April 1990

Self-Study Report: 03 Strategic Plans
STRAIGHTIC PLANS

TABLE OF CONTENTS

THE STRATEGIC PLANNING PROCESS ........................................ 58

APPENDICES

I   A Strategic Plan for the Institute of Agriculture and Natural Resources ....................... 59

II  Action Plans for the Institute of Agriculture and Natural Resources .......................... 60

III Strategic Action Plans for the Department of Agricultural Education .......................... 61

3.1 Research and Development ............................................ 62

3.2 Undergraduate Curriculum .......................................... 63

3.3 Center for Leadership Development .................................. 65

3.4 Recruitment, Retention, Placement .................................. 67
THE STRATEGIC PLANNING PROCESS

Much time and effort have gone into the Institute of Agriculture and Natural Resources (IANR) and the Department of Agricultural Education's strategic planning effort. Coincidentally, the Department had started its own process of strategic planning in the summer of 1987 where it identified the four departmental "thrust" areas.

The IANR process was started in the fall of 1987 by the Vice Chancellor Omtvedt of the Institute and was to be followed by a series of meetings, not only within the Institute, but with town hall meetings around Nebraska, to ensure a broad representation of input regarding future directions of IANR. Ultimately, this step led to the development of the December 1988 document contained herein and labeled Appendix I.

The next step was for each unit, within the Institute, to develop its own unit action plan. This step involved much discussion and planning within and between units as well as a series of general meetings for faculty, staff and others. Each unit submitted an action plan which was included in the October 1989 document labeled Appendix II.

The departmental strategic plans submitted, following the summer 1987 established priorities, are contained herein and labeled Appendix III. Careful attention continues in the monitoring of these documents to insure that they are in fact current and representative of future needs and directions. While the documents serve as a road map, they must remain flexible enough to coincide with the ongoing review and scrutiny of staff, administration and clientele. Modification will continue to keep the department and the Institute on the cutting edge of the state, national and international scene.
APPENDIX I

A Strategic Plan For The
Institute Of Agriculture And Natural Resources

December 1988
DIRECTIONS FOR THE FUTURE

A STRATEGIC PLAN for the

Institute of Agriculture and Natural Resources

UNIVERSITY OF NEBRASKA - LINCOLN

December 1988
Reprinted November 1989
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>Trends And Assumptions</td>
<td>4</td>
</tr>
<tr>
<td>Role and Mission and Long Term Objectives</td>
<td>6</td>
</tr>
<tr>
<td>IANR Programs</td>
<td>8</td>
</tr>
<tr>
<td>Improving IANR's Effectiveness</td>
<td>9</td>
</tr>
<tr>
<td>IANR Administrator Contacts</td>
<td>11</td>
</tr>
</tbody>
</table>

## IANR

Statewide System

The Institute of Agriculture and Natural Resources offers programs without regard to age, sex, race, handicap, national origin, marital status, or religion.
The intent of this Strategic Plan is to provide direction for the Institute of Agriculture and Natural Resources (IANR). The planning process has included faculty, administration, and clientele review of resource materials and interactive discussion. The Agriculture 2001 Task Force Reports were reviewed and updated recommendations were made during the spring of 1988. The Stanford Research Institute report, "New Seeds for Nebraska" also provided input. Important questions addressed during the strategic planning process included:

1) Where have we been?
2) Who are our clientele?
3) What are our challenges and opportunities?
4) Where are we going?

As IANR moves toward the 21st Century, this Strategic Plan will provide guidance for making decisions in regard to resource allocation, program emphasis, and enhancing effectiveness. We are living and working in a dynamic world. It will be important to review the Strategic Plan periodically and make appropriate changes.

Our goal is to be recognized as one of the best Agriculture and Natural Resources institutions in the nation. This plan provides for that direction. It is not intended to outline the "how to" details regarding budget requirements, who will be involved, or the effort needed to achieve these objectives. These details will follow in action plans.

IANR must commit increased resources to planning and continually analyze objectives and programs as they relate to a rapidly changing world. This should include studies concerning current and projected trends in demographics, economics, regulatory environments, resource availability and markets. Each has the potential to require shifts in IANR's program emphasis. The administration, faculty and staff must be flexible and implement change when the need is apparent.

This plan can only be effective if it is viewed as being meaningful by the faculty, staff and administration. It encourages change. By working together as a team, we can make the commitments needed to move the research, educational, service and outreach programs of IANR to a high level of effectiveness and recognition in Nebraska, the nation, and the world.

Irvin T. Omtvedt
Vice Chancellor for
Agriculture and Natural Resources
Trends and Assumptions

Trends

There are many significant agricultural, natural resources, and societal trends which affect the IANR's programs and resources.

Among the trends impacting agricultural and natural resources are: continued narrow profit margins, production and resource use concerns including anticipated changes in the use of chemicals, globalization of the market for agricultural products, depopulation of farms and ranches, decreases in the number of medium size farms and ranches and a concurrent increase in large and small farms and ranches, a projected decreased reliance on price supports and changes in nonproduction agricultural business activity.

Significant changes in society include: changing technology, changing demographic patterns such as rural/urban, racial mix, young/old; changing family structures, changing values, changing employment patterns with a concurrent increase in the number of relatively low-paying jobs. The increasing need for life-long learning, and the continuing information explosion have important implications for Nebraskans and IANR.

Other trends which impact agriculture, natural resources, and society which must receive attention include: a changing and unstable economy, greater concern for the environment, more emphasis on diet, nutrition and health, and the changing structure of rural communities.

Declining student enrollments in agriculture and natural resources pose a major concern. Growing shortages of professionals in the business, science and service sectors as well as production are anticipated.

All of these trends are significant as they relate to the commitment of resources and resource needs associated with IANR program priorities.
Assumptions

Assumptions associated with focus and changes in IANR programs include:

- Agriculture will continue to be a major component of Nebraska’s economy.

- IANR must be proactive in further developing productive linkages with other components of the University of Nebraska, other universities, state colleges, community colleges, state and federal agencies, natural resources organizations, and with business and industry.

- Clientele, students, faculty, staff and administrators must be willing to identify, analyze and solve contemporary problems that are critical to Nebraska’s economic well being and quality of life.

- IANR must assume responsibility for the development and updating of faculty and staff skills in order to respond to a rapidly changing society and to provide an expanded knowledge base in IANR’s targeted areas.

- The curriculum must prepare students to function effectively with creative problem solving and analytical and communication skills.

- IANR must be active in providing input for public policy, community development, and economic development if it is to meet its obligations as a component of a Land Grant University.

- Emphasis on the effective management of Nebraska’s natural resources will increase.

- IANR must establish priorities and support academic depth in selected program areas.

- IANR must commit resources to establish formal continuing education programs to meet the increased demands of traditional and non-traditional students including those making career changes.

- A significant influx of new resources from state and federal government sources is unlikely.
Role and Mission

IANR’s Role and Mission is to implement focused research, teaching, extension and service programs in agriculture as broadly defined; natural resources, home economics and targeted programs that affect Nebraska’s communities.

IANR’s responsibility as a component of a Land Grant Institution is to be responsive to the educational needs of the people of Nebraska, the United States and the international community. Major activities include seeking new knowledge and the dissemination of information to students and other clientele. To do so, IANR must be on the cutting edge of the biological, physical and social sciences included in its program areas and with the information dissemination processes.

