

**ACCESSION NO:** 0219776 **SUBFILE:** CRIS

**ROJ NO:** SD00G339-09BFRDP **AGENCY:** NIFA SD.

**ROJ TYPE:** OTHER GRANTS **PROJ STATUS:** TERMINATED

**CONTRACT/GRANT/AGREEMENT NO:** 2009-49400-05899 **PROPOSAL NO:** 2009-03885

**START:** 01 SEP 2009 **TERM:** 31 AUG 2012

**GRANT AMT:** \$701,608 **GRANT YR:** 2009

**WARD TOTAL:** \$701,608

**INITIAL AWARD YEAR:** 2009

**INVESTIGATOR:** Burke, S.; Gates, R. N.

**PERFORMING INSTITUTION:**

SOUTH DAKOTA STATE UNIVERSITY

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***BEGINNING FARMER/RANCHER TRAINING PROGRAM ON PINE RIDGE RESERVATION***

**NON-TECHNICAL SUMMARY:** Much of the land on Pine Ridge Reservation is operated by non-Native producers, and it is the desire of the tribe to improve local land utilization, and support sovereignty through an increase of Native American producers. New producers with agricultural production experience do not have the framework to match capital and land access to starting their own agricultural enterprise. Developing their skills through training, mentoring and coaching is an effective means of helping new producers begin and enhance their operations. This project provides an intensive training program in vocational and agricultural skills. Vocational skills provide self reliance, given a general lack of a service industry in the area to call on for basic repairs in welding, construction and others. The transport cost alone is prohibitive. The agricultural track provides the skills necessary towards sustainable ranch production. The goal is to train at least 20 new producers (ten started each year), mentored by cooperating producers throughout the training program, who will acquire livestock or other capital through partner agencies and set up operations on a lease or Trust ground following their two year training. Collateral training will reach at least thirty other area producers with sustainable production and financial management strategies.

**OBJECTIVES:** The goal is to train at least 20 new producers (ten started each year), mentored by cooperating producers throughout the training program, who will acquire livestock or other capital through partner agencies and set up operations on a lease or Trust ground following their two year training. Collateral training will reach at least thirty other area producers with sustainable production and financial management strategies.

**APPROACH:** This project will recruit students from Pine Ridge Reservation for a vocational training program designed to give them the skills they will need to succeed independently as agricultural producers. This program is targeted towards new producers who have either experience in agricultural production or access to a position where they can practice these skills. Students will have employment at an existing ranch throughout the three year duration of the program; they may also choose to work independently as contractors with producers, especially if they are preparing to set up operations on their own Trust land. Additionally, the project partner Hands of Faith Vocational School has a foundation herd which will be used for student instruction. Students will either be recruited from existing ranch employees or have a placement provided upon enrolling in the program. Students and cooperating producers will sign an agreement that provides work release time for the student to complete the training modules.

**PROGRESS:** 2009/09 TO 2012/08

**Target Audience:** The target audience for this project was beginning farmers and ranchers on Pine Ridge Reservation. The project was expanded to include beginning producers on Cheyenne River and Rosebud reservations as well.

**Changes/Problems:** Nothing Reported What opportunities for training and professional development has the project provided? The details on the training information for participants was provided in the Goals/outcomes section. How have

Have the results been disseminated to communities of interest? Results were distributed through meetings with stakeholders groups, such as the tribal council and the environmental health technical team which includes land managers. Periodic updates on activities and results were provided on the local radio station, as through newsletters, Facebook and through SDSU Extension publications. What do you plan to do during the next reporting period to accomplish the goals? Nothing reported

