Iowa State University Extension
Update

ORGANIZATION

The Iowa Association of County Extension Councils has been organized and is functioning, the Citizens Advisory Council has been reenergized, and the Friends of Extension is now being given a county structure. The objectives are:

- Greater control and accountability of ISU Extension at the county level
- Improved visibility and access to ISU Extension educational and technical assistance programs
- Fuller engagement of ISU Extension with the Iowa citizens

BUDGET

The strategy for financing ISU Extension is responding to the national trends for funding public sector activity. Trends in the shares of our budget coming from Federal, State, County and other sources reflect these changes. To maintain and grow service levels, we are:

- Increasing user fees and cost recovery and grants and contracts funding, to leverage the Federal and State funding of ISU Extension
- Introducing an “Academy” that will offer more in depth short courses on a full cost recovery basis
- Experiencing an increase in the counties that are passing the referendum, increasing authorization for funding Extension programs

ISU EXTENSION AGRICULTURAL AND NATURAL RESOURCES PROGRAM

Headlines say it all: “Beef Consumption Drops 70% as Mad Cow Concerns Panic Europe”, “Skyrocketing Natural Gas Costs Impact Consumers and Farmers; Fertilizer Cost May Double or Triple”, “Japan Requires Testing of US. Grain for Starlink”, “Genetically Engineered Grain Doubles Vitamin A and D Production”, “California May Drop MTBE: Huge Market for Ethanol”.

Agriculture is experiencing rapid change. There are unprecedented opportunities to be exploited, and difficult pitfalls to be avoided. To help Iowa producers and agribusinesses understand the risks and rewards, and be prepared to meet the challenges of a new agricultural environment is the goal of the ISU Extension Agriculture and Natural Resources (ANR) Program. With a network of 100 County Extension Education Directors, 57 crop and livestock Field Specialists and approximately 75 campus based faculty and staff FTEs, ISU Extension is anticipating and responding to the educational needs and the practical challenges of a rapidly changing Iowa agriculture. ANR Extension annually has over 85,000 one-on-one consultations with producers and an participation of over 130,000 at our meetings. We are also using new technologies to make available information and assistance to those we serve. New initiatives are helping prepare agriculture for the future. Examples include:
• Eight Iowa producers became the first American farmers to become certified under ISO 9002, an international quality management system. They were part of an ISU Extension pilot project conducted in partnership with the Iowa DED, the Southeast Iowa Agricultural Advisory Council and the Colusa Elevator Company, Wever, IA.

• With assistance from ISU Extension, more than 300 farmers and agribusiness people have formed Ag Ventures Alliance, pooling their resources to further process their farm produce, and created Value Added Agriculture.

• The Iowa Grain Quality Initiative is working to create producer-controlled model supply networks. A core group of producers is working with ISU Extension to organize one or more operational demonstration networks of at least 100,000 acres each by the 2001 crop year.

• A coalition of fertilizer dealers, farmers, government agencies, ISU Extension and the Agribusiness’ Association of Iowa cooperated last fall to change the way nitrogen is applied to farm fields. See http://extension.agron.iastate.edu/NPKnowledge/

• The Iowa Grain Quality Initiative provided timely analysis of the StarLink Situation on its webpage (see http://www.extension.iastate.edu/Pages/grain/publications/starlink.html). In addition, it has scheduled a statewide ICN for March 8” to provide producers with information on how to address markets in the upcoming growing season.

• The Four Roads to the Future of Agriculture Conference was held on March 17, 2000. Over 100 farm leaders representing a wide range of farm and commodity organizations attended this conference. Each participant was asked to use the results of the conference to promote an ongoing dialog on strategic positioning and restructuring of Iowa agriculture (“4 Roads to the Future of Agriculture, PM-1854”). (see http://isufarmeconomymteam.org/)

• Demonstration watershed management projects are developing new more producer friendly approaches to environmental management.

• Growing and new multi county or regional programs, the Wallace Foundation, the Northeast Iowa Dairy Foundation, the Kitchen Incubator in Waterloo, the Iowa Industries for the Future program (this year focusing on the agriculture and bio products sector) are adding to opportunities for producers and agribusiness.

