

EDUCATING RESILIENT AND RESOURCEFUL AGENTS OF CHANGE

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MOVING FORWARD DESPITE THE CHALLENGES: THE CASE OF UNIQ IN HAITI

It is no secret that Haiti is a country with decades of political and economic instability, making it a complex environment for the development and implementation of initiatives aimed at bringing progress to its communities.

Engulfed in poverty, natural disasters, and a wave of violence that affects everyone, a group of individuals refuses to give up. At Quisqueya University, particularly within the Faculty of Agricultural and Environmental Sciences (FSAE), the vision for transforming its educational programs has been affected. Unfortunately, this has hindered the transition and the creation of the structural processes necessary to lead the transformation of the envisioned educational model.

However, the University remains committed to the Five Elements of Success and has developed four innovative projects to shape its 2024-2025 work plan.

According to Michel Chancy, the project facilitator at UniQ: "These activities aim to strengthen not only the practical skills and values of students but also the teaching staff's ability to apply these five guiding principles. This experience will enrich the teaching skills of the entire faculty, with lessons that can be transferred to other academic fields."

Innovative Organic Waste Recovery for Sustainable Animal Feed in Port-au-Prince

A groundbreaking initiative in the metropolitan area of Port-au-Prince aims to transform organic waste into a sustainable alternative protein source for animal feed, the program focuses on producing black soldier fly larvae to reduce dependence on imported soy.

The process involves analyzing organic waste, setting up ideal conditions for fly farming, monitoring larvae growth and nutritional value, and testing the larvae as feed for poultry and fish. This initiative is expected to advance sustainable environmental management while providing a cost-effective, local solution for animal nutrition.

Vaccination Campaign to Protect Creole Chickens in Pétiion-Ville and Kenscoff

An impactful initiative is underway in the rural areas of Pétiion-Ville and Kenscoff to combat Newcastle disease in Creole chickens, the project seeks to reduce annual poultry losses and boost farmers' incomes through vaccination campaigns and community education.

Building on prior vaccination experience, the program involves training students and trainers, raising awareness among local farmers, conducting vaccination drives, and monitoring poultry health post-vaccination. This initiative is expected to enhance chicken health while strengthening rural family economies.

National Promotion Days for Rabbit Meat Production and Consumption

From December 13-15, 2024, UniQ partnered with the National Federation of Haitian Rabbit Students – FENELA, to promote a nationwide campaign that highlighted the benefits of rabbit meat through engaging activities on [social media](#) and the University campus, this marked the fifth annual edition of the event organized by the Faculty.

The initiative included the creation of educational content, a mini fair at the Turgeau Campus featuring tastings and culinary demonstrations, and a national social media awareness campaign with testimonials from rabbit producers. Feedback and impact analysis were gathered to refine future promotional strategies.

The program successfully raised awareness of rabbit meat's nutritional value, boosted local industry production, and encouraged greater consumption of national products.

Preparation of Dry Feed for Herbivores

In Kenscoff, students were trained in the preparation of nutritious herbivore feed, including drying techniques and the production of multi-nutrient blocks.

The initiative involved identifying local forage resources, learning efficient drying techniques to preserve nutritional value, producing multi-nutrient blocks tailored to local herbivore needs, and distributing the blocks to farmers. Data on animal health improvements were collected to evaluate effectiveness.

This program supported farmers during periods of food scarcity and enhanced animals' nutritional performance, contributing to more resilient livestock management practices.

WHY IS THIS IMPORTANT:

The Haitian domestic poultry and pork industries are entirely dependent on imports for soybean meal. The United States has been the only supplier since 2014.

In 2018, U.S. soybean meal exports were valued at \$2.84 million, according to data from 2019¹; unfortunately, figures beyond that are unattainable.

WHY IS THIS IMPORTANT:

The disease is highly contagious and can result in mortality rates of up to 95% in unvaccinated flocks, particularly affecting young birds².

The traditional livestock of Creole hens represents an annual turnover estimated at over \$50 million³.

WHY IS THIS IMPORTANT:

Rabbit meat is recognized as a valuable source of protein in Haiti. Initiatives like USAID's Farmer-to-Farmer program have promoted rabbit farming to enhance food security and provide economic opportunities for rural communities⁴.

Despite these efforts, rabbit meat remains relatively uncommon in Haitian diets, and there is a lack of detailed statistics on its consumption levels. Ongoing programs continue to encourage rabbit farming to improve nutrition and livelihoods in the country.

WHY IS THIS IMPORTANT:

A block can provide up to 50% the protein needed by animals for growth. The mineral content of block also helps in increasing milk production. Additionally, it gives 45% energy needed by animals to increase production of meat and milk⁵.

APPLICATION OF UNIVERSITY KNOWLEDGE TO THE CHALLENGES OF CORN PRODUCTION



Corn is the staple cereal of the Mexican diet, serving as a primary energy source. According to [Mexico's National Commission for Knowledge and Use of Biodiversity](#), the per capita consumption of corn is approximately 350 grams, including mainly tortillas and over 600 different Mexican dishes, many of which are based on the [nixtamalization](#) process. This process is associated with an increase in the grain's nutritional quality.

However, despite being such a cherished ingredient, local producers face challenges such as low yields, persistent pests, and difficulties in plant growth and development.

At the Technological Institute of Higher Education at Calkiní (ITESCAM), students Bárbara Isabel Pool Cauich, Andre Jaciel Caamal Gómez, Ismael Alexander Maas Martínez, and Daniel David Uc Tun decided to undertake their professional residencies and thesis research on corn production. They applied what they learned during experiential practices conducted in the Institute's research areas during preliminary project trials.