**IMPACT: 2009/09 TO 2012/08**

What was accomplished under these goals? The most endearing outcome of this project was the development of collaborative agreements among the many organizations that have a stake in improving the access and utilization of local lands on South Dakota reservations. On Pine Ridge, the Lakota Farmer Rancher program, the partner organization in implementing the intensive training course has already implemented a plan towards continued support to graduated students, and has a schedule for a new horticulture track program for 2013. The ranching students from this program plan to start a coop for livestock and other value-added production. The Gathering of Gardeners group on Pine Ridge includes other partners, such as Lakota Funds, National Relief Charities and Oglala Lakota College, who are planning expanded gardening and farmers market programming throughout 2013. This effort includes community gardens, demonstration gardens and greenhouses for plant production, sale and processing. On Rosebud this project funded efforts that strengthened the partnership with Sinte Gleska University, for demonstration plots with high tunnel and greenhouse, gardener instruction and food preservation. This project also led to the development of a formal collaborative group on Cheyenne River reservation. The Soiled Hands Society on Cheyenne River represents four organizations, master gardeners and other interested individuals, who collaborate on markets, gardener instruction and a new Facebook page and listserv to share information with local residents. Other efforts included the gardener education program in Rapid City with multiple partners, including the Solutions program through Central High School and the Club for Boys. On Crow Creek reservation, a partnership with the Harvest Initiative and the Boys and Girls club led to gardener education and a community garden that provided instruction and entrepreneurship for youth and their families, as well as a program on developing farmers markets. In short, this project completed the following deliverables: Training curricula (documents and audio material, including video podcasts); Full commercial training for ranching and horticultural track (printed and electronic materials developed for future courses); New grower training-short courses, implemented with program partners, in horticulture as well as range monitoring. Rancher Short courses, including Holistic Range Management for new ranchers on three reservations. New horticulture grower acquired skills in: Soil blocks, starting plants from seed; transplanting, replanting, multiple cultivation and harvest techniques, new farmers markets, farm business management skills. New ranchers acquired skills in livestock production, ranch business management, range monitoring, and value added enterprises. Each of them developed a comprehensive ranch plan. Most of the 46 students that completed the full program started some level of agricultural production. Among the six different training sites, four new farmers markets were started in conjunction with this program.

**PUBLICATIONS (not previously reported): 2009/09 TO 2012/08**

No publications reported this period.

**PROGRESS: 2011/09/01 TO 2012/08/31**

OUTPUTS: The project began as an intensive rancher training program, we added horticultural production at first as an outreach partnership through additional funding sources. In the second year horticulture was added as a separate core track, and we expanded production training to additional sites. Livestock Core Training Program Livestock/Animal Husbandry: Beef, Sheep, chickens: Basic skills in nutrition, health, reproduction, marketing, quality assessment. Rangeland Management, Assessment, stocking. Farm and Ranch Management (general and specific per production and marketing type, financial management, information management (computer skills) Vocational Skills Training specific to ranching and rural enterprise: Fencing, pen/stall construction, building construction, basic equipment repair/maintenance, basic welding, carpentry, electrical, water systems. Land tenure, contracts, regulations, available programs In addition to the

ore program, instruction was offered in alternative enterprises including agricultural tourism and other value-added enterprises as bison production, equine production, and multi-species management. Instruction was provided on-site by instructors in classrooms, shops and facilities with other content delivered via video and webinars, field trips and visits to area production facilities. There were 65 days of during the intensive period from August 9, 2010 through November 5, 2010. In addition, 26 short courses were held on from January to August 2011 on breeding plans, winter feeding plans, herd health plans, grazing plans with and for cooperating producers to develop the student's personal ranch plan. Each student completed a certificate in financial literacy and business planning and training with Quick books program, as well as a pesticide application certification. From August 2011 through August 2012; a new cohort of students were trained in the rancher program; instruction was offered in the same subject areas but the schedule was moved to afternoon/evening twice a week, to meet student needs. The horticulture program contained the following component: Garden Summit meetings, of organizations involved in gardening and local foods. Beginning Gardener instruction Intermediate garden instruction; Farmers Markets Food preservation The garden instruction topics included: Garden bed preparation Seeding and tilling options Starter plant propagation Garden layouts Weeding, Harvesting Garden programs were offered on Pine Ridge, Rosebud, Cheyenne River and Crow Creek reservations. Courses ranged from 200 hours offered to the intensive commercial production program on Pine Ridge through day long introductory courses that were offered multiple times in different locations. The full Pine Ridge program began in the beginning of February 2012 and carried through to the end of August 2012. At the start, the program had 16 students; 12 completed the full course. These students started commercial home gardens as well as working in a shared production and demonstration garden at a local youth center as the primary training site. PARTICIPANTS: Partner organizations and collaborators were detailed in the Outcomes section. In terms of professional development, six full and part time staff developed additional skills in mentoring new gardeners and ranchers through this project, two of these individuals are now in new positions that utilize these skills. TARGET AUDIENCES: The participants of this project were new Native American producers (farmers and ranchers), primarily on Pine Ridge reservation. Other new producers were served on Rosebud, Cheyenne River and Crow Creek reservations, as well as the Native American community in Rapid City. PROJECT MODIFICATIONS: Nothing significant to report during this reporting period.

