1999

1999 Issue-Based Review

Darrell Nelson
South Central Research and Extension Center

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1999

Issue-Based Review

South Central Research & Extension Center
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SECTION 1
Introduction and Review Schedule
Issue-Based Reviews of Research and Extension Centers are done for the benefit of the Unit. The process of preparing for the review is one of discovery, adjustment and strategic alignment. The review team plays a critical role in the accountability, validation and potential redirection process. They individually and collectively provide a fresh look at what the Unit deems its appropriate direction to be and the process used to develop that sense of direction.

The faculty and staff at South Central Research and Extension Center (SCREC) have expended considerable energy over the past several months in preparation for this review. In many ways, the review is a snapshot of an evolutionary process. While formal reviews are conducted on an approximate five-year rotation, programs and the issues that drive them are in a constant state of evolution. As we strive to serve a continually changing clientele base, programs and delivery methods must change. At the same time, many of the fundamental issues don’t change rapidly. For example, irrigated agriculture continues to be the primary economic engine for south central Nebraska. The decline in rural communities and counties continues and the population in those areas continues to age.

This self-study document reflects the preparation of the faculty and staff of SCREC. It is the culmination of a variety of need assessment activities as well as a self-assessment process. As part of the SCREC Fall Conference, held on October 26, 1998, the faculty and staff were asked to identify issues that they thought would be affecting our clientele over the next five to ten years. Over 35 areas were identified. Through a variety of interactions with clientele, these were aligned in the five issue areas presented later in this document. The clientele interactions included county and EPU level focus groups, asset mapping and community assessments, the IANR listening sessions, and an extensive set of visitations with clientele at formal educational settings and during informal conversations. Demographic information from secondary sources supporting each of the issue areas is contained in each issue section.

The District faculty and staff met in a retreat setting on March 8 and 9, 1999 to identify issue team membership, and to begin the preparation of the issue chapters. An important aspect of that retreat was the perceived interaction among the issue areas and the linkages that exist across the "disciplines" in SCREC. The following schematic was developed jointly at the retreat with several faculty and staff adding to it over the course of the day.
Following the retreat, the issue teams continued to dialogue and developed the chapters that follow.

The remainder of this self-study document is organized as follows: The SCREC faculty and staff are listed in the next section. The facilities at the SCREC headquarters building and the research farm are delineated in Section III. A brief overview of College Park, the distance education facility for the South Central District, is also presented.

Section IV contains the five issue sections. A brief summary of the 1993 Issue-Based Review is contained in Section V.

The self-study document concludes with Section VI with a set of specific questions that the District requests the review team to consider.
Tuesday, October 19, 1999

PM Arrive Hastings/Check into Motel
7:00 PM Review Team Meets for Orientation/Discussion

Wednesday, October 20, 1999

7:00 AM Review Team Meets with Alan Baquet for Breakfast at the Garden Café
Travel to SCREC
8:30 Charge to Review Team by IANR Administrators
9:00 Tour Office Headquarters
9:30 Overview of SCREC
10:00 Break
10:15 Presentations by Issue Groups
   Agricultural Profitability and Global Competitiveness
   4-H Youth Development
12:00 Lunch with Department Heads
1:15 Presentations by Issue Groups
   Nebraska’s Changing Communities
   Healthy Families
3:00 Break
3:15 Presentations by Issue Groups
   Resource Utilization and Environment
4:15 Individual Specialists, Educators, and Assistants Meetings with Review Team
5:00 Review Team Meets for Discussion/Questions

Evening available for additional review team discussions
Thursday, October 21, 1999

7:00 AM  Review Team Meets for Breakfast with Alan Baquet
8:30    Tour SCREC Research Farm
9:30    Meet with Support Staff
10:15   Break
10:30   Meet with Great Plains Educational Vet Center and MARC Representatives
11:30   Travel to College Park (Lunch in Hastings)
1:30    Tour College Park Facilities
2:15    Meet with Educators with Special Assignments
        Distance Education
        Student Recruitment
3:15    Meet with EPU Coordinators
4:00    Review Team Work Session
5:00    Return to Hastings
        Evening Prepare Exit Report

Friday, October 22, 1999

7:00 AM  Review Team Meets Over Breakfast
8:30    Exit Report with Unit Administrators
9:15    Exit Report with IANR Administrator
10:30   Exit Report with Faculty and Staff
11:30   Adjourn
Dr. Beth Birnstihl  
Associate Dean, UNL Cooperative Extension  
211 Ag Hall - East Campus  
Lincoln, NE 68583-0703

Mr. Dave Eigenberg  
Manager  
Lower Republican NRD  
PO Box 618  
Alma, NE 68920-0618

Dr. Drew Lyon  
Associate Professor - Agronomy  
Panhandle Research & Extension Center  
4502 Avenue I  
Scottsbluff, NE 69361-4939

Mr. Gary Stauffer  
Extension Educator  
Holt County Extension Office  
PO Box 549  
O’Neill, NE 68763-0549

Director Larry Tidemann  
South Dakota Cooperative Extension Service  
South Dakota State University  
Box 2207D  
Brookings, SD 57007

Ms. Carol Ward  
Extension Educator  
Cass County Extension  
Box 385  
Weeping Water, NE 68463-0385
SECTION II
Faculty and Staff
<table>
<thead>
<tr>
<th>NAME</th>
<th>TITLE</th>
<th>APPOINTMENT</th>
<th>FTE</th>
<th>RESEARCH</th>
<th>EXTENSION</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baquet, Alan</td>
<td>District Director</td>
<td>14</td>
<td></td>
<td>78</td>
<td></td>
<td>8</td>
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<tr>
<td>Benham, Brian</td>
<td>Ext. Water Management Engineer</td>
<td>50</td>
<td></td>
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<tr>
<td>DeWald, Scott</td>
<td>Ext. Forester</td>
<td></td>
<td></td>
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<tr>
<td>Elmore, Roger</td>
<td>Ext. Crops Specialist</td>
<td>50</td>
<td></td>
<td></td>
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<tr>
<td>Ferguson, Richard</td>
<td>Ext. Soils Specialist</td>
<td>50</td>
<td></td>
<td></td>
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<tr>
<td>Levis, Don*</td>
<td>Extension Swine Specialist</td>
<td></td>
<td></td>
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<tr>
<td>Martikainen, Keith</td>
<td>Ext. 4-H Youth Specialist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
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<tr>
<td>Roeth, Fred</td>
<td>Ext. Weed Specialist</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Selley, Roger</td>
<td>Ext. Farm Management Specialist</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td>75</td>
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<tr>
<td>Stack, James</td>
<td>Ext. Plant Pathologist</td>
<td>50</td>
<td></td>
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<td>50</td>
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<tr>
<td>Thayer, Carol</td>
<td>Ext. Clothing Specialist/ Home Ec Coordinator/ Small Scale Entrepreneurship</td>
<td>100</td>
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<td></td>
<td></td>
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<tr>
<td>Wright, Robert</td>
<td>Ext. Entomologist</td>
<td>50</td>
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<td></td>
<td>50</td>
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</tbody>
</table>

* Housed in Lincoln, Nebraska
SECTION III
Facilities and Equipment
South Central Research and Extension Center District
Headquarters Area

The South Central Research and Extension Center office/laboratory building was constructed in 1977. Located adjacent to the U.S. Meat Animal Research Center (MARC) office building, the office is 4 ½ miles west of Clay Center, Nebraska.

The 11,000 square foot building was designed with 18 offices, 3 laboratories, a conference room for 100, and supporting areas. The office building is owned by the University of Nebraska, but located on Federal property under a lease agreement. The office is well equipped with personal computers linked to the IANR Token Ring Network. The conference room is equipped with a small kitchen unit which facilitates catering meals for events. A variety of meetings and events are held in the conference room throughout the year. However, most extension meetings for clientele are held out in the counties, as our philosophy has been to support county programs, rather than compete with them.

Three wet-bench laboratories provide laboratory space for specialist research and extension diagnostic work. Primary usage of the labs has been in the area of Entomology, Plant Pathology, Weed Science, Soils, and Ag Engineering. Plant growth capabilities for research and diagnostic purposes is limited as neither greenhouses nor plant growth chambers exist at SCREC.

The UNL Great Plains Veterinary Educational Center (GPVEC) has a classroom equipped with 20 computers. This facility has been used by the SCREC staff for many computer training sessions and by the South Central Six E.P.U. for workshops for clientele. Through GPVEC we have access to downlink and uplink capabilities.

Research Farm

The South Central Research and Extension Center research farm consists of 640 acres, of which 480 acres are currently being utilized for research purposes. The farm is located four miles north of the South Central Research and Extension Center office, located on Federal property, and utilized under a cooperative agreement with MARC. The research farm is adjacent to State Highway #6 and serves as a site for tours and field days.

There are three irrigation wells on the farm that irrigate 327 acres. Approximately 140 acres are irrigated by gravity-gated pipe, and 178 acres are irrigated under two linear-move sprinkler systems. Eighty acres are designated for dryland research. Two tailwater-reuse pits are a part of the gravity irrigation system. The soil is primarily Hastings-Crete silt loam and is relatively uniform over the farm, giving an excellent facility for plot research work. The field headquarters building was constructed in 1972 and serves as a shop, work area, storage area, and office for the farm manager. The building is a 4,000 square foot structure of concrete block construction, insulated and heated.
A 7,200 square foot pole-type metal building was constructed in 1983 and is used to store equipment. Pesticide reuse platform and evaporation pit is also located in the field headquarters area. An 800 square foot pesticide storage and handling facility was constructed in 1987. Five grain bins with a total capacity of approximately 40,000 bushel serve as grain handling bins and research facilities.

An automated weather station is located at the farm site and feeds continuous recordings to a computer in Lincoln. This station is part of a statewide weather monitoring system and has been of great help to our staff in providing up-to-date information to clientele.

**College Park at Grand Island**

Over the past several years, we have worked with the Grand Island community and the Hall County Board of Supervisors in planning a facility to be used as an educational center. The community-raised funds for construction of a 50,000 square foot facility, which was completed and dedicated in August 1992. The Hall County Board of Supervisors contributed funds for the construction of a 10,000 square foot conference center for the Hall County Extension Office as a part of College Park.

College Park is primarily a facility which allows several institutions of higher education to offer credit classes, continuing education, non-credit seminars and workshops to the place-bound or non-tradition student/learner. Primary institutions are University of Nebraska Medical Center, University of Nebraska-Kearney, Central Community College, UNL Division of Continuing Studies, and IANR through SCREC’s involvement. SCREC and the UNL Division of Continuing Studies are renting six offices, four classrooms, and shared space in the facility. Two of the classrooms are equipped with a satellite up-link and all classrooms receive satellite down-link transmission capabilities. Two SCREC specialists, Keith Martikainen and Carol Thayer, and their secretarial support are housed at College P
SECTION IV

Issues
AG PROFITABILITY AND GLOBAL COMPETITIVENESS
Roger Selley*  
Bob Wright  
Richard Ferguson  
Steve Neimeyer  
Tom Drudik  
Terry Hejny  
Paul Swanson  
Darrel Siekman  
Suzie Brown  
Bob Scriven  
Fred Roeth  
Roger Elmore  
Jim Stack  
Steve Melvin

4-H and YOUTH
Brian Bosshammer*  
Janet Hanna  
Jeanette Friesen  
Sue Ellen Beed  
Becky Harms  
Gary Tordrup  
Scottie McMillin  
Janel Smith

HEALTHY FAMILIES
Suzie Brown*  
Marilyn Fox  
Kayla Hinrichs  
Cheryl Tickner  
Phyllis Schoenholz  
Nancy Schmerdtkmann  
Linda Ramsey  
Judy Weber  
Janel Smith  
Sue Ellen Beed  
Sharon Nielsen

NEBRASKA'S CHANGING COMMUNITIES
Cindy Strasheim*  
Pat Anderson  
Rich Bringelson  
Phyllis Schoenholz  
Steve Neimeyer  
Jeanette Friezen  
Brian Bosshammer  
Marilyn Fox  
Judy Weber  
Carol Thayer  
Roger Selley  
Scott Brady

RESOURCE UTILIZATION AND ENVIRONMENT
Richard Ferguson*  
Chuck Burr  
Marlin Hinrichs  
Doug Anderson  
Steve Melvin  
Brian Benham  
Jim Hruskoci  
Scott DeWald  
Tony Anderson  
Paul Swanson  
Darrel Siekman  
Bob Scriven  
Fred Roeth  
Andy Christiansen

* Chair
Where We Are:

South Central Nebraska’s agriculture includes a diverse mix of irrigated and dryland crop production. The area’s livestock production includes some of the state’s largest swine, cattle feedlot, and dairy confinement units, but is predominately small-to-medium cow-calf operations. The current low commodity prices will leave many of these producers struggling for survival. The large population centers in the district will continue to provide the opportunity for a significant number of households to farm part time with one or more members working off the farm. Pressure will likely continue for farms to get larger or seek alternative income opportunities.

Table 1: Agriculture Demographics: 1997 Census of Agriculture

<table>
<thead>
<tr>
<th>SCREC Counties</th>
<th>No. of Farms</th>
<th>Land in Farms (Acres)</th>
<th>Irrigated Land</th>
<th>Operator by Occupation</th>
<th>Operators by Days Worked off Farm</th>
<th>Cattle/Calves Inventory</th>
<th>Hogs/Pigs Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Farms</td>
<td>Acres</td>
<td>Farming</td>
<td>Other</td>
<td>Any</td>
<td>200+</td>
<td>Farms</td>
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<tr>
<td>Adams</td>
<td>623</td>
<td>344,322</td>
<td>429</td>
<td>184,654</td>
<td>664</td>
<td>159</td>
<td>251</td>
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<tr>
<td>Buffalo</td>
<td>1,082</td>
<td>621,227</td>
<td>602</td>
<td>207,784</td>
<td>734</td>
<td>347</td>
<td>486</td>
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<tr>
<td>Clay</td>
<td>538</td>
<td>364,586</td>
<td>378</td>
<td>182,032</td>
<td>403</td>
<td>130</td>
<td>205</td>
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<td>Fillmore</td>
<td>584</td>
<td>356,894</td>
<td>392</td>
<td>194,913</td>
<td>679</td>
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<td>Franklin</td>
<td>430</td>
<td>350,857</td>
<td>244</td>
<td>87,242</td>
<td>358</td>
<td>112</td>
<td>348</td>
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<td>Garfield</td>
<td>206</td>
<td>307,960</td>
<td>63</td>
<td>12,980</td>
<td>140</td>
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<td>105</td>
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<td>Gosper</td>
<td>252</td>
<td>234,143</td>
<td>155</td>
<td>67,890</td>
<td>214</td>
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<td>Greeley</td>
<td>387</td>
<td>291,014</td>
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<td>57,578</td>
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<td>Hall</td>
<td>702</td>
<td>342,267</td>
<td>467</td>
<td>175,179</td>
<td>385</td>
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<td>Hamilton</td>
<td>661</td>
<td>343,622</td>
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<td>237,634</td>
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<td>Harlan</td>
<td>570</td>
<td>325,445</td>
<td>202</td>
<td>75,892</td>
<td>250</td>
<td>111</td>
<td>195</td>
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<tr>
<td>Howard</td>
<td>646</td>
<td>329,984</td>
<td>414</td>
<td>110,683</td>
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<td>Kearney</td>
<td>492</td>
<td>319,771</td>
<td>365</td>
<td>188,959</td>
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<td>Loup</td>
<td>143</td>
<td>339,195</td>
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<td>10,763</td>
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<td>Merrick</td>
<td>553</td>
<td>273,892</td>
<td>136</td>
<td>162,549</td>
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<td>Nuckolls</td>
<td>496</td>
<td>327,445</td>
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<td>49,604</td>
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<td>Phelps</td>
<td>552</td>
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<td>421</td>
<td>224,025</td>
<td>457</td>
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<td>270</td>
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<td>Sherman</td>
<td>483</td>
<td>323,887</td>
<td>227</td>
<td>58,794</td>
<td>343</td>
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<td>Thayer</td>
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<td>368,478</td>
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<td>115,901</td>
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<td>72,199</td>
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<td>Webster</td>
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<td>36,839</td>
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<td>Wheeler</td>
<td>186</td>
<td>292,780</td>
<td>127</td>
<td>48,831</td>
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<td>55</td>
<td>184</td>
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<td>SCREC Total</td>
<td>10,833</td>
<td>7,482,952</td>
<td>6,342</td>
<td>2,562,925</td>
<td>2,887</td>
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<td>State Total</td>
<td>51,454</td>
<td>45,525,414</td>
<td>18,804</td>
<td>6,939,036</td>
<td>55,742</td>
<td>15,712</td>
<td>22,073</td>
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<tr>
<td>% of State Total</td>
<td>21%</td>
<td>16%</td>
<td>34%</td>
<td>37%</td>
<td>22%</td>
<td>18%</td>
<td>20%</td>
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</table>
The resource-intensive irrigated agriculture and confinement livestock operations present challenging environmental issues as producers try to find profitable production. A significant portion of the district is highly productive irrigated land which, we believe, will be a particularly valuable resource as we seek to meet the world’s food needs. The challenge is to make the best use of this production potential to meet food needs and provide adequate farm income while minimizing adverse environmental impacts and excessive costs.

