

MINUTES OF THE HOUSE COMMITTEE ON AGRICULTURE.

The meeting was called to order by Chairperson Eugene Shore at 9:00 a.m. on February 15, 1994 in Room 423-S of the Capitol.

All members were present except: Representative Bryant - Excused
Representative Gatlin - Excused
Representative Lawrence - Excused
Representative Reinhardt - Excused
Representative Rutledge - Excused

Committee staff present: Raney Gilliland, Legislative Research Department
Jill Wolters, Revisor of Statutes
Kay Johnson, Committee Secretary

Conferees appearing before the committee: Marc A. Johnson, Interim Dean of Agriculture, KSU
George E. Ham, Kansas Agricultural Experiment Station, KSU
Richard D. Wootton, Associate Director of Extension, KSU
Patrick H. Thiessen, Cargill Flour Milling (retired)
Curtis Willhite, Kansas Citizens For Extension Education

Chairman Shore called the meeting to order and asked committee members to review the minutes of February 8, 9 and 10, 1994. If no corrections are received by 5pm today, they will be considered approved. Chairman Shore then introduced Marc A. Johnson, Interim Dean of Agriculture, K-State University, who will be reporting on Research and Extension Planning, attachment #1.

Dean Johnson spoke about the close working relationship between the Kansas Cooperative Extension Service and the Kansas Agricultural Experiment Station and said they provide research and education in all fields. He said research and extension serve as partners in the economic development of Kansas and gave examples of research and extension successes.

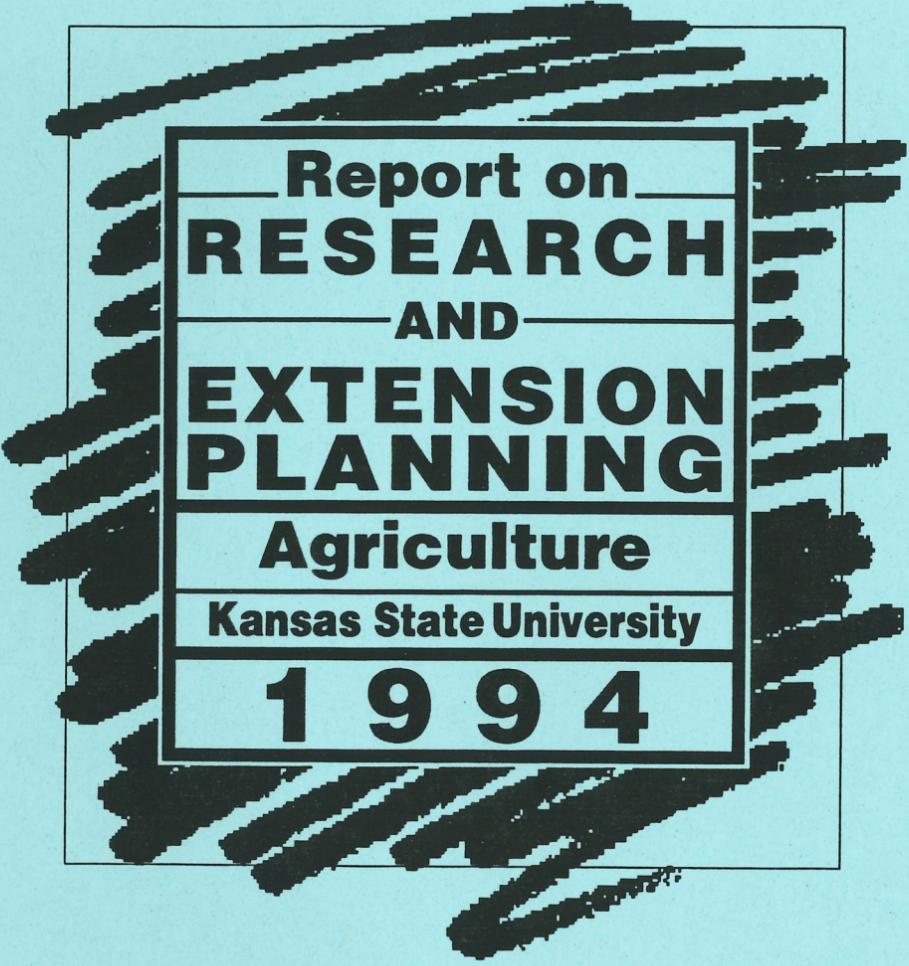
George E. Ham, Associate Director, Kansas Agricultural Experiment Station (KAES), spoke about setting priorities and allocating resources for KAES research programs. The mission of the KAES is to conduct basic and applied research to ensure a food supply, preserve the natural resource base and promote a desirable quality of life in Kansas. Mr. Ham summarized by saying research helps users solve practical problems and create new opportunities.