• The 4-H Youth Program enrollment will be at about 135,000 for this year, more than one out of four Iowa youth between 7 and 17 years of age, and is flourishing.
## Iowa State University Extension Expenses (State Fiscal Year)

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Frequently Accessed Extension Webpages

January 2001

Hits  User Sessions

Agriculture & Natural Resources Homepage
http://www.extension.iastate.edu/Pages/communications/ag/.................................4,911

Aquaculture http://www.extension.iastate.edu/Pages/communications/ag/aquacult.html

Crops
Agronomy Extension http://extension.agron.iastate.edu/
Ag & Biosystems Engineering Extension http://www.ae.iastate.edu/extension/outreach.htm
Drought 2000 http://www.extension.iastate.edu/Pages/communications/drought/
Iowa Manure Management Action Group http://extension.agron.iastate.edu/immag/........................6 10
Integrated Pest Management http://www.ipm.iastate.edu/ipm/.....................................332,552
Iowa Grain Quality Initiative http://www.exnet.iastate.edu/Pages/grain/.............................2,672
Plant Pathology Extension http://www.exnet.iastate.edu/Pages/plantpath/
Pest Management and the Environment http://www.pme.iastate.edu/
Manure Certification http://extension.agron.iastate.edu/immag/certificationFr.html
NPKnowledge http://extension.agron.iastate.edu/NPKnowledge/
Seed Science Center http://www.ag.iastate.edu/centers/sceds/
Soil and Land Use http://extension.agron.iastate.edu/soils/
Soybean Cyst Nematode http://www.scnfacts.org/
Sustainable Agriculture http://extension.agron.iastate.edu/sustag/
Water Quality http://extension.agron.iastate.edu/waterquality/
Weed Management http://www.wecdss.iastate.edu/.....................................................55,000 8,215

Farm Business Management
Beginning Farmer Center http://www.exnet.iastate.edu/Pages/bfc/
Economics Extension http://www.econ.iastate.edu/outreach/agriculture/
Farm Economy Issues http://isufarmaconomyleague.org/........................2,419
Strategic Advantage http://www.exnet.iastate.edu/Pages/communications/strategic_public/
Shifting Gears http://www.extension.iastate.edu/nwaeo/Off_Farm_Employ.htm

Farm Safety http://www.ent.iastate.edu/
Food Safety http://www.extension.iastate.edu/Pages/communications/ag/foodsafety.html

Forestry http://www.ag.iastate.edu/departments/forestry/ext/ext.html

Lawn and Garden http://www.hort.iastate.edu/pages/extnsion/e_frame.htm
Insect Information http://www.ent.iastate.edu/
Master Gardener http://www.hort.iastate.edu/pages/conshort/mnghome.html
Plant Disease Clinic http://www.exnet.iastate.edu/Pages/plantpath/pdcintro.html
Reiman Gardens http://www.hort.iastate.edu/pages/rgardens/d_frame.htm

Livestock
Dairy Team http://www.exnet.iastate.edu/Pages/dairy/
Iowa Beef Center http://www.ibc.iastate.edu/
Iowa Pork Industry Center http://www.extension.iastate.edu/ipic/...............................1,926
Animal Science Extension http://www.ans.iastate.edu/ext/ext.htm
Veterinary Medicine Extension http://www.vetmed.iastate.edu/units/extend/home.htm

Value Added Agriculture http://www.extension.iastate.edu/Pages/valag/ and
http://www.iowaagopportunify.org/..........................................................592
Impact of Legislative Funding, FY2001

In 2000, the Iowa Legislature appropriated $1,066,000 for value-added agricultural projects and $150,600 for the Food, Fiber, and Environmental Science (FFES) program as part of Extension 21. ISU Extension has worked with communities and individual entrepreneurs this past year to build long-term economic, environmental, and socially sustainable enterprises. Projects in the field and on campus were funded and have had the following impacts.

Value-Added Ag Field Projects

**ISO 9002 Certification** Eight Iowa producers became the first American farmers to become certified under ISO 9002, a universal quality management system used primarily by manufacturing and service industries in 130 countries. They were part of an ISU Extension pilot project conducted in partnership with the Iowa Department of Economic Development, the Southeast Iowa Agricultural Advisory Council, and the Colusa Elevator Company, Waver.