Long Term Objectives

IANR’s Long Term Objectives

• To Support Academic and Program Excellence

  • To be ranked by peers and clientele as one of the top five agriculture and natural resources institutions in the United States by the year 2000.

  • To support the search for new knowledge.

  • By 1995 to excel with programs in agricultural profitability, water quantity and quality, food processing, agribusiness, and animal and human nutrition.

  • To realign departmental programming responsibilities and implement interdisciplinary program efforts in teaching, research, and extension so that by 1995 a significantly higher percentage of IANR’s programs are interdisciplinary problem solving approaches.

• To Focus on Priority Needs for Nebraskans

  • To make the appropriate commitments and reallocations of IANR teaching, research, and the extension resources committed to programs such as value added product
development, policy analysis, agricultural business management systems, human resources development, and natural resource management so that they will be increased significantly by 1995.

- To incorporate the cultural, policy, economic, environmental and other aspects of a global community in program development, program implementation and faculty and staff development.

- To emphasize profitability and sustainable system programs for farms, ranches and communities as they contribute to the development of Nebraska’s economy and quality of life.

**To Maintain Program Balance**

- To place high priority on a balance of high quality undergraduate and graduate teaching, continuing education, and basic and applied research programs on campus and off-campus.

- To give increased emphasis to human resource development programs especially student and other clientele leadership, families, youth and faculty and staff development.

**To Develop Linkages**

- To further collaborate with other University of Nebraska components and others in areas of mutual program interest and responsibility such as nutrition, environmental concerns, consumer economics, human resources development, nonfood product development, and agribusiness.

**To Provide Proactive Leadership**

- To take a proactive leadership role with a wide range of business, industry, consumer, and natural resources clientele groups in addition to agricultural commodity groups and state agencies.
IANR’s effectiveness and image is dependent upon the quantity and quality of program output. Some program activities are “ongoing” and vital to IANR programs. These important programs may not be identified as “emphasis programs” in this Strategic Plan, but are assumed to be essential for maintaining proper program balance.

The Institute of Agriculture and Natural Resources gives special consideration to the following areas as they relate to targeted programs:

- Strengthening the University/Private Sector Partnerships.
- Enhancing Profitability and Competitiveness.
- Improving Quality of Life.
- Stewardship of Nebraska’s Natural Resources.
- Emphasizing Sustainable Production Systems.

IANR’s targeted programs include:

- Agricultural and Agribusiness Profitability.
- Biotechnology and other Basic Research.
- Value Added Processing (food and nonfood).
- Human Resources Development (leadership, families and youth).
- Nutrition and Health (human and animal).
- Rural Revitalization
- Water and Environment
Analyzing current IANR efforts and identifying areas to be improved is continuous. IANR's Strategic Plan discussions suggest that detailed Action Plans should be developed to improve IANR's program effectiveness by considering the following factors:

**Clientele**

- Shorten the research and extension response time to clientele needs.
- Give added effort to identifying clientele groups and their research and/or educational needs.
- Broaden IANR's base of contact with producer and other clientele groups.
- Take advantage of advances in communications technology for state-wide program delivery.

**Students**

- Implement an aggressive student recruitment placement program that gives emphasis to student quality and involves all IANR faculty and staff.
- Develop and implement a futuristic curriculum including increased emphasis on natural resources and global dimensions.
- Implement a program of off-campus course offerings.
- Provide the leadership for a quality program at the College of Technical Agriculture at Curtis.

**Programs**

- Develop a broader based leadership program.
- Emphasize an interdisciplinary team approach.
- Encourage innovation and risk taking in program development.
- Support appropriate proprietary research.
Faculty and staff

- Recruit and retain quality personnel.

- Insure that the evaluation process, rewards and recognition are consistent with IANR’s priorities including the emphasis on team and interdisciplinary approaches.

- Improve salaries and program support since they are vital to excellence in faculty and staff performance.

- Improve staff career and personal development and make innovative utilization of office/service and managerial/professional staff.

Structure

- Improve coordination among IANR natural resource teaching, research, extension and service programs. Evaluate the operational structure of IANR natural resources components in terms of effective collaboration, program efficiency and visibility.

- Implement and support program organization models such as "Centers."

- Continue to make appropriate changes in county, district and state extension organization and update delivery systems.

- Pursue expanded program delivery sites at Grand Island, Norfolk, North Platte, Scottsbluff and Omaha and others as appropriate in order to better serve Nebraskans.

Linkages

- Give high priority to strengthening IANR’s linkages with other components of the University of Nebraska, other universities, colleges, community colleges; with federal, state and local government agencies and organizations and with businesses.

Image

- Take appropriate steps to improve IANR’s image.

- Recognize quality output and provide positive, futuristic approaches for student recruitment and placement; for faculty and staff recruitment and retention, and for obtaining funding support for IANR programs.
Vice Chancellor, Deans and Directors

Irvin T. Omtvedt
Vice Chancellor
Lincoln
402-472-2871

Ted E. Hartung
Associate Vice Chancellor
Lincoln
402-472-2871

Alan R. Moeller
Assistant Vice Chancellor
Lincoln
402-472-2871

Leo E. Lucas, Dean
Cooperative Extension
Lincoln
402-472-2966

Donald M. Edwards, Dean
College of Agriculture
Lincoln
402-472-2201

Darrell W. Nelson, Dean
Agricultural Research Division
Lincoln
402-472-2045

Glen J. Vollmar, Dean
International Programs
Lincoln
402-472-2758

Karen E. Craig, Dean
College of Home Economics
Lincoln
402-472-2913

Perry B. Wigley, Director
Conservation and Survey Division
Lincoln
402-472-7525

Unit Administrators

Donald B. Hudman
Northeast Research & Extension Center
Concord
402-584-2261

Sam Cordes
Agricultural Economics
Lincoln
402-472-3404

Joan M. Laughlin
Textiles, Clothing & Design
Lincoln
402-472-2911

Z B Mayo
Entomology
Lincoln
402-472-2123

David B. Marx
Biometrics
Lincoln
402-472-2903

William Meredith
Human Development & The Family
Lincoln
402-472-1652

Ted E. Hartung
Computing Services
Lincoln
402-472-5630

Robert C. Shearman
Agronomy
Lincoln
402-472-1558

Gwendolyn Newkirk
Consumer Science & Education
Lincoln
402-472-2959

Arthur Ode, Director
Nebraska Statewide Arboretum
Lincoln
402-472-2971

Marion H. O'Leary
Biochemistry
Lincoln
402-472-2932

Paul E. Read
Horticulture
Lincoln
402-472-2854

Jack A. Schmitz
Veterinary Science
Lincoln
402-472-2952

Bill J. Siminone
College of Technical Agriculture
Curtis
308-367-4124

Charles L. Stonecipher
South Central Research & Extension Center
Clay Center
402-762-3335

Lavon J. Sumption
West Central Research & Extension Center
North Platte
508-332-3611

Stephen L. Taylor
Food Science & Technology
Lincoln
402-472-2833

Gary Vacin
Agricultural Communications
Lincoln
402-472-2821

Anne K. Vidaver
Plant Pathology
Lincoln
402-472-2858

Loyd L. Young
Southeast Research & Extension Center
Lincoln
402-472-3674
APPENDIX II

Action Plans For The

Institute Of Agriculture And Natural Resources

October 1989
DIRECTIONS FOR THE FUTURE

ACTION PLANS

for the
Institute of Agriculture and Natural Resources

Institute of Agriculture and Natural Resources
UNIVERSITY OF NEBRASKA - LINCOLN

October 1989
The Institute of Agriculture and Natural Resources offers programs without regard to age, sex, race, handicap, national origin, marital status, or religion.
Dear Reader:

These are exciting and challenging times for the University of Nebraska and the clientele we serve. The recent budget increase provided by the Governor and the Legislature has unleashed renewed optimism. Although we cannot afford to be complacent, IANR is fortunate to have initiated a strategic planning process in the spring of 1988 which established clear cut priorities and for us to be in the enviable position to build from existing strengths. We are proud of our levels of accomplishments, and we are encouraged by the impressive number of outstanding faculty, students, staff and administrators who have joined our ranks in recent months.