Richard D. Wootton, Associate Dean and Associate Director of Extension, began by giving an example of extension services provided as a result of flooding last summer. He said the strength of Cooperative Extension has been grassroots input into the educational agenda. Extension planning pursues an aggressive teaching program and will continue to maintain contact with customers and focus on their needs. He supports the formation of Extension Districts and said one area is in the process of applying for this.

Patrick Thiessen, General Manager, Cargill Flour Milling, Southwestern Region (Retired), addressed the value of agricultural research from the viewpoint of a flour miller. Research will pay for itself as milling companies will remain in Kansas with the economic benefits they provide.

Curtis Willhite, President, Kansas Citizens For Extension Education, talked about building leadership through Extension education. As manager of his own family farming corporation, he has utilized the Extension Service and been a beneficiary of many of the Extension programs. He stressed that leadership training is built into the entire Extension programming system and is a valuable asset to Kansas communities.

The meeting adjourned at 10:00am. The next meeting is scheduled for February 16, 1994.



Report on
RESEARCH
—AND—
EXTENSION
PLANNING
Agriculture
Kansas State University
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HOUSE AGRICULTURE
2-15-94
Attachment #1

THE PROMISE OF INTEGRATED EXTENSION AND RESEARCH PROGRAMS

*Marc A. Johnson
Interim Dean of Agriculture*

INTRODUCTION

We are pleased with the close working relationship between the Kansas Cooperative Extension Service and the Kansas Agricultural Experiment Station. Those ties have been kept strong by housing discipline-related Extension specialists and research scientists in the same departments;

establishing Research-Extension Centers at Garden City and Colby; organizing Communication Forums in Biotechnology, Food Safety, and Agriculture Water and Environment; and creating a single budget for the Cooperative Extension and the Agricultural Experiment Station.

RESEARCH AND EXTENSION SUCCESSES

Experiment Station researchers have achieved substantial research successes in crop, soil, and range management strategies; livestock breeding and management; water and environmental quality and resource conservation; plant and animal protection; biotechnology; food safety; and value-added processing and development. Examples include:

- **Karl 92 Wheat:** This K-State release was the top performing variety in Kansas, Oklahoma, Missouri, and Texas in 1993. Karl 92's superior yield and protein content will add millions of dollars to the state and regional economy.
- **Crop Protection:** New resistant breeding lines could reduce losses to wheat streak mosaic virus (\$36 million annually) by 50 to 90 percent. Resistance has also been found to the wheat curl mite, the carrier for wheat streak mosaic virus.
- **Meat and Meat Products:** KSU scientists are working to add value to meat products by restructuring various cuts into higher value steak-like and roast-like products and by enhancing shelf life. Benefits could approximate \$100 million annually.

- K-State researchers have made major advances in helping producers improve reproductive efficiency. Losses approximate \$250 for each heifer that fails to become pregnant.

Cooperative Extension has built on that research base with effective programs in:

- Agricultural Sustainability and Profitability in Crops, Livestock, Farm Management, and Pest Management.
- Water and Environmental Quality
- Conservation of Natural Resources
- Rural Revitalization
- Solid Waste Management

Extension professionals help farmers institute sustainable, profitable, and environmentally sound farming and ranching business and production systems. They also help the rural and business community with information and referrals; leadership and analysis programs; and economic development and strategic plans.

FUTURE PRIORITIES AND THRUSTS

Many Kansas commodity, resource, and community leaders are asking the Experiment Station and Extension Service for expanded help and critical

services in solving important problems that impact our economic, resource, and production base.

For example, the Agricultural Experiment Station and Cooperative Extension Service have written strategic plans. Nine industry support groups, organized by the State Board of Agriculture, determined agricultural research requirements and industry needs. They suggested the need for agricultural research initiatives for wheat, feedgrains, oilseeds, horticulture, meat processing, livestock, grain processing, hay and forage, and agribusiness. The Kansas Ogallala Study Project recommended that education and research be increased to encourage water-use efficiency and extend the life of the Ogallala Aquifer.

