

Economics Research and Education Priorities

for an Efficient
and Sustainable
Food System



1997

The Council on Food, Agricultural and Resource Economics
An Organization of Agricultural Economists



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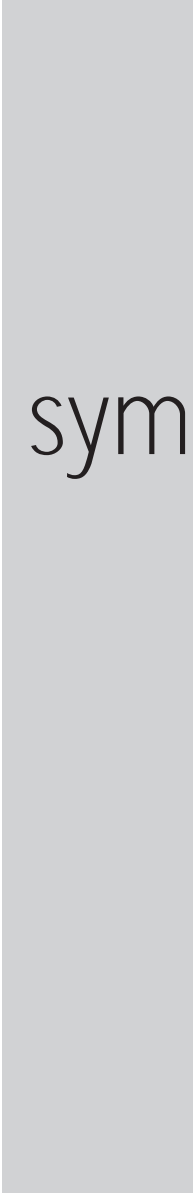
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This document and
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by the Council on Food, Agricultural and Resource Economics (C-FARE); the Economic Research Service, USDA; the Cooperative State Research, Education, and Extension Service, USDA; the Farm Foundation; the Crop Insurance Research Bureau; and ConAgra.

We are grateful to the following scientists who came to Annapolis, Maryland in November 1996 and gave presentations on issues in establishing priorities: Mary Ahearn, Economic Research Service, USDA; Walt Armbruster, Farm Foundation; Peter Barry, University of Illinois; John Bramley, University of Vermont; Sam Cordes, University of Nebraska; Stan Forbes, Virginia producer and former head of agricultural lending, Nationsbank; Paul Gunther, Queen Anne's County, MD, Extension; Richard Herrett, Agricultural Research Institute; Carol Kramer-LeBlanc, Center for Nutrition Policy and Promotion, USDA; Andrew Morton, Senate Agriculture, Nutrition and Forestry Committee, US Congress; George Norton, Virginia Polytechnic Institute and State University; Ken Olsen, American Farm Bureau Federation; T. Kelley White, Economic Research Service, USDA.

In addition, we would like to thank the individuals representing departments of agricultural economics at state universities and land grant colleges, the executive and legislative branches of the federal government, state and local governments, professional societies and industry. Their active participation made this document possible.

Economics Research and Education Priorities for an Efficient and Sustainable Food System

A clear statement of priorities is essential to effective planning for agricultural research and education. The priorities should directly reflect the currently important socio-economic problems and opportunities, and set the targets toward which limited resources for research and education can be applied.

A systematic process for identifying and establishing priorities will improve the effectiveness of the agricultural research and education system and heighten societal returns by allocating resources to areas of highest need. Systematic assessment and communication of priorities can only be effective, however, as long as both clients (i.e., users of research and education) and scientists are jointly involved. Clients can effectively articulate applied research and education needs, while researchers and educators can identify what is possible and how it should be addressed.

The agricultural economics profession under the leadership of the Council on Food, Agricultural, and Resource Economics (C-FARE) has engaged in a structured process that is intended to establish priorities and thus provide a timely information base for planning research and education programs. The priorities generated through this process complement efforts by U.S. Department of Agriculture agencies, state universities and land grant colleges of agriculture to establish priorities through goal-driven strategic planning and assessment. They are also intended to help target competitive and special research grants to important problem areas in the social sciences.

the priority setting process

The priority setting process in agricultural economics followed three basic steps, including focus groups of research users, a survey of agricultural economists, and a priority-setting workshop.

STEP ONE:

The Focus Groups

The initial step focused on research priorities for agricultural economics, as identified by client or user groups¹. In this effort, users, or potential users, of agricultural economics research were organized into 10 focus groups of 15-20 individuals based primarily on their subject expertise. Included among the subject matter areas were farm and commodity analysts; agricultural finance and inputs; marketing, processing and trade; natural resources; international development; domestic rural development; food and consumer analysis; public decision makers and advisors; and agricultural physical scientists. The subject matter orientation allowed the groups to focus on well defined, homogeneous issues, although considerable diversity characterized each of the groups. The central question addressed during the focus group discussion was:

“If you could fund agricultural economics research, what issues would be addressed by your research program?”