The ISO system depends on rigid documentation and helps producers improve operational efficiencies. Farmers must document what happens with their product every step of the way, from lot numbers of the seed corn to where the commodity was in the bin, to when the truck was cleaned, and so on.

The Colusa Elevator achieved ISO certification in February 2000 and is believed to be the only grain handling facility in the United States that is ISO certified for purchasing, warehousing, and delivering grain to regional, national, and international markets. At least two other Iowa grain handling facilities are undergoing ISO training. The pilot project will continue in 2001 with the training of 10 producers. Additional projects are under way.

Community Supported Agriculture (CSA)

Iowans consume more than $8 billion of food annually with less than 5 percent sourced locally. Through Community Supported Agriculture (CSA), ISU Extension helped facilitate and coordinate 22 groups of producers and communities who have an interest in developing local markets. This past year, more than 90 events at ISU featured locally sourced meals.

Niche Markets: Organic Soybeans

ISU Extension has worked closely with producers to examine market opportunities and niche...
development. A project to increase organic soybean production helped to source locally grown organic soybeans. A soybean processing company in west central Iowa was purchasing more than 50 percent of its organic soybeans from outside the United States. Developing Iowa and other domestic organic soybeans suppliers has allowed the company to purchase all of its soybeans within the United States.

**Ag Ventures Alliance** With assistance from ISU Extension, more than 300 farmers and agribusiness people have formed Ag Ventures Alliance, pooling their resources to further process their farm products. The alliance teamed up with a farmer-owned cooperative in Minnesota called Gold & Oval Eggs, helping them to increase their membership and build a $40 million egg laying and egg breaking facility in North Central Iowa. It helped create Midwest Grain Processors Cooperative, which is planning to develop an ag industrial park including a 40 million gallon ethanol facility. The ethanol plant would use about 15 million bushels of corn annually and cost roughly $50 million to construct. The alliance also is building a cooperatively owned dairy and developing options for soybean processing.

**Assistance for Farmer-Initiated Groups** ISU Extension started or assisted more than 60 community and farmer-initiated groups. This commitment ranged from facilitating a group during start-up to conducting in-depth feasibility studies for enterprises. For example:

- Small cow-calf producers in the Raccoon River Valley area have united in a cooperative marketing effort to increase the net value of their calves and increase their competitive advantage as smaller calf producers. The net value added per calf through this program for the 323 head was $4292 per head.
- ISU Extension is assisting several farmer groups who are looking at the dry corn milling industry as a way to add value to their commodity corn. Currently more than $175 million of investment is planned in these plants. If the proposed plants come to fruition, these projects will represent more than 500 jobs with an economic multiplier in which every dollar in the local economy turns approximately 2.5 times.
- South central Iowa beef producers, together as Chariton Valley Beef (CVB), have been searching for ways to add value to all segments of the beef industry. This year more than-200 producers have participated in programs offered by CVB. A direct marketing effort also was established.
- Corn producers in the Shelby County area have formed BioMass Agri Products (B/MAP); a corporation that is working to increase the returns per acre to Iowa’s corn farmers by uncovering new uses for Corn stover.
- Farmers in Worth County are exploring a restaurant and meat market at the Top of Iowa welcome Center where area farmers can deliver high quality products directly to consumers.

**Feasibility Studies for Value-Added Ag Businesses** ISU Extension developed several generic feasibility studies and organizational guides for starting value-added ag businesses. Groups can find typical break-even costs, market size and competition, regulatory requirements for the industry, and other tools.

According to Robert Butcher, president of American National Bank in Holstein; Iowa, “We
used the ethanol manual that ISU Extension provided as we began to develop the feasibility study for our ethanol plant. Everything that we needed to know was there for us to tailor for our local needs and develop all the financial projections. The manual saved us thousands of dollars in consulting fees that we were able to use for our project. The studies and more information can be found on the Web at http://www.iowaagopportunity.org.