To help meet those needs, the Cooperative Extension Service and Agricultural Experiment Station plan to continue priority programs and strengthen high-priority areas that include:

- **Wheat and Crop Genetics:** The release of improved Experiment Station varieties—wheat, sorghum, soybeans, alfalfa, etc.—significantly impacts the Kansas economy. Our initial emphasis will be in wheat genetics and the Wheat Genetics Resource Center.
- **Biotechnology and Biological Pest Control:** Increasingly, researchers must rely on biotechnological techniques, including recombinant DNA and molecular genetics, to manipulate useful genes, develop desired properties, and protect both plants and animals against insect and disease. We want to strengthen those programs.
- **Food Safety:** K-State, with federal and state support, has developed a leadership role in food safety, food quality, rapid detection, and processing strategies that bolster the Kansas economy. Strategies that enhance shelf life, speed contaminate detection, and support safe processing strategies will be important thrusts.
- **Value-Added Processing:** Specialized, value-added research facilities at K-State include a pilot flour mill; bakery; feed formulation plant; meat and poultry slaughter and processing facilities; and a full-line dairy processing plant. Products and processing techniques that add value to Kansas products will be a special focus.
- **Soil and Water Quality and Conservation:** The protection, conservation, and effective use of our soil, water, and natural resources are crucial to economic stability and agricultural and industrial production. We are committed to systematically strengthening our ability to conduct research in these important areas.

NEW DIRECTIONS IN AGRICULTURAL RESEARCH

*George E. Ham, Associate Director
Kansas Agricultural Experiment Station*

SETTING PRIORITIES

As we plan for new directions in agricultural research and set priorities, we must make sure our long-range and short-range plans are relevant to the needs of KSU Agriculture. We need to be flexible, ready, and proactive. We need to be able to anticipate problems in the agriculture and food system. Since we cannot be all things to all people, we must set priorities and conduct research on high-priority needs. In the end, we need to decide what to do and do it well. The priority-setting

process involves a large number of people and input from several sources. In allocating limited resources, it is essential to find the most promising ways to advance agriculture. Kansas Agricultural Experiment Station (KAES) research programs are project oriented, and selection is based on input from individual scientists, citizens, advisory committees, regional research committees, legislative directives, funding source, professional societies, national priorities, and others.

MISSION AND GOALS

The mission of the KAES is to conduct basic and applied research to ensure a plentiful, nutritious, safe, and acceptable food supply; preserve the natural resource base; and promote a desirable quality of life for the people of Kansas now and for the future; preserve the natural resource base.

Goals critical to the KAES research mission and unique within the state include:

- Develop resource-efficient plant and animal systems that conserve natural resources.
- Protect soil and water quality and conserve soil and water resources.
- Enhance diversity, productivity, and quality of food and fiber sources to ensure safe, stable, and acceptable supplies of food and raw materials for such needs as energy, textiles, and polymers.
- Promote improved dietary behavior and nutritional status for optimal human health.
- Achieve successful marketing strategies and global competitiveness of agricultural products.
- Improve the well-being of individuals, families, and communities to enhance their quality of life.
- Enhance the production, processing, storage, marketing, and distribution of agricultural products.

- Expand the knowledge base of agriculture and related areas.
- Enhance diversity of faculty and programs offered.

KAES goals are accomplished through unique program areas, including:

- Agricultural Product Development and Utilization
- Animal Systems
- Economic and Social Issues
- Environment and Natural Resources
- Food, Nutrition, and Health
- Plant Systems

Areas of Program Enhancement 1985-1993

- Biotechnology
- Changes in Rural Kansas
- Rain-fed Farming Systems
- Food Safety
- Forage-based Livestock Systems
- Molecular Biology
- Value-added Processing of Animal and Crop Products
- Water Quality
- Wheat Improvement

Areas of New Program Development are consistent with the KSU Role and Aspiration Report:

- Biological Pest Control
- Biotechnology
- Enhance Agricultural and Rural Economies
- Food Quality, Composition, and Desirability
- Food Safety
- Integrated and Sustainable Production Systems
- Molecular Biology

- Value-added Processing of Animal and Crop Products
- Soil and Water Quality and Conservation

Task Forces to Support Multidisciplinary Research

- Biotechnology
- Food Safety
- Soil and Water Quality and Conservation
- Others as Needed

SUMMARY

KAES research enhances the Kansas economy and helps Kansas farmers and ranchers remain competitive in a global economy. Because of strong linkages among academic programs, research, Extension, and international programs at

KSU, KAES research is readily utilized in the classroom and by Cooperative Extension, which transfers the information to business and industry and helps users apply it to solve practical problems and create new opportunities.