Policies at the local, state, national, and international levels will have a significant influence on what will be produced and how. These policies will also affect who will survive in production agriculture. Our research and extension staff can influence the policy environment by 1) identifying and evaluating production alternatives, 2) educating producers to make good choices, and 3) providing policy makers with support in making their policy decisions.

The hallmark of the land grant institution is research-based information. Our ability to contribute to the research base will be limited by our staffing at SCREC. The areas of research that we are currently pursuing include: 1) water runoff and irrigation management to conserve water and minimize surface and groundwater contamination, 2) fertility and pest management that seeks to enhance profitability and minimize environmental contamination, 3) identifying production practices that seek to maximize and realize yield potential in irrigated corn and soybean production while balancing environmental concerns, 4) dryland crop production systems that provide weed and erosion control alternatives, and 5) management responses to weather and other sources of risk. Linkages with other IANR faculty statewide support the research at SCREC and enable us to deliver educational programs that draw upon research beyond our own work. Current efforts are underway to establish a major collaborative effort in realizing the production potential in irrigated corn and soybean.

Where We Want to Be:

We see our primary role at SCREC as helping bridge the gap in bringing research to the farm. SCREC provides much of the applied research that is needed to evaluate and adapt new technology. Unfortunately, some of the research is not publishable in peer-reviewed journal articles, but is a valuable contribution to production agriculture. Evaluation of new production technologies will be the primary role of the applied research effort at SCREC. These evaluation efforts typically lead to modification of existing technologies and/or development of new technology. Applied research that we see as the key in the next five years are evaluation and development of:

- **New crop production technologies**
  Transgenic and conventional cultivars will continue to be developed at a rapid pace. The evaluation of cultivars and of chemicals designed to control weeds, insects, and disease will require additional effort to provide producers with timely, unbiased information.
• Crop production practices designed to enhance the effectiveness of, or substitute for, biotechnology chemical controls
Problems associated with biotechnology and chemical controls include potential pesticide resistance and environmental contamination. Practices that will be evaluated include biological controls, and crop and pesticide rotation.

• Water and chemical management practices
The importance of irrigated crop agriculture in the area and its contribution to nitrate levels in the groundwater will continue to give priority to irrigation and nitrogen management. Potential for surface water contamination from soil and applied chemicals will also continue to be a concern. Practices that will be evaluated include drip irrigation, reduced tillage, and alternative chemical application practices.

• Tillage and cropping systems
Long-term studies of reduced tillage under irrigation and dryland production systems will be continued at SCREC. A new research direction will include an evaluation of high-yield technologies under irrigation and their role in carbon sequestration and impact on biodiversity.

• Precision agriculture methods
Precision agriculture technologies offer promise of input savings and yield enhancement. Our efforts will be focused upon realization of that potential.

• Livestock waste handling
Confined systems result in problems of odor and manure handling. Research efforts at SCREC will focus upon manure handling and nutrient management.

• Risk management strategies
New crop production technologies, crop rotation, and crop insurance all provide producers with alternatives for managing risk. Agronomic data from SCREC research will permit the evaluation of many of these alternatives.

How We Plan to Get There:

Since all of the research staff at SCREC have joint extension appointments, their research results typically feed directly into their extension programs. Most of the research efforts mentioned above include direct extension educational components since some of the research plots are located on farmers’ fields and are included as tour stops. Also, the research plots located on the University farm often constitute a stop at one of the field days which are held every 2-3 years. Extension efforts that will be particularly important in the next five years include:
• **Demonstration plots**
Irrigation water and fertility management practices have dominated our demonstration efforts in the past and will continue to be important in upcoming years. The emphasis in the next few years is expected to be more on protecting domestic and municipal wells, livestock waste management, and precision agricultural practices.

• **Advanced workshops**
Producer workshops have been an important component of our educational effort in the past and will continue to be important in the future. However, producers, crop consultants, and others have been requesting more in-depth treatment of topics and such workshops are expected to be increasingly important.

• **Distance education**
The spread of computer usage and establishment of satellite downlinks that are readily accessible to most producers in the area provide an opportunity to make use of the SCREC server, and the uplinks at the Great Plains Educational Center and College Park. It is anticipated these facilities will be increasingly used as we and our clientele have more experience with these delivery methods.

• **Decision support systems**
Computer software will be of increasing importance in evaluating pest control alternatives and economic returns. Our role will be to help gather the needed data, evaluate the systems, and support the use of the software in the field.

• **Curriculum offerings**
As clientele express an interest in more in-depth education, it is expected that more of our Extension educational efforts will reflect on-campus education curricula. An increasing use of home study courses is also expected. Our clientele is expected to be increasingly diversified requiring a variety of approaches to accommodate the differing needs of the large producer, the specialized grower, the crop consultant, the part-time farmer, farm support agencies, and our colleagues.

• **Transitions**
Producers have expressed a particular need for help in making decisions when entering and exiting farming and making major changes, such as diversifying production, entering niche or specialty markets, and switching tillage and/or cropping systems. Unfortunately, the most immediate need will likely be to help producers facing a financial crisis precipitated by the current low prices. Workshops and one-on-one extension efforts, similar to those delivered during the crisis in the mid-80's, will again be required. The longer-term needs of producers for transitions decision support will be a challenging extension program area that largely awaits our response. In some cases, cooperative efforts among producers and between producers and suppliers, may need to be explored in livestock and crop production, and marketing.
Additional resources and programming changes needed to carry out the research and extension efforts identified above include:
1. Having the Extension Educators assume a larger role in delivering introductory level offerings.

2. Having additional support staff to help develop distance educational offerings.

3. Having additional support staff on the farm to carry out day-to-day operations and research management. We are spread too thin now.

4. Seeking support funds to accomplish this - equipment, personnel, travel, continuing education, and software development. In addition, to individual efforts in our respective areas, the SCREC specialists are seeking to expand the Center's research agenda by actively pursuing support for an interdisciplinary, irrigated row crop, carbon sequestration study. We also have a continuing need for research support in forage production and rotation of forage crops with row crops.
At the Federal level, all Cooperative Extension youth development programs come under the title of 4-H. This broad interpretation is used in describing 4-H in the South Central District.

Where We Are:

A. Who is enrolled

With an intended audience of youth ages 5-19, approximately 15 of the 40+ Extension staff across the district serve as primary contacts for 17,463 youth. (1998 enrollment figures) This represents 14.22% of the total state enrollment, or 22.1% of the youth from population bases of less than 50,000. (No population centers of 50,000 exist within the district.)

Enrollment may fluctuate yearly, based on a special emphasis during a single year. This often is within short term options to 4-H involvement, such as school enrichment or special interest groups. A longer term review shows an overall increase in district enrollment from 12,665 in 1991 to the 1997 figure of 17,977. This is an increase of 5,312 or 41.94%. For the same time period, Census figures show just less than a 3% population increase in the approximate target audience. (State wide enrollment increased from 90,674 to 108,526, or 20.46% in the same time frame.)

B. How 4-H is delivered

The overall objective of 4-H has remained constant, the development of youth as individuals and as responsible and productive citizens. 4-H serves youth through a variety of methods:
Organized clubs Special interest or short term-groups School enrichment programs
School-aged child care Instructional TV Camping
One time activities Individual membership.

The district maintains a seasonal camping center on Harlan County Reservoir with a capacity of approximately 100. This is utilized by surrounding counties. In addition, a number of counties conduct programs at one of the other 4-H Camping centers, or rent other facilities. Camping is a way of reaching those in the club system, and those not otherwise involved in 4-H.

Many programs are built around EPU or multi-county efforts. These have included such programs as “Kids’ College,” livestock judging events, diversion programs with at risk youth, specialized leadership programs targeted to a multi-cultural audience, water education workshops and many of the camping programs mentioned.
C. What is learned in 4-H

4-H participants learn practical skills such as fitness, meal preparation, rocket building, clothing care, animal and human nutrition, first aid, woodworking, and gardening through the more than 150 projects available. These have long been recognized in relation to the physical skills that are developed. The Life skills they develop are now given a greater emphasis. They include:

- thinking critically
- solving problems
- managing change and challenges
- communicating
- preparing for a career
- serving others
- choosing healthy lifestyles
- respecting self, others and the environment

Where We Want To Be:

A. Goals:

1. Youth will develop life skills to be equipped for the challenges of a rapidly changing world.
2. Families will build positive relationships as they learn and work together.
3. Youth will learn and practice what it means to be a person of good character.
4. Communities will benefit from youth and families involvement in service projects throughout the community.

B. Future program efforts:

4-H continues to be the most recognized strong program Cooperative Extension has to offer youth and families. Four-H has been, and will continue to be an avenue for teaching life skills to youth. It also has the potential to help families build family strengths through working on projects and accomplishing goals together. Unfortunately, the traditional model of longstanding community clubs is not working successfully for many in today's world. Instead, efforts using the other approaches need to be enhanced to meet the needs for families as we go into the 21st century. This may include greater use and acceptance of independent membership, after school clubs, special interest groups, and short term involvements.

A district work team could develop new ways to market and involve youth and families in 4-H. One area offering great potential is expansion of the Clover Kids program for youth ages 5 - 8. Youth of this age are anxious to learn, and their parents/guardians are looking for ways to provide learning experiences for them. At this time, 4-H offers limited curriculum to Clover Kids. Additional curriculum development in this area would provide several benefits: youth will be learning life skills, positive relationships will be developed in families, both youth and adults will share the satisfactions of community service, while good character can be taught and demonstrated from an early age.

Recently, the model of the traditional community 4-H club has changed significantly, due to changes in family life and school activities. In the majority of families, all adult care givers are
now employed outside the home. This limits the time families have to do things together and decreases time available in the past for volunteering. In addition, the great emphasis on extracurricular school activities has caused many youth to drop out of 4-H by the time they reach junior high age.

The benefits of 4-H are still as strong as ever. With the district population becoming more and more diverse, 4-H will need to explore more diverse models. Special efforts will be required to enhance the view of 4-H as an asset to the family and community. Possibilities include promoting 4-H as a Family Club, establishing short-term neighborhood clubs meeting after school for five or six weeks, putting greater emphasis on the benefits of learning and serving, and expanding the Clover Kids program. Other efforts already tried successfully could be replicated both at the county and district level through such expanded possibilities as quiz bowls, and judging teams.

Although volunteer time is at a premium, more schools and business are encouraging their students/employees to be involved in community service. This is a potential area for Extension in providing instruction in service learning, and involving these people through new models for volunteering. (Indicators of success will be different than a compilation of ribbon counts and number of exhibits at the fair. Instilling a sense of community and serving may be the base of 4-H programs.)

The need to teach and model good character has become increasingly apparent. For several years, 4-H has been promoting the CHARACTER COUNTS! curriculum in schools. Many schools have adopted its use, but many more could potentially use the program. This is another area where a district team would be beneficial to multiply the impact of the initial work already done while greatly enhancing the effectiveness of the program. A team could share responsibilities in the areas of maintenance (more trainings, sharing new ideas for teaching the concepts, media work, etc.) and collectively develop ways to expand the program into more communities. Through sharing past successes and creating a unified effort in the district, it would have a "snow-ball" effect.

How We Plan To Get There:

A. Linkages:

Internal linkages need to be made or strengthened within Cooperative Extension. There is direct correlation between 4-H and Youth, Healthy Families and Nebraska's Changing Communities. The 4-H program must be more broadly recognized as an important vehicle for teaching character education, life skills, positive relationships and community service. A unified effort with youth by all staff would result in much greater impact throughout the district.

External linkages with schools, other youth programs, parenting programs, community family coalitions and community organizations will be essential. Many people have had contact with
4-H at some point in their youth, or at least have a concept of what it is. However, most are not aware of all of the possibilities for youth, families and communities through involvement in the 4-H program. A concerted effort needs to be made to "tell the story."

B. Staffing:

With limited funds, many part-time staff, vacancies in state family life specialists and threats of future cuts, it is imperative that field staff work together to further develop and market a plan to put these goals into place. The primary focus of the District 4-H Specialist needs to be more clearly defined. The roles within the District, developing and coordinating work teams to maximize efforts to carry out the goals, shouldn’t conflict with responsibilities state wide for specific programs and/or areas of curriculum.

District work teams should be related to a specific task or program. Groups might be convened to accomplish a particular task, then re-configured as other needs are addressed. There may be opportunity for staff to develop individual specialties within 4-H, while all staff maintain an understanding of core programming. These areas of specialty would help ensure that there is a staff person knowledgeable within the EPU, while not expecting all staff to know all things.

C. Staff Development:

At present, no immediate discipline matter inservice is requested in order to accomplish the stated goals. Most staff have adequate training for their discipline related tasks ahead. However, the time and direction to focus is needed. There are recurring needs for specific program related inservice, due to staff turn over, and for effective creation of the recommended district work teams. There may be individuals who have not, for example, been through CHARACTER COUNTS! training or Real Colors. Those needs could be met on an individual basis as long as trainings are offered periodically throughout the state.

In the area of planning and evaluation, staff development is requested to learn more about such tools as "Outcome Engineering and Results Mapping." A few have recently received this training, but if this is to be used system wide, it is recommended that all staff become familiar with these new methods of planning and evaluation. These techniques will enable staff to focus planning and delivery of programs on what needs to be accomplished to achieve the desired outcomes. This will aid in assessing the efforts of each work team.