**IMPACT:** 2011/09/01 TO 2012/08/31

The most enduring and outcome from this project was the development of partnerships and collaborative agreements among the many organizations that have a stake in improving the access and utilization of local foods on South Dakota reservations. On Pine Ridge, Lakota Farmer Rancher program, the partner organization in implementing the intensive training course has already implemented a plan towards continued support to graduated students, and has a schedule for a new horticulture track program for 2013. The ranching students from this program plan to start a coop for livestock and other value-added production. The Gathering of Gardeners group on Pine Ridge includes other partners, such as Lakota funds, National Relief Charities, and Oglala Lakota College, who are planning expanded gardening and farmers market programming throughout 2013. This effort includes community gardens, demonstration gardens and greenhouses for plant production, sale and processing. On Rosebud this project funded efforts that strengthened the partnership with Sinteleska University, for demonstration plots with high tunnel and greenhouse, gardener instruction and food preservation. This project also led to the expansion of outreach with Rosebud Economic Development program, in developing agricultural enterprises for the reservation. The Soiled Hands Society on Cheyenne River represents four organizations, master gardeners and other interested individuals, who collaborate on markets, gardener instruction and a new Facebook page and listserv to share information with local residents. The gardener education program in Rapid City with multiple partners, including the Solutions program through Central High School and the Club for Boys. On Crow Creek Reservation, partnership with the Harvest Initiative and the Boys and Girls club led to gardener education and a community garden that provided instruction and entrepreneurship for youth and their families, as well as a program on developing In short, this project completed the following deliverables: Training curricula (documents and a/v material, including video podcasts)

Full commercial training for ranching and horticultural track (printed and electronic materials developed for future course: New grower training-short courses, implemented with program partners, in horticulture as well as range monitoring. Rancher Short courses, including Holistic Range Management for new ranchers on three reservations. New horticulture grower acquired skills in: Soil blocks, starting plants from seed; transplanting, replanting, multiple cultivation and harvest techniques, new farmers markets, farm business management skills. New ranchers acquired skills in livestock production, ranch business management, range monitoring, and value added enterprises. Each of them developed a comprehensive ranch plan. Most of the 46 students that completed the full program started some level of agricultural production. Among the six different training sites, four new farmers markets were started in conjunction with this program.

