

**Local Food Promotion Program
Final Performance Report**

Report Date Range:	April 1 st – September 30 th , 2016
Today's Date:	October 28 th , 2016
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Recipient Organization Name:	ReZoNation Farm, LLC
Project Title as Stated on Grant Agreement:	Southern Arizona Beekeeping and Honey Promotion Program
Grant Agreement Number:	14-LFPPX-AZ-0010 A
Year Grant was Awarded:	2014
Project City/State:	Marana, Arizona
Total Awarded Budget:	\$99,737

1. Summarize the community need for the grant work:

The establishment of this beekeeping enterprise is important because it serves as an intermediary between local producers (beekeepers) and buyers by aggregating, processing, marketing, and distributing honey products to meet the demand of local and regional food markets. In addition, the project aims to improve the economic stability of the community by creating jobs and new business opportunities and provide local food access to low-income and low-access food areas in Southern Arizona. This program also offers education and training to promote beekeeping and increase local food consumption.

i. Indicate the low income/low access priority area or Federal Promise Zone, if applicable:

This project serves populations in areas of concentrated poverty and limited food access. Low-income and low-access areas in Southern Arizona include the Tohono O'odham Nation and Pasqual Yaqui. According to the USDA Food Access Research Atlas, both of the tribes are in "food desert" defined by USDA. The project areas are not in Federal Promise Zone.

2. State the goals/objectives of your project as outlined in the grant narrative and/or approved by LFPP staff. If the goals/objectives from the narrative have changed from the grant narrative and have been approved by LFPP staff, please highlight those changes (e.g. "new objective", "new contact", "new consultant", etc.). You may add additional goals/objectives if necessary. For each item below, qualitatively discuss the progress made toward each one and indicate the impact on the community, if any.

i. Goal/Objective 1: Increase domestic production, consumption, and access of locally/regionally produced honey and other related products

Progress Made: During the month of June, ReZoNation relocated 16 hives to San Xavier Cooperative Farm (SXCF), completing a total of 52 hives (25 hives during 2nd report period, 11 hives during 3rd report period, and 16 during current report period). Additional hives are continuing to be moved in groups of 8 or less as they reach a certain population size (8-10 or more combs covered in bees). This is a strategy used by ReZoNation to ensure proper colony expansion. Our goal is to complete the 100 hives by the end of this year.

In the last 6 months we have processed close to 600 pounds of honey; however less than 200 pounds were sold to SXCF during this report period. The Coop Farm (SXCF) recently decided to discontinue

attending numerous farmer's markets where a good portion of our honey was being sold. Their decision was based on the economics of having a staff attending farmer's markets and their current goal of driving more traffic directly to the farm store. As a result ReZoNation Farm has surplus product on hand. An additional estimated 600-800 lbs of honey has been left on the hives (redistributed among all hives) since SXCF demand has been temporarily reduced for the rest of 2016.

Impact on Community: Although honey demand in this community is always greater than the supply, the unexpected market demand reduction limited the amount of honey available. ReZoNation is working on the development of new markets and distribution channels to facilitate the access/availability to current and future honey supply for community consumption.

ii. Goal/Objective 2: *Develop new market opportunities for small beekeeping operations to serve local food markets*

Progress Made: Developing new market opportunities is about increasing the supply of honey, not the demand. Therefore, progress can be measured by the amount (pounds) of honey/wax produced/aggregated and sold, the number of training conducted, the number of young beekeepers trained, and the number of hives created and placed on SXCF.

During this report period we have produced about 600 lbs of honey and 100 lbs of wax. Almost 200 lbs of honey were sold to SXCF at \$5/lb. Wax has not being sold yet to SXCF since we are just now ordering the molds required to put it into a marketable form. In addition, we need to hold back some of the wax produced to sustain 2017 honey bee production. Therefore, ReZoNation does not know how much wax can be sold this season, but we anticipate being able to sell some surplus wax in spring 2017.

At the time that market demand was reduced (based on SXCF decision) we could not immediately establish additional marketing outlets. ReZoNation Farm is currently seeking additional market outlets and distribution channels. It is estimated that the total honey production for 2016 could have reached 1200-1400 lbs if changes to demand had not occurred. While this is short of the projected goal, we are very confident that a strong foundation has been laid for upcoming years in terms of process, production hives, equipment, and awareness of the challenges that have been overcome.

