreneurship.

- Establish and staff a Value Added Feasibility Center to evaluate the marketing and financial feasibility of value added initiatives by producers and existing agribusiness.
- Expand fee-based extension and continuing education courses to serve regional and national markets.
- Revise undergraduate course offerings to further emphasize the skills and knowledge required for entrepreneurship.

Background and Justification: The Department has the potential to become the pre-eminent rural entrepreneurship program in the nation. Increased funding from state, federal and private foundation sources are focusing on rural economic development. Feasibility analysis is a critical first step in planning and financing a new venture. The proposed Value Added Feasibility Center would partner with TDA in assisting groups in evaluating the marketing and financial feasibility of value added initiatives by producers and existing agribusiness. Web-based courses for managers of existing businesses as well as start-ups, and including coverage of more advanced management topics offer the potential for fee income.

5. Expand Efforts in Community Economics and Policy.

- Develop and deliver a Master Rural Developer Program and associated web-based curriculum and educational materials.
- Enhance research and teaching capabilities to model and analyze impact analysis and strategic community adjustments and to study alternative growth scenarios for rural areas.
- Identify and develop resources to add three new faculty positions in extension, research, and teaching.

Background and Justification: Community Economics involves evaluating the rationale for and the impacts of decisions that are made collectively and the impacts of outside forces on communities and other governmental and civic organizations. Community leaders and policy makers need help to understand the forces that drive local economies. Also education and research are needed to identify the impacts of local decisions and the economics of alternative development strategies. The most challenging feature of this area is the economic diversity of communities and rural areas. The diversity is seen in terms of natural resources, ethnic backgrounds, types of businesses, and government and civic organizations.

6. Develop a Center for Agribusiness Studies.

- Establish and fund the Center for Agribusiness Studies, which will:
 - Provide a vehicle for MAB and PhD students to conduct research and develop expertise in agribusiness management.
 - Develop, sponsor, and conduct executive education.
 - Establish partnerships with at least five key agribusiness firms
 - Focus on quantitative analysis, forecasting, and strategic management applications.
 - Develop and fund endowed chairs pertaining to this area of emphasis.
- Develop Internet-based agribusiness coursework that enhances both domestic and international graduate programs (e.g. the agribusiness degree program in Guatemala).
- Add an extension faculty position to respond to the need for human resource management education and executive development training.

Background and Justification: The Department currently has 14 faculty engaged in agribusiness-related management education, training, research, and technology transfer that enhances business-level decision making in the areas of value-added marketing, supply chain management, food systems management, consumer preferences, strategic and financial planning, and e-commerce. Industry trends, such as more value-added food processing and greater concentration of firm ownership, are changing the nature of agribusiness research. A vital role of the Center for Agribusiness Studies, which would work synergistically with the IFSE's Center for Consumer and Food Marketing Issues, would be to facilitate the delivery and dissemination of research efforts and address areas such as human resource management and executive development training. The Center for Agribusiness Studies would also foster linkages with agribusiness firms, which might include firm-sponsored internships, assistantships, fellowships, endowments, research support, and jobs for new graduates of the program.

7. Expand the Agribusiness Education in the Americas Program.

- Expand the offerings of Masters-level coursework in international agribusiness management based on the availability of funds to provide appropriate faculty incentives.
- Use the Internet and distance education technologies to deliver courses through joint ventures with the College of Business, other U.S. and foreign universities, public agencies, and private entities.

Background and Justification: The Department's involvement in international agribusiness education and training program was initiated in Guatemala five years ago. The effort was organized as an educational alliance between Texas A&M University faculty and the

Universidad del Valle de Guatemala (UVG). A similar Masters-level program was initiated in Nicaragua last year. A number of related educational development programs are also underway, including curriculum development, undergraduate student exchanges, graduate training at Texas A&M University, seminars, workshops, and consulting for agricultural industries in Central America. These programs also have generated a high level of interest across Central America, as indicated by the requests from Costa Rica, Panama, El Salvador, and Peru. Future plans call for cooperation with IICA and TAMU distance education experts to develop the most efficient teaching modules for delivery to students in the Americas.

8. Emphasize the Knowledge and Skills Needed to Anticipate and Manage Change.

- Continue and expand programs related to strategic risk management.
 - Develop partnerships to expand the availability of the FARM Assistance program to individual producers.
 - Expand the Master Marketer concept to develop a market risk management program for lenders, and initiate a comprehensive training program for new producers.
 - Develop capability to work with small agribusiness firms (<\$5 million sales).
 - Utilize database in all these areas to provide a vehicle for research, teaching, and extension to reach a broader audience in strategic risk management
- Add a research faculty position in marketing to analyze the emerging, changing, and existing markets for Texas food and fiber commodities.
- Add a research and teaching faculty position in price analysis to study the price discovery process in emerging market systems and assist extension specialists to conduct price and market outlook analyses.
- Maintain a strong complement of extension faculty with commodity market specializations to interpret changing market relations and participate on research teams through succession planning.