**PUBLICATIONS:** 2011/09/01 TO 2012/08/31

0 publications reported this period

**PROGRESS:** 2010/09/01 TO 2011/08/31

**OUTPUTS:** We started the 2nd year of the grant on August 9th, 2010 with a week of orientation. We had 11 students by the end of the first week and a total of 16 overall for the 2nd year. We lost a few of the students to attendance issues and graduated nine students total in August 2011. The structure for instruction of the 2nd year was a little different than the 1st year in that it did not have a single instructional site to do hands-on instruction but worked with a number of cooperating producers to give the instruction at their respective ranches. This included classroom lecture at local tribal college centers given in the morning and travel to various sites for training in the afternoon. This provided the students the chance to see real world operations and scheduling as well as getting local producers involved in the program. Below are the eleven core subject areas that were taught during the 2nd year intensive period: Personal Finance Economics Range Management & Sustainability Cattle Handling & Equipment Health/Beef Quality Assurance (BQA) Reproduction Nutrition Genetics Marketing Ag Mechanics Alternative Livestock & Production Methods There were 65 days of instruction (13 weeks) Monday through Friday during the intensive period which ran August 9, 2010 through November 5, 2010. In addition, we had the short course schedule which was held on selected dates from January to August 2011 for a total of 26 short course sessions. The students worked on breeding plans, winter feeding plans, herd health plans, & grazing plans with and for cooperating producers to develop each student's personal ranch plan. The program also worked with a number of partner organizations in implementing this project. Seven local producers were engaged as mentors for the students. The Lakota Funds, a community development financial institution based on Pine Ridge Reservation provided a savings program where they matched student's contributions. They also provided the financial literacy certification, and other services to the students including other business and financial instruction & work clothing purchase. The Oglala Sioux Tribe Land Office provided support for the program in encouraging students to apply for available grazing leases of tribal land units. The SDA Farm Service Agency assisted students in applying for available programs. Oglala Lakota College will make CEU's available for students who wish to get them, with fees covered through the BFRDP program, and collaborated on a Farm and Ranch Day to provide student and community instruction and information on agency programs. The Oglala Sioux Park & Recreation Authority worked on an alternative livestock (buffalo) share cropper program and provided students with pasture tours, involvement in the annual buffalo roundup, and information on how to participate in their programs. The Martin, South Dakota Livestock Sale Barn provided facilities for class instruction and presentations. **PARTICIPANTS:** A description of the training and capacity building opportunities provided by this project are in the outputs and outcomes narrative above. The primary partner and point of contact for this project locally is: Steve Hernandez, Project Manager Lakota Farmer and Rancher Program c/o SDSU Pine Ridge Extension Office PO Box 656 7958 Lakota Prairie Drive Kyle, SD 57752 605.454-2218 steve.hernandez@gwtc.net **TARGET AUDIENCES:** The primary target audience for this project are Native American farmers and Ranchers. **PROJECT MODIFICATIONS:** Not relevant to this project.

**IMPACT:** 2010/09/01 TO 2011/08/31

In addition to livestock production skills, students received a certificate in Financial Literacy and business planning and training with the Quickbooks program which will help with the business side of the cattle operation. Students received

their South Dakota Personal Pesticide Applicator certification through this course as well; this is good for five years. Overall in this project we have provided 15 new ranchers with the requisite skills to engage in a livestock production operation on the Pine Ridge Reservation. Thus far, seven of the students which have completed the course are involved in a livestock operation, in an ownership or partnership basis, which represents significant economic impact for the reservation area where opportunities for income generation remain very limited. In addition to this, over fifty area producers have participated in this project by attending educational sessions and completing surveys on the value of course content and resources. More importantly, the completion of these two years and sustained effort has generated significant interest among reservation partners in this program. The addition of a horticultural track, which was started during the summer of 2010 has allowed this project to reach a larger group of individuals interested in becoming commercial growers. The horticultural track works with those that have access to a smaller parcel of land than that needed for livestock, but that would be suitable for vegetable production. The BFRDP project has provided leverage to access additional funds and resources, including the State of South Dakota Speciality Producers Block Grant, and other partner funds to assist growers with start-up expenses on their operations. A nonprofit group, Lakota Ranch Beginning Farmer/Rancher program, was established as the local partner to provide management of the grant activities, and to be the organization that would look for ways to continue and expand the program after the completion of the grant. A governing board has been established comprising a cross section of the community with the goal of providing training opportunities for the local population. The organization received a 501c status from the IRS in 2011. The most important outcome of this BFRDP project is the continued development of this organization, which will be the coordinator for further instruction and information sharing for farmers and ranchers beyond the duration of the BFRDP grant.

