| Title: | Rural Delivery: New Education Methods Promote Self-Reliant, Alaska Native Villages |
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| **Submitted By** | Michele Pogue | **Date Submitted to NIFA** | 09/11/2013 |

**Program Code:** BFRDP **Program Name:** Beginning Farmer and Rancher

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**Recipient Organization**

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**Performing Department**

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**Co-Project Directors**

{NO DATA ENTERED}

**Departments**

{NO DATA ENTERED}

**Non-Technical Summary**

Alaska Natives living in remote villages face major challenges such as food insecurity, poverty, unemployment, lack of sustainability, loss of culture, and migration from villages to urban areas. Research based information could greatly benefit these remote communities. With only 10 Agriculture Extension Agents in Alaska and small travel budgets, remote communities are underserved. One of these ten Extension Agents, and the applicant for this project (PD), is funded by the Federally Recognized Tribes Extension Program (FRTEP) and serves 37 Tribes (FR) located in the interior of Alaska. This region is served by Tanana Chiefs Conference, Inc. (TCC) which is a Tribal Consortium of 42 villages and Tribes. There are 192 other Federally Recognized Tribes in Alaska which are not served by a FRTEP Agent. They are served infrequently by State and Federal funded Extension Agents who balance the needs of Tribes with those of urban clientele. The goal of this proposed project is to reach out to underserved Alaska Natives in remote communities by developing and implementing a relevant, research-based course that will provide an Alaska Native living in a remote community the knowledge and skills necessary to grow enough food for themselves and 10 families. This subsistence food production is expected to be in combination with food secured from hunting, fishing, and gathering. Face-to-face workshops are done by many Extension Agents as a primary method of outreach to reach clientele. In Alaska, it's not feasible to reach out to most communities in this way because of a small, widely dispersed population. The only Tribes Extension Agent in Alaska reaches 37 of 229 Federally Recognized Tribes in Alaska with face-to-face workshops. According to the 2007 Census of Agriculture, there were 47 American Indian or Alaska Native Operators (4% of total farm operators) compared with 1,098 White Farm Operators (96% of total) in Alaska (USDA NASS, 2007). These numbers did not coincide with the actual proportions of Alaska Natives (15.6%) and Whites (69.3%) (US Census, 2000). Alaska Natives are traditionally hunters, fishermen, and gatherers of food. Many do not consider themselves to be a "farmer," as the word is often synonymous with producing and selling food. However, many Alaska Natives are interested in growing some food as evidenced by the almost 500 Tribal Gardeners in TCC villages interested in receiving vegetable and flower seeds. With culturally sensitive and relevant outreach, Alaska Natives can use agricultural methods to support historically self-reliant ways of life. With outreach and education, they can partake in USDA programs that coincide with Athabascan Cultural Values (one of many Alaska Native Cultures). For example, Self-sufficiency and Hard Work, Care and Provision for the family, Village Cooperation and Responsibility to Village, Sharing and Caring, Respect for Knowledge & Wisdom from Life Experiences, and Respect for the Land and Nature are all Athabascan Cultural Values (Denakkanaaga, 1985).

**Accomplishments**

**Major goals of the project**

Goal 1: An accessible, relevant, distance-delivered, growing course for new and existing Alaska Native growers living in a remote village. Objective 1.1: Improve existing, Online Alaska Master Gardener Course and adapt it to be used as the