The ten groups identified approximately 750 priorities for agricultural economics research with 89 considered high priority areas. Many of the priorities were similar across groups, but critical differences occurred as well. The focus group results were synthesized into an aggregate compilation, which served as input for subsequent steps.

¹ This effort was cosponsored by the Economic Research Service, USDA; the American Agricultural Economics Association; and the Cooperative State Research Service, USDA (currently known as the Cooperative State Research, Extension, and Education Service).

STEP TWO:

A Survey of Agricultural Economists

The second step involved a survey of agricultural economists to self-identify priorities using the results from the focus groups in the first step as part of the survey content. The goal was to elicit responses from the respondents about the relative importance of a set of potentially important issues in agricultural economics research, outreach and resident instruction. A sample of 1,381 members of the American Agricultural Economics Association was drawn from a list of 2,594 domestic members. The response rate of 68 percent represented a weighted total of 1,766 agricultural economists. These survey responses were also compiled and used as input to the final step.

STEP THREE:

The Priority-Setting Workshop

The third and key step of the priority process was a workshop in which the attendees used the summary results of the first two steps to determine, through a structured voting process, the most important issue areas and the priority initiatives within each area. Their department heads (or equivalent) nominated the agricultural economists in attendance and 100 non-academic organizations were invited to send a representative. Special efforts were made to ensure representation from smaller agricultural economics departments and from the 1890 institutions. All attendees were provided advance copies of the results from the focus groups and survey.

A total of 80 agricultural economists and some non-economists participated in the conference, representing the subject matter areas comprising agricultural economics. Approximately, two-thirds of the attendees were from academic institutions and one-third from industry, government, trade associations, and special interest groups. All of the attendees had significant

professional leadership qualities, and considerable breadth in their understanding of and contributions to the agricultural economics profession.

The conference began with an introduction and overview to educate participants about priority setting principles and how other disciplines have benefited by establishing priorities. Next, the results of the focus groups (step one) and the survey of agricultural economists (step two) were reviewed and discussed to provide context and background to participants. Finally, a panel of “users” of agricultural economics research discussed their concerns about and interests in agricultural economics research and education.

The afternoon session of the conference consisted of six breakout groups, each charged to use a nominal group technique to discuss key issue areas and generate priorities. The initial question posed to the breakout groups was:

“What are the most important economic, social, or policy issues toward which agricultural economic resources should be directed over the next three to five years?”

A structured elicitation and voting process narrowed the list down to the top five to seven issues for each group.

The next question the groups addressed was:

“What are the top priorities for research, extension, and teaching for the top ranking issue areas?”

Ten broad priorities were identified with over 150 specific initiatives included within the major categories. The final step involved voting by all conference participants. Participants had 14 votes and were required to allocate at least one vote to a teaching priority, and one vote to an initiative in at least seven of the other broad priority areas.

Priority Areas and Initiatives in Agricultural Economics Research and Education

The ten broad priorities for research and education, each with three specific initiatives, are identified below. The priorities are listed in order by the number of overall votes they received. A complete listing of initiatives is in the appendix.

PRIORITY ONE:

Identify Economic and Social Consequences of Environmental Regulation

Mechanization, new cultivation practices, chemical use in crop production, and more concentrated, technology-based, livestock production have led to substantial gains in resource productivity in agriculture and a stronger competitive position for U.S. agriculture in world markets. However, other costly effects not reflected in market prices have included the degradation of soil, air, and water in some areas. Concerns about the management and control of natural resources and sustainable agricultural systems have come to the forefront, especially in the increasing numbers of areas where the urban-rural interface is most intense. These concerns have led to increased public pressure for information about the value of non-market goods, such as environmental amenities, and the costs and benefits of government regulations.

Priority Initiatives

1. Assess the benefits and costs of government regulation affecting agricultural production and the environment.
2. Design and evaluate alternative policies and institutions to mitigate negative environmental impacts of production agriculture.
3. Develop more quantitative and qualitative assessment tools of non-market/environmental goods.

