NC-225 Annual Meeting
Parsons, Kansas
June 13-14, 2002

Attendance: Primary investigators and members of the Technical Committee
Iowa - Jim Russell
Kansas - Dale Blasi
Nebraska - Dick Clark
Ohio - David Zartman

Also in attendance were:
Kansas - Walt Fick, J.O. Fritz, Lyle Lomas, Joseph Moyer
Missouri - Rob Kallenbach
Nebraska - Bruce Anderson, Martin Massengale, Rick Rasby
Administrative Advisors - Darrell Nelson, Nebraska; Henry Tyrrell, USDA
Center for Grassland Studies (provides administrative support) - Pam Murray

Officers for 2001/2002: Chair, David Zartman; Secretary, Robert Kallenbach

June 13: The group left the KSU Southeast Agricultural Research Center (SEARC) at 8:15 a.m. for a tour of: Stine Ranch (control of serecia lespedeza in native grass with goats), SEARC Mound Valley unit, lunch at Montgomery County Extension Office during which Harold Swearingen described grazing and haying of bermudagrass and eastern gamagrass, followed by a visit to one of his fields; Cook Farm (utilization of fescue for seed production, hay and grazing); SEARC Parsons unit. Business meeting in the SEARC headquarters was called to order by Zartman at 4:00 p.m.

Comments by Henry Tyrrell:
- New Farm Bill – Has significant level of funding for conservation programs, and this group should watch grant opportunities closely. Extension Service needs to become more proactive in seeking some of these funds for work it is best suited to do.
- The Initiative for the Future of Agriculture and Food Systems (IFAFS) – Should be funded at about $140 million in 2003-2004, and increase each year until it is at $200 million by end of period covered by the Farm Bill. Expect some new programs, but no major programmatic shifts. IFAFS RFP is being developed now.
- National Research Initiative (NRI) – President's budget requested twice the former amount. Program areas are dictated by Congress.
- Formula – 25% of formula funding (Hatch, McIntire-Stennis, etc.) must go toward multi-state activities; each region handles this requirement its own way.
- Integrated Research, Education, and Extension Competitive Grants – Must be distributed by competitive review process. This program might be particularly well suited for the MINK (Missouri, Iowa, Nebraska, Kansas) Forage/Livestock Consortium (most members of which are also NC-225 participants).
- Special Research Grants – Funding level close to $200 million. Pays no overhead.
- National Information Management and Support System – All four regions are now using the NIMSS paperless management system, which is a web-based application that will allow participants of multi-state research projects and activities to submit proposals and reports online. Interested parties, stakeholders and cooperators can also query NIMSS for information.
- One of top issues facing production agriculture is impact of livestock on the environment, although there is not one animal scientist on the oversight task force. The perception exists that

grazing is better for the environment than confinement feeding operations (CFOs), but where is the data to support that? This should be high priority for research.

Meeting was suspended 6:00-7:00 for dinner.

Comments by Darrell Nelson:

- Distributed and discussed summary showing status of proposed federal funding for agriculture.
- Major emphasis of agricultural experiment station directors and NASALGC: $212 million for agro-security, the components for which are: "hardening" research facilities to protect against eco-terrorism, and research on bio-terrorism against crops and animals.
- After two years, regional projects undergo interim review. NC-225 has been well received by both department heads (animal science and agronomy) and the deans, but the interdependence is not yet obvious. Evaluations are based on minutes/annual reports, so it is important to show in these documents products/outputs that demonstrate multi-state cooperation.
- The NC-225 project terminates Sep. 30, 2004. The renewal proposal needs to be submitted to Nelson by Jan. 1, 2004.
- Annual report form (SAES-422) has been revised this year. It can be found at the North Central Regional Association Web site, http://www.wisc.edu/ncra/.

Reports by Objective:

The overall objective of NC-225 is to develop and evaluate concepts and systems that increase the uniformity of the year-round forage supply and the efficacy of forage, animal and grazing management to improve the profitability of beef production. Specific objectives are:

1. To quantify production and economic impacts, including risk, of beef cow-calf systems that better match animal nutrient requirements to the quantity and nutritional value of the forage supply.
2. To improve the profitability and productivity of cow-calf systems by identifying alternative forage species and grazing management to extend the length of the grazing season.
3. To develop strategies for using forage legumes to improve the agronomic, animal performance, environmental and economic characteristics of forage-beef systems.
4. To develop a systems-based educational program on integrated forage/cattle management systems for cow-calf producers in the four-state region.

Objective 1 is being addressed in part by the development of the Kansas Grazing Model software. Other member states are asked to evaluate the model and to add data to improve the applicability of the model over the larger area of the several states. An online tutorial is to be added to the downloadable software to facilitate ease of use. Iowa is also working on a model to be compared to the Kansas model.