Beginning Alaskan Growers School (BAGS) for a remote, Alaska Native audience. Outcome 1.1.1: BAGS will provide an Alaska Native living in a remote, village, the knowledge and skills necessary to grow enough food for themselves and ten other families. Objective 1.2: Develop 12 new lessons which will provide an Alaska Native living in a remote, village the knowledge and skills necessary to achieve a variety of production goals. Outcome 1.2.1: A high quality, course for new growers. Outcome 1.2.2: AGS is offered in Alaska statewide and is sustained by user fees and/or grants. Objective 1.3: Deliver AGS to 120 students (80% Socially Disadvantaged) during grant period. Outcome 1.3.2: AGS students produce at least $1000 worth of food annually or a total of $100,000 worth of food total on an annual basis. Outcome 1.3.3: There are 100, new Alaska Native/Native American Farmers in Alaska by 2013. Outcome 1.3.4: AGS students share their knowledge with at least 720 other people. Objective 1.4: Partner with Alaskan farms and ranches. Outcome 1.4.1: At least 50 Socially Disadvantaged Students who have graduated from AGS are expected to participate in an internship, apprenticeship, or experiential learning course. Objective 1.5: Provide support for graduates of AGS by developing a list-serve that disseminates timely and relevant information about USDA programs and continuing educational opportunities. Outcome 1.5.1: At least 500 interested, new, or existing Socially Disadvantaged Farmers in Alaska are expected to join a list-serve to stay informed of relevant USDA programs. Goal 2: Identification of best, distance-delivery methods for Alaska Natives for non-credit education. Objective 2.1: Identify Alaska Native learning preferences. Outcome 2.1.1: Alaska Natives have access to a course delivered in a preferred method of distance delivery. Outcome 2.1.2: Extension Agents have research-based knowledge for preferred methods of distance delivery in Alaska. Objective 2.2: Identify any significant differences in increases in knowledge and skills, completion rates, or attendance levels for the aforementioned distance delivery methods. Outcome 2.2.2: Extension agents have research that identifies distance delivery course methods that maximizes gains in knowledge and skills preferences as well as completion. Objective 2.3: Identify the instructor course delivery. Outcome 2.3.1: Alaska Natives have continued access to a distance delivered course that is sustained by user fees and/or grant funds. Outcome 2.3.2: Extension Agents can use knowledge of instructor time for course development and delivery to assess the appropriate method of delivery for current budgets or planned user fees. Objective 2.4: Publish and disseminate this research on distance delivery methods. Outcome 2.4.1: Extension Agents reach out to underserved clientele.

**What was accomplished under these goals?**

**Issue 1:** Face-to-face workshops are done by many Extension Agents as a primary method of outreach to reach clientele. In Alaska, it's not feasible to reach out to most communities in this way because of a small, widely dispersed population with many communities inaccessible by road. The BFRD Program was an essential step in reaching out to these underserved, Socially Disadvantaged, Beginning Farmers in Alaska.
**Activity 1.1:** The Online Alaska Master Gardener Course was adapted and taught as the Beginning Alaskan Growers School (BAGS) targeting a remote, Alaska Native audience.
**Outcome 1.1.1:** After completing BAGS, 77% of students (of 70 responses) said they felt they had the knowledge and skills to grow enough food for themselves and 10 other families.
**Outcome 1.1.2:** After completing BAGS, 43% (n=30) of students said they planned to grow a garden for themselves plus ten other families within one year. Seven percent (n=5) said they did that before class, one student said they already did it during class, and 17% (n=12) of students said they had no plans to do this. Twenty percent of students (n=14) said they planned to start a for-profit farm within 1 year, one student said they started during class, 9% (n=6) of students said they already started a farm before class, and 39% (n=27) said they had no plans to do this.
**Outcome 1.1.3:** In terms of quality, the majority of students rated the Alaskan Growers School as either good or very good, overall, as a learning experience. After completing BAGS, 53% (n=37) of students rated the course as very good, 41% (n=29) rated it as good, 4% (n=3) rated it as neither good nor poor, and one student rated it as poor.
**Activity 1.2:** Twelve new lessons were developed which made up the Advanced Alaskan Growers School (AAGS). AAGS was developed to provide a remote, Alaska Native audience with the knowledge and skills necessary to achieve a variety of production goals.
**Outcome 1.2.1:** Based on self-perceived knowledge gain, students rated their knowledge gain as non-existent, minimal, moderate, and considerable, before and after completing AAGS. On average, 70 students said their knowledge of sustainable farming practices in Alaska increased by 39%. For growing crops in a greenhouse in Alaska, their knowledge increased, on average, by 32%. On average, students' knowledge of how to write a farm or business plan increased by 41%. Students knowledge increased by 47% for how to market your business in Alaska.
**Outcome 1.2.2:** After completing AAGS, 46% (n=32) of students said they planned to start a for-profit farm within a year, one student said they started a farm during class, 9% (n=6) of students said they already farmed before class, and 43% (n=30) of students said they had no plans to start a farm. After completing AAGS, 60% (n=42) of students planned to write a whole farm or business plan within a year, 16% (n=11) of students started one during class, 9% (n=6) did one before class, and 14% (n=10) had no plans to do this. 46% (n=32) of students planned to apply for a grant or program within one year, 9% (n=6) started doing this during class, 11% (n=8) did this before class, and 33% (n=23) had no plans to do this. Forty-seven percent (n=33) planned to purchase an appropriate tool for their farm or garden within one year, 13% (n=9) started doing this during class, 34% (n=24) did this before class, and 4% (n=3) had no plans to do this.
**Outcome 1.2.3:** In terms of quality, the majority of students rated the Alaskan Growers School as either good or very good, overall, as a learning experience. After completing AAGS, 60% (n=42) rated the course as very good, 34% (n=24) rated the