Impact on Community: The unexpected market demand reduction is challenging; however, ReZoNation is still moving forward creating new beehives to increase the local supply of honey and at the same time seeking new markets opportunities and distribution channels to improve local beekeeping operations and serve local food markets.

iii. Goal/Objective 3: *Create jobs and new business opportunities for small farms and ranches in low income and low access areas in Southern Arizona, including Tohono O'odham Nation and Other Native American Tribes.*

Progress Made: During this period, we did not create any job. We anticipate the creation of new jobs after the number of grown and mature hives is close to 150-200 (probably by 2017).

Participating training will accelerate the promotion of beekeeping and honey production business. During the past report period (March 5th and 6th of 2016), the fourth beekeeping workshop was held at SXCF, as part of this LFPP grant project. The official list of attendees and agenda can be found in **Appendix A**. An additional beekeeping workshop will be held after the end on the grant on October 22nd and 23rd. We expect to reach out ~25 people in this event. Some beekeeping training pictures can be found in **Appendix B**.

ReZoNation is considering the addition of a specific training to the rearing of queen honey bees, which are essential to giving future honey producers a solid and sustainable base of productive hives adapted

to our regions climate and resources challenges. This training would likely occur in April of each year, and follows the request of past students who have taken the current beekeeping workshop/training developed under this program.

Although we have not yet been able to locate enough dedicated interns to begin a solid year-long mentorship program, ReZoNation Farm has been modifying potential program objectives based on experiences with those living in and around the SXCF. Moving forward ReZoNation Farm intends to offer ongoing mentorship, honey bees, equipment use and materials to an independent group of two or more Tohono O'odham members that would like to attempt managing a small incubator business. ReZoNation Farm would be available to help guiding the interns through a year-long process of managing a small apiary through the seasons, as well as assist them to grow a small number of hives into a sustainable business collectively owned by the interns. Reaching further into Tohono O'odham tribal lands may involve developing further relationships with Tohono O'odham Community College, or Tohono O'odham Community Action, or Ajo Center for Sustainable Agriculture.

Impact on Community: Education and training are critical to develop new business opportunities and create jobs. Through the workshops and training, the students/trainees obtain and improve their skills in beekeeping. Then, they have better chance to develop their own beekeeping businesses successfully.

iv. Goal/Objective 4: *Improve the economic viability of small beekeeping operations in Southern Arizona by providing training, technical assistance, and value-added processing locally*

Progress Made: The economic viability of small beekeeping operations is measured by the increase of the dollar value of the sales. Despite the market demand reduction, the sales from this report period were estimated at ~\$1,000. The whole sale price of the honey is \$5 per pound.

The establishment of a value-added processing facility at SXCF has begun. The construction is being led by David Stone, PhD under a separate grant funding that he has obtain through the EPA in partnership with Tohono O'odham Community College. It is expected that no food safety inspections or permitting will be required due to the low food safety risk that honey poses, and since the processing facility will be located on non-commercial, agricultural tribal lands. Although a first phase completion of a structure to house processing equipment is targeted to be December 2016, ReZoNation Farm does not expect the structure to be usable until summer 2017. Cie'na Schlaefli, with SXCF, would be the point of contact for an up-to-date progress report regarding.

No new frames have been completed in the past 6 months since none were needed to meet goals for 2016. However, SXCF has committed to providing more labor to complete more frames for use in spring 2017 during the upcoming fall and winter when their work schedule is slower.

ReZoNation retained Apex Applied Technology, Inc to develop a business plan for commercial beekeeping based on the two years of operation under the LFPP program. The finalized plan is attached in **Appendix C**.

Impact on Community: The establishment of a value-added processing facility at SXCF will definitely increase the supply of honey in the near future. Therefore, more honey and related value-added products will be available in the community. The sales of honey and ultimately the revenue for beekeepers will increase, making the operation more economically viable.

The business plan for commercial beekeeping can be used by other beekeepers to guide their business development.

v. Goal/Objective 5: *Maintain and increase local bee populations for the health and productivity of other agricultural products, such as fruits, vegetables, and tree nuts through pollination*

Progress Made: The establishment of a total of 52 hives has definitely increased the local bee populations. With the bee colony expansion (completion of 100 new colonies) it is expected to continue increasing the local bee population and the benefits to agricultural crops and other vegetation.