Jim Russell at Iowa State shared research results from his work on year-round forage management systems. Dr. Russell has found that grazing corn stalks can significantly reduce the amount of hay needed in beef cow systems. He also reported on the use of stockpiled forage for beef heifer development.

Dick Clark from Nebraska provided a report on the evaluation of weaning date and protein supplementation on beef cow performance. Nebraska researchers found that weaning March calving cows in November increased profits vs. weaning in August. Protein supplementation of March calving cows during the winter was not cost effective.

Dr. Clark also reported on the evaluation of corn stalks as feed for beef cows. In essence, Nebraska researchers found that cows grazing corn stalks had acceptable pregnancy rates but lower body condition scores and produced lighter calves.

Objective 2. The six member states are deriving information on forage management systems that can extend the grazing season throughout the winter period. Each state has a perspective that builds the knowledge base of options for producers in the member states. Some are looking at grazing forages not typically used for winter, such as intact corn or corn residues. The impact of this practice upon soil condition, erosion and nutrient levels is indicating the value of intensive grazing practices for winter feeding. Also, the contribution of winter-grazed, novel forages to the overall rotation of small grains and corn for grain as a farm or ranch management practice is being clarified

A three-state cooperative project (IA, MO, and KS) is evaluating the quality of approximately 20 different legumes and grasses when stockpiled over winter. With the exception of tall fescue, there is little data about the quality of other commonly used grasses and legumes when used for stockpiled forage. Charlie Brummer at ISU is leading this effort.

Jim Russell reported on his work about the impact of grazing corn stalks on soil compaction and subsequent crop yields. He found that grazing showed small increases in soil compaction, but that soybean yields the following year were not impacted.

Researchers in Missouri compared three winter feeding systems for fall calving beef cows. The three systems were: annual ryegrass/cereal rye pastures, stockpiled E- tall fescue pastures and traditional hay feeding. The first year results show that fall-calving cows can be maintained on pasture through most of the winter at significantly lower cost than the traditional hay system. Cow body condition score was improved on both pasture systems compared to hay feeding. Soil damage and manure concentration were also reduced in the pasture systems compared to hay feeding.

Nebraska researchers are examining the effect of stocking rate and date of grazing on utilization of cool-season and warm-season grasses, on the yield and quality response of herbage classes in the sandhills. These studies deal with plant and animal response to seasonal grazing strategies and are critical to the development of year-round forage programs for cattle grazing range and pasture. In addition, Bruce Anderson and Terry Klopfenstein are evaluating three corn hybrids for grazing by yearling steers in 2002.

In Ohio, David Zartman is examining the use of standing corn for deferred grazing. Preliminary work from his research shows that standing corn could be a viable alternative to feeding hay to livestock in winter.

In North Dakota, barley, emmer, spelt, rye, and triticale cultivars were compared with oat for forage yield and quality in a multi-year study. Preliminary results indicate that alternatives to oat are available in the Great Plains that are superior in forage yield (e.g., triticale) or quality (e.g., barley).

Objective 3. Legume varieties are being assessed for stand durability and contribution to the overall feed provision of the year. The resistances to diseases, insects and unfavorable weather are being assessed as they play out in a grazing format. Strategies for several grazing protocols are being tested in combination with methods for making hay, feeding hay in winter, and alternatives to hay for winter feed.

Nebraska initiated a grazing study in May 2002, on small paddocks with low, medium, and high levels of birdsfoot trefoil (BFT). The objective is to determine the impact of BFT by evaluating yield components, animal selectivity of BFT at various legume densities, and quality of forage on offer and of that consumed. Joe Moyer and Lyle Lomas from Kansas reported on comparisons of cow-calf and dry cow performance from wheat-bermudagrass pastures with

legumes or with additional N fertilization. They found a 21-kg advantage in summer gain of dry cows for pastures seeded to legumes compared to N-fertilized pastures. They also reported on studies comparing the establishment, productive potential, and longevity of various legumes under clipping and grazing management.

Objective 4. Winter Grazing Conference: Russell said Darrell Strobing is the Northern IRM group representative that he has been working with at ISU to plan co-sponsored conference. Russell distributed the draft agendas for the proposed four sites and obtained general agreement to proceed as planned. In answer to a question about the selection of locations (specifically, Chadron), Clark said they were trying to cover western South and North Dakota, eastern Wyoming and southeastern Montana. Rasby said past meetings at Chadron have drawn good attendance. Site selections represent compromises to satisfy both the IRM and MINK needs.