**Iowa Quality Producers Alliance** ISU Extension helped 80 southwest Iowa farmers form Iowa Quality Producers Alliance (IQPA), a limited liability company. Their vision is to create a system in which grain producers are able to earn a fair return on their investment, maintain their independence, respond effectively to changing, enhanced-value grain markets, and participate in value-added supply chains and grain processing opportunities. Since January 2000, the IQPA board of managers filed articles of incorporation and developed an operating agreement for the company; successfully applied for a $20,000 grant from the Iowa Department of Economic Development to cover certain project development, legal, and consulting expenses; received donations totaling $3,000 from seven county Farm Bureau boards; conducted a membership survey; hosted informational meetings; and has been negotiating for specialty growing and merchandising agreements on behalf of the alliance membership.

**Iowa Farm Fresh Poultry, Inc.** With an ISU Extension grant, Iowa Farm Fresh Poultry, Inc. in southeast Iowa put together a resource handbook and organized an advisory panel that sponsored a conference on specialty-and niche poultry production. More than 65 people attended. Marketing studies have begun and the group is forming a cooperative to oversee production quality standards, processing, and marketing. The group is finishing its business plan and will begin an equity drive. Extension "provided technical and financial assistance to get our project up and running," a board member said.

### Campus Value-Added Ag Projects

Extension 21 efforts on campus included the following:

- The Iowa Grain Quality Initiative (IGQI) is in the midst of a project to create producer-controlled model supply networks. A core group of producers is working with ISU to have one or two operating demonstration networks of at least 100,000 acres each by the 2001 crop year. Capturing increased value for producers and local markets is the ultimate goal of the effort. Other projects include developing documentable quality control practices for specialty grains; defining environmental effects on soybean seed composition, and responding rapidly to key issues. For example, IGQI addressed StarLink™ corn issues through white papers published and made immediately available on the Internet. The papers focused on Iowa producers and agribusinesses, as well as consumer perceptions.

- In November 2000, the Iowa Beef Center (IBC) sponsored a conference focusing on environmental compliance and beef marketing. As part of that conference, IBC members drafted the Beef Feedlot Systems Manual to educate producers about the specifications and costs of various feedlot designs. IBC continues its work with the Iowa Department of Natural Resources and Iowa producers on environmental education and regulation, and
its formal partnership with the Iowa Cattlemen's Association in Iowa Quality Beef. Nearly 275 producers turned out to participate in an IBC-sponsored Iowa Communications Network (ICN) conference about management strategies for drought conditions. IBC collected and analyzed data from 60 producers and on more than 5,800 cattle to quantify the advantages or disadvantages of emerging value-based marketing programs.

- The Iowa Pork Industry Center (IPIC) sponsors educational programs to assist all segments of the industry on topics such as pseudorabies regulations and requirements, reproductive management, financial and production standards, meat quality, and employment issues. The toll-free PORKLine, (800) 808-7675, provides answers to questions about swine production, management, and marketing. Existing TEAMPork and FINPACK programs have joined to provide a holistic financial and production evaluation for pork operations. IPIC also has developed a series of demonstration and applied research programs to answer producer questions about costs and benefits of various technologies and to provide information on financial impacts.

Food, Fiber, Environmental Science (FFES) Program

ISU Extension 4H Youth Development offers the Growing in the Garden curriculum to children in grades K-3 to increase their curiosity about agriculture, natural resources, food, and people. Nearly 1,200 classroom teachers and 200 other educators including ISU Extension staff, Master Gardeners, health professionals, and naturalists have participated in four- to six-hour training sessions. Growing in the Garden participants are located in more than 80 Iowa counties. The training sessions include experiential activities to help educators use age-appropriate teaching strategies.

Evaluation efforts are under way. To date, 457 teachers reported using at least six hours of the curriculum with 10,430 students.

Development of the curriculum for grades 4-6 will begin in summer 2001. The curriculum will help students develop more critical thinking skills while they explore food, fiber, and environmental systems.

Partnerships with statewide groups have made it possible to extend this program to more youth. For example, active participation with the Iowa Nutrition Education Network (INEN) led to a source of funds and use of the Iowa Social Marketing Campaign called Pick a Better Snack. Through INEN and the Iowa Department of Public Health, Extension 21 FFES funds were used as matching funds to leverage an additional $50,000 from the USDA-FNP, Food Stamp Nutrition Education Program. These additional funds made it possible to print needed copies of the curriculum and conduct more trainings.