course as good, and 4% (n=3) rated it as neither good nor poor. No students rated AAGS as poor or very poor.
**Medium-Term Outcome 1.2.4:** Students were surveyed three months to 1.5 years after completing all or part of the Alaskan Growers School. Thirty-six students responded to the survey. Students were asked, "Which of the following best describes your farming since you took the Alaskan Growers School?" Thirty-three percent (n=12) started farming, 44% (n=16) continued farming, 22% (n=8) did not start farming, and no students stopped farming.
**Medium-Term Outcome 1.2.5:** Students were also asked, "Which of the following have you started doing since you completed the Alaskan Growers School?" Twenty-eight percent (n=27) completed at least one step towards your farm or business goals, 27% (n=26) purchased an appropriate tool(s) for their farm or garden,13% (n=12) started raising poultry, 9% (n=9) applied for a grant or program, 5% (n=5) wrote a whole farm or business plan, 5% managed a large greenhouse, 4% harvested non-timber forest products, 3% improved their marketing strategy, and one student raised livestock.
**Medium-Term Outcomes 1.2.6:** Students were also asked if they had done anything else since completing the Alaskan Growers School:

- Three of us leased 20 acres of Ag land from landowner in Talkeetna, AK. Bought a walk-behind tractor and two implements. Started clearing land and plowing fields for next year. Started a Farm. Started organizing farmers market in Talkeetna, AK.
- We have been able to expand our production at least 50% to include items that will hopefully take us to harvesting 10-11 months a year, in a HT (no added heat).We have also made plans and some investments to increase our acreage about another 50%.
- I doubled my growing area every year since I took the class. Here in Bristol Bay you need to create micro climates to ensure success due to wind and cool weather.
- The future plan is to expand into the woods to create approximately five acres of tillable land over the next few years.
- I designed a new more efficient greenhouse, and cleared land for it. I'm hoping to increase my production enough to provide produce to sell.
- Sold extra garden produce at our community market for the first time! We have also begun looking at larger plots of land to start a small farm.

**Activity 1.3:** 268 students were enrolled in the BAGS and/or AAGS which was offered twice during the grant period. If students completed both BAGS and AAGS, they were counted twice. 91 students were socially disadvantaged.
**Activity 1.4:** A total of 22 Alaskan Growers School Students participated in an intensive experiential learning course at a local farm.
**Outcome 1.4.1:** Students learned many things that they could put into practice. One student said:

- We don't have any extension agents out where we live and anyone that we ask questions of we're asking on borrowed time. . . .I've recommended this program to a number of friends. Among all the programs that I've done, including in the lower forty-eight, the Alaska Growers School is absolutely the best.