As work teams develop and implement their plans, additional training needs may be identified. One avenue for staff development that should not be overlooked are conferences offered by other agencies working with youth and families, such as the Nebraska Association for the Education of Young Children, Good Beginnings and Nebraska Learn and Serve.

The breadth of the program isn’t clearly understood by staff. In order to market 4-H to a wider audience, the artificial limitations need to be reduced. Such things as unnecessary deadlines and restrictions turn many potential participants away. Staff need encouragement and training to value, and fully accept participants outside the frame work of the classic member.
There is a need to provide core training for all staff relating to 4-H youth development, while supporting the development of youth development specialities, possibly through the district work teams. One new area of expertise which is fast becoming core training need for all staff is in the area of resource development. Few staff have joined Extension with course work in this area.

UNL’s position as a research institution is recognized by field staff. There is a willingness to support research in areas related to youth development. Staff development in relation to IRB procedures, as well as specific research techniques would help staff support campus based research, or initiate some of their own. The impact of such programs as CHARACTER COUNTS, county fair involvement, or replication of the national impact study are possible areas of consideration.

Evaluation:

A. Methods

4-H has been documented in past years with numbers of youth, leaders or volunteers. There has been a more recent concern with accountability through documenting quality or behavior change that have resulted in the 4-H program.

Future evaluation of the 4-H program may well be based on such tools as outcome engineering strategies developed by Barry Kibel, Ph.D. The strategies will be based on tracking sets of success markers that are readied at different stages after the initial 4-H activities.

Personal milestones will utilize mapped stories, a technique needed to convert narrative, story data into “hard” data. In Results Mapping, outcome-contributors earn credit for services provided, for networking with other agencies (i.e., collaborative models), for the services these agencies provide to the program’s clients, and also for actions by the clients themselves for self-help or to benefit others with similar problems. These different types of credit are quantified and can be aggregated or disaggregated so that funders and programs can focus on those aspects of program performance and collaboration of concern to them.

More and more programming will be based on grants for a specific purpose. Recognizing the need for evaluation will be part of both the development and execution of those grants, as well as for the benefit of our ongoing stakeholders.
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Where We Are:

The total population of the South Central District is approximately 216,000 (1997). The twenty-two counties in the district range in population from 666 in Loup County to 51,851 in Hall County. While the state’s population increased a modest 5.3 percent from 1990-1998, the growth was not evenly distributed across the state. Nebraska’s metro counties grew 9.5 percent compared to only 1.2 percent growth for the rest of the state.

Most rural counties lost population. Counties in the South Central Research and Extension Center area with fewer than 1,000 residents lost an average of 2.5 percent of their population from 1990-1998; counties with populations of 1,500 to 7,500 lost an average of 2.6 percent; while counties over 7,500 grew 3.8 percent. Gosper County (population 2329) grew nearly 21 percent over the decade. It has been suggested this reflects proximity to an expanding meat packing plant. Only one county (Valley) declined over 10 percent.

The state’s metro counties gained 6,168 residents while nonmetro counties lost 4,649 to domestic migration. International immigration, movement into Nebraska from outside the U.S., resulted in the state’s metro counties gaining 9,372 residents, while nonmetro counties gained 4,662 residents from international migration.

The aging population is increasing. Eleven (one-half) of the South Central Counties have over 20 percent of their total population age 65 and older. Webster, Franklin and Thayer Counties have over 25 percent in this age range.

Between 1980 and 1990, there was a 31.91 percent increase in the Hispanic population in Nebraska. According to 1996 estimates, 3.25 percent of the population in the South Central District is of Hispanic origin. This ranges from a high of 7 percent in Hall County to less than 1 percent in several rural counties. Recent figures confirm that 75.1 percent of the Hispanic population in Nebraska live below the poverty level.

Nearly all of the nonfarm private sector job growth from 1970 to 1996 occurred outside of the most rural counties. If the trend continues unchecked, job growth will lag the rest of the state, and, as a result, the most rural counties will continue to account for a decreasing share of nonfarm private employment. However, an 8 percent increase in the prime working-age population (ages 20 to 64) in most rural counties is projected from 1997 to 2010. The slow job growth and declining job share, combined with an increasing labor force, will produce a substantial gap between available jobs and available workers. It is estimated that by 2010, more than 23,000 rural workers will commute or relocate to other areas for employment.
During the early 1990's, regional trade centers and metropolitan areas flourished. Small communities struggled to support main street businesses and to keep essential services available. However, there is evidence that residents of some small communities realized the magnitude of the problem and began to collaborate to work toward a more positive outcome. The Nebraska Development Network-Central Region holds monthly meetings in communities throughout the area. Several Cooperative Extension faculty participate and contribute to the work of the Network.

Many communities have completed community assessment and planning activities. The outcomes revealed the following high priority issues facing communities: changing health care infrastructure; restructuring local government; leadership; housing; business opportunities; aging population; keeping youth involved; and coping with change.

Several Community Development conferences, workshops and programs have been held during the past five years to provide residents and community leaders an opportunity to explore new ideas and learn from each other. The Nebraska Futures Conference will be held in the South Central District in March, 2000. This is an area wide effort to address the issues we face in the years ahead. Theme of the conference will be "Partnering for Nebraska's Future: Building Regional Partnerships." There seems to be a renewed atmosphere of cooperation and collaboration that could bring exciting results.

Cooperative Extension entrepreneurial program offerings evolved from day-long conferences on general business issues (one size fits all programs) to differentiated educational programs (individualized programs) to in-depth business plan development courses. Youth entrepreneurship camps have been held to introduce the concept of "making your own job" where you live. With the continuing strain in the agricultural economy, a new surge of interest in second (or third) income sources including many start-up businesses may be seen in the future.

Where We Want to Be:

Cooperative Extension will continue to empower residents through an educational process to embrace change. The survival and growth of communities will depend upon self assessment, planning, and cooperative action. Communities reflect the ups and downs of the agricultural economy. Many are seeking new business ventures and focusing on creating additional job opportunities. There is community support for entrepreneurs who are interested in new business or expansion of an existing business. Several micro-lending programs offer small amounts of capital to encourage business start-ups. There is a renewed interest in home-based businesses as individuals and families seek ways to supplement income while maintaining quality of life. Business management training from Cooperative Extension and other agencies continues to be requested by small business owners. Marketing skills, including a growing interest in e-commerce, are a high priority.
Visionary leadership is at the heart of community change and survival. Along the leadership continuum, Cooperative Extension provides opportunities for youth (4-H, Leadership Counts Camp, Character Counts! Camp), young adults (LEAD), adults (Family Community Leadership, Merrick, Thayer, and Hamilton leadership programs, FCE), volunteers (4-H, Family Community Leadership), and community and public officials (public policy education). Developing and nurturing the talents and capabilities of individuals within communities can help build a critical mass of informed and willing leaders. Cooperative Extension can play a role in training a new generation of leaders to deal with the challenges and changes of the years ahead.

At this time there appears to be a lack of topical programming targeted to culturally diverse audiences. The Nutrition Education Program (Expanded Food and Nutrition Program and Food Stamp Program) does reach some in these populations with nutrition education. Finding supplemental materials to use with the clients of these populations groups is a challenge for the staff. Effective planning is hindered by language barriers which cause a break down in communications.

How We Plan to Get There:

With the importance of the survival of communities to the well being of families, there is a strong link between the Healthy Families, 4-H and Youth and Nebraska’s Changing Communities action plans. Opportunities for program “intersections” in these areas can maximize faculty efforts and lead to greater long term impacts. The role for Cooperative Extension with the changing communities of South Central Nebraska will continue to be in the educational arena through cooperation and collaboration with other agencies working in community and economic development. Because of the limited number of faculty and staff FTE devoted to community and economic development, it will be imperative for us to focus our efforts carefully to make the most of the time and resources available.

As our communities become more culturally diverse, we must find ways to meet the needs of new audiences. A starting point might be an inservice education offering for Extension staff focusing on understanding a variety of cultures. A district team could be organized to create a network of people with the skills needed to narrow the communication gap caused by language and/or cultural differences.

Leadership: Encouraging and training individuals in communities who are willing and prepared to accept leadership roles is a pressing need. Several leadership programs are available through Cooperative Extension throughout the counties in the district. In several other areas, community groups sponsor leadership programs that we should support and encourage participation in by community members as well as Cooperative Extension faculty, when appropriate. This would be an excellent area that many district action teams could participate in and support.
Developing Coalitions: Several faculty have been actively involved with other agencies and organizations to work in communities within the district. Cooperative Extension often provides much needed support for these coalitions. Working with other groups in a spirit of cooperation and mutual respect, is one way to stretch our resources to provide much needed assistance to communities throughout the district.

Business Management: Because small business is essential to the future of communities, business management and start-up sessions for entrepreneurs will continue to be available. Working in collaboration with the Nebraska Home-Based Business Association, REAP, and Nebraska EDGE, many types of educational offerings can be made available. Investigation will begin of the feasibility of including a small-business start-up series of questions on NU Facts.

Realizing that we will be unable to continue to provide all the current programs while developing and marketing new efforts, we propose to phase out lower priority program efforts across the district. Programs targeted for "retirement" will be determined after discussion with faculty. Strategies and time tables for this process will be discussed with appropriate individuals to ensure support for Extension faculty.

Evaluation:

Long-term community and economic development efforts will be evaluated using success markers based on outcome engineering strategies developed by Barry Kibel, Ph.D. Results mapping will be utilized to measure Cooperative Extension work in collaborative efforts with other agencies and organizations.
Where We Are:

The South Central Research and Extension Center encompasses twenty-two counties with a total population of approximately 216,000. Individual county populations vary greatly, ranging from 666 persons in Loup County to 51,851 persons in Hall County. Population indicators suggest a 10 percent growth pattern along the I-80 corridor, but a decline in population in outlying counties.

The only age group expected to increase or stay constant in number is the 65-and-older group. This age group currently comprises 25 percent of the population. Since our “gray population” as well as its proportion within our rural communities, is expected to increase, issues that must be addressed include the need for 1) rural transportation, 2) accessible and quality health care, 3) available, affordable housing [including assisted living options], 4) housecleaning/housekeeping services, and 5) desired, accessible businesses.

Still another age group with related issues that will challenge south central Nebraska is the group of children ages birth to 5 years. This group also comprises about 25 percent of the total population. Startling facts demonstrate the need to address these related issues. Between 10 and 22 percent of these children live in poverty. Nearly 70 percent of the mothers of children under the age of six years work at jobs outside the home and earn an average of $7 per hour. Most women are underemployed and work for minimum wages in service-sector jobs. Large numbers of these women are single parents (Table 3).

Adequate, affordable child care and housing are central family and business issues in the small communities in this district. Service sector jobs, agricultural related employment, and small business entrepreneurship, and education are where most of the families earn income.

Adult and juvenile crime is on the increase in South Central Nebraska. Related factors may include: drugs, underemployment, ethnic population shifts, and the increase of single parents and two parent working households who are not available to adequately supervise and care for children. Juvenile crime ranges across the counties from 2-10 percent of the population under eighteen in those counties.

With a decreasing farm economy which relates to on-farm employment opportunities in rural areas, families are at risk. They are at risk for unemployment, or perhaps underemployment where the adults may work as many as five jobs to support the family. Children are at risk for poor nutrition, poor supervision, and an increase in travel time due to school reorganization. Twenty-five percent of the population says they do not have leisure-time activities which could lead to increased stress or depression; both are causes of personal and family dysfunction leading to abuse and violence.
Where We Want to Be:

Recognizing the concern our clientele have for the future well-being of individuals and families and the needs clearly illuminated by demographic data, the South Central District will continue to deliver strong programs related to the overall theme of Healthy Families. In order to maximize time and resources, we will utilize a district list serve to increase awareness among faculty and staff of programming efforts for healthy families throughout the district. Working together to share programs already being offered will minimize development time and provide opportunities for greater district-wide impact in topical areas.

Three primary areas will receive special focus under the Healthy Families action plan:
- Relationships
- Health Issues
- Resource development and management

In order to provide a more complete picture of programs to be continued/enhanced/developed over the next five years, the following summary is provided. Topics italicized are emerging issues that will be addressed during the next five years.

- Relationships
  - Parenting
    - Active Parenting
    - Active Parenting for Teens
    - Parents Forever
  - Child Care
    - Child Care Provider Conferences
    - Better Kids Care (video library check-out or closed circuit television)
    - Brain research information when dealing with children
  - Character Counts!
    - Camps
    - School Enrichment
    - Emphasis in all youth/family programming

Older Adults
- Caregiver training for family members/small business opportunities
- Collaborate with agencies and groups working with older adults to provide educational programs to enhance the area of relationships
- Educational programming (such as Senior Series, LIFE, etc.) especially designed to enhance the lifestyle of older adults

- Health Issues
  - Food Safety
  - Serv-Safe
Prep/Wait Safe
Food Safety for the Occasional Quantity Cook
HAACP-Training for food service industry in South Central Nebraska

Farm Safety
  Camps
  Fair/Farm and Ag Show Booths and Programs

Nutrition and Foods
  Nutrition Education Program (limited resource audiences)
    EFNEP
    FSNEP
  Cardiovascular Health
  Health Care in Rural Nebraska

  Resource Development and Management
  Financial Programs
    Money 2000
    Savings Series (for use with First Time Home Buyers, Habitat for Humanity, etc.)
    Women’s Financial Information Program

  Living in Stressful Times
    Decisions Now
    Time Management

Other items of concern to be addressed in the South Central District include:
  Diversity (multi-cultural issues as well as issues related to Welfare to Work)
  Older adult population
  Family structure
  Rural population migration
  Services becoming more concentrated in larger trade centers

How We Plan to Get There:

Linkages/Teams/Coalitions

With increasing demand and pressure on current sources of program funding, it will become even more important to increase efforts in finding ways to maximize resources in order to continue and expand programming for Healthy Families.

We are proposing to establish targeted district action teams. These teams, while remaining closely tied to the state action teams, will focus on specific program areas. Our goal will be to have representation from each EPU within the district on these action teams.
In light of the increasing numbers of individuals in the over 65 age group, there is a need for a Family Life Specialist — Gerontology to provide leadership for this programming effort for the South Central District.

Establishing linkages and cooperative programming with local community services, agencies, and organizations will continue to be a major strategy in identifying and expanding resources to benefit youth and families. Efforts to maintain and strengthen existing connections and linkages will continue with the partners listed below:

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<th>Educational</th>
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<th>Business/Commercial</th>
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Cooperative Extension field staff will also broaden linkages by identifying and contacting new organizations to collaborate with in programming efforts. These contacts will be made with both emerging and existing organizations that serve and help strengthen families.

Realizing that we will be unable to continue to provide all the current programs while developing and marketing new efforts, we propose to phase out lower priority program efforts across the district. Programs targeted for "retirement" will be determined after discussion with faculty. Strategies and time tables for this process will be discussed with appropriate individuals to ensure support for Extension faculty.
Staff Development:

Staff development will focus on two areas:
- New and emerging issues
- Program development strategies

New and emerging issues: In-depth subject matter training continues to be a requirement for the Extension field staff in Family and Consumer Science. In order to offer timely and pertinent programming, Extension faculty need background and research information on which to base program development. It is essential that subject matter training be prompt, current, and accurate.