The Institute of Agriculture and Natural Resources is committed to futuristic leadership in agriculture, home economics and natural resources. To best serve students, producers, agribusiness, families and other clientele, IANR must chart an aggressive course of action for the future. Our primary goal is to provide research and educational programs to enhance Nebraska’s global competitiveness and quality of life. We assume that both IANR and the clientele we serve are willing to aggressively pursue and adopt changes that will ensure our keeping abreast of emerging priorities stemming from our rapidly changing economic and social environment.

These Action Plans are not all inclusive, but will serve as our blueprint for strengthening programs in targeted areas. These plans are backed up by detailed plans for each IANR administrative unit and they represent inputs from throughout IANR. They will serve as the base for IANR budget and program decisions during the next three years. We plan to supplement resources made available through redirection with funds from the Research Initiative program; from increases in grants and contracts; and from modest increases in State and Federal appropriated funds. Our goal is to redirect 10 percent of our current budget over the next three years to these priorities.

It is our hope that such words as focus, aggressive, creative, excellence, competitive, responsive, and partnerships will clearly characterize the expected impact of these Action Plans for addressing the priorities outlined in the IANR Strategic Plan. Nebraska can enjoy an extremely bright future if all members of the team exhibit enthusiastic support and dedication. We hope you will be an active partner in this investment in Nebraska’s future.

Irvin T. Omtvedt
Vice Chancellor
IANR Units have inventoried ongoing program activities and have proposed ACTION PLANS for seven targeted program areas:

- Agriculture and Agribusiness Profitability (including sustainable systems).
- Biotechnology and other Basic Research.
- Human Resources Development (leadership, families, and youth).
- Nutrition and Health.
- Rural Revitalization.
- Value Added Processing of Agricultural Commodities.
- Water and Environment.
Introduction

The Strategic Plan for the University of Nebraska Institute of Agriculture and Natural Resources published in December 1988 established future directions for strengthening IANR’s programs. The Action Plans presented here describe our overall approach and “what” will be done to accomplish the goals identified in the Strategic Plan. Changes for strengthening the effectiveness of Institute-wide programs and operations are also included. These plans address the needs of students, producers, agribusinesses, communities and families. They provide a blueprint for progress.

Resources for personnel and program support are critical if the Action Plans are to succeed. IANR units have developed Unit Action Plans, assessed on-going programs and identified redirection possibilities. A significant amount of the proposed program focusing and strengthening will occur through redirection of existing personnel positions and other resources. Grants, contracts and new state and federal funds will also support these changes.

The action planning process began in 1988 and covers the period through 1992. Although changes will be made as needed throughout this period, an in-depth reassessment will occur in 1992 and appropriate changes will be made at that point to address future priorities.
In today’s rapidly developing scientific world, new technologies advance quickly. The potential application of biotechnology and other basic research to agriculture is immense as well as important to agricultural profitability and competitiveness in Nebraska. New biotechnology tools allow researchers to study and enhance disease resistance in animals and plants, identify and regulate the expression of genetic traits, and develop new technologies for scaling-up and using genetically engineered microorganisms and products commercially.

**Basic research, which led to modern biotechnology, must continue** to be stressed in all IANR disciplines. It is essential that interdisciplinary approaches and linkages with other University units be a prominent part of IANR’s mission.

Major research thrusts are needed in:

a. gene identification and regulation such as hormone control in animals, quality traits in plants, and enhanced production of useful compounds by microbes,

b. mechanisms of resistance for pest control, and

c. applied technologies in food processing and plant propagation.

Several IANR researchers will actively participate in the Biotechnology Center programs as part of the Research Initiative program.

**Action Objectives**

- To improve biotechnology programs in IANR departments through addition of key faculty positions and wise investment of the Biotechnology Research Initiative funds.

- To strengthen selected areas of basic research in plant and animal health, plant and animal genetics and physiology, food chemistry, food microbiology, and plant biochemistry.

- To increase awareness of the value and impact of IANR basic research programs among Nebraska decision makers, youth, and citizens.
In today's rapidly developing scientific world, new technologies advance quickly. The potential application of biotechnology and other basic research to agriculture is immense as well as important to agricultural profitability and competitiveness in Nebraska. New biotechnology tools allow researchers to study and enhance disease resistance in animals and plants, identify and regulate the expression of genetic traits, and develop new technologies for scaling-up and using genetically engineered microorganisms and products commercially.

*Basic research, which led to modern biotechnology, must continue to be stressed in all IANR disciplines. It is essential that interdisciplinary approaches and linkages with other University units be a prominent part of IANR's mission.*

Major research thrusts are needed in:

a. gene identification and regulation such as hormone control in animals, quality traits in plants, and enhanced production of useful compounds by microbes,

b. mechanisms of resistance for pest control, and

c. applied technologies in food processing and plant propagation.

Several IANR researchers will actively participate in the Biotechnology Center programs as part of the Research Initiative program.

**Action Objectives**

- To improve biotechnology programs in IANR departments through addition of key faculty positions and wise investment of the Biotechnology Research Initiative funds.

- To strengthen selected areas of basic research in plant and animal health, plant and animal genetics and physiology, food chemistry, food microbiology, and plant biochemistry.

- To increase awareness of the value and impact of IANR basic research programs among Nebraska decision makers, youth, and citizens.
Implementation

- Successfully compete nationally for faculty and for research support through the Biotechnology Research Initiative.

- Focus the biotechnology research in IANR on disease diagnosis, vaccine development, virology, plant and animal genel regulation and expression, plant transformation, and cell regeneration.

- Redirect resources into targeted areas of basic research to achieve an appropriate balance between problem-solving and disciplinary research. Areas to be strengthened include plant biochemistry, fermentation microbiology, rumen microbiology, cytogenetics, and biosensor and control technologies.

- Increase grant support by 75 percent within the next three years through improved faculty grantmanship.

- Develop closer linkages with industry (particularly Nebraska companies) to build collaborative research programs and to provide increased funding for ongoing research programs. Devote a limited proportion of IANR programs to proprietary research.

- Establish additional distinguished professorships in selected areas of biotechnology and basic research.

- Establish innovative biotechnology awareness programs that involve Cooperative Extension, agricultural science curricula in secondary schools, undergraduate and graduate courses in the College of Agriculture and 4-H and FFA programs.

- Develop and distribute a research publication that communicates significant program accomplishments to decision makers and citizens.
Targeted Action Plans

Agriculture and agribusiness are the mainstays of Nebraska’s economy. IANR emphasizes research, educational, and service programs to ensure that Nebraska’s agriculture and agribusiness remain competitive, profitable, and sustainable.

Future programs must continue to look at the needs of current crop and livestock producers and agribusiness firms and at the same time examine the potential for alternative agricultural enterprises. Consideration must be given to alternatives which would produce new types of plants or animals, diversify the sources of income, and develop new products and services for both rural and urban citizens. Integration of production and marketing is also needed. Developing alternative agricultural enterprises will improve Nebraska’s economy, provide employment in rural areas, and reduce risk for producers through income diversification.

