May 2005 Volume 4 Number 7

A Land Grant Network to Enhance Tribal College Community Natural Resources Education Programs

USDA IFAFS GRANT 2001-2005

Website Updates:

Mid-Year Reports Online

SGU Project Products

Follow-Up of Mid Year Meeting:

What article can you and your partner(s) submit to a journal?

Highlights:

NRE Partners:

FBCC
ISU
NICC
NDSU
SBC
SGU
SDSU
UNL

Paula's Travel:

None planned in June

Partnership Distance Education

Dr. Elwynn Taylor, ISU, and Kerry Hartman, FBCC, met during the Mid-year NRE conference held at ISU to make plans and arrangements for the provision of a partnership distance education course.

A one credit course will be contracted for offering during fall semester, 2005, with Tribal Colleges for their instruction in the area of meteorology. This introductory course, which is a prerequisite for a follow-on 3 credit course by Dr. Taylor, will be delivered via C-D's to participants. Communication and assignments will be handled through the internet.

Kerry Hartman, FBCC, will partner with Dr. Elwynn Taylor, ISU, in the delivery and teaching of this course. As arrangements are finalized more information will be included in the newsletter.

Dr. Elwynn Taylor presents his meteorology course that the mid-year meeting.

Other Tribal Colleges are invited to contract for the course at the same time. More information will be sent later this summer. Contact Harold Crawford if you are interested in obtaining this course. It is an experiment that is expected to be a success and valuable to your students.

9th Annual Missouri River Natural Resource Conference

This is the ninth conference conducted at various locations during the past several years. I always thought our NRE project should be represented so this year I attended. It was held at the Ramkota River Center at Pierre, South Dakota.

Approximately 175 persons were in attendance with most of the participants being representatives of the Army Corps of Engineers and government agency employees such as NRCS and USGS. In addition several Tribal Elders and representatives from the Lower Brule Sioux Tribe were present.

The first day, Monday, was devoted mostly to Water Quality and the impact of the dams on the Missouri River. Following the noon meal, several Tribal Elders shared their memories of life along the Missouri prior to the establishment of the dams.

The second day was a field trip to the Lower Brule Tribe Reservation and to sites along the Missouri River to observe water quality conditions, erosion and impact of the changing levels of the River levels.

Click here to view the conference brochure.

Of special interest was the Narrows Interpretive Site which is a historic landmark/narrow neck of land at the base of the "big bend" of the Missouri River.

Special contact was made with a USGS representative that should be beneficial to our NRE project or to a supplementary project on Water Quality. He is Gene Napier, the Native American Liaison for USGS. His office is at the EROS Data Center in Sioux Falls, S.D. He stated that USGS would be interested in serving as a partner for Tribal College projects such as the water quality project.

NRE REPORTING

Year 4, Quarter 2 reports were due May 1. If you haven't submitted your report, please do soon. Next reporting date is August 1.

View mid-year meeting images.

Send your news for the next newsletter to Mary M. de Baca

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NRE on the Web http://ifafsnrp.ag.iastate.edu/

Submit project workbook and photos for the web to Jason at Jason_Decker@hotmail.com

Research Development

Animal Science - Submitted by Jenice Jim

Through a comparative study between normal vs. cloned umbilical cords from dairy calves, Jenice Jim is testing the responses of umbilical vessels from both cloned and normal calves to different concentrations of bradykinins. Cloned calves have extremely large umbilical cords, which tend to rupture near the body wall. This problem has prevented normal (non-caesarian) deliveries. Even with caesarian deliveries of cloned calves, umbilical healing is slow and is associated with chronic bleeding. Bradykinins are mediators of inflammation and smooth muscle contractions. During normal births, an increase in oxygen after birth triggers the release of bradykinins from the lungs. Bradykinins induce the closure of the umbilical cord. Through induced closure, bradykinins stimulate the increase in umbilical arterial-venous pressure difference and umbilical vascular resistance, which result in decreased blood flow through these vessels. Over the past summer and fall I have collected data and am now in the process of analyzing the data. The data from my study will allow for better understanding of the mechanisms of bradykinin-induced constriction of the umbilical cord. The implications of my study could show that exposure to bradykinins increase vessels closure and healing time of the umbilical cord.

Pispiza (Black-tailed Prairie Dogs) - Submitted by Jeanne (Ballanger) Spaur

Pending project approval by Rosebud Sioux Tribal (RST) Council and ISU Office of Research Compliance, my daughters Laura, Elizabeth, Mariah, and I will be spending the summer at Mission SD while I work on my graduate research project. The project, titled "Knowledge, Attitudes, and Beliefs on the Rosebud Sioux Reservation Regarding Pispiza (Black-tailed Prairie Dog, Cynomys ludovicianus) will be a joint venture with a partnership between Sinte Gleska University, Rosebud Sioux Tribe Prairie Management Program, and Iowa State University. Upon project approval I will be learning about the various degrees of knowledge, attitudes and beliefs regarding the role pispiza played/plays in Lakota culture and in the Rosebud ecosystem in the past and present, and regarding pispiza management. Such information will be helpful to the RST in making pispiza management decisions.

Sage Research - Submitted by Richard Gladon, ISU

In February, Dr.Subodh Singh sent cuttings and plants from the population of sage on the Rosebud Reservation to Iowa State University. These small plants were damaged in transit and only 13 plants survived but did not grow very well. Subsequently, Aaron Steil was sent to the reservation to obtain a new set of plant material that would be used for testing this summer. Larger plants came as stock plants from which we will take many stem tip cuttings for propagation. He harvested 65 intermediate plants that will serve as a secondary source of cuttings for additional plants. Aaron harvested several small plants and small root systems attached to the plant have been exposed to conditions that will let them develop more fully. These plants now have been transplanted into flats of 36 plants, and we have produced about 465 plants that will be planted in the field as soon as they are ready for transplanting. Field sites will be at SDSU, SGU, and ISU. We will be meeting soon with field crop production specialist Dr. Kenneth Moore, from the Agronomy Department at ISU. Ken will help us with field plot design for our experiments. Our work this first year will focus largely on fertilization and the growth, productivity, and yield of the sage as a function of the fertilizer applied.

First Friday Monthly Conference Calls

As was decided at the Mid-Year NRE meeting at ISU we will continue with the first Friday of each month teleconference call discussions. Harold Crawford volunteered to chair the June 3rd meeting because of the interest in developing a water quality proposal. He has prepared a discussion paper which will be circulated along with call in instructions via e-mail attachment next week.

***Note**: It is important that Tribal Colleges wanting to be included in the Water Quality Proposal be in attendance at the June 3rd 1:30-2:30 pm teleconference to express their interest and ideas in the proposed project.