Information technology training must be consistent and accessible. Use of computers, software, and Internet is essential in conducting Extension business and programs.

Program development strategies: As Extension staff search for alternative funding to maintain and expand programming, resource development and community team building are two areas of training that will be needed. Specifically, training in aspects of grantsmanship, including identifying grant sources, creative grant writing, and utilizing grant monies, will be required. Also, as we move into increasing and expanding partnering efforts, areas of training will focus on maintaining visibility, identifying roles and evaluating outcomes in community collaborative efforts.

Program development using extended education methods will also be an emerging and vital area of training to facilitate successful programming efforts.

Evaluation:

Evaluation techniques currently used in the South Central District include:

- Pre- Post- Testing
  Knowledge gained
  Behavior modification
  Examples:
  Parenting classes
  Food safety courses
  Farm safety camps
  Child care provider conferences

- Focus groups

- Certification
  Example:
  National Restaurant Association Certification Test
• Direct Observation

• Surveys
  Example:
  Nebraska Families Survey

Future techniques will include:

• Outcomes Engineering
  Example:
  Building Nebraska Families

• Results Mapping
  Example:
  Building Nebraska Families

• Expansion of Focus Group Techniques

• Asset Mapping

• Standardized Statewide Evaluation
  Examples:
  Character Counts!
  Child Care Provider Conferences

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-39-
Significant research and educational efforts have occurred within the South Central District over the past five years addressing issues related to environmental quality and efficient use of natural resources. We expect this effort to continue and even increase over the next five years. We believe associated research and educational efforts fall into either of two broad areas – environmental quality, and appropriate resource utilization.

**Environmental Quality**

**Water Quality**

**Where We Are:**

Water quality, a major concern in 1993, continues to be a significant concern in 1999. The Blue River system, which drains much of southeast Nebraska and ultimately into Tuttle Creek Reservoir in Kansas, provides drinking water for Manhattan and portions of Kansas City, Kansas. At certain times of the year, atrazine levels in Tuttle Creek exceed safe drinking water limits established by the USEPA. This fact has resulted in a significant research and extension effort conducted jointly by UNL and KSU. The objectives of this effort are to develop and test atrazine best management practices that will reduce the atrazine loading in the Blue River system, and to increase adoption of those practices in the Blue River Basin. This project is funded by the USDA through a *Fund for Rural America* grant. A significant portion of this research is located on the District’s research farm.

**Where We Want to Be:**

High nitrate levels in the Platte River system continue to be a concern. *MISTT* (Managing Irrigation Systems for Today and Tomorrow) is an educational/demonstration program designed to focus specifically on irrigation system management in the Platte Valley. This program is funded jointly by the USDA and the Central Platte NRD. In addition, a program designed to educate irrigators and urban dwellers about the importance of good water management and the relationship to groundwater nitrate levels will be initiated in 1999. This program (*Wellhead Area Protection for South Central Nebraska*) will focus in designated wellhead protection areas in and around Hastings, York, Seward, and Davenport. This project is funded jointly by the Nebraska Department of Environmental Quality, Little Blue NRD, and Upper Big Blue NRD.

**How We Plan to Get There:**

The demand for water resources research and educational programming continues to increase. If existing base programs are to be maintained and additional demands met, Soil Fertility and
Water Management Engineer Specialist’s support staff resources are needed. Needs include additional technical support staff and an additional Extension Educator. These assets will be dedicated to the water resources area. Additional means are needed to install and support a research-grade subsurface drip irrigation system. Resources are also needed to upgrade existing linear move irrigation systems located at our District Research Farm.

District staff have been instrumental in developing Home Study Courses in Irrigation Management and Soils, in collaboration with other faculty across the state in Agronomy and Biological Systems Engineering. These courses are designed to allow self-paced learning to occur, with an emphasis on basic management skills in soil fertility and irrigation management.

Soil Erosion

In the south central cropping district including Adams, Franklin, Gosper, Furnas, Harlan, Kearney, Webster, and Phelps counties, the 1992 USLE rate of soil loss on cultivated cropland was 2.4 tons/acre/year, with an estimated margin of error of 0.3 tons/acre/year at the 95 percent level. Pastureland soil loss for these same counties in 1992 was 0.8 tons/acre/year. Both of these levels meet the goal of not exceeding 5 tons/acre/year of soil loss for most soil types in these counties. However, severe erosion sightings are still common. In general, when erosion is visible in fields with rill formation and silting, loss has exceeded 5 T. Reduced tillage in crop production and transferring fragile cropland to well-managed pasture can reduce erosion, improve water quality and reduce production costs in the long term.

Increased use of Holistic Resource Management (HRM) can provide a means of reducing soil erosion, along with various other benefits. Training sessions are needed in which HRM goal-setting procedures can be understood. A multi-disciplinary approach will lend wholeness to the perspective and help avoid serious errors in decision making. Closer working relationships with the NRCS and NRDs will be helpful in implementing HRM methods for resource utilization. Enlisting the cooperation of producers with an intense interest in soil conservation will also be necessary.

Videotapes of major programs could be very useful for wider use at later dates. Short excerpts for use as Public Service Announcements with TV and radio stations may also be possibilities.

Livestock Wastes

The 1997 census of agriculture showed 1.5 million cattle and over 700,000 hogs in the South Central district. Livestock enterprises have recently come under scrutiny due to implementation of livestock waste regulations and a growing antagonism among the public towards livestock waste collection and distribution. Counties in this district are courting large dairy operations from other states at a time they are rejecting resident applications for new or expanded hog facilities.
Livestock are important for the effective utilization of land classes not suitable for grain production. They allow farmers to utilize feed grains and forages, adding value to farm crop production. The manure from livestock adds nutrients and organic matter to soil when it is properly managed. Livestock feeders are concerned about meeting new regulations that may require expensive engineering and water quality monitoring plans. They want to learn how to avoid confrontations with neighbors over flies and odors.

The Environmental Assurance Program has been presented in the district for pork producers. This program needs to be presented to a larger audience and should be expanded to cover beef and poultry producers. One aspect of the program deals with creating good public relations, a topic of great need at this time. The Manure Management Curriculum that is soon to be available will be a valuable teaching tool that will help farmers understand how to account for manure effectively and store and apply it in a beneficial and non-offensive manner. Additional research is also needed on: economics of compost systems; effects of manure and compost on crop production; and proper abandonment of feedlots and lagoons.

The South Central District has a mere .25 FTE in livestock specialization. This suggests that we may need to use satellite and computer linkages to bring the right people to livestock waste management programs in this district. There are several Extension Educators in the district whose background and training are in livestock production. Teamwork among these educators and appropriate specialists can put qualified resource people at district locations supported by specialists from elsewhere in the state.

Appropriate Resource Utilization

Water Quantity

One issue identified in the 1993 District Issue-Based Review that now has a higher level of public concern is water quantity, both surface and groundwater. There are approximately 3 million acres of irrigated row crop production in the South Central District, approximately 38 percent of the state's irrigated acreage. For the most part, Nebraska is blessed with extraordinary water resources. Of the 3.2 billion acre-feet of groundwater stored in the High Plains aquifer, some 2.1 billion acre-feet or 65 percent lie under Nebraska. While a 1992 US Geological Survey report showed that there was negligible de-watering of the northern portion of the High Plains aquifer material as a whole, some areas in the SCREC District were experiencing significant groundwater level declines.

In the late 1980's and early 1990's the Little Blue Natural Resources District began taking steps to limit pumping of groundwater for irrigation. The regulations were dropped when the flood of 1993 recharged the groundwater levels. Since 1993 the District has, in general, had above average precipitation. However, a period of one or two dry years will likely rekindle the pumping regulation discussion.
The real possibility of reduced pumping of irrigation water in the Republican River Valley hinges on the current legal battle between Nebraska and Kansas over river flows. For that matter, the Platte River flow is also an area of contention, with irrigators, municipalities and environmental interests battling over base flows. The SCREC District plans to conduct irrigation related research that investigates technologies and management alternatives designed to increase irrigation efficacy: technology – subsurface drip irrigation and surge flow irrigation, and management – limited irrigation strategies and implementing irrigation best management practices.

**Land Use**

Issues related to soil quality, wildlife management and range management have risen in visibility over the past five years. Aside from the loss of soil quality through erosion, the loss of productivity associated with organic carbon loss from soil via tillage/aeration is increasingly evident. Research over the past five years has confirmed the increased productivity of higher organic matter soils, independent of inputs. The issue of carbon sequestration and cultivated soils as a sink/source of CO$_2$ is increasingly an issue of concern related to global climate change.

With less than 2 percent of the area in public ownership, the challenge exists to develop demonstration, research, and information programs that will elucidate the effects agriculture has on biodiversity and the importance of enriching habitats for wildlife and aquatic biota. Most critical habitats in South Central Nebraska are associated with wetlands. These include the rainwater basin, Sandhills lakes and marshes, and riverine wetlands and woodlands in the area. Several threatened and endangered species associated with these habitats and wetlands have been diminishing in Nebraska and the nation for some time.

Irrigation development has changed grassland management in the last thirty years. Where grass was once utilized as an almost season long resource, it is now grazed more intensively during the growing season and complemented with irrigated forage or crop residue. In 1960, for the 22 county south central Nebraska area, 304,460 calves were born. In 1995, this increased to 335,700 calves. Six counties with extensively developed irrigated agriculture declined in calf numbers, but 22 counties increased numbers with some irrigation development. Past extension programs in rotation pasture grazing have increased our rangeland condition and production.

Research into the dynamics of carbon sequestration in an irrigated corn-based system is clearly needed in light of concerns about global climate change. A better understanding is needed on the influence of a range of management factors on carbon dynamics in soil and the crop biomass.

Future pursuits related to wildlife habitat could include co-investigations on the influence that cropland, rangeland, woodlands, and shelterbelts have on adjacent habitats and the
juxtaposition of habitat types. These habitats will continually be threatened by agriculture in the future unless their importance can be documented.

Utilization of current extension programs in prescribed pasture burning, intensive pasture grazing, and multi-species grazing can further improve our rangeland productivity. Irrigation agriculture in South Central Nebraska has increased livestock production, but rate of program adoption is hindered by lack of Extension resources in this area.

Biosolids

As differentiated from livestock wastes, biosolids are organic materials derived from animal operations and community treatment facilities which can be used as resources in crop production instead of merely disposed of on the landscape. Biosolids include manures from animal confinement operations and sewage sludges from municipal treatment plants. Interest in efficient use of biosolids has grown as awareness has increased of the environmental risks to waste disposal are recognized, either from landfilling or land application at excessive rates.

A continued emphasis on research-based recommendations is required for biosolid utilization. Long-term research conducted within the South Central District as well as across the state, needs to be maintained or expanded in this area. The project currently beginning to develop a Manure Management Curriculum for livestock producers will be helpful.
SECTION V
Review Update
The last Issue-Based Review of SCREC was conducted in 1993. Major issues identified included Environment and Water Quality; Resource Efficient and Sustainable Agriculture; Family, Youth, and Communities; Outreach and College Park Issues.

The review team made several recommendations in each of the issue areas, and some overall recommendations regarding structure and operating procedures. A copy of the exit report is attached along with a copy of the Center's response. Many of the recommendations have been implemented. Some of the general recommendations have yet to be implemented. In particular, an advisory committee for SCREC has not been formed.
ENVIRONMENTAL AND WATER QUALITY

The environmental and water quality portion of the exit report indicated a generally positive reaction to the programs and activities supported by SCREC faculty and staff. Many of the exit report comments indicated that SCREC personnel are active in a variety of strong and effective programs and recommended continued involvement in these programs. There were, however, several statements suggesting directions for future SCREC programming or recommendations for enhancing programs. The real value of the review lies in these comments - the constructive criticism that encourages research and extension programs that respond as new needs and priorities develop. These recommendations are listed below with point-by-point responses.

1) "Access learners in the K-12 setting ..."

Considerable activities are currently underway in this area, most on the EPU and county level. For these programs the SCREC 4-H Youth Development Specialist will continue to be the primary vehicle for reaching the K-12 audience. It is unlikely that other SCREC based specialists will add any significant activities to support outreach programs for the K-12 audience. Resources in this area are available from Lincoln based specialists, EPU based personnel, and a variety of external agencies. These resources may need to be conditioned to the K-12 audience. Given the current resources, a more effective strategy will likely be to target the K-12 educators rather than the students themselves.

2) "... emphasis on aspects of domestic water quality."

Again, this is an area where resources are available on the state level and from other public and private sources to support EPU based programming. This is an area that is highly commercialized, so educational programs are likely to target potential water quality problems and testing procedures, and are unlikely to concentrate on remediation equipment. SCREC based specialists will not likely expand their activity in this area since EPU programming appears to be meeting the need.

3) "As grants expire new sources should be very close at hand."

The coincidence of timing between several large externally funded extension and research projects at SCREC is such that they will all expire within a short time frame. Assuming that the funding agencies choose not to extend the life of the projects, SCREC will undergo a dramatic change in staffing and activity in the environmental and water quality area. Replacement programs may be continued demonstration project activities, some new format for extension activities, or even new research areas. Internal and external evaluations of the Mid-Nebraska project, for example, will help indicate the need for continued demonstration activities or new research thrusts. SCREC specialists are working with the UN Foundation to solicit funds for a large-scale demonstration project dealing with water quantity
preservation. Decisions concerning future efforts in this area must be made in light of the transitory nature of funding sources and agencies.

4) "... pick target audiences ...

Programs involving SCREC staff will renew efforts to target high-impact, as well as traditional, audiences. Examples are agency personnel and crop advisors -- individuals that have direct influence over the practices used on many acres. Elected officials should contact SCREC staff for unbiased, factual information when establishing positions on legislative or policy issues. A possible vehicle for establishing this relationship may be a VIP or Legislative evening tour annually.

5) "... a MS faculty should be added ...

SCREC personnel will prepare and submit a proposal to the EPA 319h program at the next opportunity to solicit funding for this important position. If external funding is not secured, the partial redirection of one or more EPU-level positions will be considered. There may be an opportunity to use some combination of external funding and internal redirection to make this position happen.

6) "Interagency Collaboration"

SCREC personnel have developed an excellent working relationship with Natural Resource Districts and are working towards achieving the same relationship with the Soil Conservation Service. A bigger challenge will be to establish working contacts with the Environmental Protection Agency, an agency that will likely increase its visibility in agricultural issues. The recent assignment of FIFRA responsibilities to the Nebraska Department of Agriculture will require another agency linkage that is not yet firmly established.

Points one through six will be positively affected by an activity that is already underway -- the development of a SCREC district-wide coordinating team for environmental and water quality. The team is made up of county and SCREC personnel to enhance communication and collaboration within the district to ensure effectiveness and acts as a sounding board for new ideas and activities. The team will lead SCREC personnel in preparing and distributing a biannual newsletter summarizing the nature and impact of key research and extension programs district-wide. The newsletter will be distributed to government and agency officials, peers, and statewide media.
FAMILIES, YOUTH AND QUALITY OF LIFE

1. "...advertise your successes...by preparing timely reports..."