Extension 21 FFES was a partner in the Iowa Conservation Education Council outdoor classroom migrant program. Thirty-six grants, mostly for schools, were approved in 2000, many related to Growing in the Garden. Agriculture poster lessons developed with members of the Iowa Agriculture Awareness Coalition were distributed at each Growing in the Garden training.
INTRODUCTION

Iowa State University Extension held the Four Roads to the Future of Agriculture Conference March 17, 2000. Agricultural leaders from across Iowa attended the conference to discuss the skills, resources, and strategies farmers will need to make their way in the future, no matter which road they choose: commodity farms, product farms, direct marketing/specialty farms, and multiple-income farms.

Commodity farms are those which produce commodity crops and/or livestock for sale through open markets. Product farms produce specific crops and livestock for contract sale through the supply chain. Direct market/specialty farms produce specialty crops and/or livestock for direct sale into retail or niche consumer markets. Multiple-income farms are those which derive a portion of their income from off-farm sources.

Each of the four farms described are not mutually exclusive. That is, some farming operations may involve a combination of two or more of the practices used.

Although each of the four farms requires its own unique set of skills, resources and strategies, many are common to the four types of farms. Regardless of the type of farm a family chooses to operate, the following skills and resources should be available and strategies followed:

SKILLS

Business and financial skills are a necessary requirement for any type of farm. Farmers must be able to manage the finances of their businesses and assess risk. They should be adept at organizing, maintaining quality, analyzing costs, selecting options, and keeping records. Consumer awareness also is vital to all farming operations.

AU farm families need mechanical skills to keep everything running and an appreciation for natural resources.

RESOURCES

Land, transportation, and credit are among the most important resources needed to run any type of farm. Location is vital, although the location requirements vary according to the type of farm. For example, product farms require land isolation, whereas direct market/specialty farms require access to adequate population bases.

Likewise, the need for credit can vary according to the type of farm. Commodity farmers may need credit to obtain working capital, whereas product farmers who raise crops that require years to mature may need credit for long-term financing.

Knowledgeable support people and consultants are key resources to any type of farm, as is available labor when needed.

STRATEGIES

The final step to success is using the skills and resources within a good strategy. The best strategies look at long-term goals and are flexible enough to reach those goals. They include time management, networking, forming partnerships, business planning, and risk management.
Within each of the four roads to the future of agriculture is a unique subset of skills, resources, and strategies. These are the tools a family needs to succeed with their chosen style of farming.

COMMODITY FARMS

SKILLS

Commodity farm families must possess technical knowledge and skills for high-volume production of the commodities they sell through open markets.

Specific marketing expertise is needed to maintain an awareness of consumer and economic trends and control costs. Human resource skills are needed to instruct, coach, and communicate with employees as well as to manage employees or contracted help and services.

Commodity farmers particularly need information and computer skills to keep abreast of government programs and to access and analyze information. Communication skills help farmers negotiate the lowest input costs and work with landlords.

RESOURCES

One of the most valuable resources for commodity farmers is a large information base that helps turn information into useful actions. Information is available from crop scouts, global condition reports, production sources, independent crop advisers, and market professionals.

Technical resources are available from a variety of sources, including satellite information services and the Internet.

Government resources provide program support such as market development and continued access to unbiased market research.

Finally, rural infrastructure, such as roads and bridges, provides farmers with the resources they need to operate efficiently.

STRATEGIES

Successful strategies for commodity farms should include technical components such as use of government programs and philosophical components including anticipating future markets, early adoption of new technologies and production advances, and development of new skills. They also should include plans for cost containment and diversification. Finally, commodity farmers should develop and follow successful marketing plans.
SKILLS

The skills needed to succeed as product farmers range from consumer awareness to specialized production. The producer must have the ability to know what sells.

To be adept at marketing, the farm family must know the necessary traits of the product, its specifications, and the competition. Legal skills are required to understand liability issues.

Personnel skills enable producers to work for and with others, inspire loyalty, negotiate, and receive instructions and advice. Good employee management skills, including communication and conflict management, are critical as well.