Background and Justification: Changing policies, regulations, technology, and ways of doing business, such as e-commerce, will impact the structure of agricultural market systems and affect Texas producers, consumers, policy makers, communities, and agribusinesses. To assist in anticipating and manage this change, these groups will need quantitative and qualitative analysis to understand the driving forces and their implications. Programs are needed to expand markets for Texas agricultural products, educate producers and other agribusiness on the use of tools that can be used to reduce or manage market risk, and educate clientele on the economic impacts of current and alternative marketing structures.

Operational Objectives

The Operational Objectives focus on how we deliver our programs through research, teaching, and extension education and outreach.

1. Develop discipline-based solutions to research problems while maintaining a strong customer-driven applied economics research.

- Develop fund-raising campaigns to endow core research functions in the Department.
- Provide incentives to produce peer-reviewed published output from research activities of all faculty.
- Strengthen emphasis in graduate education on importance of contributing to the published literature of the profession.
- Use the Internet and other techniques to disseminate research to key decision-makers in the emerging vertically linked food and agribusiness system.
- Strengthen partnerships with other Texas A&M programs and Centers through which clients in relevant emerging areas can be identified and new linkages established (i.e. Bush School, IFSE).

- 2. Elevate the stature of the Department's graduate programs to the top ten among all institutions granting similar degrees.**
 - Recruit more effectively for top prospects by developing a permanent source of funding for incoming graduate students.
 - Develop and support graduate curricula within each graduate degree plan that will provide students with a common body of knowledge and cutting-edge knowledge in their selected areas of specialization.
 - Identify and strengthen areas of specialization that are strategic to the Department's growth and success.
- 3. Manage enrollment and respond to demand for service courses to enhance the quality of the Department's undergraduate teaching programs.**
 - Obtain additional resources for the undergraduate teaching program to maintain status as one of the top ten undergraduate programs in the United States.
 - Increase the enrollment of minority students in Agricultural Economics and Agribusiness majors.
 - Provide high-quality management, decision-making education to COALS majors in marketing, finance, and management.
 - Expand internship programs to include broader student and industry participation.
 - Survey former students to evaluate current educational programs and plan future degree programs.
 - Develop entrepreneurship emphasis area.
- 4. Enhance core extension programs and develop new programs to more effectively respond to the needs in agricultural producers, agribusinesses, food and fiber industries, and communities.**
 - Enhance core programs in marketing and risk management, executive education, state policy analysis, and firm-level management information systems and decision support systems.
 - Sustain the Master Marketer Program and increase support of Marketing Clubs.
 - Develop new programs to reach producers and agribusinesses involved in the vertical coordination of food and fiber system with new skills needed in contract evaluation and negotiation.
 - Expand capabilities in the areas of distance education and information access.
 - Interactive Internet delivery of subject matter must be available to remain competitive in the education delivery market.
 - Develop education programs for customers to use information technology.
- 5. Integrate international dimensions into the Department's programs by fostering a supportive institutional environment.**
 - Educate Texas policy makers on the importance of international agricultural forces and factors impacting the Texas economy, its agricultural sector, and Texas communities.
 - Expand the international dimensions of undergraduate, graduate, research, and extension programs.
 - Create an institutional environment of incentives, policies, and infrastructure to encourage faculty to develop and participate in international activities at Texas A&M and in other countries.
 - Become the premiere resource on Latin American agricultural economics, trade, and policy and focus graduate student recruiting in Latin American countries.
- 6. Design the Department's administrative structure to enable the organizational agility needed for excellence.**

- Emphasize human resource management.
 - Attract and retain top talent as a high priority.
 - Develop the skills and knowledge of employees.
 - Provide appropriate incentives to develop programs and attract funding.
 - Meet the challenges of managing a diverse workforce.
- Use technology to expand capabilities and increase effectiveness.
 - Develop an investment strategy for obtaining computer hardware and software and for training and maintaining these systems.
 - Assure effective use of technology by offering continuing training programs.
- Change the name of the Department to more effectively communicate the breadth of its mission. Alternatives to consider include:
 - Agribusiness, Resource and Managerial Economics
 - Agricultural, Managerial and Resource Economics
 - Agribusiness and Resource Economics

Background and Justification: Changing the name of the Department would express this broader vision for the Department and more effectively communicate it to others. It would communicate to our potential customers what we have to offer.