   A simple method of obtaining the information desired is needed so these could be compiled and shared. All staff might submit these to one person for review, refinement into a single format and distribution to the appropriate audiences. An alternative is to provide a template for the desired format and a mailing list on disc so that each program could be highlighted by the staff involved and then distributed by those individuals or from a central point in the district.

2. "...form a district issue team that could meet on a regular basis...should have at least one representative from each EPU and the Extension Youth Specialist. ...ask for other specialists within the district or Nebraska Cooperative Extension to assist with planning in the district team."

   A team has been formed. The next step is to look at the most effective way of making linkages to the related state level team(s). There is some concern related to the practicality of coordinating face-to-face sessions for this team. It might be more effective if some of the "regular meetings" could be done via conference call, FAX, or e-mail.

3. "Develop...strong linkages with other agencies who deal with family and youth issues...create a specific niche as you work with other agencies..."

   This is presently done, but perhaps stronger sharing of staff experiences across EPUs would help broaden and strengthen some of these linkages.

4. "...family life specialist and food and nutrition specialist...helpful as the district addresses (these) issues...given current budget constraints...encourage using expertise that exists within county faculty. If specialized training is needed...explore the possibilities with the District Director."

   In reviewing the report with staff, county faculty were comfortable with their skill level to accept more specialized roles in these areas. Concern was expressed as to how this could be justified to the local funding sources for their positions.

   The initiative committee might address the training needs in this area and then make recommendations. Youth and families at risk are likely to be part of April Update sessions in the future. The District Director and/or Dean and Director might consider providing financial support so those staff redirected to this area can attend other training at the regional and national level when they apply. It is hoped that budget constraints will not permanently eliminate the possibility of addressing the need for additional specialist-level involvement in these areas.
5. "...explore more K-12 opportunities for youth development especially in the science area. Linkages with the Educational Service Units and the school systems is encouraged."

A presentation on Educational Service Units and their function might be done at district conference or 4-H Update. The interests and needs of school systems in the area of science might be assessed to determine Extension's niche. Subject matter specialists in all areas might be involved in the development of materials and perhaps teacher training. Those with research appointments could include a youth audience component in grant proposals to assist in the development of up-to-date research-based materials.

6. "Before and after school care appears to be an emerging need...work with care takers of school-aged children or the youth themselves."

This is presently addressed through the Kids' Team federal grant and Child Care Provider's Conferences. There may be ways of extending the programming even further. This is another issue to be addressed by the committee.

7. "...determine whether they have a public policy education role related to children and family issues"

Staff have expressed interest in this area, but also concern on how to do this without taking on an advocacy role. Questions include what format this type of effort might require. Some staff feel Lincoln-based staff may be better suited to do much of the advance work with field staff serving more as facilitators or media contacts. Suggested approaches include fact sheets and presentations similar to those done by Roy Frederick for other areas. Either a newspaper or radio series on related bills in the legislature could be done. Further discussion and input from administration might be helpful in this area.

8. "...consider whether there is a need to address cultural diversity in your extension programming and determine how this can best be done."

There was great interest expressed in this. It was felt that more training is needed on this for all staff with some staff were designated to focus on methods and programs to reach these audiences. There is a realization that this encompasses far more than promoting existing programs and materials to audiences of different cultural backgrounds. New materials, programs and formats have to be developed to meet the needs of all cultures within Nebraska's populations.

9. "...Agents within each EPU are encouraged to combine and coordinate their educational and leadership responsibilities for the Extension Club program."

This is being done to some extent in most counties. As the concept of EPU programming is further developed, it is likely that this will continue.
10. "...continue to look for new modes of program delivery to reach new audiences."

This will be addressed to some extent through the multicultural response and the K-12 recommendation. There has been some expansion through the camping facility, juvenile diversion, Kids' Team and increased use of College Park. This is an area that either all staff may be involved with to some extent, or it may occur through the refocusing of selected staff. There could be EPU contacts for school enrichment programming, or distance learning programs. This is also an area where Extension at the state level may want to look at providing extensive training for all staff in new technologies and program delivery modes to encourage a greater level of adoption.
At the time of the review, College Park had been operating for eight months. Early programming consisted largely of existing programs moved to this location by the respective institutions. Subsequent to the review, non-credit and Extension programming has increased substantially. The review team made the following recommendations relative to College Park:

1. "Encourage the Hall County Extension faculty to consider some redirection within their faculty ranks."

   All of the Hall County staff are involved in programming at College Park and are making special efforts with programming for new audiences. With a pending disability retirement, discussions are underway to redirect this position for more specific focus on College Park programming.

2. "Faculty should be encouraged to pursue opportunities for guest lecturing or team teaching in UNL campus-based courses from the College Park site."

   Several of the SCREC faculty have been involved in guest lecturing at UNL, community colleges, Hastings College and UNK. The uplink facility at College Park increases the potential for such involvement, where appropriate.

   A training session for faculty on uplink presentations is planned for later this year.

3. "Recommend establishing an advisory group of potential users."

   The College Park board has established a programming committee to work with participating institutions on identifying program needs. The College Park Director has established an advisory group of Human Resource Managers which meets regularly to discuss training needs. Discussions are continuing on developing advisory groups, needs assessment, etc. A retreat is being planned for the College Park Board and Institutional representatives.

4. "Encourages a user fee for all non-credit educational activities at College Park."

   This is an idea which will be considered. There is a definite need for generating additional income. Most programs now have user fees which accrue to the institution offering the program.

5. "The Review Team recognizes the problem of handling the large amount of walk-in and phone traffic."

   One secretary cannot handle this workload in addition to other secretarial duties for four professionals. Some way must be found to provide additional support and this is being pursued vigorously.

   The new phone system with calls going directly to the individual offices, and a token ring will be of some help. However, it’s critical to develop some type of division of responsibilities so one support person can focus on calls and walk-ins while another completes another type of task. The same could be said of the Director’s potential to do marketing, counseling, or overall management if forced to continue handling a myriad of lesser (though critical) requests throughout the building.
6. "Visit other learning center sites."

The Director has visited the Panhandle learning center. There is merit in this recommendation and discussions are continuing on possibilities.
SUPPORT STAFF

1. "There may be a need for an ad hoc committee -- to look at public relations, image and visibility."

   Good idea! We're in the process of selecting such a committee.

2. "Establish a clientele-based advisory board..."

   We've had such a board in the past. We think that clientele input is important. We feel that some type of advisory input on issues or initiatives would be preferable to an overall Center board. We have such a group for the water resources initiative.

3. "Arrange for personnel benefit updates... job descriptions need annual review."

   We have had personnel benefit sessions annually for a number of years. During the last two years, there have been satellite downlinks on the retirement programs. There appears to be ample opportunity for staff to get needed information under the present arrangements.

   Position descriptions are reviewed and updated as needed at annual evaluation time. We subscribe to the concept of a well-trained support staff and continuously look for opportunities for professional training.
STRENGTHENING NEBRASKA COMMUNITIES

The Strengthening Nebraska Communities section of the exit report accepted as appropriate the three issues which were identified by faculty members in SCREC: Community Economic Development, Leadership Development, and Small-Scale Entrepreneurship. There were several recommendations for future program direction and management. These are listed below with our response of ways to meet the challenges which lie ahead.

1. "develop the issue team concept...have a representative from each EPU on the team...look at common issues facing communities...establish measurable goals...use a variety of delivery methods."

   At an April meeting of the issue team, a commitment was made by members to meet regularly and to identify a project that everyone could work on to make an impact across the district. Two additional meetings have been held and after considerable discussion and review of issues facing communities, the team has identified the area of small business management under Small-Scale Entrepreneurship as the focus for 1993-1994. Team members will work on specific topics to write goals, develop curriculum, deliver via satellite from College Park, and evaluate.

2. "develop and build strong linkages with other entities"

   Working with communities is something that cannot be done in isolation by Cooperative Extension faculty. Linkages are currently being developed with many community agencies. We will continue to strengthen and enhance these linkages to decrease duplication of efforts and to find our unique niche in this arena. In order to better serve people in the communities in which we work, an inservice training on group dynamics and group processes will be requested.

3. "leadership training for adults and youth"

   Networking with the Youth and Family Concerns issue team will strengthen the efforts in this area. Sharing and coordination of leadership programs within the district will be done after an annual review of EPU plans of work.

4. "new clientele opportunities at College Park"

   College Park will be the origination site of a programming effort to reach small business owners by satellite in 1994. We feel there will be many opportunities to reach new audiences and that a marketing strategy could be helpful to reach targeted clientele groups. Training is needed to serve as an effective facilitator of a videoconference as well as presentation of a program using this technology.
5. "bring people together for multi-community, regional or trade area planning"

This is a goal we will strive to reach. This type of cooperation takes many hours of work (sometimes years) and cannot be accomplished by Cooperative Extension alone. The success of this type of effort will require strong linkages with other agencies and individuals within communities.

6. "involve minorities in community development"

Cultural diversity training for staff involved in community development work will be the first step toward reaching this goal. Program content, delivery location, presenters, etc., will need to be evaluated in an effort to involve minorities.

7. "redirect .25 FTE from Home Economics Program Coordinator position"

While there is an obvious need for additional FTE to be directed to the Strengthening Nebraska Communities effort, it should not be gained by complete abandonment of the Home Economics Program Coordinator position. A reduction to .10 FTE would still allow time to provide coordination and communication which are necessary for certain program efforts in Home Economics, while allowing an additional .15 FTE to be directed to the Strengthening Nebraska Communities program efforts. This would more accurately reflect the current level of activity of these positions.
EXTENSION PROGRAMMING UNITS

1. "EPU faculty should continue to build their working relationships, seek new audiences and develop areas of specialization."

   We concur with this recommendation. All four of our EPUs have completed the future focus planning and are beginning to refocus programming in their 1994 Plan of Work.

2. "EPU and specialist faculty need to look seriously at strengthening the District issues team approach"

   Our six district issue teams (p. 52 of self-study document) are comprised of Extension Educators and Specialists, where possible, cochaired by Specialists and EPU staff. These teams are composed of representatives from each EPU. We feel that this model will strengthen the overall planning for the district. Some teams are meeting quarterly, while others meet twice a year.

3. "As EPU faculty develop areas of specialization, they should look at ways to utilize each other’s expertise across EPU lines."

   We concur with this recommendation. To a limited extent, this is already occurring. Jim Hruskoci coordinates and conducts Master Gardener’s training for the four EPUs. Several other EPU staff have served as program resource in other EPUs. Many of our programs are team-taught.

4. "EPU faculty should explore distance learning methodology as a means of bringing new resources to traditional audiences or as a means of reaching new or non-traditional audiences."

   We are working on this. We have added three downlink sites in the last two years, giving us at least one site per EPU. We need to add three or four more sites to access more clientele. We plan an inservice during the next year on using the uplink capabilities at College Park along with emphasis on how to best use downlinks and how to market satellite-delivered programs.
RESOURCE EFFICIENT AND SUSTAINABLE AGRICULTURE

1. "Focus on your strengths..."

A South Central District Extension Priority Initiative Team on Ag Profitability and Sustainability was formed in the fall of 1992, with both educator and specialist membership. Paul Swanson and Bob Wright are cochairs of this team. This team has started to identify goals and objectives for programming in this area and will continue this activity. We agree that it may be necessary to look to outside resources to develop a comprehensive team in this area. Certainly one area where SCREC faculty are short on expertise is livestock/forage production. We intend to visit with appropriate MARC and GPVEC staff this year to discuss possible projects of mutual interest that would contribute to this area. Similar discussions will be undertaken with appropriate UNL faculty at Lincoln or other Research and Extension Centers. Several SCREC faculty interact regularly with Chuck Francis and the Center for Sustainable Agriculture, either in research projects (Elmore) or by membership in the Nebraska Priority Initiative Team on Sustainable Agriculture (Wright and Swanson). Opportunities for grant dollars or information from these sources will be evaluated.

The review team suggests that we evaluate existing long-term studies at SCREC, such as the long-term tillage study, for possible modification to better serve our needs in this area. There are several other ongoing studies that could be modified also. As part of the district team efforts we will review goals and progress to date on these studies, and where appropriate, modifications will be made to best utilize these resources. Also, we will review ongoing projects at other Research and Extension Centers and at Lincoln. The review team suggests the use of the site of the Burlington Northern Water Quality project as an alternative to development of the northeast quarter of SCREC farm. Since the end of this project, expanded research projects by several specialists have already used much of this area. The uncommitted area of this block would be insufficient to develop an appropriate study to meet our research goals, and other land is not available to transfer the existing projects to another site on the farm. Also, furrow irrigation is not available at this site, limiting its usefulness in studying the full range of irrigated and dryland agriculture in the district.

2. "A much stronger economic emphasis will be needed..."

We recognize the importance of economics to the development of resource efficient and sustainable agriculture. An agricultural economics specialist (Roger Selley) is a member of our district extension team. With input from the district extension team, we will decide what economic feasibility studies are most important to guide future research. Roger Selley and other agricultural economics faculty will be involved in identifying available data in this area.
OTHER

1. "Should develop a strong Public Relations plan."

   A SCREC Image and Public Relations Committee is being established to give more focus to the public relations function. A SCREC Facilities Committee was established last year to give recommendations on facility improvements. Consideration is being given to developing a joint SCREC-GPVEC-MARC brochure which can be given to visitors at the location.

2. The review team made several suggestions relative to facilities. The SCREC Facilities Committee has made recommendations for improving handicap accessibility, eg. change door handles. The unisex restrooms at the Farm Headquarters continues to be inadequate and additional restroom space is planned in the remodeling-addition plans. Funding for this project continues to be a problem.

3. "The team strongly recommends that the unit chemical plan be strictly adhered to and safety training be an on-going activity."

   This is being done and this recommendation was apparently presented as a "continuation" recommendation.

4. The review team made several references to the planning model used at SCREC. Page 52 of the review document lists the District Initiative teams which serve a major role in our planning process. These teams are constructed to have each of the EPUs involved along with staff who serve on statewide initiative teams. Some of these teams meet quarterly, others meet as needed but not less than twice a year. This model fits well into the extension planning model now being used by Nebraska Cooperative Extension.
SECTION VI

Questions
Questions

1. Could you give us insights on appropriately addressing the educational needs of an increasingly diverse whole?

2. Do we have a balanced research and extension focus at the Center?

3. What does the review team view as the research focus for SCREC — where can we make a difference?

4. How do we address the increasing educational needs for families with a staff that is predominantly composed of part-time educators?

5. What program areas should be enhanced to better address important issues?

6. Do we have appropriate staffing to meet priority issues?
REPORT OF A
COMPREHENSIVE ISSUES REVIEW
FOR THE SOUTH CENTRAL RESEARCH AND EXTENSION CENTER
AND
THE SOUTH CENTRAL DISTRICT

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CONDUCTED
October 20-22, 1999
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Introduction

The purpose of this Review Team report is to summarize and synthesize the topics discussed during the review of the South Central Research and Extension Center (SCREC) and South Central District. The Review Team expects that issues identified in this report will be studied by the faculty and staff of the unit. It is our expectation that a plan for the implementation of the recommendations will be made, or that appropriate reasons for not addressing particular issues will be identified.

The Review Team was pleased to be a part of this review process and grateful to the leadership of Dr. Alan Baquet in implementing the review and hosting the review team.