Aware of the importance of these issues, the students developed three key research projects, each focusing on different aspects of corn cultivation:



- Bárbara Isabel Pool Cauich conducted an "**Analysis of Growth and Development of A7573 White Hybrid Corn at Different Planting Densities.**"
- Andre Jaciel Caamal Gómez focused on studying the "**Entomofauna Associated with Hybrid Corn Cultivation under an Agroecological System.**"
- Daniel David Uc Tun investigated the "**Effect of Foliar Honey Spraying on Hybrid Corn Cultivation under a High-Density Agroecological System in Calkiní.**"

The results of their research are significant:

1. **Planting Density:** It was demonstrated that corn producers should reconsider planting densities. Treatments 2 and 3, which involved higher densities than those typically used by local farmers, showed greater adaptation and yields.
2. **Agroecological Management:** The importance of agroecological practices was emphasized. These practices not only promote ecological balance in agroecosystems but also encourage the presence of beneficial insects. These insects play a crucial role in biological pest control, conserving pollinators, and reducing pesticide use.
3. **Growth and Development:** Regarding corn growth and development, untreated plants showed greater height and stem diameter. However, those sprayed with honey foliar showed a significant increase in the weight of the corn kernels.

"These findings provide valuable insights for optimizing agricultural practices in Bécál and improving the sustainability of corn cultivation in the region," said Dr. Felipe de Jesús González Rodríguez, the principal director of the projects.



The objective of the Transforming Higher Education project is to train critical change agents who support society in addressing its needs. It is gratifying to have students committed to their communities, identifying problems, but above all, determined to solve them.

Congratulations to the students at Calkiní for successfully completing their thesis projects!

CELEBRATING SUCCESS: RECOGNITION OF OUTSTANDING STUDENTS AT THE NATIONAL TECHNOLOGICAL INSTITUTE OF MEXICO, CONKAL CAMPUS

The National Technological Institute of Mexico, Conkal Campus (IT Conkal), has reaffirmed its commitment to academic excellence and human values by recognizing its most outstanding students as part of the Transforming Higher Education project.

This event aims to inspire the student community and celebrate the effort, dedication, and talent of those who have excelled in various areas. During the ceremony, students were honored for their academic performance, leadership, participation in extracurricular activities, and social commitment.

The awardees were:

- José Carlos García Aldana: A 3rd-semester student in Agricultural Engineering with extensive experience in urban agriculture. He has contributed by conducting workshops in the Conkal community, focusing on vermicompost production and natural pesticides.
- Ana Carolina Uitz Chin: A graduate in the process of obtaining her degree in Agricultural Engineering (Class of 2019-2023) with an average grade of 91.1. She is part of the first generation of students educated under the Five Elements of Success model and participated in the International Forum for Experience Exchange among students of the Transforming Higher Education project.
- Yoli Amairani Castañeda Chan: A residency student in Agricultural Engineering. She also participated in the International Forum for Experience Exchange among students of the Transforming Higher Education project and was a member of the women's softball team at TecNM Conkal Campus. Additionally, she competed in the LXVI Pre-National Sports Event of TecNM, where her team secured second place.

For this newsletter, we had the opportunity to speak with José Carlos and Ana Carolina, whose interviews can be viewed on the Transforming Higher Education YouTube channel by clicking the image below.



Institutional Support

IT Conkal has stood out over the past five years as one of the educational institutions most committed to implementing the Five Elements of Success model within its curriculum.

This commitment is demonstrated by the openness of its leadership to adopt trends, execute projects, and trust both teachers and students to achieve results, which have led to recognition for exemplary projects like the ones mentioned earlier.

We discussed this and more with María Concepción Lara Gómez, the academic deputy director of IT Conkal, who provided further insights into the institution's work on the higher education transformation project.

1. Why did you decide to award these students as outstanding students?

This allows the student to feel motivated, both the one receiving the recognition and the rest of the student body. It lets them see that there are many other aspects that can be highlighted and recognized.

Beyond grades or evaluations, it reflects the importance of being entrepreneurial, proactive, and having that spirit of social contribution, which are also important values in their education.

2. What changes have you noticed in the behavior of agronomy students at IT Conkal?

From my perspective, I've observed very good results in terms of how students perceive the quality of the work being done. They achieve a much higher level of satisfaction as clients.

They start projects, become more proactive, and generate developments that allow them to strengthen other aspects. For example, I have students who, perhaps in their first or second semester, already want to start a productive project — they want to buy their chicks, set up their project, feed them, and begin to venture into entrepreneurship. They can visualize business opportunities with their teachers while working in the productive areas.

In a short time, they gain a very clear understanding of what it means to be an agronomist. Since they rotate through different areas, they learn all the ways in which they can practice their profession, which helps them position themselves, without losing sight of the fact that they are agronomists. I believe that those who have the practical opportunity find it easier to make decisions compared to those who are not involved in such projects.

Through the brigades, we've seen how these young people perform, how they transfer knowledge to the community, and how they capitalize on the competencies they acquire, always keeping in mind their social contribution vision.

Additionally, the students are more confident in discussing topics related to their profession as agronomists. They have greater command due to the practical experience, empowering their competencies and reinforcing their soft skills.

3. How has the admission of agronomy students changed?

This year, we had seven first-semester groups, which marked an increase in enrollment and attention in every sense. The teachers were willing to teach an additional subject, attend more students, and even open new areas, which also demonstrates the commitment of our faculty.