IV. Quality Criteria and Benchmarks

The following indicators defines how the Department defines excellence. These are the benchmarks that will be used for assessing progress and performance. They indicate the effectiveness of the unit's performance and the public benefit derived from it.

Research Benchmarks

Extramural Funding. Although caution must be exercised to assure that contract and grant funding complements the Department's overall research goals and objectives, the level of extramural funding is an indicator of the perceived quality and demand for the Department's research services.

Refereed Publications. The number of refereed publication authored by Department faculty indicates peer acceptance and quality research output.

User Requests. This indicator is much more difficult to quantify. Examples include hits on the Department's web site, requests for publications, and requests for advice and input by customers. Nevertheless, this is an important indicator of the use and value of research.

Undergraduate Teaching Benchmarks

Numbers of Enrolled Majors. This indicator must be evaluated carefully. The numbers of students enrolled in Agribusiness and Agricultural Economics programs is an important gauge of demand. The number, however, must be evaluated in relation to the resources available. As the ratio of students to faculty increases, the quality of the program may be jeopardized.

Student Credit Hours. Indicates demand for service courses. Again, this must monitored in relation to the size of sections so that quality of the courses is not diminished.

Student Quality. The quality of students majoring in the Department is an important factor in their success and subsequent employment. The perception is the quality of our undergraduate students has increased, but identifying the appropriate measure is a challenge that we will continue to explore.

Placement. Placement of graduates is an important indicator of program success. These statistics will continue to be monitored with surveys at graduation and follow-up surveys of former students three to five years after graduation.

Graduate Teaching Benchmarks

Department Ranking. A recent study of PhD and MS granting programs in Agricultural Economics ranks our PhD program 10th and our MS program ranks 16th among all institutions.² These rankings although imperfect are important indicators. We want to move both of these rankings solidly to the top ten.

Graduate Students Recruited. Increasing the number of graduate students recruited to the PhD and masters programs is vital to sustaining a broad-based program serving a diverse student body. Funding for graduate research assistantships and graduate teaching assistantships is critical to attracting outstanding graduate students. To attract outstanding students, we must offer graduate stipends that are competitive with our peer institutions. In recent years, funds made available through the Texas Agricultural Experiment Station have diminished considerably. Requiring greater reliance on grant and contract funding.

Student Quality. The quality of entering graduate students in large degree determines their success in both graduate study and subsequent employment. The reputation of our graduate program ultimately hinges on the success of our graduates. GRE test scores are widely accepted as an indicator of student quality.

Placement. Placement provides an obvious gauge of program success. What indicates a good placement, however, varies with student interest and program of study. Master of Agribusiness graduates have primary interest in obtaining industry placement. Master of Science graduates may be interested in further graduate study or in employment in industry or government. PhD graduates may be interested in academic, government or industry employment.

PhD Recipient Publication History. Publications represent the transmission of new knowledge. Since new knowledge creation and its transmission are important dimensions of any research university, the publication record of our PhD graduates provides an important indicator of their academic success.

Extension Education Benchmarks

Participation in Programs. The numbers attending and their evaluations of Department-offered extension and continuing education programs will be used as indicators of quality. Repeat attendance, in particular, is a strong measure of reputation. Also considered in this indicator is the leveraged impact of participants (i.e. acres, receipts, organizational influence.)

User Requests. This indicator is difficult to quantify. Examples include hits on the Department's web site, requests for publications, and requests for advice and input by customers. Nevertheless, this is an important indicator of the use and value of extension programs.

Extramural Funding. Grant and contract funding is an indicator of the perceived quality and demand for the Department's extension programs. Fee income from continuing education programs also will be an important indicator in the future.

²Perry, G.M. "Ranking MS and PhD Programs in Agricultural Economics." unpublished manuscript, Department of Agricultural and Resource Economics, Oregon State University, 2000.

International Programs Benchmarks

Extramural Funding. The amount of contract and grant activity involving international projects will be used as an indicator of quality and reputation.

International Experiences for Students. The number of students participating in international exchanges, internships, and other learning experiences will be used as an indicator of success.

V. Resource Needs

This is an ambitious vision and plan that will require additional resources. We believe, however, that given the high priority needs, the demands for the Department's services, and the quality of its programs, these resources will be forthcoming. They will come from diverse sources, including budget increases, state and federal agencies, contract work, fee income for continuing education, and program development campaigns to build endowments for sustained funding of programs.

VI. Opportunities for Collaboration and Partnering

The Department will continue to emphasize collaboration and the development of partnerships to further its programs. Several examples were mentioned in the preceding objectives. In particular the Department will continue to emphasize its relations with the College of Business, the Department of Economics, the Bush School, the IFSE, and the other departments and centers that make up the Agriculture Program.

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