Objectives Of The Review

The objectives for the review of the SCREC/District was described in their self study document as follows: “Issue-Based Reviews of Research and Extension Centers are done for the benefit of the Unit. The process of preparing for the review is one of discovery, adjustment and strategic alignment. The Review Team plays a critical role in the accountability, validation and potential redirection process. They individually and collectively provide a fresh look at what the Unit deems its appropriate direction to be and the process used to develop that sense of direction.”

The faculty and staff at SCREC/District expended considerable energy in carrying out this review. In many ways, the review is a snapshot of an evolutionary process. While formal reviews are conducted on an approximate five-year rotation, programs and the issues that drive them are in a constant state of evolution. As SCREC/District strives to serve a continually changing clientele base, programs and delivery methods must change. At the same time, many of the fundamental issues don’t change rapidly. For example, irrigated agriculture continues to be the primary economic engine for south central Nebraska. The decline in rural communities and counties continues and the population in those areas continues to age.

The self-study document reflects the preparation of the faculty and staff of SCREC/District. It was the culmination of a variety of need assessment activities as well as a self-assessment process. As part of the SCREC Fall Conference, held on October 26, 1998, the faculty and staff were asked to identify issues that they thought would be affecting their clientele over the next five to ten years. Over 35 areas were identified. Through a variety of interactions with clientele, these were aligned in the five issue areas presented in this self-study document. The clientele interactions included county and EPU level focus groups, asset mapping and community assessments, the IANR listening sessions, and an extensive set of visitations with clientele at formal educational settings and during informal conversations.

The District faculty and staff met in a retreat setting on March 8 and 9, 1999 to identify issue team membership, and to begin the preparation of the self-study document. An important aspect of that retreat was the perceived interaction among the issue areas and the linkages that exist across the “disciplines” in SCREC. The following schematic was developed jointly at the retreat with several faculty and staff adding to it over the course of the day.
Review Procedures

Approximately four weeks prior to the review of the South Central Research and Extension Center and South Central District, Dr. Alan Baquet, Director, forwarded copies of the South Central District 1999 Issue-Based Review, a self-study document to the Review Team. At the beginning of the on-site visit, Dr. Beth Birnstihl identified with the review team members issue areas for which each team member would have a major responsibility during the review. In addition to their major responsibilities, each Review Team member contributed to the overall report by making general
comments and recommendations in all review areas. Based on previous issue-based reviews, the Review Team was expected to:

- Challenge existing paradigms and question the status quo
- Identify issues/concerns that may have been omitted in the document
- Ask alternative questions
- Encourage “thinking” across boundaries
- Ask why
- Ask how
- Add new dimensions
- Validate issues identified in the self-study document
- Challenge traditions
- Catalyze change

The Deans also charged the Review Team with the following:

- Determine if the SCREC faculty had focused on the “correct issues” in the self-study document
- Determine if there were omissions in the issues identified for emphasis in the South Central District
- Determine if the approaches identified for responding to the issues were appropriate
- Determine if there is appropriate focus of programming for amount of available resources
- Study the facilities and ask if adequate resources are available for amount of programming proposed
- Determine if SCREC should be more involved in distance education
- Determine if the issues/plans identified appropriately leveraged expertise on campus, other research and extension centers, and federal and state agencies.
- Determine if the SCREC has made progress in their work since the previous review
- Assess the likelihood of continued progress in the future
- Evaluate whether or not the faculty of the SCREC are recording the impact of their programs

During the three day SCREC visit, the Review Team participated in a schedule of presentations and question and answer sessions with the SCREC/District faculty on the district wide issues of emphasis described in the self-study document and related responsibilities of the district, i.e., student recruitment, extended education and educational program units. Following and during the presentations, team members asked questions and made comments that served to facilitate the intent and purpose of the review, including program focus, future plans, opportunities, and how the faculty intended to achieve their goals. The team also had the opportunity to visit informally with extension and research faculty as well as tour the facilities. Each evening was reserved for the Review Team to meet separately and discuss the day’s activities to synthesize and integrate a “Review Team” perspective on the issues addressed.

During the closing session, the Review Team presented an oral report of strengths, challenges/opportunities, and recommendations to District Director Baquet and Deans Nelson and Dickey. The Review Team then met with the faculty and staff and provided a brief overview of their findings.

In this report the Review Team responds to each issue area of the self-study document using the following format: strengths, challenges/opportunities, recommendations. The Review Team responded only to those recommendations which could be addressed and would benefit from external input. The Review Team response is based on a set of working assumptions.

**Working Assumptions of the Review Team**

- All IANR units will be working with limited funding (stable to minor increases which are eroded by escalating operating expenses), at least for the next three-to-five years. Future programmatic changes will be achieved by redirection and/or reallocation and reduction in program scope.

- Agriculture will continue to be the main economic activity in the South Central district. Production systems will include irrigated and dryland crops and livestock systems.

- Agriculture and natural resources will interface at the policy/regulatory level.

- Global interdependency will assume an even more prominent role in the agricultural and social science issues of rural America. Several businesses currently market globally and South Central producers are major exporters of corn, beans and beef, emphasizing the need for the SCREC/District to assume leadership in the region’s internal awareness of global interdependency.

- There will be an increasing demand for quantitative accountability (i.e, evaluation and impact assessment) for all programs.

- Sensitivity to demographic data will be essential in making programmatic decisions
Youth, communities and post-secondary education are essential to the future of the South Central District. Education is a key component of economic and community survival. Continued outreach and education of the South Central District.

There continues to be a critical need to help leaders of communities and businesses develop skills.

Effective extension programming will continue to be research driven, placing greater emphasis on Extension Educators to teach and become specialists in programs areas to deliver education to clientele.

Technology will increase clientele accessibility and interest for a variety of non-credit program offerings.

The Learning Center at College Park provides a tremendous asset to the District programming.

Relevant applied research continues to be a priority of the South Central Research and Extension Center faculty.

Change will characterize the future, emphasizing the importance of professional development opportunities for faculty, staff and administrators so that they might be well positioned to address emerging issues.

Overarching Issues

The faculty and staff of the SCREC/District are commended for the development of a self-study document that is proactive and focused on the future. The graphic depicting the relationships among the program issues was an excellent way to portray the team attitude of the SCREC/District. It is suggested that the next emphasis of the issue teams should be to address the question of how they plan to implement their recommendations. While questions directed to the Review Team asked for direction, it is believed that the best decisions regarding how to achieve goals will come from within the faculty and staff themselves. Several themes emerged as the Review Team examined the self-study document and participated in presentations and discussions with the faculty and staff of SCREC/District. Rather than describe these themes in each of the issue sections of the report the Review Team chose instead to address the issues in an “Overarching Section” of the report. Issues that are pertinent for discussion for all faculty and staff of the SCREC/District are:

1. The faculty and staff are encouraged to use the self-study document, the Review Team report and the SCREC response to the Review Team report as working documents thus finding ways to incorporate into their program goals what was identified as “Where We Want to Be” and “How We Plan to Get There” topics in the self-study document. It would please the Review Team to see the action plans currently being written by the faculty of the SCREC as addressing the issues emerging from the self-study document of the district.
2. The SCREC is urged to initiate a process for development of an advisory council(s) to help identify research/educational issues that need to be addressed and serve as an advocate for the SCREC/District. It is left to the discretion of the SCREC to organize an advisory council(s) to best meet its needs. Whether it is grouped around the categories of research and extension or around the issues topics identified in the self-study document are discussion topics for the district faculty/staff. It is suggested that an advisory council(s) would make an ongoing contribution for listening and helping prioritize programs within the district. It is recommended by the Review Team that the terms of members on the advisory council(s) be limited to ensure that new ideas are brought to the advisory committee on an annual basis.

3. Applied research is a function served well by the faculty and resources of the SCREC/District. It is suggested by the Review Team that the research faculty and the District Director address how applied research projects can best serve the South Central District. Shared resources with other entities are encouraged and while the Review Team agrees that some additional resources, such as a small greenhouse, would enhance the capabilities of the South Central District, faculty are encouraged to build collaborative relationships with campus based faculty to share resources and research goals whenever possible. The Review Team recommends that the emphasis of the applied research be on agricultural profitability rather than agricultural productivity.

There was considerable discussion throughout the visit of the Review Team about whether the research emphasis should be applied or basic research. It is the belief of the Review Team that the faculty and facilities of the South Central Research and Extension Center/District are ideal in the implementation of applied efforts.

4. Retirement of programs was identified by almost all issue teams as being important. The following recommendation is made for addressing this issue:

1) Engage clientele in the decision making process regarding the ending of programs.
2) Garner administrative support/input as the process is implemented.
3) Put in place between faculty and clientele a communication process that decreases the opportunity for misunderstanding or surprises about decisions made.
4) Encourage documentation of the ending of programs in the ARFAs

5. Extended Education presents a significant opportunity for the SCREC/District to reach out to clientele. The potential for this outreach is almost limitless with the College Park facility located within the district. Communication between Extension Educators who serve as facilitators and the Learning Center Coordinator will continue to be priority for the SCREC/District. It is expected that SCREC, as well as other Research and Extension Centers in Nebraska, will assume a major role in the outreach/teaching mission of the University.

6. It is expected that the future image of the SCREC will expand beyond the traditional image of agriculture and natural resources and also emphasize youth, family and community so to respond to the issues identified by clientele. It will be important that Extension Educators continue to become more specialized in their work and serve as teachers/facilitators.
General Overview

Strengths:

The Review Team was extremely impressed with the engaging and dynamic review that was developed and delivered for this review. There was a sense of strong commitment presented by the faculty as they delivered their components. It was also commendable that the faculty/staff stayed all day and played an integral part in the presentations. They discussed each other's roles and presentations. This reflects very positively towards the leadership skills of Director Dr. Alan Baquet.

Faculty/Staff recognized that they cannot continue to do more new programs or projects without first retiring some of the current or past activities. Recognition that this needs to occur is the first step and staff will need encouragement and reinforcement throughout the process. It was demonstrated by each of the groups that the SCREC/District were cognizant of customer needs. There was clear evidence that they were engaged with the clientele and making the necessary changes to better serve the new customers.

Working beyond the Extension Program Unit (EPU) and district boundaries was not a new concept. The group was very willing to provide programming beyond the EPU and solve problems with a multi-disciplinary team approach.

Educators, Assistants and Specialists perform the educator role and have the skills necessary to teach non-formal and formal courses.

The support staff of the SCREC are complimented on their interest and involvement in this review visit. It is evident that they are engaged in the research/outreach efforts of the SCREC/District and want the program to be successful.

Opportunities/Challenges:

The administration needs to provide the boundaries, framework, and encouragement that will allow faculty the opportunity to focus, prioritize, and retire programs/projects. This will allow faculty/staff the freedom to explore new program efforts.

Researchers need to seize partnership or collaborative research opportunities with the UNL campus-based researchers.

Partnerships can be strengthened among Educators, Assistants, Specialists and Researchers for the common good of the SCREC/District. Mentoring programs for new faculty/staff can flow from Specialist to Educator, Educator to Educator and Educator to Assistants as well as Educator to Specialists.

The time is appropriate for the SCREC/District to build upon the on-going public support system.
Additional training on the use of technology would be beneficial to all of the faculty/staff of the district.

Additional opportunities for communication regarding the work associated with the research farm would increase input for setting priorities about the work that needs to be completed.

Recommendations:

Examine the committee recommendations and evaluate as a team which ones you can/want to implement. The administrator (Dr. Baquet) will establish the targets but each of the staff needs to see their role in putting life into the process.

Establish an advisory council(s) that can assist the SCREC/District through needs assessment as well as becoming an advocate for program efforts.

Seek opportunities where Specialists, Educators and Assistants can continue to enhance their communication, program planning, and delivery efforts.

Schedule regular inservice events in the SCREC/District for technology training, allowing staff to train while not having to travel to Lincoln.

Identify a committee of researchers to meet regularly with the staff supporting the farm to discuss issues related to setting priorities for the work to be completed.

District-Wide Areas of Emphasis

The following responses are in reference to the issue topics identified in the self-study document. Each section is complete with the identification of strengths, opportunities/challenges and recommendations.

**Ag Profitability and Global Competitiveness**

Strengths:

The Review Team was impressed with the obvious commitment of the faculty and staff to the issues and needs of their clientele. The conspicuous strengths of the team assembled to address this issue include: 1) a dedication to the use of a multi-disciplinary approach to problem solving, 2) a very strong commitment to applied research, 3) a willingness to provide programming beyond county and EPU borders, and 4) the support for curriculum-based extension programming. Particularly in the last two items, the district appears to be ahead of their peers in other districts.
Opportunities/Challenges:

The SCREC is located in very close proximity to the USDA-ARS Meat Animal Research Center (MARC) facility, as well as the Great Plains Educational Veterinary Center (GPEVC). This proximity provides the SCREC with a unique opportunity to interact and leverage expertise available at these facilities. This opportunity for greater collaboration might be enhanced by locating an animal science faculty position at the SCREC, although we believe increased cooperation is possible without such a position.

The South Central District review document described a broad research and extension program. In order for the district to effectively address this broad agenda, they will need to enlist additional resources. For example, it is unlikely that funds will be found to construct greenhouses or large growth chamber facilities at the SCREC; therefore, faculty will need to look for partners to help with this kind of work. The SCREC has 160 acres of land that is currently not being used for research. The opportunity exists to develop this land for new research identified by the faculty through a prioritization process. It will also be important for the faculty and staff in the SCREC/District to spend some time to prioritize their research and clientele needs. Excellence, that is recognizable by all, will be difficult to achieve without focus. This may require the development of a framework in which to gather broader input from clientele.

Recommendations:

The Review Team recommends that the SCREC/District strengthen their commitment to livestock research and extension programming. It is suggested that a new full-time research/extension beef specialist position be located at the SCREC. The emphasis of this position should be in the area of cow-calf operations. It is believed the creation of this position at the SCREC will facilitate interaction with, and better leverage expertise available at, the MARC and GPEVC.

The Review Team would like to see improved interaction between center faculty, educators, and non-district scientists. This may require some kind of formal process, at least in the beginning, to stimulate effective interaction. The team believes this will be critical to the success of the broad agenda outlined in the review document. Particular attention should be paid to increased interaction with MARC and GPEVC for joint animal and plant research and extension programs.

The faculty are encouraged to continue exploration of the feasibility of research into the profitability of drip irrigation. This research seems to be a natural fit for the district given its excellent record in irrigation and water quality research, as well as the land resources available within the district. This may be the type of project for which the 160 acres of land discussed above could be developed, thus providing an unique resource for the district and state.

The Review Team suggests that the district allocate time to develop and implement a prioritization process. This process should be used to identify the unique characteristics and strengths of the district. This information should then be used to identify two to three areas where the district can provide state or national leadership for cutting-edge programming. It is our belief that the focus of
these programs should be on profitability, with the realization that yield is an important component of profitability.

Finally, the Review Team recommends that a formal mechanism be developed to gather programming needs from clientele. This may involve the creation of one or more advisory groups, or a more systematic way of gathering information from existing groups such as extension boards, commodity groups, and political subdivision boards, e.g., NRDs.