EXTENSION PLANNING TO INSURE CUSTOMER FOCUS AND PROGRAM RELEVANCE

Richard D. Wootton
Associate Dean and Associate Director of Extension

COUNTY EXTENSION COUNCILS

A major strength of Cooperative Extension has been the grassroots input into its educational agenda. In Kansas, this process is formalized

with county Extension councils playing a major role in issue identification, program prioritization, and resource allocation.

TOWN MEETINGS

In addition to the citizen input provided by 105 county Extension councils, eight town meetings were held in Kansas in October 1993. Meeting locations were chosen to obtain broad geographic distribution; community populations ranged from small to metropolitan and included Erie, Meade, Stockton, McPherson, Colby, Garden City, Olathe, and Wichita.

The meetings attracted nearly 300 residents, including many who have not been previously involved in Extension educational programs. Those in attendance portrayed a broader cross section of backgrounds and experiences than is typically represented on Extension councils.

ISSUE IDENTIFICATION

Each participant invested 4 1/2 hours in the town meeting process. They were asked to identify the most pressing concerns/issues facing their communities. This procedure identified and tabulated numerous citizen and community issues and concerns (the list was 16 pages long, single spaced). Some concerns dealt with over-regulation, government inefficiency, transportation, and even road and bridge repair.

However, the majority of issues included topics that Extension has either developed or could develop into educational programs. The issues aggregated into broad areas such as: strengthening communities; youth development; health, wellness and nutrition; family relationships and human development; managing family resources;

empowering leaders and volunteers; environmental stewardship and management; water resources; agricultural economic and social issues; livestock production and efficiency; agricultural processes and products; crop/plant production and efficiency; and crime, violence, and drugs.

Some of the more specific issues that received considerable emphasis were a need for improved parenting skills; better knowledge of basic family-level money management; employment opportunities and economic development; water resources management; and maintaining a strong local agriculture/agribusiness. There were other themes, including the perception that both families and communities lack cohesiveness, interdependence, and a concern for each other.

RESOURCE ALLOCATION

The implications from this process include reallocation of resources to better meet emerging societal concerns such as parenting; aging; family budgeting; producing and processing

agricultural products in environmentally sound ways; and using water wisely. Extension will continue to maintain contact with customers and focus on their needs and design programs

that deliver observable/measurable outcomes. Outcomes such as improved management of weed control materials have been demonstrated

and monitored in Northeast Kansas; less atrazine entered surface water as a result of these practices.

EDUCATIONAL IMPLICATIONS

From this series of town meetings we concluded that most Extension programs are timely and relevant. However, the challenge before us now is to coordinate and implement additional programs that address priority needs with quality educational programs. It is our intent to be

relevant, efficient, and effective in addressing the issues of the 1990s and the 21st century. The town meeting process has provided a better grassroots expression of need than we have had for a number of years.

THE VALUE OF AGRICULTURAL RESEARCH TO THE ECONOMY OF KANSAS

*Patrick H. Thiessen
General Manager, Cargill Flour Milling, Southwestern Region (Retired)*

CARGILL FLOUR MILLING

Until February 1, 1993, I was a regional manager for Cargill Flour Milling, which included supervision of five flour mills located in Kansas with a daily capacity of 47,000 cwt of flour. Our customers are primarily buyers for wholesale bakeries, private label family flour (grocery store flour), and export flour markets. We grind approximately 109,000 bushels of wheat each day that we operate. My company annually purchases up to about 100

million bushels of Kansas wheat (depending upon the quality of the wheat for the year) for our 20 mills located in Kansas and various other states. In addition, my company's Grain Division purchases many more bushels of Kansas wheat and other grains for resale in the United States and for export. However, I'm addressing the value of agricultural research only from the viewpoint of a flour miller.

