

THE BUZZ OF NAGUA



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When I joined ASOAMATRISAN (Asociación de Apicultores de María Trinidad Sánchez) in May 2014, they had recently become a legalized institution. Although they were a legalized association, they were not yet a true business. There was no cash flow, their product was a raw commodity with no brand, infrastructure was lacking, and they had no clients to whom their product was sold. They were more or less a group of beekeepers who, for over 20 years, met monthly at the Ministry of Agriculture and supported each other through sharing knowledge and connections. If a member of the association had honey prepared for sale, ASOAMATRISAN would arrange for an intermediary to travel to their site and complete the transaction independently. If a member had issues with their bee colonies, the association's technician would visit and, using his 25 plus years of beekeeping experience, he would assist with any problems. Ultimately, they were a support system.

While they remain an organization of support, they have transitioned into an institute that offers much more. At its inception, this grant was aimed at purchasing a vehicle coupled with a honey extractor for ASOAMATRISAN. These tools would effectively help its members by simplifying the honey extraction process. It would decrease costs/labor while increasing revenue, decrease travel time, furnish them with a platform for a mobile honey extractor, and provide the capability to transport more product. As with many undertakings in developing countries, issues arose, therefore we had to pivot. Nonetheless, what unfolded has benefited ASOAMATRISAN in areas of their business beyond what was originally intended.

We received the 75% funding from World Connect in August 2015. Unfortunately, ASOAMATRISAN was unable to collect their 25% during the same period. In November 2015, with the funds successfully raised, we moved forward with the purchase of the association's first honey extraction equipment. This equipment opened the eyes of their members, as they finally comprehended how much their process of extracting could be considerably improved. Employing the same retired methods since beginning beekeeping, they were unaware of the various tools that were available in the industry. Once introduced to the honey extractor, they were overcome with enthusiasm after witnessing first-hand how effective these tools were in reducing labor, increasing production, and producing a superior final product. This realization led to the desire for more extractors and resulted in members collaborating by contributing more funds to purchase five more. As a result, during the harvest season, these extractors are stored at homes of members from the Board of Directors located throughout the province of María Trinidad Sánchez. There are approximately 15-20 members that live within a close proximity to these sites; each honey extractor is shared amongst them. Following the harvest season, the extractors are to be returned and guarded at ASOAMATRISAN's location in Nagua.

Allow me to take you on a visual journey as I reveal exactly how this equipment is currently being utilized, its benefits/advantages, along with what has transpired since the implementation of this grant.

Honey Extraction:

Prior to this project, the honey extraction process was long and tedious. In order to extract honey from the beehives, the beekeepers (association members) would remove each panel (20 per beehive), cut out each piece of honeycomb by hand, and place it into a bucket. Once the honeycombs were removed, they sat down and, using what's called the crush-and-strain method, wrung out each piece of honeycomb, one-by-one, with their hands.

BEFORE



Currently, with the use of modern equipment, the honey extraction process has changed drastically. With an uncapping knife and fork, the beekeeper opens the pores of the honeycombs to prepare each panel prior to being inserted into a honey extractor. The uncapping tank gathers the excess wax and honey, ensuring nothing goes to waste.

AFTER



Once prepped, the panels are then inserted into the honey extractor. The beekeeper rotates the handle allowing the centrifugal force to fling the honey out of its honeycomb's pores, extracting from each panel simultaneously while flowing into a bucket below.



Benefits of using honey extractors:

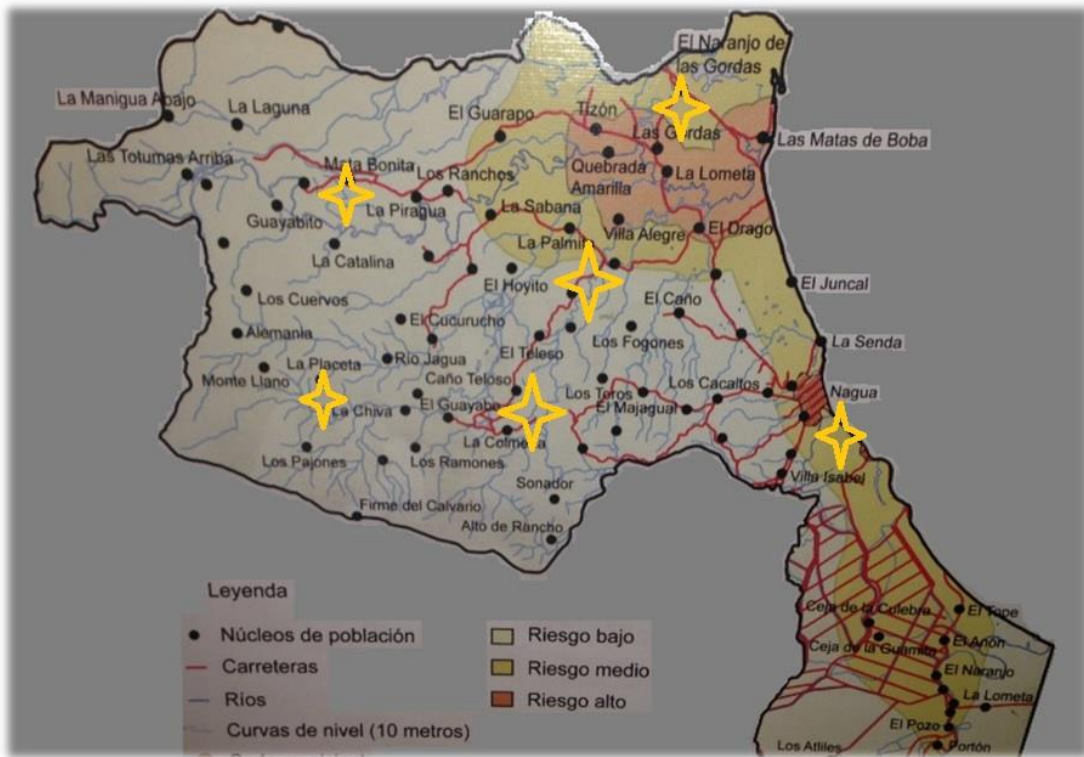
Crush & Strain Method	Honey Extractor
Extracts approx. 2.5 gallons of honey per bee colony	Extracts approx. 3.5 gallons of honey per bee colony
One 55-gallon tank takes about 16 hours of labor	One 55-gallon tank takes about 3 hours of labor
Due to removal of all honeycomb from panels, it takes bees about 28 days to reproduce the honeycombs and re-fill with honey.	Honeycombs remain in panels which allow bees to simply re-fill the existing honeycombs with honey which is ready to be extracted in 15 days.
Costs 20 pesos per wax sheet to replace removed honeycombs. RD\$10 x 20 panels = 200 pesos per colony	Costs ZERO pesos. Honeycombs are reused for a couple years therefore wax sheets are not needed for some time.
Unsanitary system of extraction	Cleaner final product

In summary, honey extractors:

- extract approx. 40% more honey
- use approx. 80% less labor hours
- save approx. 45% time in reproduction
- save 200 pesos (US\$4) per colony in production costs (avg. producer maintains between 50-100 colonies)
- produce a superior final product

The six extractors are dispersed throughout the province of Maria Trinidad Sanchez (indicated by yellow stars on map) at various homes of the association's members and returned to the association between harvests. The honey extractors are small enough to transport on the back of a motorcycle. The idea being that anyone who lives in the proximity could travel to their home and collect it when needed. As mentioned earlier, approximately 15-20 beekeepers have access to each extractor.

MARIA TRINIDAD SANCHEZ



The purchase of this equipment led to an unexpected but colossal opportunity. Before I share the full story, some history is essential. Since my arrival in May 2014, ASOAMATRISAN had been attempting to obtain a loan from FEDA (Fondo Especial para el Desarrollo Agropecuario or Special Funds for Agricultural Development), an institution under the Presidency of the Dominican Republic whose mission is to promote and foster sustainable development in rural areas supported by financing small and micro agricultural enterprises operating under associative systems. The initial proposal to FEDA was an effort to obtain a loan for approx. US\$450,000. After a year of vacillating, the loan was eventually denied. Once rejected, ASOAMATRISAN formulated another effort but instead aiming at a loan for US\$150,000. During this second attempt, we had begun implementing the project aided by the funds of this grant.

In March 2016, after already having purchased six honey extractors which were being utilized in the current harvest season, the president of the Dominican Republic, Danilo Medina, visited Nagua where he invited members of various associations throughout the province to pitch their projects. He provided a platform for associations with the need for aid to pitch their projects directly to the president. ASOAMATRISAN attended the assembly with the equipment procured through the grant. During this meeting, Luis Ciprian (my project partner and President of ASOAMATRISAN) explained to President Medina the recent advancements made. Additionally, he was able to conduct a demonstration of the honey extractors along with other equipment that was on hand. Mr. Ciprian depicted the current state of the association and communicated the desire of a loan that would advance the association by funding much larger projects such as the modernization of thousands of beehives and the purchase a vehicle, which had not been acquired through the grant funds.