Ongoing programs address the production, economics, marketing and agribusiness of field crops, specialty crops, livestock, and poultry. IANR proposes modest strengthening of production efficiency, pest management, and animal health programs, but greater expansion in production economics, marketing, post harvest technology, and agribusiness. Although innovative educational programs are planned or available, selecting the most effective ways to disseminate information will be a challenge.

Action Objectives

• To strengthen programs making existing Nebraska agriculture and agribusiness industries more efficient, profitable, competitive, and sustainable.

• To increase programs which identify, research, and implement alternative agricultural enterprises for producers and agribusinesses.
Implementation

- Maintain strong disciplinary programs in agricultural economics, animal health, animal science, food science, pest control, plant science, and systems engineering. These programs provide the basic information to improve production efficiency and profitability in agriculture and agribusiness.

- Develop resource-efficient, sustainable production systems for unique regions in Nebraska. Initially, emphasis will be placed on beef-range systems in the western region; limited irrigation cropping systems in the southwest; and dryland cropping systems in the southeast and the Panhandle.

- Establish a Center for Sustainable Agriculture.

- Expand extension programs in integrated resource management and enterprise record systems for swine and beef cattle.

- Increase programs on effective domestic and international marketing of agricultural products and the analyses of agricultural policy alternatives.

- Expand research and extension programs on commercial vegetable and potato production.

- Increase research and extension programs on alternative crops and their feasibility for Nebraska, including crops with industrial uses. Initial efforts will be directed at crops such as crambe and milkweed.

- Begin aquaculture research and extension programs directed at cold-water species.

- Expand development of computer-based aids to improve producer decision-making. Emphasis will be placed on sensors and control systems, expert decision-making systems and marketing models.

- Improve services through more responsive diagnostic laboratory support, more effective environmental protection training, more timely agricultural weather information, and increased availability of information from educational centers and telecommunications systems.

- Better address needs of Nebraska agribusiness through cooperative efforts and partnerships with the Centers for Agricultural Marketing, Food Processing, Industrial Agricultural Products, Agricultural Equipment, Biotechnology and International Trade Policy.
People are Nebraska’s most vital resource. It is essential that IANR give major attention to the most effective ways in which human resources can best contribute to the state and to society.

One of IANR’s primary missions is to provide the human resource expertise to serve the State’s food industry and production system. Continued emphasis needs to be given to developing the full potential of Nebraska citizens and their well-being.

IANR has ongoing programs in human resources development, including leadership development through LEAD, Family Community Leadership, 4-H, FFA, youth and adult education programs; the recruitment and retention of students; and faculty and staff development.

**Action Objectives**

• To enhance the educational base for both traditional and non-traditional students in Nebraska.

• To attract and retain a high quality human resource base in Nebraska.

• To develop coordinated opportunities for high quality leadership development.

• To enhance the well-being of individuals and families through improved interaction within families and communities.
Implementation

• Establish new programs and coordinate leadership development activities within IANR through the Center for Leadership Development including seminars and materials for both non-profit organizations and agribusiness corporations.

• Develop a coordinated program of credit and non-credit courses, seminars, conferences, and workshops.

• Develop a comprehensive IANR recruitment and retention plan involving the Colleges of Agriculture and Home Economics, district centers, departments, alumni, faculty, staff and industry personnel.

• Develop an instructional materials resource collection for statewide use.

• Expand professional and organizational development opportunities for IANR faculty and staff to help them keep abreast of changing priorities.

• Establish family resources and counseling services in marriage and family therapy, financial management and nutrition.

• Establish a Youth Development Center to assess needs and implement training programs.

• Expand research and outreach programs on child/elder care, youth at risk and single parenting.

• Establish outreach programs in Norfolk, Grand Island and Omaha and expand program offerings at North Platte and Scottsbluff.
Nebraskans share national concerns about health, food safety and diet. Questions raised about the health, nutrition and safety of plant and animal products are important to Nebraska because of their contribution to the economy. Animal diseases contribute to microbial contamination and are detrimental to animal well-being and productivity. Consumers and producers need more education on nutrition and food safety.

The Departments of Animal Science; Food Science and Technology and Human Nutrition and Food Service Management; have ongoing teaching, research and extension programs in these areas. These will be complemented by a strengthened biochemistry program.

The nutrition and health components are becoming more important factors in the decision-making processes of the food processing industry through their association with the Food Processing Center. Although it has declined some in popularity, the Interdepartmental Graduate Nutrition Program offers unique opportunities for interdisciplinary nutritional programs. The animal health research program in the Veterinary Science Department has been expanded and cooperative programs with Kansas State University and the University of Nebraska Medical Center offer new opportunities for veterinary medicine training, graduate programs and continuing education.

**Action Objectives**

- To strengthen research and graduate education in human and animal nutrition.

- To expand and further develop outreach programs in nutrition, health, food safety, and food handling.

- To strengthen research and education programs in animal health.

- To develop research and extension dietetics programs.
Implementation

• Conduct an in-depth review of the Interdepartmental Graduate Nutrition Program and implement changes to improve the graduate course offerings and research programs in human and animal nutrition.

• Establish research in the biochemistry and metabolism of nutrients and their affects on human health, animal productivity and well-being.

• Implement interdisciplinary programs in food animal health management.

• Provide programs on the production of safe, uncontaminated foods.

• Develop state and regional nutritional health conferences and coordinate with schools and organizations to develop programs targeted for youth, adults and the elderly.

• Establish food safety, nutrition and health education programs for child care providers, food service establishments and institutions.

• Establish a dietetics research program focused on food consumption habits related to human health.
Many rural Nebraska communities, businesses, local governments and social institutions are finding it difficult to respond to rapid economic and social change. Viable rural communities are essential to the existence of a strong agricultural industry and a strong state economy. IANR must join with other components of the University, other state agencies, and other organizations to help Nebraskans in rural revitalization.

IANR can help rural communities by:

a. strengthening decision-making skills associated with the infrastructure and services available in rural communities; and,

b. encouraging the development of a more diverse and stronger socio-economic base to support individuals and the larger society.

IANR programs are currently addressing rural revitalization objectives. The Family Community Leadership (FCL) program teaches volunteers how to develop effective leadership skills. Managing Main Street Business is a comprehensive management program for locally-owned businesses. Community needs assessment has taken place in 20 communities. The technical assistance provided by the Agricultural Marketing, Food Processing and Industrial Agricultural Products Centers offer opportunities for rural communities.

**Action Objectives**

- To establish a Rural Community Revitalization and Development Center to coordinate outreach activities and to facilitate linkage building.

- To increase research and outreach programs that concentrate on developing small-scale, rural businesses.

- To help communities in self-assessment, planning and implementation related to rural infrastructure.
Implementation

• Develop models for housing and service needs and for economic infrastructure.

• Initiate research and outreach activities to increase the marketing potential of Nebraska-made products distributed in tourist and other places.

• Strengthen the Managing Main Street Business program as a comprehensive management tool for locally-owned rural businesses.

• Strengthen the goal setting techniques and principles of business management for rural businesses.

• Provide risk management and decision-making education for locally elected officials.

• Evaluate the impacts of existing and proposed rural revitalization activities.

• Provide rural Nebraskans who want to start or expand self-owned small-scale businesses with impartial data for sound economic development decisions.