The NC-225 and Northern IRM will both be listed as sponsors (plus others). Attendance target is 150 per location. Renee Lloyd with the National Cattlemen's Beef Association (NCBA) is a member of the IRM group. She has committed NCBA to helping in the following ways:

- promotion – printed and electronic (if NCBA puts conference page on its Web site, others like the Center for Grassland Studies could provide a link to it)
- working with local cattle associations
- cover facility charges at the four locations
- cover travel expenses of speakers
- work to raise $25,000 in sponsorships
- conference logistics (registrations, etc.)

It was noted that if promotion materials could be ready by early July, they could be used at the Beef Improvement Federation Conference July 10-13 in Omaha, American Forage & Grasslands Council July 14-17 in Minneapolis, and the Nebraska Grazing Conference Aug. 12-13 in Kearney. Articles could be put in widely distributed newsletters such as the Center for Grassland Studies (deadline July 15).

Various types of publications were discussed in connection with the conference topic including:

- Proceedings – It was suggested that a single proceedings contain the materials from presenters at all four locations; all agreed this was a good idea. A supplemental section could include a list NC-225 generated publications plus a list of Web sites for forage/grazing information; part or all of the proceedings could be put on the Web.
- Four-page, common-format flyer titled "Making Grazing Work In _____" where the blank would be the state. Russell will draft a template for this and send it to the MINK/NC-225 listserv for review by July 1.
- Regional soft-cover book, which is expensive and takes a great deal of time and effort; it was agreed that this was not needed at this time.

The group discussed whether to have posters. This would help better tie the event to NC-225, providing a format for faculty and graduate students to report NC-225 research results (although the focus would need to be more applicable than for scientific/professional meetings). Another suggestion was to have "wet labs" such as a forage testing display showing different maturities of the forage species present in a region and their nutritive values. The question arose (but was not answered at this meeting) whether commercial booths would be allowed (e.g., private forage testing lab). Russell mentioned the possibility of having an exhibit to demonstrate grazing computer models. Blasi said NRCS might be interested in having posters, and would bring another perspective to the conference. While the final decision was to include posters, it was pointed out that extra time would need to be allowed for this, such as the hour before the conference starts.

After discussion, the group decided it was not necessary to include the MINK name, so the materials (brochures, Web page, proceedings) will use the NC-225 designation rather than MINK/NC-225.

Plant ID Web Page: Anderson reported that he and Lowell Moser have begun developing a Web-based instructional guide on identifying range and forage plants common to the Corn Belt. They hope to have by this fall a template and examples to share with members of NC-225 so they can react and contribute to the database. Kallenbach has worked on something similar in Missouri. There are also related databases such as those at USDA, Oregon State University's Forage Information System, and other universities. Anderson said they were aware of these and have been incorporating material from them as appropriate. The group endorsed development of this regional database as a product of NC-225. Enhancement of the initial database could be an objective of the renewal proposal.

Future Efforts:

In addition to what has already been noted in previous sections, the following agreed to be their state's representative on the writing team for the renewal proposal: Russell (IA), Moyer (KS), Kallenbach (MO), Anderson (NE), Zartman (OH). Since Carr is the only ND representative, it is assumed he will be part of the writing team as well. The team will try to have a draft to all current NC-225 participants in October 2002. Nelson encouraged the group to contact people in those NCR states not currently participating in NC-225 to see if they want to become involved in future activities. Clark commented that the group needs to decide whether to include economic aspects in the renewal proposal, because there has not been much participation in NC-225 meetings by economists other than himself, and he is retiring next year.

Nelson suggested the possibility of a NC-225 Web page; many other regional projects have one. This would give all states access to our information. Moyer said he developed the one for NCR-31, and would be willing to work on one for NC-225. The group encouraged him to do so.

Official Business:

- Officers advance in position after the annual report is submitted (60 days from now). Kallenbach moves from Secretary to Chair. Russell will be Secretary.
- All reports distributed at this meeting should be sent electronically (preferably in Word format) to Zartman so he can use them in preparing the annual report.
- Old business: Blasi had made a motion at the Dec. 1999 meeting to add "and stockers" to the proposal every place it had "cow-calf." The motion was tabled because an administrative advisor was not present at the time, and was not addressed until now. Nelson said there was a process to make such changes, but Blasi said he preferred to remove his motion, and asked that the group consider using the more encompassing "beef cattle" in the renewal proposal.
- 2003 meeting:
  Dates: June 12, 13 Dates: June 12, 13
  Location: Columbia, MO (tentative, Kallenbach will confirm after consultation with his colleagues)
  As has been the case the last two years, the NC-225 meeting will be held in conjunction with the MINK Forage/Livestock Consortium meeting. Suggested format: MINK meeting evening of June 11, tour June 12, start NC-225 business meeting in late afternoon or evening of June 12, finish by noon on June 13.
  - Meeting was adjourned at 10:30 a.m.