Luis Ciprian (blue shirt) pitching the ASOAMATRISAN project to President Medina (white shirt)



Luis Ciprian demonstrating the use/benefits of honey extractors to the president of the DR

Right there on the spot, President Medina approved a government-aided 2% interest loan of US\$310,000 to move forward with the association's needs. It is important to note that the average rates through a local bank run between 15-20%. Budgeted in this loan is \$35,000 for a new vehicle for ASOAMATRISAN. In the end, this grant still achieved all of its goals in addition to much more.

Since this pivotal meeting, ASOAMATRISAN has developed in numerous aspects of its business. They signed the lease of the very first location in the association's history, a modest sized facility in the heart of Nagua (capital of Maria Trinidad Sanchez).



The new location allows ASOAMATRISAN to operate as an official business. To utilize the remaining grant donation, ASOAMATRISAN contributed additional funds. With this, we purchased honey processing equipment that enables the association to process, package, sell, market, and warehouse the honey that is purchased from its members. We are currently devising a clear system to maximize their newfound opportunity.

Utilization of Processing Equipment:

When a member arrives to ASOAMATRISAN with honey to sell, the honey refractometer is used to ensure its quality by measuring the amount of water being carried in the honey. Ideally, the honey should have no more than 18% water moisture. Excess moisture content will cause the honey to spoil or ferment.



Once honey is acquired, it is poured into the honey clarifier. The honey runs through the clarifier's five walls being cleaned each step of the way by removing excess particles such as dead bees and wax bits.



The pump vacuums the clean honey from the clarifier and draws it into a storage/bottling tank, passing through a small filtering system for one final filtration before entering the chamber. In addition to cleaning the honey, pouring it into the low-leveled clarifier allows the pump to do the heavy lifting which alleviates the need for the member to lug heavy buckets of honey into the elevated honey tanks.



(2) 1,000 kg tanks are currently in transit from overseas and due to arrive in September



These reservoirs serve two purposes; they function as a storage facility while also being utilized for bottling honey. As a storage chamber, they afford ASOAMATRISAN the opportunity to sell their product year-round. Honey harvests roughly six months out of the year. As the end of harvest season approaches, ASOAMATRISAN will ensure that all three tanks are fully stocked, providing them over 600 gallons of honey available for retail in the off-season.

As a bottling system, valves are located at the base of each tank which provide an effortless, speedy, and sanitary method to bottle honey. Prior to possessing these tanks, they were capable of bottling in the region of 50 containers in an hour.

BEFORE



These tanks expedite the bottling of honey by nearly 50%; they now have the capability of packaging more than 70 per hour.

AFTER



The compilation of everything that has been outlined, led to the creation of the first brand of honey in the association's existence...

BEFORE



AFTER



...and the launching of *MIEL del PARAISO* (Paradise's Honey) at the Sanchez Festival in July 2016.



Presently, we are approaching local vendors where we can potentially distribute our product. Our eventual goal is to export our honey in hopes of maximizing profits. Once they begin selling in local supermarkets or exporting, ASOAMATRISAN will be enjoying an increase in revenues of nearly 60%. The profits will flow back into the association and will be used to repay their loan while expanding their business.

The ultimate objective for ASOAMATRISAN is to develop apiculture as an avenue for farmers and their families to augment their personal income. With this new equipment available, they anticipate attracting more women and children to beekeeping. Members not only benefit by having access to modern beekeeping equipment, but they now have a place to sell their raw honey for fairer rates than they received through intermediaries. ASOAMATRISAN aspires to be the leading apiculture institution in the province of Maria Trinidad Sanchez, implementing programs for social, community, cultural, and educational development through the art of beekeeping. Without the implementation of this grant, there is a strong probability that ASOAMATRISAN would have never been approved for a loan from FEDA. A loan which has allowed them to take their association from a group of beekeepers who have been meeting for 20 years, to the establishment of a business that allows them to be self-sufficient. The funds donated by World Connect were not only vital, they were instrumental in the creation of ASOAMATRISAN's business, and for this, ASOAMATRISAN is forever grateful.



Maria and her son are the newest members of ASOAMATRISAN



The women of the Mejia family have joined their husbands in beekeeping