This is a final project report submitted to the Organic Farming Research Foundation.

Project Title:

Increasing the adoption of organic farming practices through NRCS training

Investigator:

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1. Project Summary

Our project was designed to address a need. Natural Resource and Conservation Service (NRCS) field staff was not fluent in organic practices and policies to the point that they could address the changes in the 2008 Farm Bill. That lack of understanding created barriers for development of successful cost share contracts with organic producers. As a result, organic producers were not participating in NRCS cost share programs. We approached this need by designing a web-based training in organic practices to build NRCS fluency in turn allowing them to successfully write and administer contracts with organic growers. The training was held on May 7, 2009. We included organic farm tours to help ensure full understanding was achieved.

We selected a web-based training approach for two reasons: (1) NRCS staff was comfortable taking training using this approach, and (2) we were cognizant of the need to minimize cost in time and travel for agency folks.

2. Introduction to Topic

The 2008 Farm Bill brought with it an opportunity for organic growers to access cost share programs through the Organic Transition Incentive program. NRCS staff, while dedicated to natural resource conservation and knowledgeable of conservation programs, were not familiar with the Organic Transition Incentive program. This new program required both specific knowledge of program provisions but also technical expertise in National Organic Program (NOP) rules and organic cropping practices to suit local soil and climatic conditions. In addition, NRCS staff is sometimes loyal to existing conservation programs such as minimum tillage, making adoption of a new program more difficult. NRCS staff is also often unaware how organic farming systems also meet existing NRCS goals of soil conservation, water quality protection, and wildlife habitat enhancement.

There was an unmet need to provide training in organic practices through a mode with which NRCS staff was comfortable and that minimized the time and travel dollars necessary to participate in a more traditional classroom approach. As a result we created a web-based curriculum.

3. Objectives Statement

1. Develop a training curriculum to be used through Nebraska NRCS offices.

<u>Original Outcome Expected</u>: Curriculum developed and modified to fit NRCS media; training sessions held for Nebraska NRCS; NRCS field staff from 75% of districts participate in training sessions. We will measure the success of this delivery system by monitoring the number of participants that participate.

Outcomes:

- Curriculum was developed and modified into a web-based format that fit NRCS media (see attached files).
- 74% of the districts were represented in the training 17 of 23. (Note: Nebraska field offices are designated by 23 Natural Resource Districts in the state).
- Success of this delivery system was achieved NRCS staff was accepting of the delivery format as indicated by a follow-up phone interview with the program manager. He stated that he felt the format was a very good way to deliver training since staff were used to receiving training via electronic transmission. He also indicated that he felt the training "stuck" but acknowledged that learning about organics to the level necessary to become "fluent" in it would take more training. From this discussion, we gleaned that the delivery format was very good but that one training session on this material was probably not enough to train NRCS personnel sufficiently in organics unless they were already familiar with some of the practices.
- 2. In year 1, train Nebraska NRCS and other agency staff on the new Farm Bill provisions for organic transition, principles of organic farming, and requirements of organic certification.

Original Outcome Expected: Agency staff will be able to explain the specific program rules relating to organic farming and will be able to explain the organic transition and certification processes to farmers interested in organics. In addition to surveys/interviews of NRCS staff and farmer-applicants, we will use the number of Environmental Quality Incentives Program (EQIP) and Conservation Stewardship Program (CSP) contracts written, acres enrolled, and incentive dollars committed as a measure of the success of the project.

<u>Outcomes:</u> Agency staff became more proficient in explaining program rules related to organic farming, organic transition, and certification processes. An interview with the NRCS Program Leader (with whom we worked to arrange the training) indicated that one year later he was still seeing the results of the training in relation to field staffs' understanding. In terms of success, Nebraska was one of the top ten in the EQIP organic initiative in the country with signups when it was rolled out in 2009. Nebraska was also number 3 in terms of contract dollars and number 5 in terms of number of contracts, landing in the top 5 in the country.

2009 number of contracts

- 1 California 158
- 2 Iowa 125
- 3 Wisconsin 117
- 4 Minnesota 99
- 5 Nebraska 75

2009 contract dollars

- 1 Iowa \$3,481,572
- 2 California \$3,276,448
- 3 Nebraska \$2,702,818
- 4 Minnesota \$2,209,851
- 5 Oregon \$1,700,634
- 3. In year 2, we will take the electronic training program and the lessons we learned in Nebraska to North Dakota NRCS.