**Issue 2:** Face-to-face workshops are particularly expensive to offer in Alaska to off-road, remote communities. Distance-delivery provides a tremendous opportunity to reach underserved, off-road communities, but little research has been done on the efficacy of various distance-delivery methods in an Extension setting. Extension classes are unique in that they are non-credit, thus it is important to research distance-delivery methods in an Extension setting.
**Activity 2.1:** Distance-delivery methods were researched extensively. The first course was offered by Elive, teleconference, Blackboard, correspondence and face-to-face. The second course was offered using a mixed-method approach where students could choose to participate by Elive, teleconference, and/or Blackboard.
**Outcome 2.1.1**: Based on our research, we were able to improve the delivery of the second Alaskan Growers School.
**Outcome 2.1.2**: We wrote a series of three papers called "Going the Distance" See "Products."

**What opportunities for training and professional development has the project provided?**

The Project Director, Heidi Rader, attended two, Beginning Farmer and Rancher Development Project Director Meetings. Rader presented a poster and a presentation at the meetings. Glenna Gannon, the Alaskan Growers School instructor in 2012 attended one, BFRDP PD meeting. Gannon presented with Rader at the PD meeting.

**How have the results been disseminated to communities of interest?**

In 2010, one press release was written when the Alaskan Growers School received funding from BFRDP and was used by eight other newspapers or newsletters to write articles including: The Dutch Harbor Fisherman, The Cordova Times, The Alaska Journal of Commerce, The Fairbanks Daily News Miner, the Anchorage Daily News, EPA Region 10 Tribal Newsletter, The Council newsletter, and Alaska Business Monthly. This press contributed to 99 people applying for the first Alaskan Growers School. The University of Alaska Fairbanks released another press release on 9-16-2011, entitled: "Growers' School offered by distance delivery." Fairbanks Daily Newsminer article (also appeared at KTVA CBS 11 News, 10-1-2011, "School preps next generation of rural Alaska farmers." University of Alaska Cooperative Extension Service You Tube Video (http://youtu.be/TCVR1Y176_g) and UAF CES 2011 Program Highlights. Three spotlights appeared on the Start2farm.gov website from Alaskan Growers School students: Chad Nordlum of Kotzebue, Yvonne Baker of Yakutat, and Arlene Gunderson of Sand Point. There were over 3,000 page views, annually, on the Alaskan Growers School Website

A facebook page and list-serve was started for the Alaskan Growers School to disseminate timely and relevant information about USDA programs and continuing educational opportunities. At the end of this reporting period, there were 210 members on the list-serve, which includes beginning farmers as well as agriculture professionals who often answer questions. There were 107 likes on the Alaskan Growers School facebook page https://www.facebook.com/AlaskanGrowersSchool at the end of the reporting period.
This outreach helped get the word out about the Alaskan Growers School all over Alaska. Students came from 66 different Alaskan communities. This was made possible because distance-delivery was used. Students were from: Anaktuvuk Pass, Anchor Point, Anchorage, Aniak, Bettles, Craig, Dillingham, Douglas, Douglas, Eagle, Eagle River, Edna Bay, Ester, Fairbanks, Fort Yukon, Gakona, Galena, Grayling, Haines, Healy, Holy Cross, Homer, Hughes, Huslia, Juneau, Kenai, Ketchikan, King Cove, Kotzebue, Kupreanof Island, Lower Kalskag, Manley, Manokotak, Marshall, McGrath, Metlakatla, Minto, Nanwalek, Nenana, Nikiski, Nikolai, Nome, North Pole, Northway, Old Harbor, Palmer, Pedro Bay, Pelican, Pelican, Pilot Point, Sand Point, Saxman, Seward, Sitka, Soldotna, Sterling, Talkeetna, Tetlin, Tok, Two Rivers, Tyonek, Ugashik, Unalakleet, Unalaska, Wasilla, and Yakutat.