• Provide education for communities seeking to comply with laws and regulations governing the management and disposal of solid and hazardous wastes.

• Strengthen research on the environment for child care and the elderly in rural communities.

• Establish a clearinghouse for rural revitalization information and services.
Value-Added Processing Of Agricultural Commodities

Even though processing is Nebraska’s primary manufacturing industry, the potential for adding value to agricultural commodities remains largely untapped. Nebraska ranks fourth nationally in agricultural production but 20th in processing. The challenges are to identify new uses for current products, to nurture new commodities and enterprises, and to develop and expand the processing industry.

With the core group of faculty and staff now in place and the outstanding facility and equipment capabilities provided by the new Food Industry Complex, the new and expanded Animal Sciences Facility, and the new Panhandle Pilot Vegetable Processing Plant, IANR offers programs to develop the potential of adding value to Nebraska’s bio-renewable production.

Present efforts, primarily in food science and technology, agricultural economics, animal science, agricultural engineering, horticulture, and human nutrition, are coordinated through the Food Processing Center, the Industrial Agricultural Products Center, and the Agricultural Marketing Center. Strengthening current research on processing major commodities and food products will continue to be high priority. Programs addressing the processing of alternative commodities and industrial products are inadequate. There is an urgent need to expand efforts to transfer value-added technology and marketing assistance to businesses and consumers.

Action Objectives

- To develop new and improved food and industrial products from animal and crop commodities and by-products.

- To facilitate the expansion of commercial processing of agricultural commodities in Nebraska.

- To increase the value of Nebraska-produced commodities through processing and engineering technology.
Implementation

• Further develop the use of starch from corn and other crops for production of biodegradable plastics.

• Improve the use of fermentation processes especially to convert carbohydrates from bio-renewable products to ethanol, butanol, and other industrial products.

• Develop new and improved human and pet food products from Nebraska commodities.

• Adapt value-adding processing technologies such as enzyme conversion, extrusion processing and super critical extraction.

• Develop marketable products from animal and crop by-products.

• Research the alternatives and economic feasibility for adding value to new products such as amaranth, crambe, milkweed, vegetables, and fish.

• Strengthen assistance to entrepreneurs, identify new markets, and improve business skills and technical capabilities.

• Implement a consumer acceptance educational program.
Nebraskans are concerned about their environment. The contamination of ground water by nitrates, pesticides, petroleum products, household and hazardous wastes have made water quality a critical issue in Nebraska. Suitable water for domestic use is a major concern. Much of Nebraska’s agriculture depends on irrigation. Declining ground water levels, as well as periods of drought, are problems for producers as well as urban and rural communities. Soil erosion is still critical.

The importance of Nebraska’s soil, air, minerals, trees, and other plant resources supports the need for environmentally sound approaches to development. Only through environmental enhancement will Nebraskans enjoy an acceptable quality of life. Achieving a quality environment requires well conceived and executed programs of research, education and service.

Current water, soil, mineral and atmospheric programs contribute to improving the environment, but the needs extend well beyond the scope of present programs. Redirection of personnel and other resources coupled with more effective program coordination are essential to attain the objectives. Increased funding from the Research Initiative program can provide support to expand the water science research program. Linkages with other components of the University, other universities, governmental agencies, businesses and industry will help achieve success.

A "New Trees for Nebraska" program offers another excellent opportunity to place increased emphasis in this priority area. The range management program at the Gudmundsen Sandhills Laboratory has been expanded.

**Action Objectives**

- To strengthen water science research and educational programs emphasizing areas important to Nebraska’s future.

- To enhance research and educational programs in soil management, atmospheric science, plant ecology and range management, and environmental quality protection.

- To increase joint efforts with state and federal natural resource and environmental agencies.
Implementation

• Implement a water science or hydrology program for undergraduate and graduate students.

• Evaluate environmental policy alternatives and alternatives in other policy areas which affect water and environment, and the timely communication of results to provide better information for policy.

• Initiate priority research projects under the Water Science Research Initiative focused on ground water contaminant transport, ground water contamination remediation, and measurements of existing contamination.

• Increase research on water harvesting, efficient water use by plants, and irrigation scheduling.

• Establish a Water Sciences Laboratory and an associated field laboratory to improve analytical capabilities of IANR water scientists.

• Implement an aggressive grantsmanship program to successfully access new water quality funds and increase funding from other local, state and federal sources.

• Develop improved technology for agricultural chemical use, urban chemical use, and production practices to protect environmental quality, particularly water quality.

• Establish a cooperative research unit with the U.S. Fish and Wildlife Service for additional studies of wildlife and fish ecology.

• Develop and promote creative approaches to soil, minerals, and trees and other plant resource management, consistent with the economic, environmental, and social needs of Nebraskans.

• Increase the funding base for ongoing programs in soil management, range management, and environmental protection.

• Initiate a program in solid and hazardous waste management.

• Increase linkages and joint activities with federal and state natural resources and environmental protection agencies.

• Develop an active research and educational program on global warming and other climatic changes.
Operational Priorities

IANR has identified eight overall priorities that bridge IANR units. These complement IANR targeted program areas to best serve our clientele. The eight are:

- **Increase emphasis on preparing students for a changing society:**
  - Attract, recruit, and retain capable students.
  - Implement new strategies for attracting students, including minority and non-traditional students.
  - Expand scholarship and financial aid programs to recognize achievement and help minority and needy students.
  - Continue to make needed curricular changes in food, agriculture, and natural resources programs.
  - Establish a more supportive climate for students in their classes, in advising, and in extra-curricular events.
  - Improve the reward system for effective teaching and advising.
  - Enhance the availability of instructional improvement resources for faculty.
  - Establish joint teaching, research, and extension programs, including the use of facilities and equipment, to enhance learning.
  - Integrate such topics as international perspectives, critical thinking, problem solving, ethics, communication and interpersonal skills, care of the environment, and current issues into educational programs.
  - Support and provide leadership for quality associate degree and pretransfer programs at the Nebraska College for Technical Agriculture at Curtis.
  - Facilitate the transfer of programs and credits from other postsecondary institutions.
  - Increase assistance to students in career development and placement.
  - Initiate programs to enhance students' ability to integrate technical knowledge, subject matter, interpersonal skills and values.

Students
• Strengthen responsiveness to clientele needs:
  • Develop an issue identification process to address high priority problems and issues.
  • Work with the University of Nebraska Foundation for funds to enhance and complement IANR’s ability to respond quickly to emerging clientele needs.
  • Adopt a more effective process to critically review programs; to revise priorities when necessary; and to reallocate resources to higher-priority targeted programs.
  • Obtain appropriate citizen input for guiding IANR programs.

• Expand outreach capabilities in targeted areas:
  • Expand telecommunications program offerings and capabilities for extension and resident instruction.
  • Use the Educational Center concept in strategically located sites to make IANR and University resources more readily available to Nebraskans.
  • Develop Educational Centers at Grand Island and Norfolk and increase IANR program offerings in Omaha.
  • Expand credit and non-credit course offerings at off-campus locations.