PRIORITY TWO:

Improve Farm Income and Risk Management Tools

Concerns about farm income and risk management have been heightened by changes in the 1996 farm legislation that decouple farm marketing and production decisions, allow greater volatility of commodity prices, and shift risk bearing from the public sector to the private sector. Synthesizing information, improving expectations, and effectively managing new and traditional sources of risk are essential to the long-term viability and performance of farm businesses.

Priority Initiatives

1. Assess ways to measure and manage risk in a new, globalized, vertically coordinated food system for an expanded clientele base.
2. Analyze specific risk management strategies, instruments, and portfolios—especially new instruments and arrangements.
3. Assist farmers and lenders with the adoption of improved financial accounting and reporting systems.

PRIORITY THREE:

Examine the Impacts of the Changing Farm and Agribusiness Structure

The U.S. agricultural system is experiencing increasing consolidation of production units, and greater coordination and concentration among the input, production, processing, and distribution stages of the system. These changes have profound implications for economic performance both within and beyond the agricultural system, and raise important questions about the goals and targets of agricultural and related policies.

Priority Initiatives

1. Analyze the forces driving structural change and concentration, and their impacts on the economic performance of vertically coordinated farming and agribusiness.
2. Determine the impacts of vertical coordination on market access, bargaining power, concentration, location of production, financial arrangements, rural communities and the environment.
3. Analyze the relationship between value-added for agricultural commodities and new product development, producer profitability, risk and market access.

PRIORITY FOUR:

Evaluate Trade Policies and Barriers

In a globalized economy, competitiveness in the international trade of agricultural inputs, commodities, and food and fiber products is a major contributor to economic growth and well being. Especially important are the emergence of new trade policies under the free trade directions of GATT, and the influence of environmental issues and regulations on trade and competitiveness. The public's understanding of these trade issues and impacts must be enhanced.

Priority Initiatives

1. Assess the benefits, costs and other implications of trade policies, government regulation, and institutional barriers on international trade.
2. Evaluate the relationships among trade, natural resources, and the environment.
3. Enhance public understanding of the economic impacts and consequences of trade.

PRIORITY FIVE:

Develop Effective Economic and Rural Community Development Programs

Improving the prospects for economic development in rural areas (domestic and international) continues as an important policy issue. Some rural economies thrive as a result of local industries, recreation and tourism, regional shopping centers and a healthy agriculture. Many other languish with limited opportunities for rural employment and income generation. It is especially important, in this latter case, to assist local governments and to work on problems and issues related to the development and mobilization of human capital.

Priority Initiatives

1. Create improved information to assist local governments in cost-effectively meeting demands for public services, financing public programs, providing infrastructure needs and designing incentives for private sector initiatives and involvement.
2. Improve understanding of the roles of human capital, social capital, and life long learning in rural economic development.
3. Ascertain the impacts of government programs on rural poverty.

PRIORITY SIX:

Assess How Changes in Consumer Demand Affect Health, Nutrition, and Food Safety.

Consumer demand has changed to reflect accelerated lifestyles, nutrition and health awareness, needs for greater convenience, and a more diverse population. These changes underscore the need for an improved information base to ensure a safe, nutritious, dependable, and affordable food supply for U.S. consumers.

Priority Initiatives

1. Assess the benefits and costs of public policies and government regulations affecting health, nutrition, and food safety.
2. Assess consumer preferences and demands, and their implications for production and marketing practices in the food system.
3. Increase multidisciplinary analysis of food science issues.

PRIORITY SEVEN:

Analyze Economic and Social Impacts of Consolidating Research and Extension Programs

The traditional organization of the U.S. agricultural research and education system has maintained separate experiment stations and extension services in the respective states with subject matter specialties organized largely along disciplinary lines. Tighter budgets, more specialized knowledge, and greater emphases on accountability in public programs are challenging this tradition, calling for greater emphasis on regional centers of excellence, multidisciplinary work, and closer linkages between research and extension. These pressures also demand greater interaction with the private sector in setting public agendas.

Priority Initiatives

1. Assess opportunities for regionalization of research and extension programs.
2. Change the reward systems for agricultural research to value more highly multidisciplinary and applied work.
3. Achieve greater coordination among research and extension, including involvement by stakeholders in prioritization, planning, and program evaluation.