<u>Original Expected Outcome</u>: Agency staff will be able to explain the specific program rules relating to organic farming and will be able to explain the organic transition and certification processes to farmers interested in organics. In addition to surveys/interviews of NRCS staff and farmer-applicants, we will use the number of EQIP and CSP contracts written, acres enrolled, and incentive dollars committed as a measure of the success of the project.

<u>Outcome</u>: OFRF has changed its priorities and we will not be able to pursue training for North Dakota during the second year through foundation funding.

4. Materials and Methods

We developed a simple electronic pre-test to determine current state of NRCS staff's understanding of organic practices and policies (see attached). The end goal of the training was to increase NRCS staff's understanding, demonstrated through improved tests scores and also through increased numbers of signups. Unmet need to provide training prompted us to develop the training in organic practices through a mode with which NRCS staff was comfortable and that minimized the time and travel dollars necessary to participate in a more traditional classroom approach. As a result we created and presented a web-based curriculum that trained agency personnel in organic practices and policies.

We selected a web-based approach because NRCS staff has utilized this type of training for several years. It had been shown to be an effective vehicle for training within the agency.

The curriculum developed had four components:

- A presentation of organic principles and policies showing how conservation goals are met with crop rotations, wise tillage, and systems management.
- A presentation of new program rules and procedures by NRCS staff fully conversant with the new rules and organic practices.
- Interviews and presentations by experienced organic growers on how they manage weed and pest problems and maintain crop yields without chemical inputs.

- Regional farm tours to demonstrate practices to agency staff and interested farmers and ranchers and introduce local experts to staff and applicants.

We used the current NRCS information and web-based training system to present the principles of organic production. By gaining the cooperation of key NRCS media and training personnel, we worked closely with them to coordinate and execute this web-based training. The training was held on May 7, 2009. We discussed tillage and how it can be used to manage weed infestations without causing undue soil erosion. We explained the farm management plan required by organic certification agencies and how it provides a plan of practices to build soil quality, reduce weed pressure, and manage soil diseases.

The training included information about the need for buffer zones and identity-preserved status of crops and livestock. We stressed the need to avoid the use of unauthorized seeds, soil additives, or other materials that violate the rules for organic transition. We provided special focus on practices that disqualify a farm from being certified and provided guidance on preparing for a successful organic inspection.

We used the certification directory found on the New Farm website to identify agencies that certify in Nebraska to allow NRCS staff to create a connection with available organic organizations, thus fostering and furthering understanding of organics for application to EQIP and CSP programs.

Organic producers developed and presented the training. Martin Kleinschmit, who at the time of the training was on the Center for Rural Affairs staff and also an organic producer, and Dave Welsch, an organic grower, developed and presented components of the training; Dr. Charles Francis, professor with the University of Nebraska Agronomy and Horticulture Department and one of the key members of the University of Nebraska's Organic Working Group, presented materials on the social impacts of organic farming. These cooperating organic farmers and ranchers hosted Nebraska farm tours:

June 15 - Dave and Deb Welsch, Milford

June 17 - Eric Pillar, Alma & Tom Tomas, Orleans

June 22 - Kevin Fulton, Litchfield

June 24 - Rich & Joe Mazour, Deweese; and Joel Starr, Hastings

The steps taken to organize the document and present the training follow:

- 1) We solicited and received support from and commitment for this training from NRCS Nebraska's State Conservationist prior to applying for this grant.
- 2) Using a collaborative approach, the training was developed, discussed, critiqued, and finalized through meetings and email. This allowed us to address the best way to approach the agency and understand the audience. Kathie Starkweather, Project

Leader, had over 15 years of experience working for the agency as a rural sociologist and understood the culture which we considered while developing the curriculum.