Impact on Community: The increment of local bee populations promotes pollination and increases the productivity of several crops such as fruits, vegetables, and nuts. As a result, SXCF and surrounding areas will benefit from increased crop yield and improved quality of agricultural products.

vi. Goal/Objective 6: *Mitigate and influence the prevalence of aggressive strains of honeybees throughout the region by training a new generation of beekeepers. The positive results have already been demonstrated in South American countries.*

Progress Made: ReZoNation Farm has developed a technique to ensure that new hives will be propagated only from calmer/workable colonies. It has been proven that this technique is able to significantly reduce the ratio of “bad” hives to “good” hives. So far, we are able to keep the rate of defensive hives below 10%.

Impact on Community: Minimize aggressive strains in public places and producing colonies is beneficial to the community safety.

3. Quantify the overall impact of the project on the intended beneficiaries, if applicable. Include further explanation if necessary.

i. Number of direct jobs created: None (no new direct jobs will be created until we maintain approximately 150 - 200 full grown hives at SXCF, and this is unlikely to happen until 2017).

ii. Number of jobs retained: 1 (Jaime de Zubeldia).

iii. Number of indirect jobs created: None (no new indirect jobs have been created during this period).

iv. Number of markets expanded: None (no new markets have been expanded for this period).

v. Number of new markets established: None (no new markets have been established during this period).

vi. Market sales increased by: market sales decreased from last report period (due to the market reduction of SXCF). However, about 200 lbs of honey were sold in this report period, which is more than the amount of honey sold during the last report period and definitely more than what was sold before the implementation of this program.

vii. Number of farmers/producers that have benefited from the project: There have been approximately 60 new attendees to the trainings since March workshop, including those we contacted during outreach efforts in Phoenix and Flagstaff. An additional 25-30 will be trained in October 22nd and 23rd.

a. Percent Increase: ~150%

4. Did you expand your customer base by reaching new populations such as new ethnic groups, additional low income/low access populations, new businesses, etc.? If so, how?

At this stage, we are just beginning to explore expanding our customer base. So far, we are unsure whether an expansion will include low income/low access populations. We are currently exploring existing aggregation capabilities of the Community Food Bank of Southern Arizona with the hope that honey may be included as a potential product for distribution to their participating institutions – this

may be one avenue towards reaching low income/low access communities. We are also in the process of creating and submitting product information materials as required by Whole Foods for those wanting to sell product to them. Discussions with the Food Conspiracy Coop will also occur within a few weeks to discuss what is needed to increase existing sales of honey within their stores as we increase production volume over the next few years. In all cases, we are being cautious since it could damage the product brand if sales commitments are made prematurely without having sufficient available product. Reaching further into Tohono O'odham tribal lands may involve developing further relationships with Tohono O'odham Community College, or Tohono O'odham Community Action, or Ajo Center for Sustainable Agriculture.

5. Discuss your community partnerships.

i. Who are your community partners?

In addition to the community partners already discussed in the last report (Tohono O'odham Wildlife Management, Tohono O'odham Community College, University of Arizona College of Architecture, San Xavier Cooperative Farm, Food Conspiracy Coop, Carl Hayden, Agriculture Research Station, and Sonoran Permaculture Guild); Local First Arizona, and Northern Arizona Organic Beekeepers Association (NAOBA) can be added to the list.

ii. How have they contributed to the results you've already achieved?

All our partners have contributed to the results of this program. San Xavier Coop Farm has provided much essential labor, an outlet for product, and their community partnerships has resulted in development of a place to process honey produced onsite. Local First Arizona allowed us to begin reaching out to the Phoenix area in terms of making this project known, while the relationship with NAOBA allows us to share husbandry information to improve future honey production while increasing safety.

On the other hand, working in collaboration with TOCC (through project lead professor David Stone), The University of Arizona (U of A) College of Architecture and SXCF; a value-added honey processing building is in current process of design/building using a proprietary building material (*Ferrock*) that sequesters carbon dioxide from the atmosphere. This is a huge step towards the development, improvement, and expansion of local beekeeping operations. This effort is being sponsored by an EPA grant, and the U of A is leading the design stage of under the direction and advising of ReZoNation Farm and David Stone with TOCC.

iii. How will they contribute to future results?

We intend to continue relationships with our community partners to expand market access and availability of locally produced honey and other hive products.

6. Are you using contractors to conduct the work? If so, how has their work contributed to the results achieved thus far?

Yes. ReZoNation retained Apex Applied Technology (AATech) and we would say that we would not have been able to make this project a reality without them. The work needed to produce and manage hives, along with managing the project to meet stated goals in relation to various resource and environmental constraints is all-consuming. The expertise AATech has provided in summarizing the work in project reports and tracking expenditures has been invaluable.