**4-H and Youth**

**Strengths:**

The Review Team recognizes and appreciates the fact that the ongoing youth program in this district is perceived by the clientele as a very positive program. It is apparent that there has been a solid faculty and staff effort to support youth programs in this area. There has been a significant increase in enrollment, even with a stable population base.

The 4-H and youth programs offered have the advantage of being able to encourage family involvement in a common goal, with families building closer ties and bonds because of the time they spend together. This will no doubt have a positive, long term impact on family relationships.

Research has shown that youth who have been involved in the types of programs offered have excelled in many areas in later life as a result of their involvement. The traditional 4-H club has been a positive model across the nation, and your involvement and continued support of youth programming is to be commended.

**Opportunities/Challenges:**

The timing is appropriate to implement the teaming concept for planning and delivery of youth programs. Faculty/staff are now in a better position to cross county/Extension Programming Unit lines to deliver programming because of the change in funding for salaries, with the University now paying 100% of salaries for Educators and state funded Extension Assistants. Teamwork is always a positive approach to a situation, and should continue to be encouraged.

The Review Team feels that Extension faculty/staff have the appropriate flexibility to eliminate most of the barriers to 4-H and youth programs.

The Review Team believes that faculty/staff, including Specialists, should recognize the merits of including a youth component within their programming efforts. Youth are a large potential audience. This would also support the student recruitment effort, build increased teamwork among staff, and combat potential burnout of those now presently working in the youth area.
Frequent 4-H staff turnover challenges the continuity of the 4-H program. Efforts need to be made to alleviate this situation, not only for the clientele, but for the general health and well-being of the organization.

Additional efforts can be made to transfer staff development training to others in the district who are not able for whatever reason to attend the trainings. This will also help upgrade morale of all staff involved. Team leaders can bring back training to others on the team, etc.

There appear to be opportunities at this time to define roles for District teams as well as for the District Youth Specialist. The South Central District may be in the position to offer suggestions here that could also be utilized by other districts with similar questions.

The Review Team would encourage additional collaboration between Youth Development and Healthy Families issue teams, since both groups have many similar challenges and goals.

Recommendations:

The Review Team recommends that faculty/staff proceed with developing guidelines and begin implementation of the teaming approach to address key program issues.

The Review Team encourages the development of areas of focus and specialization within the faculty/staff.

Faculty/staff are urged to continue to seek out/develop opportunities to participate in coalitions/linkages with other agencies, organizations, groups, etc. with similar goals.

Faculty/staff are urged to continue to encourage youth to become involved in community service projects.

Faculty/staff are encouraged to seek out opportunities to implement outcome engineering/results mapping to document impact of programs. It has traditionally been difficult to document outcomes and impacts of youth programs. Anything that can be done in this area to identify impact will be a tribute to the organization and the individual faculty/staff members involved.

Faculty/staff are encouraged to study the involvement of younger children becoming involved in youth development programs. Research has shown that the earlier a youth gets involved in a program, the more potential impact that program can have on the student's life. If staff are able, and clientele are willing, this is a potential area of growth. Caution is necessary that there is adequate personnel, leaders, etc. to undertake this new challenge. If staff and leaders are limited, this may not be an area to take on at this time.

The Review Team encourages the utilization of the many new opportunities available for youth programming and delivery today. Be cautious, though, about overlooking the traditional 4-H club in favor of new avenues, as it has served the organization extremely well, and most of the research
about the positive impacts of 4-H on youth has come from those alumni that were involved in traditional clubs.

Faculty/staff are encouraged to identify methods of retiring programs that have acceptance not only from themselves but also from clientele. This is necessary to help combat the burnout challenge. Advisory groups may be helpful in prioritizing programs in local areas, and should be utilized in this task.

**Healthy Families**

**Strengths:**

The Review Team applauds the Healthy Families programming area in their overall excellence that they have shown over the past five years. The results of an effective on-going needs assessment process can be seen throughout the district. Thus providing a solid understanding of their customers.

This group of faculty/staff hold each other’s talents and abilities in high esteem, which this Review Team feels directly contributes to the overall success and cohesiveness this program area experiences. It’s clear that this group of professionals have experienced the challenges of programming without the advantage of having a State wide Family Life Specialist. They have benefitted from the leadership of Carol Thayer as Program Coordinator.

The Review Team supports the importance of continued staff development, and respects the proactive manner in which this team has gone outside of normal resources to accomplish this over the past five years.

The Review Team was impressed with the overall breadth of linkages and the active partnering with outside agencies within the district and state.

**Opportunities/Challenges:**

The challenge of part-time Educators and Assistants has not gone unrecognized by this review team. It is our response that this issue be explored with Dr. Baquet to define nontraditional options to address this challenge.

The Review Team felt that some programming areas need to be refocused to address issues impacting growing population groups.

The Review Team believes there is potential for the development of a program relationship with MARC to address food safety issues.
Recommendations:

This Review Team would like to see serious consideration given to defining how to facilitate the movement of part-time Extension Educators and Assistants to full-time.

Faculty/staff should consider how to further develop areas of programming that reflect growing population issues such as needs of the elderly including accessible and quality health care, housing, rural transportation, housekeeping/housekeeping services and desired accessible businesses.

The Review Team suggests a better understanding of cultural practices and diverse audience needs within the District. For this issue and others, the Review Team felt language and cultural awareness training would be beneficial.

The Review Team would like to see further development of outcome engineering and results mapping used as an evaluation tool.

The Review Team recognizes the expertise this group of faculty/staff has in the area of healthy families. This team is encouraged to share their expertise/ knowledge with the entire Nebraska Cooperative Extension family through the development of a healthy families model for others to emulate.

The Review Team suggests that Dr. Baquet and appropriate faculty members discuss with MARC leadership the potential for joint efforts related to food safety.

Nebraska’s Changing Communities

Strengths:

The Review Team was impressed with both the content of this section of the review document and the presentation made by the faculty. The faculty did an excellent job of identifying and prioritizing programs for future emphasis. The Review Team commented on the significant program impact for the Full Time Equivalents (FTEs) allocated to work in this content area. The faculty are commended for realizing that they can no longer continue to address all the issues and deliver all the programs requested by clientele. Accolades are extended for the strong working relationship between Educators and the Specialists working in this subject matter area.

Opportunities/Challenges:

The Review Team identified two significant issues for faculty to consider as part of their program priority setting process. First, how to effectively address the educational needs of a growing Hispanic population and determine what role Cooperative Extension should serve in the delivery or facilitation of these educational programs. Second, identify how (or if) the faculty should be involved in the delivery of educational programs to support the development of e-commerce/ alternative enterprises.
There appears to be considerable interest by the public in the development of new ways for small businesses to operate. The Review Team believes this district faculty has opportunities to provide education for this new wave small business owners.

To fully address these opportunities, it may be necessary to initiate the development of new collaborative partnerships with agencies/organizations with whom faculty have not previously worked.

Recommendations:

While the Review Team includes mention of the retirement of programs in this section of the report, the Review Team recognizes that bringing closure to programs is central to the discussion of several of the issue teams. We urge the issue teams interested in the "retirement" of programs to engage in a process for implementing their plans.

The Nebraska's Changing Communities team is urged to take the lead in offering inservice to help faculty and staff better understand/relate to issues important to different cultural groups within the population of the district, i.e. Hispanic and south eastern Asian. It is not the expectation of the Review Team that this issue team deliver the inservice but rather facilitate its development.

The Review Team suggests that the faculty of the SCREC/District continue to offer leadership education programs. Leadership education, while a strength of this unit, will continue to be needed to provide stability to the small communities of the south central district.

The Review Team supports the continued use of outcome engineering/results mapping as a method of evaluation of programs.

Resource Utilization and Environment

Strengths:

The Review Team acknowledges the excellent track record with environmental quality research and extension programming. SCREC has been a leader in this type of ongoing research in Nebraska and has also received national recognition for this work. The Review Team was impressed with the continual commitment to understand the complexity of and improve water quality. Water quality issues have no "easy fixes", SCREC's perseverance is an excellent attribute to its faculty and staff. Another strength of the Center is their expertise in seeking out opportunities to use the multi-disciplinary approach for problem solving. The intricacy of environmental quality research generally creates a need for involvement of more than one discipline.
Opportunities/Challenges:

Several challenges were identified by the review team that have the potential to strengthen SCREC environmental quality research and extension programming. They include: 1) improve and focus research and extension by using client input to recognize new and/or support current programming, 2) identify and secure new funding sources to support focused research and extension efforts, 3) continue development of multi-state, multi-discipline environmental research and extension teams and 4) explore opportunities to expand collaboration between potential partners.

Recommendations:

The Review Team recognizes the need to identify and develop advisory council(s) to help the SCREC develop the necessary programming and identify potential audiences. Local input from citizen groups will provide the leadership for identifying cutting-edge programming needs. This interaction will ensure that the SCREC will provide what is needed in the District in a timely and efficient manner.

As stated earlier, the SCREC has had many past successes in environmental quality research and extension programming. The Review Team would suggest that these past successes be leveraged with new innovative approaches to seek out new grant funding sources. These new funding sources may or may not include new collaboration partners but any or all potential funding sources should be carefully considered.

The Review Team recommends that the SCREC improve the interaction and communications links between SCREC faculty, SCREC staff, District Extension Educators and Assistants and Non-District Scientists. Strong efforts should be made to include Meat Animal Research and Great Plain Educational Veterinary Center faculty and staff in these dialogs. This improved communication should be accomplished within a formal structure and with timely scheduled sessions where potential partners would have the opportunity for increased planning and collaboration of personnel and facilities.

Extension Programming Units

Strengths:

Extension Programming Units (EPU's) have helped break down county lines, resulting in less concern by stakeholders/public when faculty/staff travel from county to county for programming. EPU's have added structure to programming that formally may have been carried out informally. EPU's have been leaders in combining services, and may be a model in the future for combined county governments, etc. EPU's may provide more diversity of programming than could traditionally have been offered in an individual county. Programs, because of combined efforts of an EPU, might now be offered in locations other than the usual trade center locations. EPU-wide programming potentially could bring in larger audiences, making a program more cost-effective.
Opportunities/Challenges:

The amount of cooperation within an EPU depends on the willingness of the faculty/staff involved. For travel across county lines, counties need to have reciprocal expense arrangements so that local funding sources are not burdened unequally.

Defined job responsibilities for everyone in the EPU makes everyone's job easier. For example, all calls dealing with a similar subject matter could be routed to the specialized Educator.

All EPUs do not function alike. A great deal of variation in function is apparent from EPU to EPU. Therefore, it would be helpful to provide uniformity in programming from county to county within an EPU. It may be easier to move adult programming locations to a different county than it would be to move youth programming functions. If clientele are not willing to drive for a program, perhaps the program needs to be reevaluated.

Extension faculty/staff should recognize the merits of including a youth component in their programming. Spreading the youth work load among all staff would combat burnout of the youth workers in an EPU.

EPU Coordinators view their jobs differently. Some function as coordinators, some as program planners or developers, etc. EPU meetings ranged from 4-8 per year. Some EPUs assigned State Fair responsibilities to different staff members in their EPU. No one wants to meet just for the sake of meeting, with no real agenda. A suggestion was made that Nebraska is past the EPU stage and should be programming primarily at the District level. This concept would now be more favorably received with the funding change, as salary money for Educators and state funded Extension Assistants now comes primarily from the University budget, rather than from the county.

Recommendations:

EPUs need to target job descriptions to fill EPU needs when positions become open to give diversity to the staff within an EPU.

Each EPU should have at least one "technologically complete" office as it is very expensive to equip all offices.

A mentoring program could be very helpful for new Educators, Specialists and Assistants.

Programming can be done on a District wide or even larger scale assuming some plan for covering travel expenses can be arranged. Such programming if it involved Specialists and Educators would strengthen the relationship individuals and enhance SCREC/District ability to respond quickly to subject matter issues/problems.

A program to share research results with Educators periodically, and to allow input from Educators on possible future areas of research could be mutually beneficial.
Student Recruitment/Extended Education

Strengths:

The Review Team has combined student recruitment and extended education for the purpose of this review document due to the fact that these are both emerging program areas. It is clear that the assigned facilitators of these areas soundly see their value but don't have a clear understanding of how to implement this type of programming.

The Review Team recognizes that the assigned faculty is very willing to bring forth ideas and suggestions as how to improve these programming efforts and have done an excellent job given the current resource base available.

Opportunities/Challenges:

With both areas being at a development stage the Review Team feels that a solid needs assessment, finding out who they are serving and the needs of these clientele, is necessary.

The Review Team recognizes that Extended Education programs will need to be developed around non-traditional hours and locations.

The Review Team agrees with the notion that there is an opportunity to offer credit and non-credit course work.

Recommendations:

The Review Team recognizes that increased communications with the University of Nebraska personnel about Extended Education and student recruitment is necessary. The Review Team urges SCREC/District personnel to contact those able to respond to their questions.

The Review Team also recognizes the need to develop a curricular approach for Extended Education. And that a state wide system of communication is needed so that efforts can be coordinated.

The Review Team encourages current University students or alumni to interact with potential students. Tours of campus. Work with guidance counselors. Assist admissions office with local college fairs.
Summary

The Review Team reviewed briefly the recommendations of the 1993 Review. Generally, the review recommendations have been addressed. Noticeably absent from completion is the development of a clientele advisory process. This recommendation is included in the 1999 review recommendations and the SCREC/District faculty and staff are urged to proceed this year with the implementation of this process. Somewhat related to the advisory process was the earlier recommendation that this unit include a planning/in-service education process that allows for inclusiveness of different cultural backgrounds in the advisory/programming role of the South Central Research and Extension Center/District. This is a recommendation that is repeated in this review document.

While the role of College Park has evolved substantially since 1993, it is recommended that the relationship between SCREC and College Park continue to be an important discussion topic. Dr. Baquet and Dr. Bringelson are urged to continue to seek new opportunities for College Park to serve the citizens of this geographic region through new credit and noncredit venues.

The Review Team thanks the faculty and staff of this unit for being so responsive to the request of this Review Team for information. Dr. Baquet and the members of this faculty and staff are commended for their positive, proactive attitude toward this review.
SCREC Issue-Based Review Team

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South Central Research & Extension Center’s
Response to Recommendations from the Issue Based Review Team

February 14, 2000

The faculty and staff of the South Central Research & Extension District are very pleased with the input received from the review team during our issue based review. We recognize the effort and commitment that the review team members made to our unit. We wish to thank them for their commitment. We are confident that the recommendations they have made, when implemented, will make our unit stronger.

We particularly want to thank Dr. Beth Bimstihl, for her leadership of the review team. She provided excellent focus and insights as we went through the onsite review.

The review team has made several recommendations which we will respond to in this document. The recommendations are in each of the issue areas that we identified as well as some over-arching issues that the review team identified.

In response to the over-arching issues that are contained on pages 7 and 8 of the review team report we would have the following comments.

1. We have used the self-study document and the review team’s comments as we developed unit action plans for 2000, through 2005. They are very closely related to the 5 issue areas that were identified in our self-study document.

2. We acknowledge the need and importance of establishing an advisory council and will initiate discussions that will lead to an effective advisory council. We thank the review team for identifying this as an important area.

