

PROGRESS REPORT 2012
North Central Region
Sustainable Agriculture Research and Education (SARE) Program

Project Title: Niche Nut Processing Project, collaborating to establish nut crop production, processing and marketing in the North Central Region

Project Number: FNC12-847

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1. Describe in detail your work activities and how you used your grant funds this year.

Thus far, we have managed to test machinery on and off site; provide educational material and events; and change the face of perennial agriculture in our area by increasing the number of growers interested in the crops pertinent to our research.

We began our year with a significant amount of outreach. This involved putting together promotional materials and holding events that would widen our base in order to set ourselves up with more landowners that could provide the project with sources of black walnuts and hickory nuts. We also furthered relationships with growers through our connection to the Northern Nut Growers Association (NNGA), the Ohio Nut Growers Association (ONGA) and Greg Miller at the Empire Chestnut Company. We attended the Spring meeting for ONGA with the goals to get a committed amount of crop from growers; to obtain saplings of black walnut and hardy pecan; and to purchase scion wood of cultivars of the black walnuts and hickory nuts to graft onto rootstocks. With a certain amount of crop from growers secured, we came back to Southeast Ohio to promote nut growing and form relationships with more landowners.

We held a grafting workshop for black walnuts and hickory nuts at Solid Ground Farm; an educational farm that we started working with under this grant. The grafting workshop went very well, both landowners and farmers attended and by the end of the spring we had over 600 acres to wild harvest from around the county.

Our original plan was to pay people to harvest for us, but due to harsh drought conditions and the major straight line storm, named Derecho, that tore across the Midwest in June, our plans had to change. The drought caused a significant amount of early nut drop on every site that we had established for wild harvest of black walnuts and hickories. And the destruction left in the wake of Derecho was devastating to our harvest

goals. We had funds set aside to purchase a certain amount of wild harvested crop, which we could then estimate the useable amount of nuts and nut meat from that total weight. But, with the drought drop and the wind-blown clusters of immature nuts, there would be far less useable crop harvested below the trees by wild harvesters. We would end up paying for far less actually useable crop given that separating these out during harvest was not possible. The percentage of immature nut harvest from amateur harvesters would be far too high to justify a campaign to pay for them. We decided that the most economical route was to do all of our own harvesting. We cleared out the early drop from beneath the trees on the sites we intended to harvest from. This way, by the time the nuts still on the trees matured and dropped, only the usable harvest would be under each tree. We promised 10% the crop back if our tests faired well to landowners we harvested from.



Illustration 1: The best producer of the black walnut harvest. This tree reside in a cow pasture.

Harvest came in on budget, but not the way we had planned. More money was spent on gas going from site to site battling the squirrels for the crop we had watched mature up until harvest. Nonetheless, enough harvest was collected to run all the tests desired for this year.

We spent funds to set and test machinery on site and also to ship test product to other manufacturers to test their machinery. Alterations to on site machines were made to enhance “in line” performance. Space was rented from Shagbark Seed and Mill Company to perform these tests. Shagbark Seed and Mill Company also provided a number of their own on site machines for testing. We collaborated with Shagbark Seed and Mill Company and Empire Chestnut Company to gather a lot of operating cost and Processing time data.

We have currently been spending funds to further promote our out-of-shell products for more market data.

2. List the results of your project and what you have learned so far.

Chestnuts:

- Machine capabilities
- Processing times
 - post field
- Operating costs
- Market viability
 - in shell
 - out-of-shell
 - flour



Black Walnuts:

- Machine capabilities
- Processing times
 - wild harvest to cracked out-of-shell, but not separated
- Operating costs
- Market viability
 - feedstuff analysis for ruminants
 - compost

Illustration 2: De-hulling and floating

Hickory nuts:

- Machine capabilities
- Processing times
 - wild harvest to out-of-shell
- Operating costs
- Market viability
 - smoking wood substitute
 - feedstuff analysis for ruminants
 - out-of-shell



Illustration 3: Cracking

Hazelnuts have been tested but no data recorded as of yet, being done in the 2013 harvest season.



Illustration 4: Sizing

3. Describe your work plan for next year.

Summer 2013:

- Find and test machines for post-cracking processing of hazelnut and black walnut crops and analyze operating costs for each.
 - Have tested a number of aspirators off site with great success. Will be testing them on site this summer.
- Test other value added crop possibilities for various by-products of processing and actual desired yield
 - Oil pressing
 - hazels, black walnuts and hickory nuts

Fall 2013:

- Mild harvest mainly focusing on crops that we feel we have not explored enough to satisfy our needs for informing others of processing
- Compile data into spreadsheets, grafts and other user friendly formats

Spring 2013:

- Tie up loose ends and submit final report

4. How did you share information from your project with others? What plans do you have for sharing information next year?

This year we...

Attended the Ohio Nut Growers Associations spring meeting handed out promotional material to the over 50 attendees and gave a speech to inform growers and land owners on our research which secured us a reliable source of crop to use if wild harvesting had not fallen through.

Held a nut grafting workshop at Solid Ground Farm in which 12 people attended, furthering our relationships with landowners and growers.

Attended a town hall meeting for local business owners, farmers and non-profits to share their stories and promote themselves and what they are doing, discussion followed amongst the 40 speakers and 80 attendees.

Spoke on a local food processing panel at the Real Food-Real Local-Real Good Institute held by the 30 mile meal projects of Athens Ohio 34 people sat in on discussion and then proceeded to tour the facility we had arranged for processing that fall.

Held a pruning workshops out at Solid Ground Farm in which 22 people



Illustration 5: Speaking at Town Hall Meeting

attended

Have had numerous phone conversations/conference calls with small to large scale growers and processors. Heartland Nuts 'n' More, Southern Nut 'n' Tree and Empire Chestnut Company to name a few.

Next year we plan to...

Begin to have much more of an online presence either with our own website and facebook page.

Have a market presence and get the information out via face to face contact with customers.

Continue to promote ourselves through educational events, local foods and business/economic growth events.

Maintain relations with our current growers and continue to help them graft cultivars and scale up operations.



Illustration 6: Teaching pruning workshop for nut and fruit trees at Solid Ground Farm