• Broaden IANR’s global perspective:
  • Institute changes that increase the global dimension of undergraduate and graduate courses and curricula.
  • Enhance faculty, staff and student linkages between contract international development projects with nations such as Morocco, Niger and Costa Rica.
  • Implement an extension program thrust focusing on the international issues affecting Nebraska.
  • Sponsor workshops on selected nations to expand the international awareness of IANR faculty and staff.
  • Give increased emphasis to programs that will increase knowledge about other nations, changes occurring in competitiveness and trade possibilities.
Public Understanding

• Improve the understanding of IANR's mission and programs:
  • Develop a marketing plan that will be consistently used by all divisions of IANR.
  • Enhance cooperative, joint ventures involving IANR teaching, research, extension and other divisions.
  • Implement innovative outreach programs to create greater public awareness for IANR's ability to address high priority program needs.
  • Initiate and sponsor public awareness activities that portray a modern agriculture with a promising future.

Natural Resources

• Expand Natural Resources programs:
  • Establish and offer an interdepartmental Bachelor of Science Degree in Natural Resources.
  • Emphasize focused program offerings and direct more program support to water and environmental sciences programs.
  • Obtain administrative and Board of Regents approval to change three IANR division designations to: “College of Agriculture and Natural Resources”; “Research Division”; and “Extension Division”.
  • Implement an administrative organizational structure that will enhance program development and effectiveness for programs in natural resources and environmental sciences within IANR.

Personnel Development

• Expand development opportunities for IANR personnel:
  • Expand activities and experiences to facilitate program redirection and career needs.
  • Develop a professional development program for managerial/professional and office/service staff.
  • Implement a plan for developing administrative skills.
• Strengthen IANR’s linkages:
  • Continue to rely on and expand collaboration with federal, state and local agencies, with other institutions and with industry. Special emphasis will be given to joint ventures with the USDA Agricultural Research Service, the U.S. Forest Service, the Agency for International Development, the Environmental Protection Agency, the Nebraska Department of Agriculture, the Nebraska Department of Economic Development, other components of the University, other public and private Nebraska educational institutions; and educational institutions in other states.
  • Expand interdisciplinary programs associated with centers such as: Agricultural Equipment, Agricultural Marketing, Biotechnology, Food Processing, Industrial Agricultural Products, International Trade Policy and Rural Community Revitalization and Development.
  • Identify and address critical issues with organizations such as the Environmental Protection Agency, Soil Conservation Service, Fish and Wildlife Service, Small Business Administration, Department of Environmental Control, Department of Economic Development, Nebraska League of Municipalities, and Nebraska Association of County Officials.
  • Involve representatives from producer commodity groups, farm organizations, agricultural businesses, the banking community, rural community leaders, and youth organizations in providing input for IANR programs.
  • Expand intercollege programs in agribusiness, biochemistry, water science and natural resources.
Primary Decision Approaches

IANR will adopt the following approaches to address financial program and personnel management priorities for the future:

- Emphasize futuristic, flexible and efficient management.
- Strongly support academic and program excellence.
- Sharpen the focus of IANR programs.
- Expand interdisciplinary team efforts.
- Use the redirection of existing resources as a major method for initiating priority changes.
- Establish new faculty positions in carefully selected, targeted program areas.
- Enhance the support base for priority programs with grants, contracts and other resources and by eliminating positions.
- Establish new programs to recognize faculty and staff for outstanding accomplishments.
- Enhance IANR's relative competitiveness in the marketplace with improved salaries and program support.
- Develop a creative strategy for acquiring IANR capital construction, equipment, and maintenance needs at on campus and off-campus locations.
Progress Toward Objectives

Since the faculty, staff and administration began developing these plans, significant progress has been made toward addressing IANR priorities. Some examples are:

• Increased emphasis has been given to the recruitment and retention of capable students. This is a prominent part of the Dean’s office.

• Interdisciplinary Centers have been established to address program needs in food processing, industrial agricultural products, agricultural marketing, leadership development, agricultural equipment, international trade policy, biotechnology and biological chemistry.

• A joint veterinary medicine training program has been established with Kansas State University.

• Several facility enhancement projects have been completed or are underway. These include the new animal sciences facilities, the food industry complex, the new veterinary educational center facilities at the U.S. Meat Animal Research Center, and the food processing pilot plant at the Panhandle Research and Extension Center. Other improvements include the turfgrass facility at Agricultural Research and Development Center; the remodeling of Filley Hall; the renovation of the East Campus greenhouses; the remodeling of the College of Agriculture office complex and other general improvements in Agricultural Hall.

• Due to retirements and other changes, 57 faculty, eight department heads, eight directors and two Deans have joined IANR during the past 18 months.

• The state-wide outreach network has been enhanced. Regional Educational Centers are being proposed for Grand Island and Norfolk; IANR program offerings have been increased in the Omaha area; and expansion of educational programming linkages with state and community colleges is currently being pursued at North Platte and Scottsbluff.
Progress Toward Objectives, Continued:

- Nebraska Cooperative Extension has identified initiatives and refocused its programs to address these priorities.

- Twenty-three Extension Program Units (EPU's) have been established throughout the state so extension agents can be more specialized as they respond to clientele needs.

- The Water Center program has been reorganized and expanded. A water chemistry laboratory is being established on the East Campus to support several academic units.

- A task force recommended changes to improve the effectiveness and visibility of natural resources programs in IANR. These recommendations include changing the name of the College of Agriculture to the College of Agriculture and Natural Resources and establishing a bachelor's degree in natural resources.

- The Board of Regents has given departmental status to biometry and agricultural meteorology.

- The faculty evaluation process has been revised to include recognition for team effort accomplishments.