**PUBLICATIONS:** 2010/09/01 TO 2011/08/31

no publications reported this period

**PROGRESS:** 2009/09/01 TO 2010/08/31

**OUTPUTS:** The Pine Ridge Beginning Farmer/Rancher program was started by SDSU in the fall of 2009 with Hands of Faith as a cooperating partner. Fifteen students started the program the first year. Of these, 9 completed a majority of the curriculum taught during the first year intensive period. Classes were taught daily from 9am to 4pm. Topics taught during intensive period 2009-2010 included: -Ag Machinery -Beef Production -Carpentry /Farm Buildings ,Electrical -Farm & Ranch Management -Range Principles -Welding & Metals There was also a short course schedule (one day of instruction) that allowed the intensive period. They were usually scheduled on Fridays so that students that were employed could schedule days off to attend. Short Courses: -Feb. 22 - Farm & Ranch Day -Mar. 5 - Calving time -Mar. 12 - Horse production -Mar. 26 Planning and planting a home garden -Apr. 9 - Bull selection & EPD's -Apr. 16 - Livestock wellbeing & BQA -Apr. 30 - animal ID -May 14 - Forage and hay production -May 21, 25 - Range workshops We started the 2nd year on August 9th, 2010 with a week of orientation. We had 11 students by the end of the first week and a total of 16 overall for the 2nd year. We lost a few students to attendance issues but also had one student return to high school to graduate, and two started late and we tried to catch them up but attendance also became an issues for them. we currently have 9 students, 5 of which are returning students from the first year. The structure for instruction of the 2nd year is a little different than the 1st year in that we don't have one site to do hands-on instruction but work with a number of cooperating producers to give instruction at their respective ranches. Classroom lecture is given in the morning and travel to various sites for training in the afternoon. This exposes students to real world operations as well as getting local producers involved in the program. Relevant core subject areas that were taught during the 2nd year intensive period: -Personal Finance -Economics -Range Management & Sustainability -Cattle Handling & Equipment -Health/Beef Quality Assurance (BQA) -Reproduction - Nutrition -Genetics -Marketing -Ag Mechanics -Alternative Livestock & Production Methods. PARTICIPANTS: Shawn Burke and Roger Gates (PD's) conducted numerous planning meetings about program logistics, including implementation, problem solving and evaluation. Steve Hernandez became Program Manager for Pine Ridge Beginning Farmer and Rancher and oversees day to day operations of the program, takes attendance, and reports back to the Project Directors. Christy

Wold spent significant time organizing classroom instructors and curriculum, and worked with the Pine Ridge Secretary on voice procedures. She received an Outstanding Secretary Award from the SD Cooperative Extension Service for her efforts. Brian Deans leased farm equipment for the students and also was the herd manager for the BFR cattle. Extension personnel who taught various courses in Reporting Year 1 include: Roger Gates, Julie Walker, Ken Olson, , Adele Harty, Robin Salverson, Megan Peterson, Bob Fanning and Maurice Lemke. In Year 1, BFR partnered with Hands Of Faith training facility near Pine Ridge. HOF provided the classroom facilities and also some pasture for the cattle operation. Local ranchers and sale barns provided hands-on opportunities for students. TARGET AUDIENCES: The target audience for this project are Oglala Lakota enrolled tribal members who wish to profit from a ranching or similar agricultural operation. This program has reached 15 potential ranchers in Year 1 and 11 students in Year 2 thus far, in some form of agricultural education. Nine students completed most of the curriculum in Year 1. Some of the programs were offered to the general public (equine production, small acreage management) and additional people received information. PROJECT MODIFICATIONS: Not relevant to this project.

**IMPACT:** 2009/09/01 TO 2010/08/31

A local nonprofit group, Lakota Ranch Beginning Farmer/Rancher program, was established to assist with management and providing services of the grant and to be the organization that would look for ways to continue and expand the program after the completion of the grant. A governing board has been established comprising a cross section of the community with the goal of providing training opportunities for the local population. The organization has applied for 501c status from the IRS and hope to have approval shortly. Working relationships have been started with a number of local organizations, tribal/governmental agencies, and area producers. The BFR nonprofit organization is also developing a COOP that will service the students that successfully complete the course and possibly other local producers. Requirement and benefits will be determined by the BFR board of directors in conjunction with SDSU staff. By the students working towards personal plans, more hands on experiences with local producers, and clear structure to instruction and schedules the student will have the knowledge and skills to start their own ranching enterprise.

**PUBLICATIONS:** 2009/09/01 TO 2010/08/31

no publications reported this period