PRIORITY EIGHT:

Examine Current and Emerging Information Technologies and Communication Systems

Fundamental transformations of information technologies, on a global scale, have enhanced the competitiveness of information markets and altered the traditional balance between public and private providers of information. The needs for timely, accurate, reliable, and targeted information systems for agricultural research and education have intensified, and raised critical questions about the appropriate delivery systems.

Priority Initiatives

1. Ascertain the benefits and costs of public versus private information, and the implications for delivery systems for agricultural research and education.
2. Redesign the delivery systems of the Cooperative Extension Service for more effective and timely performance.
3. Evaluate the value and use of precision technology and information in agricultural production.

PRIORITY NINE:

Improve Understanding of Economic and Social Impacts of Biotechnology

Biotechnology, including genetic engineering, has greatly advanced the role of science in agricultural production and throughout the food system. Potential productivity improvements are substantial. Many questions are raised, however, about the economic and social implications of these developments, the roles of the private versus the public sectors, and the public's understanding of these factors.

Priority Initiatives

1. Analyze how biotechnology affects farm size, production efficiency, competitiveness, trade potential, and other elements of economic performance in agriculture.
2. Evaluate the public versus private sector roles in the development of biotechnology.
3. Enhance the public's understanding about the benefits and risks of biotechnology.

PRIORITY TEN:

Invest in Human Capital Development

Higher education through the land grant colleges of agriculture is one basis for major long-term investments in human capital. Education creates employable skills and informed citizens. It also creates an awareness of opportunities provided by an information-driven, technologically-intensive and competitive global economy, and it stimulates creative thinking about the applications of new technology, institutional innovations, and practical knowledge to real life problems and issues.

Priority Initiatives:

1. Place greater emphasis in undergraduate curricula on understanding the global economy.
2. Renew the emphasis on competitiveness as a key economic concept in agriculture and agribusiness curricula.
3. Utilize more “real life” and experiential learning in the classroom.

using the priorities information

The set of issues identified previously represents a common voice for C-FARE and others, in communicating within the agricultural economics profession and to external stakeholders the high priority areas to which agricultural economists can make major contributions during the next three to five years. This set of priorities does not imply that all existing or additional resources should be directed or redirected in some lock-step fashion. However, the information contained here should be useful and helpful in informing decision making—whether it involves federal funding, possible revisions in annual Requests for Proposals by the National Research Initiative Competitive Grants Program or the Fund for Rural America, or the individual scientist as he or she contemplates future professional projects and responsibilities.

The set of priorities developed by the C-FARE-led process also relates closely to comparable materials developed by other organizations. For example, the Research, Education, and Economics (REE) mission area of the U.S. Department of Agriculture has established six broad societal goals to which the research and education programs of the federal agencies involved are oriented, and which apply to the state universities and grant colleges of agriculture through the federal/state partnership in agricultural research and education. The six REE goals are listed below along with the priorities described here for agricultural economics.

USDA REE Goals	Related Agricultural Economics Priorities
(1) An agricultural production system that is highly competitive in the global economy	(2) Improve farm income and risk management tools (3) Examine the impacts of the changing farm and agribusiness structure (4) Evaluate trade policy and barriers (9) Improve understanding of economic and social impacts of biotechnology (10) Invest in human capital development
(2) A safe, secure food and fiber system	(2) Improve farm income and risk management tools (3) Examine the impacts of the changing farm and agribusiness structure (6) Assess how changes in consumer demand affect health, nutrition, and food safety (9) Improve understanding of economic and social impacts of biotechnology
(3) Healthy, well nourished population	(6) Assess how changes in consumer demand affect health, nutrition, and food safety (9) Improve understanding of economic and social impacts of biotechnology
(4) An agricultural system that protects natural resources and the environment	(1) Identify economic and social consequences of environmental regulations (9) Improve understanding of economic and social impacts of biotechnology
(5) Enhanced economic opportunity and quality of life	(5) Develop effective economic and rural community development programs
(6) Enhanced communications and infrastructure for improved service	(7) Analyze economic and social impacts of consolidating research and extension programs (8) Examine current and emerging information technologies and communication systems

future activities and summary

The priorities described here are intended to have a three to five year life, although monitoring and adaptation will occur during this time frame to ensure that these components reflect new, emerging developments. Repeating the priority setting workshop and other stages towards the end of this time frame, perhaps in collaboration with other scientific disciplines, will maintain the dynamics of the process and allow for a coordinated, interdisciplinary approach.