- Increased emphasis has been placed on professional development programs for faculty and staff. Two major grants have been received in this area.
<table>
<thead>
<tr>
<th>DEPARTMENTS &amp; CENTERS</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>AGRICULTURAL COMMISSION DEPT.</th>
<th>BIOCHEMISTRY DEPT.</th>
<th>HUMAN DEVELOPMENT &amp; THE FAMILY DEPT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gary Vacin</td>
<td>Marion H. O’Leary</td>
<td>William Meredith</td>
</tr>
<tr>
<td>402/472-2821</td>
<td>402/472-2932</td>
<td>402/472-1652</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AGRICULTURAL ECONOMICS DEPT.</th>
<th>BIOLOGICAL CHEMISTRY CENTER</th>
<th>HUMAN NUTR. &amp; FOOD SERV. MGT. DEPT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sam Cordes</td>
<td>Marion H. O’Leary</td>
<td>Judy A. Driskell</td>
</tr>
<tr>
<td>402/472-3404</td>
<td>402/472-2932</td>
<td>402/472-3716</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AGRICULTURAL EDUCATION DEPT.</th>
<th>BIOMETRY DEPT.</th>
<th>INDUSTRIAL AGR. PRODUCTS CENTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allen G. Blezek</td>
<td>David B. Marx</td>
<td>Davis Clements</td>
</tr>
<tr>
<td>402/472-2907</td>
<td>402/472-2993</td>
<td>402/472-2750</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AGRICULTURAL ENGINEERING DEPT.</th>
<th>BIOTECHNOLOGY CENTER</th>
<th>LEADERSHIP DEVELOPMENT CENTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glenn J. Hoffman</td>
<td>Donald Weeks</td>
<td>Allen G. Blezek</td>
</tr>
<tr>
<td>402/472-1413</td>
<td>402/472-2635</td>
<td>402/472-2809</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AGRICULTURAL EQUIPMENT CENTER</th>
<th>COMPUTING SERVICES</th>
<th>NEBRASKA COLLEGE OF TECH. AGR.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glenn J. Hoffman</td>
<td>Ted E. Hartung</td>
<td>Bill J. Siminoe</td>
</tr>
<tr>
<td>402/472-1413</td>
<td>402/472-5830</td>
<td>Curtis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>306/367-4124</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AGRICULTURAL MARKETING CENTER</th>
<th>CONSUMER SCIENCE &amp; ED. DEPT.</th>
<th>NEBRASKA STATEWIDE ARBORETUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michael S. Turner</td>
<td>Gwendolyn Newkirk</td>
<td>Arthur Ode</td>
</tr>
<tr>
<td>402/472-1710</td>
<td>402/472-2859</td>
<td>402/472-2971</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AGRICULTURAL METEOROLOGY DEPT.</th>
<th>ENTOMOLOGY DEPT.</th>
<th>NORTHEAST RES. &amp; EXT. CENTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baine L. Blad</td>
<td>Z B Mayo</td>
<td>Donald B. Hudman</td>
</tr>
<tr>
<td>402/472-9579</td>
<td>402/472-2123</td>
<td>Concord</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AGR. RES. &amp; DEV. CENTER</th>
<th>ENVIRONMENTAL PROGRAMS</th>
<th>PANHANDLE RES. &amp; EXT. CENTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warren Sabs</td>
<td>Roger E. Gold</td>
<td>Robert D. Fritschen</td>
</tr>
<tr>
<td>Mead</td>
<td>402/472-1446</td>
<td>Scottsbluff</td>
</tr>
<tr>
<td>402/824-2275</td>
<td></td>
<td>308/632-1254</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AGRONOMY DEPT.</th>
<th>FOOD PROCESSING CENTER</th>
<th>PLANT PATHOLOGY DEPT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robert C. Shearman</td>
<td>Stephen L. Taylor</td>
<td>Anne K. Vidaver</td>
</tr>
<tr>
<td>402/472-1555</td>
<td>402/472-2833</td>
<td>402/472-2858</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ANIMAL SCIENCE DEPT.</th>
<th>FOOD SCIENCE &amp; TECHNOLOGY DEPT.</th>
<th>TEXTILES, CLOTHING &amp; DESIGN DEPT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elton D. Aberle</td>
<td>Stephen L. Taylor</td>
<td>Joan M. Laughlin</td>
</tr>
<tr>
<td>402/472-3571</td>
<td>402/472-2833</td>
<td>402/472-2911</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOUTH CENTRAL RES. &amp; EXT. CENTER</th>
<th>FORESTRY, FISHERIES &amp; WILDLIFE DEPT.</th>
<th>VETERINARY SCIENCE DEPT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charles L. Stonecipher</td>
<td>Gary L. Hergenrader</td>
<td>John A. Schmitz</td>
</tr>
<tr>
<td>Clay Center</td>
<td>402/472-1467</td>
<td>402/472-2952</td>
</tr>
<tr>
<td>402/762-3535</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOUTHEAST RES. &amp; EXT. CENTER</th>
<th>HORTICULTURE DEPT.</th>
<th>WATER CENTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loyd L. Young</td>
<td>Paul E. Read</td>
<td>Roger E. Gold</td>
</tr>
<tr>
<td>402/472-3674</td>
<td>402/472-2654</td>
<td>402/472-3305</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WEST CENTRAL RES. &amp; EXT. CENTER</th>
<th>WATER CENTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lavon J. Sumption</td>
<td>Roger E. Gold</td>
</tr>
<tr>
<td>North Platte</td>
<td>402/472-2654</td>
</tr>
<tr>
<td>308/532-3611</td>
<td>308/632-1254</td>
</tr>
</tbody>
</table>
APPENDIX III

Strategic Action Plans

For The

Department Of Agricultural Education

April 1989

December 1988
Background Statement: The Department recognizes the significant changes in society, and will develop pro-active leadership to provide new knowledge as input for public policy, community development, and human resource development.

Program Goal: To develop a quality pro-active departmental effort in the area of research and development which will be responsive to current needs and be respected and recognized at the local, state, national and international levels.

Statement of Action: Recognizing the broadened role of the department, the following target areas in research and development are provided:

1. **Teaching Methodology:** including efforts to determine the impact of present teaching practices on learning, and how new information transfer systems and strategies impact teaching and learning.

2. **Emerging Public Policy in the Teaching of Agricultural Sciences in the Public Schools (Grades K-12):** including the development of new educational content packages, based on emerging curriculum needs.

3. **Leadership Development:** including efforts to learn more about characteristics of leaders and effective leadership, and influencing factors.

4. **Outreach Program:** studying methods of delivery of interdisciplinary leadership and education programs.

Primary Contact Person: All faculty and staff will coordinate, especially those with research and development appointments (Barrett, Dillon, Horner, Foster). The chair of the Departmental research and development committee (Dillon) will provide leadership and will report directly to the Department Head (Blezek).

Linkages: Other units within IANR and UNL Teachers College may be involved in research and developmental projects: i.e. Teaching and Learning Center, Department of Vocational and Adult Education.

Time Frame: Proposals may be submitted by staff members at any time to be reviewed in accordance with recently adopted departmental policies and procedures. Only proposals within the four target areas identified will be considered. For 1989-90, thirteen projects for $360,656 have been approved for eight staff members, and three additional projects for nearly $500,000 are pending. The goal will be two projects per person for 1990 and 1991 and continued same level of funding. Continuous July 1, 1989 through June 30, 1991.

Resources Needed: Presently 1.25 FTE is available for research and development. Additional staff released time is presently being provided through the generation of outside grants. The goal of the Department is to increase the FTE generated by 2.0 FTE through outside grants as well as through increasing the IANR operating monies by a minimum of ten percent in each of the years 1990 and 1991.
Background Statement: The Department of Agricultural Education strives to offer a balanced undergraduate curriculum which integrates technical agricultural expertise with general education, human development, and leadership courses for all majors. The Department also provides leadership education opportunities for UNL students of a formal and informal nature. This mission relates directly to the Strategic Plan for IANR, especially as it relates to the development of current and future human resources for the State of Nebraska.

Program Goal: To further develop a quality undergraduate program which not only currently meets the needs of the students and the employment market, but is respected and recognized at the local, state, national and international levels.

Statement of Action: Recognizing the role, mission, and priorities of the Department, the following objectives are provided:

1. (3 FTE): Establish a quality undergraduate program to meet the needs of an expanded agricultural education student clientele group by
   a. Acquiring selected technical agriculture course work aimed at acquiring new technologies and understanding of the changing roles in agriculture.
   b. Require educational strategies for delivery of both formal and informal education programs.
   c. Expand employment activities for agricultural education majors into agribusiness and industry education as well as the traditional public school.

2. (0.5 FTE): Revise the present curriculum to integrate the following general education concepts in the comprehensive curriculum:
   - Critical and creative thinking abilities
   - Problem solving and decision-making abilities
   - International perspectives about agriculture and education
   - Written and oral communication
   - Ethical and value related decision-making abilities
   - Human relations and leadership characteristics

3. (2 FTE): Establish a leadership education program in liaison with the Center for Leadership Development with the following components:
   - Courses in leadership and human development
     a. Interpersonal Skills Development
     b. Leadership Development
     c. Organizational Leadership Development
     d. Specific Leadership Skill Development Modules
   - Experiential Leadership Development Program
     a. Four year leadership involvement program starting with freshmen and ending with seniors (graduation)
     b. Incorporation of leadership workshops, luncheons, mentoring, shadowing, and community service experience
c. Coordination with Campus Activities Programs  
d. Funding and establishment through NUPAGE project  
e. Development of a Leadership Transcript document

Primary Contact Person: The Departmental Preservice Committee Chair (Foster) will provide leadership in coordinating these activities and report to the Department Head (Blezek). All faculty with academic teaching appointments will contribute to the efforts.