- 3) Contacted the NRCS lead on the new Organic Transition Incentive program to bring him up to speed on the project, get his support, buy-in, and commitment for the training.
- 4) Arranged training date, use of equipment, and NRCS office space for training
- Arranged for NRCS state leads in cost-share programs to participate in the training.
 They served as resources to address questions on cost-share programs as field staff raised them.
- 6) Arranged and publicized farm tours
- 7) Developed and distributed pre-tests to gauge level of knowledge
- 8) Held the training
- 9) Distributed post-tests
- 10) Analyzed and evaluated project

5. Project Results

Thirty-five NRCS field staff participated in the web-based training. We distributed electronic pre- and post-tests to determine levels of learning by comparing the scores. All participants took the pre-tests; 19 completed both pre- and post-tests. The results: 78% improved their scores by anywhere from 8 to 60 points; 10% did worse on the post-tests than their pre-test scores by 7 points each; and two stayed the same with 93% correct answers.

We distributed a follow-up post-test to determine if the training held an impact after four months. We do not have data from that test because the response rate was too low to really be able to measure long-term retention of the training. Only four follow-up tests were completed even when encouraged by the state Program Leader.

In a recent interview with the State Conservation Agronomist who hosted and organized the training, he responded positively when asked if he felt the training had improved staff's knowledge. He felt that there was more that needed to be done to fully understand organic practices and policies. It was encouraging to hear that NRCS staff was encouraged to attend organic farm tours this summer and that three new field staff were hired who were well acquainted with organic practices.

The training curriculum is attached and pictures from field tours are also attached.

Finally, though this training cannot claim all of the success in the number of Nebraska's organic EQIP signups, contract dollars, and numbers of contracts, it is fair to say that this training, the field tours, and the attention that the training brought to organic practices and policies had an impact. Nebraska was one of the top ten in the EQIP organic initiative in the country with signups when it was rolled out in 2009. Nebraska was also number 3 in terms of contract dollars and number 5 in terms of number of contracts,

landing in the top 5 in the country. The high ranking that Nebraska NRCS achieved should be commended and the fact that they continue to seek understanding of and training in organic practices and policies is also very encouraging.

6. Conclusions and Discussions.

The results of the project were excellent. We saw a need and addressed it through a training medium familiar to and accepted by NRCS staff. Training was developed that was easy to understand and the presenters created an atmosphere where questions were encouraged. NRCS state office staff involvement in the training was an important factor that cannot be minimized. Having state office leaders participate in the training as resource experts also added to the learning environment.

The training clearly was of benefit to organic farmers given the EQIP signup outcomes (we were unable to gather data on CSP). We would expect given the high placement of Nebraska NRCS nationally that this trend will continue, resulting in continued benefits for organic producers.

I'm not sure we would do anything differently the next time; however, using this as a baseline, we could do follow-up, next level web-based training with NRCS. We would want to connect with the state office program leaders to identify areas that need additional attention to ensure maximum learning occurs. Based on what we've learned after speaking to program leaders, further training would be very useful.

The only problem we encountered during the project was in getting responses back on the follow-up test.

7. Outreach

We worked with NRCS media and training staff and program leader to get the word out to NRCS staff about the training.

Center for Rural Affairs media staff developed and coordinated announcements of EQIP and CSP program availability in the Nebraska press to ensure that farmers and ranchers were aware of the new programs and that organic transition assistance was available from NRCS.

Even though this project was Nebraska specific, our media staff released multiple news releases, announcements, and weekly columns in newspapers across the country about EQIP and CSP program availability – reaching over 35 states. This played no small part to the number of organic farmers and ranchers who successfully were able to participate in these programs.

8. References

- Organic Farming Research Foundation: www.ofrf.org
- Midwest Organic & Sustainable Education Service: <u>www.mosesorganic.org</u>
- SARE National Program: <u>www.sare.org/publications</u>
- Land grant universities, e.g. UNL: http://organic.unl.edu/
- ATTRA: www.attra.org, http://attra.ncat.org/organic.html#overview
- National Agricultural Library: www.nal.usda.gov/afsic
- Sustainable Agriculture Research & Education: www.sare.org
- The New Farm: www.newfarm.org
- Organic Trade Association: <u>www.ota.com</u>
- Rodale Institute/New Farm web-page 15-hour on-line organic training: www.tritrainingcenter.org/course/
- "Guide to Organic Certifiers": www.newfarm.org
- National Organic Program: http://www.ams.usda.gov/AMSv1.0/nop (includes most up-to-date information on organic certifiers)