RESOURCES

Opportunities themselves are an important resource for product farmers. These individuals and families should draw on network contacts and hire contractors with economic and social stability.

Information about how the commodity is used and how it impacts the environment is a useful resource. Legal resources such as lawyers and third-party negotiators are helpful for resolving conflicts.

Additional resources include quality assurance plans and specialized grain storage units.

STRATEGIES

As product farmers strategize, they should first consider whether the product to be grown suits the location and geography.

Product farmers should be concerned with intellectual property, as well as controlling information about the commodity, to build strength in the marketplace.

Perhaps most important, product farmers need to plan to build relationships with everyone from colleagues to end users of their product.
DIRECT MARKET/SPECIALTY FARMS

SKILLS

The personal skills needed to succeed in this area are many. They include the abilities to adapt and change, identify markets, find new opportunities quickly, prioritize, focus, take risks, and anticipate future trends.

Patience, creativity, and interpersonal skills are a must. Specialty crop producers must have the skills to develop relationships with customers based on trust and confidence, as well as create excitement. Communication skills are key, as are negotiation, customer service, and the ability to tolerate ambiguity.

Legal skills are needed to know the implications of labeling and claims. The specialty producer must be adept at marketing. This includes experience with advertising, research, packaging and displays, quality control, product differentiation, public relations, and an understanding of trends.

RESOURCES

To succeed as a direct market/specialty farm, producers need access to specialized information such as consumer preferences, food safety and nutrition information, regulations, certification programs, inspection procedures, and alternative markets. Producers also need various resources such as flexibility in equipment.

STRATEGIES

The most important piece of this strategy may be doing homework. Demand must be created, the product must be differentiated from others, and the product must be produced to consumer specifications. The product could be marketed as locally grown, with emphasis on its unique aspects. Customer expectations should be exceeded, to make the experience enjoyable for the customer.

Producers must understand that they are selling food, and that it must be consistent and readily available. In the early stages, another source of income should be available.
MULTIPLE-INCOME FARMS

SKILLS

Success for multiple-income farmers requires a unique set of skills. The most important are personal skills. Families who operate multiple-income farms must have the abilities to determine what they can and cannot do, learn new skills, focus on the job at hand, and work more than eight hours per day.

An off-farm job must be compatible with farming, and the producer should be able to enjoy his or her off-farm job. It is helpful when skills learned at the off-farm job can be applied to the farming operation. The multiple-income farmer should be adept at managing time and stress.

Some additional skills which are helpful include the ability to communicate openly with the family, and an awareness of individual limits.

Personnel skills encompass the abilities to appreciate the off-farm work, the farm work, and the family, as well as the ability to delegate responsibility.

RESOURCES

As with the skills required of multiple-income farmers, the necessary resources are unique. Personal resources include family support, adequate time and energy, and the ability to make time for oneself. Outside of work, multiple-income farmers need resources such as daycare and a network within the community or family to draw upon during peak labor periods.

Resources that help support the business include access to custom services and access to services at off hours. Access to identity-preservation programs also can be helpful. Reliable transportation, jointly owned equipment, and an understanding landlord are additional resources.

STRATEGIES

The strategies for success on multiple-income farms involve a great deal of balancing. First, multiple-income farm families should enjoy what they do. They should balance work and family and negotiate priorities as a family.

A stable cash flow should be created and an off-farm job should pay enough to cover basic living expenses. The farm should not require a full-time commitment. The strategy should include the delegation of responsibility as well as market assessment, appropriate production, and equipment selection. Finally, as the strategy is mapped, the multiple-income family should know why it has chosen this lifestyle.
OTHER OPPORTUNITIES

During the Four Roads to the Future of Agriculture Conference the agricultural leaders identified two possible additional opportunities for success in agriculture. Those approaches, though not discussed in detail, are considered viable options for farmers. Diversity farms are those which integrate crops and livestock into a single system. Custom service providers and custom crop producers are those who provide labor and equipment, but do not own or rent farm land.

CONCLUSION

We hope the information included in this brochure will help farm families more clearly identify future directions for their operations. For those working with the farm sector, the information should assist in providing the services and educational programs needed by a diverse audience.

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