**What do you plan to do during the next reporting period to accomplish the goals?**

{Nothing to report}

**Participants**

**Actual FTEs for this Reporting Period**

| Role | Faculty and Non-Students | Students within Staffing Roles | | | Computed Total by Role |
|---|---|---|---|---|---|
| | | Undergraduate | Graduate | Post-Doctorate | |
| Scientist | 0.2 | 0 | 0 | 0 | 0.2 |
| Professional | 0.8 | 0 | 0 | 0 | 0.8 |
| Technical | 0 | 0 | 0 | 0 | 0 |
| Administrative | 0 | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 0 | 0 |
| Computed Total | 1.0 | 0 | 0 | 0 | 1.0 |

**Target Audience**

Students (268) were enrolled in the Beginning Alaskan Growers School (BAGS) and/or the Advanced Alaskan Growers School (AAGS) which together comprised the Alaskan Growers School. The Alaskan Growers School was offered twice during the grant period, although not all students completed the course. One hundred and eighty seven students were female, 74 were Alaska Native, 44 had never farmed before, 121 were planning to farm, 50 were currently farming, 19 had farmed less than 10 years, and seven were working on a farm.
Fifty-two percent of students who completed the pre-quiz (98 students total), were college graduates or higher, 26% had completed some college, 12% had a highschool diploma or GED, 8% had a vocational or technical certification, and 2% had some high school. Students were also asked to rate their computer skills: 37% rated their skills as considerable, 51% moderate, 11% minimal, and 1% non-existent. Students were also asked about several reasons for taking the class were to them. Seventy-four percent said growing enough food for themselves and ten other families was very important, 22% said it was somewhat important, and 3% said it was not at all important. Twenty-two percent said growing food to sell in their community was very important, 46% said it was somewhat important, and 32% said it was not at all important. Thirteen percent said getting a job in agriculture was very important, 41% said it was somewhat important, and 46% said it was not at all important.

**Products**

| Type | Status | Year Published | NIFA Support Acknowledged |
|---|---|---|---|
| Journal Articles | Published | 2012 | YES |

**Citation**

Rader, H.B. (2012). Going the Distance Part 1: Three Keys to Successfully Delivering an Extension Course at a Distance. Journal of Extension [On-line], 50(6) Article 6TOT4. Available at: http://www.joe.org/joe/2012december/tt4.php

| Type | Status | Year Published | NIFA Support Acknowledged |
|---|---|---|---|
| Websites | Published | 2010 | YES |

**Citation**

The Alaskan Growers School: http://www.uaf.edu/ces/ags

| Type | Status | Year Published | NIFA Support Acknowledged |
|---|---|---|---|
| Conference Papers and | Other | 2012 | YES |

**Citation**

Rader, H.B. and Gannon, G. 2012. Alaskan Growers School, Beginning Farmer Rancher Development Project Director Meeting, Rochester, MN. December 6, 2012.

| Type | Status | Year Published | NIFA Support Acknowledged |
|---|---|---|---|
| Journal Articles | Submitted | 2013 | YES |

**Citation**

Rader, H.B., Hanna, V., Kienenberger, D., and Spiers, K. (submitted). Going the Distance Part 2: Comparing Five Ways of Teaching an Extension Course. Journal of Extension.

| Type | Status | Year Published | NIFA Support Acknowledged |
|---|---|---|---|
| Journal Articles | Submitted | 2013 | YES |

**Citation**

Rader, H.B. and Gannon, G. (submitted). Going the Distance Part 3: Teaching an Extension Course in Alaska Using a Mixed-Method Approach. Journal of Extension.

**Other Products**

**Product Type**

Educational Aids or Curricula

**Description**

The Alaskan Growers School is 22 lessons and was developed to be delivered by distance-delivery. The course was developed in cooperation with Alaskan Extension Experts and other Agriculture professionals and was peer reviewed.

**Product Type**

Survey Instruments

**Description**

25 surveys were developed including two pre-quizzes, a quiz after each course lesson, and a quiz after the Experiential Learning Course. These were delivered using google docs. Survey results are reported in "Accomplishments" and were also used to research distance delivery methods which was shared in a series of papers called "Going the Distance."

**Product Type**

Audio or Video

**Description**

Audio and video recordings were made of the lectures. We are working on making them available on iTunes University for free.

**Changes/Problems**

{Nothing to report}