Some strengths of the C-FARE-led process include: 1) the process was open and driven by both the “users” and “producers” of agricultural economics research and education; 2) it was systematic and grounded in information generated in diverse ways (i.e., focus groups, surveys, a workshop); and 3) it culminated in a face-to-face workshop that emphasized dialogue, participating processes, and decision making by the participants.

The ultimate goal of this priority setting process is effective, timely information and insights for the scientific community, science users, policy makers, and public and private funding sources.

Below is a complete list of research and education priorities and initiatives as identified by participants in the workshop on priorities for agricultural economics. The list is organized by the number of votes each item received, indicated in parentheses.

Priority One: Identify Economic and Social Consequences of Environmental Regulation

Issue Area: Agri-Environmental Tradeoffs and Property Rights Issues (163)

Priority Initiatives:

1. Assess benefits/costs of government regulation (27)
2. Valuation of nonmarket/environmental goods (15)
3. Design, evaluate alternative policies and institutions (14)
4. Conflict avoidance and conflict resolution programs (10)
5. Economics of sustainable agriculture (10)
6. Evaluate nonpoint pollution implications of pesticide and fertilizer runoff to build an effective information base for policy analysis, managerial decision making, and for education programs for K-12 (10)
7. Integrate economic with biophysical research (9)
8. Analyze resource management strategies, taking account of property rights, alternative water allocation methods, requirements for preservation of special lands and species (8)
9. Economics of waste management (7)
10. Understanding relationships between environmental regulation and trade (7)
11. Effects of environmental regulation on agricultural industry structure (7)
12. Economic implications of endangered species policies (7)
13. Economics of air and water quality (6)
14. Educate individuals, groups, government bodies about agri-environmental decision making (5)
15. Evaluate point-source pollution of concentrated animal production, conservation programs, etc. (4)
16. Economics of precision farming (3)
17. Agri-urban interface (3)
18. Economics of adoption of green technologies (3)
19. Economic implications of environmental quality policy devolution to states, localities (2)
20. Economics of wildlife management (2)
21. Estimating trade-offs among competing uses (1)
22. Evaluate economic implications of unfunded Federal Environmental Quality Mandates (1)
23. Identifying farm and ranch environmental management tools (1)
24. Develop agri-environmental leadership development programs (1)
25. Economics of IPM (0)

26. Assess quality, quantity of market intelligence on the issues (0)
27. Valuation of quality of life (0)
28. Communicate value of economics in environmental problems' solutions (0)
29. Environmental impacts of various economic uses of land (0)

Priority Two: Improve Farm Income and Risk Management Tools

Issue Area: Farm Management and Risk Management Issues (111)

Priority Initiatives:

1. Analysis of risk management strategies, instruments, and portfolios (especially, new instruments and arrangements) (33)
2. Adoption of improved financial accounting (14)
3. Managing risk in a new globalized, vertically coordinated food system for an expanded clientele base (13)
4. Measuring risk and new sources of instability in agriculture (13)
5. Risk management implications of policy reform (11)
6. Analyzing impacts of nonfarm income, resource ownership/leasing and changes in technology on the level, stability, and distribution of income in the farm sector (6)
7. Identify and understand existing use of various instruments/strategies (4)
8. Emphasize and integrate research and extension linkage in initiatives 1, 7 and 14 (4)
9. Relationship of precision agriculture to risk and income (3)
10. Improved price data (3)
11. Improved decision-support systems (3)
12. Develop "ideal systems" approach to business management in agriculture (2)
13. Rethink and/or improve upon traditional extension outlook programs (1)
14. Evaluate value-based marketing, including risk-return trade-offs (1)

Priority Three: Examine the Impacts of the Changing Farm and Agribusiness Structure

Issue Area: Farm and Agribusiness Structure, Industrialization and Globalization (101)

Priority Initiatives:

1. Determine impacts of alternative levels of vertical coordination in agriculture, on market access, bargaining power, location of production, financial arrangements, rural communities and environmental degradation (28)
2. Economics of vertically integrated farming and agribusiness (25)
3. Analyze forces driving change (12)
4. Effects of biotechnology and information technology on agriculture structure (9)
5. How concentration and integration affect distribution of wealth in national economy (8)
6. Evaluate costs and benefits, and efficiency implications of regulation of input use in agriculture, including labor, health, pesticide, and processing regulations (5)
7. Study, assist decision makers with optimal organizational strategies (4)
8. Assist in forming cooperatives, other alternative institutions (3)
9. Determine how vertical coordination affects the markets for economic information (3)
10. Gauge socioeconomic reactions to concentration (1)
11. Contrast contractual and market systems (1)

12. Identify the proper role for public institutions as integration increases (1)
13. Improve financial performance measurement as sector evolves (1)
14. Assist in managing change (0)
15. Create conglomeration and firm networks (0)
16. Extension programs for new entrants (0)

Issue Area: Adding Value to Agricultural Commodities (25)

Priority Initiatives:

1. Value-added in relation to producer profitability and market access (8)
2. Economic analysis of potential new products (6)
3. Value-added in relation to rural community viability (5)
4. "New Wave" co-ops for adding value (5)
5. Site selection analysis and education (especially, for co-ops and communities) (1)

Priority Four: Evaluate Trade Policy and Barriers

Issue Area: International Trade and Competitiveness (94)

Priority Initiatives:

1. Identification of, and quantification of implications of trade policy and institutional barriers (e.g., nontariff barriers) (20)
2. Trade and environment interface issues (14)
3. Benefits and costs of government regulation in relationship to trade and competitiveness (12)
4. Sound, quantitative estimation of market parameters on an international basis (11)
5. Increase understanding of the impact of trade among policy decision makers and the public (10)
6. Designing/evaluating institutional mechanisms for welfare-improving trade (7)
7. Evaluating implications of bilateral and multilateral trade relationships (4)
8. How to access international markets (3)
9. Analysis of international competitiveness of food firms (3)
10. World food demand and supply (3)
11. Driving forces, key trends, opportunities and barriers vis-a-vis competitiveness (commodities and products) under alternative scenarios (3)
12. Transferring/explaining to lay audience, trade policy and institutional barriers (2)
13. Improved understanding of trading partners (1)
14. Foreign investment versus foreign trade (1)
15. Lessons from producers in other countries (0)
16. Factor mobility dimension of international markets and trade (0)

Priority Five: Develop Effective Economic and Rural Community Development Programs

Issue Area: Sustainable Economic and Rural Community Development (Domestic & International) (87)

Priority Initiatives:

1. Creating improved information to assist local governments in cost-effectively meeting demands for public services, financing public programs, and infrastructure needs (20)

2. Role of human capital and lifelong learning in development (8)
3. Estimating impacts of government programs on alleviation of rural poverty (8)
4. Land use policy in relation to development (8)
5. Improved understanding of the economic dimensions of “social capital” (Bowling Alone) (7)
6. Development/assessment of sound economic development policy (6)
7. Rural community leadership, responsibility, and entrepreneurship development programs (5)
8. Potential of information age technologies to changes in the location of economic activity, employment, and place residence (4)
9. Designing policies and institutions to alleviate rural poverty (4)
10. Rural impacts of welfare reform (4)
11. Benefits and costs of government regulation in relationship to development (3)
12. Rural medical care services in a “managed care” environment (3)
13. Extend basic financial, business, and economic skills to rural community residents (2)
14. Financing of infrastructure replacement in rural areas (2)
15. State and local public finance issues within the context of “devolution” (1)
16. Nature of substitution of natural resources and non-natural resources within a development context (1)
17. Missed opportunities for extension by not doing more community development work (1)
18. Rural transportation issues (0)
19. Methodologies for measuring the performance of international development projects (0)
20. Transfer of information on cottage industry opportunities (0)

Priority Six: Assess How Changes in Consumer Demand Affect Health, Nutrition, and Food Safety

Issue Area: Health, Nutrition, Food Safety and Other Consumer Issues (79)

Priority Initiatives:

1. Costs and benefits of government regulation and other changes in public policy (25)
2. Assessing consumer demand and preferences, including implications for production practices (20)
3. Increase multidisciplinary work and approach to food science issues (14)
4. Impacts of information on food demand (6)
5. Valuation of improved public health (4)
6. Assessing demand for environmentally friendly production (3)
7. Assessing effectiveness of nutrition education (3)
8. Food access issues, especially for low-income and elderly persons (2)
9. Attribute and household production (2)
10. Work on Hazard Analysis and Critical Control Point (HAACCP) (0)
11. Consumer education (0)
12. Conflict resolution (0)
13. Consumer, economic, and social issues in relation to ANIMAL WELFARE (0)

Priority Seven: Analyze Economic and Social Impacts of Consolidating Research and Extension Programs

Issue Area: Modernization of Public Agricultural Institutions (51)

Priority Initiatives:

1. Explore opportunities for regionalization of research and extension programs (20)
2. Change rewards system for public research (11)
3. Assess benefits and incidence of private vs. public research (5)
4. Develop better techniques for estimating economic impacts of research (4)
5. Evaluate merits of distance education (3)
6. Economics of scale in research (2)
7. Evaluate markets and new clientele for extension services (2)
8. Develop new partnerships across public and private organizations (2)
9. Understanding new and expanded clientele (1)
10. Communicate values of research and education (1)

Priority Eight: Examine Current and Emerging Information Technologies and Communication Systems

Issue Area: Accuracy, Timing, and Access to Information (48)

Priority Initiatives:

1. Redesign extension information delivery systems (16)
2. Estimate the value of and evaluate how to use precision information in making production decisions (14)
3. Assess the nature and performance of information systems to distinguish among private and public values (14)
4. Develop extension programs that recognize audience segmentation with respect to information needs/access, and focus on under-served populations (3)
5. Analyze mechanisms for transfer of knowledge on and protection of property rights (1)

Priority Nine: Improve Understanding of Economic and Social Impacts of Biotechnology

Issue Area: Biotechnology and Genetic Engineering (34)

Priority Initiatives:

1. Economics of biotechnology (19)
2. Evaluate public vis-a-vis private sector roles (6)
3. Provide public education, particularly w.r.t. risks and risk communication (5)
4. Analyze impediments to biotechnology advancement (2)
5. Assess trade impacts of the availability of genetically modified commodities (1)
6. Explore and incorporate moral considerations (1)
7. Conflict resolution programs (0)
8. Gauge social acceptability (0)

Priority Ten: Invest in Human Capital Development

Issue Area: Teaching needs/issues (62)

1. Place greater emphasis in undergraduate curricula on understanding the global economy (20)
2. Utilize more “real-life” and experiential learning in the classroom (15)
3. Renew the emphasis on competitiveness as a key economic concept in agriculture/agribusiness curricula (6)
4. Train students to meet needs of food industries (5)
5. Greater emphasis on comparative economic systems (4)
6. Evaluate merits of distance education (3)
7. Emphasize basic statistical and risk concepts (2)
8. Greater emphasis on policy analysis—impacts on firms, consumers, and development (2)
9. Update courses/curriculum to go beyond traditional risk management strategies/tools (1)
10. Place greater emphasis on valuation/evaluation methodologies (1)
11. Add “value-added” issues and analysis to courses/curriculum (1)
12. Teach new trade theory (1)
13. Develop software, games, expert systems, etc. for classroom use (1)
14. Create and utilize various mechanisms (e.g., study abroad for international awareness) (0)
15. Integrate research issues in curriculum (0)
16. Cover agriculture-urban interface (0)

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C-FARE was created in 1993 to strengthen the national presence of the agricultural economics profession and to enhance its effectiveness. C-FARE is actively working to:

- Prioritize and publicize key economic issues within the research, extension, and resident instruction agendas;
- Help agricultural economists contribute more effectively to public and private sector decisions;
- Establish linkages with organizations and institutions for the benefit of the entire profession;
- Work with other disciplines on issues of mutual concern.

In pursuit of these goals, C-FARE will continue to conduct priority setting exercises for input into funding processes, develop non-partisan issue papers to enhance the policy dialogue, and hold policy briefings on key economic issues.

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