Linkages: The undergraduate curriculum in the department of Agricultural Education maintains strong linkages with all academic departments in the College of Agriculture, Department of Agriculture, and the Nebraska Department of Education (NDE). Leadership activities and components are in affiliation with the Center For Leadership Development (CLD). Funding is maintained from a variety of internal and external sources (i.e., NDE, NUPAGE, and CLD).


Resources Needed: The equivalent of 5.5 current FTE with current support dollars increasing by a minimum of 10 percent in each year of this plan. This assumes no new positions in this program area, but reallocates assignments and maintains all present positions, including Bell and Husmann.
Background Statement and Rationale: According to Naisbett and Abujaens
(Reinventing the Corporation, 1985) it will be the management of human
resources rather than management of economic resources that will determine the
margin of success for organizations in the future. In addition, the recently
(1988) published report from Stanford Research Institute (SRI) International,
called "New Seeds for Nebraska," indicated that skilled and adaptable human
resources are a major area where action is needed to give Nebraska the compet­
itive advantage in tomorrow's economy. The report encouraged the University
of Nebraska to be more proactive in developing the human resource capital
available in the state. The Center For Leadership Development is a multi-
disciplinary effort and is designed to meet these futuristic goals.

Primary Goal: To enhance leadership and human resource development across
Nebraska in accordance with priority needs identified in "Directions for the
Future, A Strategic Plan for IANR."

Statement of Action: The primary purpose of the Center is to provide and
encourage educational programs in leadership/human resource development for all
Nebraskans. This will be accomplished though workshops and seminars for
business, industry and other organizations, in cooperation with other colleges and
and leadership programs (i.e., LEAD, Leadership Omaha, etc.). Specifically,
program objectives will include:

1. Continue delivery of a quality Nebraska LEAD program for a total of 60
participants. The 1989-90 program will include 13 three-day In-state
Seminars, on ten-day U.S. Study/Travel Seminar and one three-week
International Study/Travel Seminar.

2. Target the non-profit, education and youth clientele for priority
program development effort in 1989-90. It is anticipated that two major
programs will be conducted monthly, each serving an average of 30
clients (720 persons).

3. While developing a Corporate program thrust, CLD staff will conduct
leadership and human resource management workshops and seminars for
business and industry in 1989-90. Approximately six corporate programs
averaging 20 persons per program will be planned. Total Corporate
clientelege being served should double in 1990-91.

4. Establish an instructional materials resource center by developing and
acquiring leadership/human resource development instructional materials
for use with credit and non-credit college courses and programs for
individuals, organizations and businesses/agencies which could benefit
from such materials.

Primary Contact Person: Department Head/Center Director (Blezek) with an
Associate Director (TBA) who possesses considerable expertise in corporate
human resource/leadership development to cultivate that market and coordinate
the operations of the Center For Leadership Development.
**Linkages:** The Center For Leadership Development has the potential of developing strong linkages with many other departments and colleges. A number have been identified in previous proposals.

**Time Frame:** July 1, 1989 and continuous through June 30, 1991.

**Resources Needed:** To meet the first year needs, funding for 3.0 FTE will be by reallocation and/or will be generated from external grants. The greatest immediate need from IANR will be one FTE in the form of an Associate Director who will assist and be a key individual for the future success at the Center. Part of the Associate Director’s salary may be realized from current salary savings from within the department. Additional dollars will be allocated by IANR, according to the Center proposal, in the amounts of $20,000 in the third year and $35,000 in the fourth year of operation. An estimated $250,000 from grant dollars and user fees will be needed to provide for expansion to 5 FTE, plus operating cost by 1991.
DEPARTMENT OF AGRICULTURAL EDUCATION/CENTER FOR LEADERSHIP DEVELOPMENT
STRATEGIC PLAN FOR 1989-91
PROGRAM AREA: RECRUITMENT, RETENTION AND PLACEMENT

Background Statement: Historically the employment pattern for Agricultural Education graduates has been 40-50% teaching and 50-60% into agribusiness, farming/ranching, graduate school, etc. Recently (last 5 years), as in all agricultural industry, employment opportunities in secondary agriculture has been limited. However, it appears that a surge of employment opportunities exists this year in secondary agricultural education. This same recovery of employment interest in agribusiness has been underway for the past two years.

Agricultural Education graduates are attractive candidates for agribusiness as well as secondary education. The intern experience and concentration on leadership and communication skills prepare them to perform well in the human relations functions associated with agribusiness. The graduate's breadth of technical agriculture courses prepares them to relate well to a variety of agribusiness audiences.

Program Goal: To allow the Department of Agricultural Education to recruit and retain student enrollment sufficient to meet the demand for secondary and post secondary education teachers of agriculture/agribusiness, and expand enrollment of students pursuing skills in leadership, interpersonal relations and communications necessary for entry into businesses and industry occupations.

Statement of Action: To establish a quality recruitment, retention and placement program to expand student enrollment and specifically to:

1. Create an annual strategy plan for making recruitment contacts.
2. Develop a budget necessary to support recruitment activities.
3. Identify activities which will promote the retention of undergraduates in the program.
4. Develop a tracking system of recruitment contacts.
5. Coordinate the development of promotional strategy for undergraduate courses.
6. Assist graduates in occupational placement.

Specific Results Anticipated:

1. Based upon present enrollment, goals for the expansion of undergraduate enrollment will be 10% by Fall 1989, 25% by Fall 1990, and 100% increase over the 1989 enrollment, or 100 undergraduates by 1994.

2. Compile a data base of 200 prospective students which will be established through which recruitment activities will be conducted and records maintained.

3. After students have enrolled into the Department, the following retention activities will be conducted:
   a) Create an undergraduate newsletter to promote communication with three issues in 1989-90.
   b) Inservice sessions on advising for staff to increase quality of departmental advising.
Particular topics will be:

1. Teachers College endorsements
2. Overall advising strategy
   
c) Promotional "brochures" on new undergraduate courses in Agricultural Education will be developed. Special emphasis will be placed on student understanding of the new certification option.

d) Ten noon luncheons (dutch treat) annually for selected undergraduates with the department chair.

4. The following placement activities will be conducted to assist graduating seniors:
   
a) Encourage all department majors to enroll in the Employment Seminar (Ag 489).
   
b) Create a professional bibliography booklet on graduating seniors.
   
c) Seminars on resume development and interviewing.
   
d) Post employment information on secondary agriculture teaching positions in the Agricultural Education department.
   
e) Seminar on the procedure to follow for creating a placement file in the Teachers College.

Primary Contact Person: One staff member (Bell) will be given a 25% assignment as departmental recruitment coordinator, will serve as chair of the departmental recruitment committee, and will report directly to the Department Head. A minimum of two other staff members will serve as members of the departmental recruitment committee. All members of the staff will be involved in contacts of recruits. An active line of communication will be maintained with the Enrollment Manager for the college of Agriculture for mutual benefit.

Time Frame: Enrollment projections by year as well as a time table for annual recruitment activities have been addressed the section of anticipated results.

Resources Needed: Equivalent of .25 percent FTE will be allocated to student recruitment and retention. Additional operating dollars in the amount of $5000 will be required in each of the years of this plan for implementation. Additional justification for budget request is available for inspection.