

PROGRESS REPORT 2011
North Central Region
Sustainable Agriculture Research and Education (SARE) Program

Project Title: Defining Our Production Region

Project Number: FNC09-725

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***1. Describe in detail your work activities and how you used your grant funds this year.
(Use another sheet if necessary.)***

Missouri Northern Pecans are unique. They are from native plant varieties that have not been hybridized. Further, the pecans are produced in the Northern most growing regions for native pecans. The combination of native seed stock and a shorter growing season results in smaller, sweeter, nuts. Further, MNPG uses proprietary handling of their nuts. They are collected in the late fall, and then placed in cold storage in the shell. Just prior to shipping, the nuts are shelled and packaged. The combination of native varieties, the shortened Northern growing season, and special handling gives these nuts a distinctive sweeter flavor and very satisfactory mouth feel.

MNPG launched their shelled and packaged nuts in 2000, with first year sales of less than \$10,000. The business grew. In 2003, MNPG launched their first "Certified Organic" pecans. Since then, the farmer-owned company has experienced tremendous growth. With growth, came competition both from domestic and international sources. MNPG began exploring ways to enhance their brand, secure their market, and protect the livelihood of the family farmers that they source nuts from. Developing a place-based marketing strategy seemed like the best opportunity.

Missouri Northern Pecan Growers intends to develop a Geographic Indication for Northern Native Pecans. Geographic Indications (GI's) have most prevalently been used in Europe in the food and wine industries. Better known GI's include Parma Ham, Roquefort Cheese, and Champagne. The products are sourced from a given region, and have well defined quality attributes. MNPG is working with Elizabeth Barham, Ph.D. a

world renowned expert on Geographic Indications, on a long-term strategy for developing a GI specific to Northern Native Pecans.

Dr. Barham, University of Arkansas, is developing group of grower participants and professionals who are dedicated to the development of American Origin Products in the United States. Kona Coffee Growers, Napa Valley Wine, and Missouri Northern Pecan Growers are participants in this effort.

GI's are an important rural development strategy for U.S. specialty products. Our vision is to use the research in this project as a pilot project for other grower groups wishing to pursue the development of GI's. Further, we hope that SARE, USDA Rural Development, and other policy making bodies, realize the long-term economic and cultural benefit of development of GI's in the United States. If implemented, GI's can preserve and enhance our nation's food culture and revitalize rural economies.

One of the first steps in developing a GI is clearly delineating the region of origin. These borders are not necessarily based on geo-political boundaries --- such as state lines, but more frequently reference topographic and climatic regions.

MNPG is using SARE grant funds to define the growing region for Northern Native Pecans. In order to brand and trademark "Northern Pecans" a clear distinction needs to be made between "Northern Native Pecans" and other native pecan varieties.

Currently, MNPG collects pecans from growers in Missouri, Kansas, and Northern Oklahoma. Our hypothesis is that pecans from Southern Oklahoma are larger, and are closer genetically to "Southern Varieties" of Native Pecans. The research in this project will delineate the "Northern" growing region ---. Clear definition of the growing region will strengthen the overall "Northern Pecan" brand.

Allison Miller, Ph.D. an ethnobotanist on the faculty at St. Louis University is carrying out research to define the growing region for Northern Native Pecans. Dr. Miller's academic research is dedicated to pecans, and focuses on the geographic movement of native pecan varieties over time. She has done significant genomic-based research on the pecan.

This research for this SARE project will utilize a combination of DNA and sampling analysis to develop genomic profiles for native pecans from different groves in Missouri, Kansas, and Oklahoma. Using information from DNA analysis, we will be able to define the "Northern Native" growing region.

Research on genomic based geographic mapping of native plants may have long-term implications for determining the impact of climate change.

Research on this project has been in the planning phase, due to the growing season and timing of available funds. But things are about to change.

Samples were collected from March 15 to April 30, 2010. The greatest amount of DNA is present in early leaves. Joe and his daughter Jess Wilson collected DNA samples from over eight different pecan groves. Pecans samples were collected from more northern Missouri groves, and then from groves to the South. Samples were taken from groves in a linear pattern, moving from North to South. Pictures of highlighting the collections are contained on Allison Miller's lab's web-site.

In December 2011, Ann Wilkinson visited Allison at her lab at St. Louis University. Allison explained the process of collecting and analyzing the data.



Information from the samples is being combined with information from previously collected DNA samples from Missouri. Further, the information will be compared to pecan populations collected in the USDA Pecan and Hickory Germplasm Reserve (College Station, TX). Allison has graduate student that assist her with the analysis of the data.



3. Describe your work plan for next year.

Allison Miller and her lab students have been working on analyzing the DNA from the collection samples.

However, the lab has had some unfortunate equipment breakdowns, and the project is running behind schedule.

Allison expects that the analysis will be completed by July, 2011, and that the project will be wrapped up shortly thereafter. After conclusion can be drawn from the data, a final report and PR plan will be launched