3. We appreciate the recognition on the part of the review team that we are positioned well to do meaningful and important applied research. This has been and will continue to be the focus of our research effort. We will continue to involve researchers from the UNL campus and other institutions as appropriate.

4. We agree entirely that the retirement of programs is an important activity. This is an important area that we often overlook or do not address specifically. We appreciate the review team bringing it to the forefront.

5. We recognize that communications between Extension Educators and the Learning Center Coordinator will be an important component as we expand and enhance our Extension Education and Outreach offerings in the district.
Expanding our image and efforts beyond agriculture requires an adjustment in focus for some of our educators and may involve some adjustment for some of our specialists. We continue to have discussions within our unit about the process for doing this.

The review team provided a general overview of our unit on page 9 and 10 of their report. We appreciate their recognizing the strengths that we have and identifying areas where we have opportunities and perhaps some challenges. One of the areas of opportunities identified deals with partnerships. This cuts across many facets. The review team identified an opportunity to strengthen partnerships among educators, assistants, specialists, and researchers. We recognize this as an important activity and will implement procedures to strengthen these relationships. We also appreciate the recognition of the need for establishing partnerships among clientele bases, not only our traditional clientele but to seek out partnerships in new areas. Some of the specific issue teams have addressed that as they have formulated their responses to the review.

The general overview recommendations made by the review team are consistent with future directions desired within our unit. We have begun the process of evaluating the recommendations and issue teams are formulating plans and procedures for implementing those recommendations. As indicated above, we are in the discussion stages of establishing an Advisory Council. We particularly want to recognize and thank the review team for identifying the need and recommending that we regularly schedule in-service events in our district for technology training. We will certainly followup and adopt that recommendation.

One of the recommendations of the review team was to establish procedures to enhance communications among researchers, technicians, and the farm manager as we move through the production season. Initial conversations have been held with these individuals and a communication procedure will be established.

Each issue team has been meeting and discussing the recommendations made by the review team. What follows are their responses to those recommendations. As was the case in our self-study document, each team has taken a slightly different approach to responding to the recommendations.

Agricultural Profitability and Global Competitiveness

1. Strengthen commitment to livestock R&E.
We understand that discussions are taking place in the Department of Animal Science about locating a beef specialist at South Central Research & Extension Center. A cow-calf focus would be logical with its importance in south central Nebraska and a beef specialist would certainly have more reason to interact and cooperate with the rest of the R&E team in crop-livestock systems than the current swine specialist position. It is expected research efforts with M.A.R.C. and others on manure use will be continued.
2. Improved interaction between center faculty, educators and other scientists
It is not anticipated that interaction with the G.P.V.E.C. or M.A.R.C. will be increased with existing faculty. A beef specialist could however provide the catalyst for involvement of other faculty. We have in the past at district conferences had specialist’s report on their research and extension programs, which helped other specialists as well as the educators be more aware of each other’s programs and identify points of common interest. This year we have planned a separate meeting of South Central District specialists and educators to provide a similar opportunity and determine what more needs to be done and how.

3. Drip Irrigation
We would like to pursue a research effort in this area, but have not been able to find funding to date. We have discussed alternative funding sources including the NU Foundation.

4. Prioritization
The South Central Research & Extension Center has an established reputation for providing leadership in irrigated crop production of corn and soybean. The research team has in the last year been pursuing joint interests in irrigated crop production systems. The expected outcome of this activity is to develop a joint project and acquire the necessary funding for the project. The challenge is to find funding for the primary role we have defined- providing excellent applied research. Again the foundation approach may be the way to go. It is not expected that a staff of our size would attempt more than one such joint effort involving all of the agricultural research faculty, although we would continue to have a number of joint efforts of 2 or 3 faculty working together on dryland production systems, precision agriculture and pest management, for example.

5. Gathering program needs
We have recognized that we have collected clientele program needs through a number of different efforts and we could likely gain from doing a better job of consolidating the findings and identifying actions that we can take or that others may be able to pursue. An advisory committee is being considered as a means of focusing upon what we have found and what we should do to meet the identified needs.

4-H and Youth

The staff in the South Central District are excited about the positive outlook on the future indicated through the comments of the review team. For example, those presently recognized as having 4-H responsibilities look forward to helping all faculty/staff, including specialists, recognize the merits of including a youth component within their programming.

In response, it’s as difficult to separate the individual challenges and opportunities, as it is to separate the recommendations. Each appear to have strong potential of building on one or more aspects of another. The staff is more than willing to pursue the team concept and specialization. Working with coalitions, youth community service, results mapping (or evaluation methods),
programming for younger ages, and the various delivery methods (including the club system) are all possibilities for staff focus or team development. The direction taken with each of these will impact the roles of the teams, as well as that of the District Youth Specialist.

Collectively, these recommendations may serve as a tool to reduce turn-over, eliminate most barriers to 4-H and strengthen programs. To be effective, it will need strong support from the university administration through the dean and director, as well as the district directors. It is invigorating to think of leading the way in redefining the roles of staff at the county and district level. In order to maximize this approach, it will need to find not merely endorsement, but to some degree, duplication throughout the system. There is no interest in diminishing support at the local level. It must be recognized though, that there will be times that district directors and administration on campus will need to backstop staff as solid and indisputable advocates as these transitions takes place. Without that, it will remain as difficult to retire programs in the future, as it has been to this point.

The staff here embrace the recommendations and look forward to their encouragement from across the Nebraska Cooperative Extension system.

Changing Communities

The review team’s recommendation was: "to take the lead in offering in-service to help faculty and staff better understand/relate to issues important to the different cultural groups within the population of the district."

Nebraska’s Changing Communities Team will coordinate an in-service for faculty and staff during 2000. Susan Hansen and Ricardo Garcia will be contacted to serve as resources in planning for this in-service since the Northeast District and the Southwest District have already experienced similar changes in cultural migration.

Resources will be requested from the IANR budget since this is a statewide diversity issue. Resources will include the time and experience of Keith Niemann and Ricardo Garcia. In addition to requesting funds for the in-service, funds are also requested for a part-time appointment (.40 FTE) in the South Central District on a long term basis.

This position would create awareness, provide/coordinate training for staff/agencies/organizations/ about sensitivity matters to include income, culture, et. al. This person will seek to broaden the cultural audience base. The position would serve as a point person for resources and questions and answers within the district working in direct coordination with Keith Niemann and Ricardo Garcia.

The review team’s recommendation was: "to continue to offer leadership programs. Leadership education, while a strength of this unit, will continue to be needed to provide stability to the small communities of the South Central District."
Nebraska’s Changing Communities Team is pleased to be recognized for our "leadership" in the area of Leadership Education. Youth and adult programs will continue as needed according to local community changes. Resources are in place within the district to continue to provide these services.

A slightly different area of leadership which will require some additional support from IANR is in the area of E-Commerce. There is an immediate short-term need for financial and personnel resources to help pilot the "E-Commerce" programs for this Statewide Team. Carol Thayer, as the coordinator for the Small Scale Entrepreneurship project, has created a strong network of small business providers. Funds to help these businesses understand and use E-Commerce to maintain and expand their business ventures is a calculated, logical step as we look at consumer purchasing habits at the end of this century and the beginning of the new millennium.

The team feels strongly that Nebraska extends beyond the borders of the eastern 1/3 of the state. There is a documented difference in how families in the western 2/3 of the state purchase and market goods. As faculty members, we need to be aware of E-Commerce and Alternative Enterprises and know who the point people will be within our district.

Healthy Families

Recommendation #1
Facilitate movement of part-time Extension Educators and Assistants to full time.

Response: A plan has been developed (attached) and preliminary action taken to explore "entrepreneurial" funding options for these positions.

Recommendation #2
Develop areas of programming that reflect issues related to the aging population.

Response: An Ad Hoc Committee will be established in the South Central Research and Extension District to identify and coordinate available resources, programs and activities. An effort will be made to identify educational gaps and needs as well as curriculum and delivery methods. Liaison will be established with appropriate Action Teams.

Recommendation #3
Encourage a better understanding of cultural practices and diverse audience needs.

Response: An individual or a group of individuals will assume responsibility to be the liaison with the Director of Extension Human Resource and UNL personnel to facilitate cultural awareness training. This may include presentations at district-wide meetings and other events as well as inserts in the monthly South Central Research & Extension Center newsletter.
**Recommendation #4**

Develop outcome engineering and results mapping as an evaluation tool.

Response: These evaluation methods are ideally suited for family program efforts. Two South Central Research & Extension Center faculty members are part of the statewide group leading the effort for Cooperative Extension and can provide training to team members and other interested faculty. Introductory materials and information related to Outcome Engineering and Results Mapping will be offered during April Preview, 2000 with a training session scheduled for fall, 2000.

**Recommendation #5**

Develop a healthy families model.

Response: A representative group of Extension Educators, Assistants, Specialists, and Administration will work together to develop a model.

**Recommendation #6**

Explore joint efforts with MARC related to food safety.

Response: The Extension Educators involved with food safety will take leadership for this effort.

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**SOUTH CENTRAL RESEARCH & EXTENSION CENTER’S PLAN FOR PART-TIME/FULL-TIME EXTENSION EDUCATORS**

<table>
<thead>
<tr>
<th>Priority Areas of Need</th>
<th>Expectation of Assignment</th>
<th>Terms of Assignment</th>
<th>Liaison to Action Team</th>
<th>Contact/By Whom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Safety</td>
<td>Liaison to MARC, Coordination of district food safety areas/program dates/special events</td>
<td>10% Long Term</td>
<td>Enhancing Food Safety</td>
<td>Julie Albrecht</td>
</tr>
<tr>
<td>Clover Kids**</td>
<td>Provide basic coordination/consistency across district, improve marketing. Share and collect impact data. Clearing house for resources. Campaign to legitimize. Help provide definition. Liaison with District Youth Specialist/State 4-H</td>
<td>50% - Short term; Maybe 10% after 5 years</td>
<td>Youth and Family Responsibility</td>
<td>Gary Huesel, Carol T. - talk to Keith (see notes)</td>
</tr>
<tr>
<td>Character Counts**</td>
<td>Facilitate communications across district; Help expand program/activities into other areas than schools; Record and report impact - work with Outcome Engineering/Results Mapping work group. Provide training. Help implement state activities.</td>
<td>20% Long Term</td>
<td>Youth and Family Responsibility</td>
<td>Gary Huesel</td>
</tr>
<tr>
<td><strong>Aging</strong></td>
<td>Ad Hoc to look at issues. Identify and coordinate available resources, programs, activities. Contact and communicate with other agencies, coordinate with their efforts. Identify service/educational gaps and needs. Identify curriculum, possible delivery methods, etc. Include Carol Schwarz.</td>
<td>50% Long Term</td>
<td>PHWE, Public Policy, HCIT, Sustainable Families, CRD</td>
<td>Carol Schwarz, Judy talk to Leon Rottman, Carol talk to Beth Birnstihl</td>
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<tr>
<td><strong>Injury Prevention</strong></td>
<td>Covers areas of Agribility/EMT/Farm Safety. Coordinate district and state efforts. Review research. Support coalition building. Work with funding and grant writing. Help set up program. Work with sponsoring organizations. Help collect impact data.</td>
<td>40% Long Term</td>
<td>Preventive Health &amp; Wellness, Health Care in Transitions</td>
<td>Sharry - talk to Bobby Grisso</td>
</tr>
<tr>
<td><strong>Youth Health</strong></td>
<td>Focus some efforts in the area of obesity and sports nutrition. Look at effective teen delivery methods. Coordinate resources i.e. newsletters, columns, other programs (check with Amy Peterson)</td>
<td>30% Long Term</td>
<td>Preventive Health &amp; Wellness</td>
<td></td>
</tr>
<tr>
<td><strong>Diversity</strong></td>
<td>Create awareness, provide/coordinate training for staff/agencies/organization/etc. about sensitivity matters to include income, culture, et al. Help to broaden audience base. Update Discovering Your Uniqueness program. Q&amp;A Person</td>
<td>40% Long Term</td>
<td>Liaison with Keith Niemann &amp; Ricardo Garcia</td>
<td>Marilyn talk to Keith</td>
</tr>
<tr>
<td><strong>Keeping Families First/ Family Friendly Community</strong></td>
<td></td>
<td>20% Short Term</td>
<td>Sustainable Families</td>
<td>Janet talk to Doug Swanson</td>
</tr>
</tbody>
</table>

**Indicates priority areas

**Resource Utilization and Environment**

*Identify and develop advisory councils* – The team working in the area of Resource Utilization and Environment recognizes the need for local input to make our research and educational efforts in this area relevant to clientele. We will work with other teams and the District Director in identifying the most appropriate means to regularly seek local input.

*Seek new grant funding sources* – The team concurs with the recommendation that we build on past successes in environmentally oriented research and educational efforts in seeking new external funds. We are in an on-going process of identifying and pursuing grant resources that seem consistent with our programmatic strengths.
Currently, it appears that Federal funding sources that target the issues of carbon sequestration and precision agriculture may hold the most promise for enhanced research efforts. The new CSREES Integrated Activities Account, which requires that research and educational efforts be integrated within a project, may be particularly appropriate to a research and extension center such as South Central Research & Extension Center.

**Improve interaction and communications links** – The team concurs that greater interaction and communication is needed among South Central Research & Extension Center faculty working in resource utilization and environment, as well as ag profitability and global competitiveness. To directly address this issue, we have scheduled an “Educator-Specialist Dialogue” for March 3, 2000. On this date, we will focus on sharing current research activities and findings, and discuss what are the most critical needs for research and educational programming in agriculture and natural resources over the coming year. This is planned as an on-going event, at least annually and perhaps twice a year. This session is planned to include Extension staff at the Great Plains Veterinary Education Center.

**Extension Programming Units**

The review team met with EPU coordinators and has provided comments and recommendations in this area. We appreciate their comments and agree with each of the recommendations. In fact, we have already implemented some of them. For example, we have held discussions regarding job descriptions when vacancies have occurred.

We appreciate and agree with the recommendation about having at least one "technologically equipped" office in each EPU. We will begin the process of estimating the costs associated with implementing this recommendation. This may be an area where some creative partnering can occur.

We will explore the feasibility of implementing a mentoring program as recommended by the review team.

We are very aware that programming can and currently is being done on a district wide basis. We will continue to encourage and support these efforts as appropriate.

Sharing research results with educators is an excellent recommendation. A session is currently scheduled for March, 2000.
Student Recruitment and Extended Education

We appreciate the insights provided by the review team in these two focused assignment areas. Student recruitment is a UNL identified priority. Our contacts in each EPU have worked diligently to address this priority. Many frustrations have been experienced with contacts at the Office of Admissions. Connecting with local alumni groups as the review team recommends is a good idea that we will pursue.

Extended Education is another area that is a high priority for UNL. We have had limited success to date, but are poised for an effective program effort in this area. We appreciate the review teams recommendation for a curricular approach in this area. Several good educational ideas have been suggested by our Extended Education facilitators. We will develop a more unified approach to communicating those ideas to the appropriate resource people at UNL.

Summary

The faculty and staff of South Central Research & Extension Center appreciate the thoughtful input and recommendations from the review team and the support for our unit provided by the IANR administration. We feel that the issue based review was a very positive experience for us. We are committed to implementing the recommendations from the review team and feel we will be an even stronger unit as a result.