FLOUR SPECIFICATIONS

Contrary to general belief, flour is a specification product made to suit end-use, customer needs for specific bakery products. To meet the needs of our flour customers, mills must identify and purchase the kinds of wheat that possess the necessary quality characteristics. To accomplish this task,

samples of wheat are gathered from country and terminal elevators; and the samples are tested for various baking qualities. U.S. mills use but do not rely on U.S. Grain Standards alone. Other tests are applied. Wheat not meeting milling and baking specifications is rejected.

MARKETING QUALITY WHEAT AND FLOUR

A flour mill somewhere in the world is the market for all wheat (except feed wheat and wheat for seed). U.S. mills need quality wheat to satisfy the U.S. flour market and will go to considerable lengths and expense to obtain it. With the privatization trend in foreign countries, bakers and mills in those countries also are beginning to demand wheat with desirable milling and baking qualities.

Quality milling and baking wheat is in short supply and has a greater market value than other wheat. Since Kansas wheat is in competition with wheat grown in other states and countries, it is extremely important to the well being of our agricultural economy in Kansas to be a consistent source for premium wheat varieties. Protein levels alone do not identify quality wheat. Premium varieties are a very valued source for consistent milling and baking quality wheat, and varieties are developed through agronomic research.

VARIETY DEVELOPMENT

Wheat variety development is a continuous process. New varieties need to be continually developed to meet changing market, grower, environmental, and variety renewal needs. The lead time needed to develop and to market varieties presently varies from 8 to 10 years. Lead time may be reduced by using new biotechnological

techniques. However, this is a resource- and time-consuming process and will still require substantial lead time.

Since wheat varieties do not lend themselves to hybridism and thereby to private control, the principal responsibility for variety development in Kan-

sas is Kansas State University. K-State possesses the finest hard red winter wheat seed bank in the United States and has world class scientists and graduate students conducting the research. Quality

wheat and other grain varieties are developed for particular climatic and soil conditions; therefore, unlike many other types of research, the value of agronomic research tends to stay in Kansas.

PREMIUM VARIETIES

It should be a goal of the Kansas Legislature to protect and enhance the Kansas agricultural economy and statewide taxable income by providing the funds necessary for adding value to the wheat crop through the development of premium varieties. If growers will learn to target market needs, to keep premium wheat identity preserved and in their control, and to market

their differentially separated wheat a little differently than they have in the past, much of the added value for growing premium varieties can remain with the grower. Growing premium wheat in Kansas will also help insure that milling companies will remain in Kansas with the economic benefits they provide.

SUMMARY

Of course, the value of agricultural research applies not only to grain and field crops but also to horticultural crops and the livestock industry. Such research will help attract and retain related processing plants in Kansas.

The Kansas Legislature should give a high priority to agricultural research at K-State. Because of the lead time needed, the priority should not be postponed.

BUILDING LEADERSHIP THROUGH EXTENSION EDUCATION

*Curtis Willhite, President
Kansas Citizens for Extension Education*

The Kansas Cooperative Extension Service has often been referred to as one of this state's best kept secrets. The frequency with which Extension was mentioned at the recent Governor's Forum on Rural Kansas shows that it is no longer a secret. The Extension Service was recognized for its ability to provide extensive educational programs to every community in Kansas. This makes it invaluable in the process of rebuilding communities in rural Kansas. It was noted in group discussions that Extension personnel and programs are capable of helping communities address and find solutions to their many problems.

One particular aspect of Extension has remained a secret: the leadership training that is built into the entire Extension programming system. The leadership enhancement provided through 4-H and youth development programs is a readily recognized state asset. But, the leadership training that adult volunteers learn while working with 4-H programs is overlooked when talking

about the 4-H experience. Extension has always offered varied levels of adult education for all of Kansas' communities, and often Extension is the only provider of continuing adult education in those communities. Other organizations and community groups rely on Extension to lead them in a wide variety of projects and tasks.

The Cooperative Extension Service itself has realized how valuable this leadership training is to Kansas communities. Because of this, as an organization, it is focusing renewed efforts into expanding programs that can further enhance leadership training in every community. The main theme that shows up when any group meets to discuss ways to strengthen a community is the need for capable leaders and leadership enhancement at every level. Ideas from dedicated, capable people working together can identify and solve complex problems. Extension builds capable leaders and provides the environment for people to work together.



Agricultural Experiment Station, Kansas State University, Manhattan 66506-4008

Special Report

January 1994

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