7. Have you publicized any results yet? NO, ReZoNation has not publicized any results.

i. If yes, how did you publicize the results? N/A

- ii. **To whom did you publicize the results?** N/A
- iii. **How many stakeholders (i.e. people, entities) did you reach?** Tohono O'odham Wildlife Management, Tohono O'odham Community College, University of Arizona College of Architecture, San Xavier Cooperative Farm, Food Conspiracy Coop, Carl Hayden, Agriculture Research Station (research assistants informal), and Sonoran Permaculture Guild.

8. Have you collected any feedback thus far about your work? YES, ReZoNation has collected some feedback from its customers and workshop attendants.

i. If so, how did you collect the information?

Product feedback was collected when customers purchased the product at Food Conspiracy Coop and San Xavier Coop store in Tucson, Arizona. In addition, we collected feedback from workshop participants. A hard copy survey was developed by our community partner Sonoran Permaculture Guild to gather information about ReZoNation's performance.

ii. What feedback have you collected thus far (specific comments)?

Our customers really enjoy our honey and continually request to have more access to it year round. Specific comments include: "this is one of the best honeys that is locally U.S. grown that I have encountered"; "it has an excellent flavor, is locally sourced and has all of the health benefits of real honey..."; "this honey is wonderful, velvet on your mouth"; "light and tasty flavor"; etc.

9. Budget Summary:

- i. **Were there revisions to the budget during the reporting period? (As a reminder, budget changes that are substantive (e.g. changes in line items or amounts that exceed 20% of the original request) must be submitted via separate documentation by contacting LFPP staff. Changes indicated below are not approved until you have obtained prior approval.)** None
 - a. *If so, briefly describe the reasoning if the budget line item changed by more than 20%:* N/A
 - b. *Provide the date that LFPP staff provided prior approval for the revisions of a budget line item that changed by more than 20%, if applicable:* N/A

ii. Total amount spent during reporting period:

Personnel:	\$15,345.53
Contractual:	\$9,880.00
Equipment Purchases:	\$6,869.00
Travel:	\$0.00
Supplies:	\$407.77
Other (training expenses)	\$229.49
Indirect Costs:	\$0.00
TOTAL:	\$32,731.79

- iii. **Amount of matching funds/in-kind contributions used during the reporting period:** \$46,552.07
- iv. **Did the project generate any income?** NO
 - b. *If yes, how much was generated and how was it used?* N/A

10. Summarize unexpected delays or problems (if applicable).

i. State the issue(s) and the reasoning behind its/their occurrence:

Unexpected issues included mechanical failures on both our personal and farm vehicle. Thankfully, these occurred at different times and we simply used one vehicle while the other was being repaired. In total, a one-month delay of transporting and harvest was experienced along with \$2,000 in unexpected repairs.

SXCF's intention to discontinue farmer's market sales was also not made known to us until the end of August 2016 via a Food Safety Conference. We noted significantly reduced orders for honey from SXCF over the summer. This directly affects our ability to move processed honey in the short-term, and also results in management changes that reduces total harvest for the year as explained in **Question 2**.

ii. How did the issues affect timelines?

As mentioned above, the unexpected issues provoked delays on honey transportation and harvesting; as well as reduced honey sales, and therefore honey supply.

iii. How did the issues affect the measureable results?

All the issues faced during this program resulted in less honey supply than we projected. However, our farm learned and gained experience and a strong foundation in terms of producing and processing hives, honey, and related value-added products.

iv. How did the issues affect the budget? N/A

v. How did your organization resolve the issue(s)?

As stated above, ReZoNation resolved the issues: repairing its cars to avoid increasing the delays on transportation and harvesting; and actively seeking new market opportunities to sell its products.

11. What grant activities/impacts do you hope to accomplish in the next six months? In other words, what do you plan to include in your next report to LFPP staff (interim or final)? For example, if you have not made progress toward all of your goals and objectives or sections of your work plan, how will you work towards accomplishing them before the next report? Include information about community impact and outreach, anticipated increases in markets and/or sales, estimated number of jobs retained/created, and any other information you'd like to share about the future of your project. If there are any changes or issues that were not covered under questions #9 or #10 above, please provide that information here.

After the end of this program and during the upcoming months, ReZoNation will be dedicated to complete the demonstration beehives at San Xavier Coop Farm to achieve the goal proposed of developing 120 hives at the Farm. In addition, we will actively work on the implementation of the processing facility for honey and value-added related products, and continue promoting beekeeping training and education.