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2nd mission report

Regenerative Agriculture in Belize

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Context and objectives of the mission

TexBel is a company focused on the production and commercialization of high value products such as citruses, juices and coconut water. Its supply comes from its own 4 farms in Belize totalling 2'190 acres planted, and from outgrowers, 16 at the moment. TexBel has been certified Global GAP since 2013 and is now interested in evolving towards regenerative agriculture practices and Organic certification in its farms, but also to share knowledge and provide guidance to its outgrowers. The Agroforestry Technical Assistance Facility (ATAF) is funding a 1-year study in order to help TexBel achieve these objectives.

This assignment is undertaken by the NGO Nitidae with the support of 2 external consultants, Esteban Pereira from the Costa Rican consulting company Sembrando Flores, and Loren Luyendyk from the USA consulting company Santa Barbara Organics. This assignment will be carried out through 3 field missions. The first mission was undertaken in July 2021 by Léo Godard, and the second mission was undertaken in August 2021 by Esteban Pereira, always with the support of Julien Gonnet and Loren Luyendyck.

Executive summary and main findings

The objectives of the 1st mission were to (i) identify non-compliances with organic standards; (ii) make an assessment of the states of the farms; and (iii) create and propose an initial Conversion Plan.

This document is the report of the 2nd mission, that was developed in the continuity of the 1st mission, and of which objectives were (i) refine the Conversion Plan and the most relevant technical recommendations; (ii) perform trainings for the TexBel team linked to the recommendations; and (iii) launch pilot actions with TexBel

The main findings of this 2nd mission are that TexBel trees are in dire need of fertilization since there has been no applying of any fertilizer for more than 2 years now. In this particular situation, the opinion of the team of experts is that converting all of the farms right now to organic agriculture do not hold a high agronomical risk. Indeed, current yields are obtained with no fertilization at all, hence organic conversion will not decrease them. It is even expected that they should increase, even if it is complicated to give an estimate at the moment.

The only risks associated with an organic conversion at this point are the market risk (not being able to sell the products with organic premiums) and the operational risk (not being able to apply the recommendations for organic agriculture). After the trainings and the time spent with the TexBel team during the 2 missions, it seems like the operational risk is low: the team seems able and willing to apply the recommendations, which are not so complicated to undertake.

These recommendations were clearly identified during the 2 missions and are explained in this report. It is now the time to assess the feasibility and impact of these recommendations. In this dynamic, it has been decided with TexBel that pilot actions would be undertaken before the 3rd mission. Finally, the 3rd mission will be focused on concluding on the pilot actions, and making a cost estimate of these recommendations so that TexBel has enough elements to compute them in its financial model. It will also be the occasion to provide complementary trainings and technical support to the TexBel team.

This report is aimed at being a more detailed guide for the farm's conversion process. Hence, it contains some theoretical parts in order to integrate the fundamentals of organic agriculture. It contains also very clear recommendations. It is organized as follows:

- The agenda of the mission will be presented in part 1;
- A more detailed version of the Conversion Plan will be explained in part 2;
- The trainings performed with the TexBel team will be described in part 3;
- Finally, the next steps will be laid out in part 4.

1. Agenda of the field mission

Day	Date	Activities
Sunday	22 August	Trip to Belize and discussions with Jennifer Faulkner.
Monday	23 August	Introduction meeting, review of 1st mission findings & fertility plan discussions. Dialogues of introduction to organic farming with farm workers.
Tuesday	24 August	Farm tour, visit to Camalote, Limeco, Maya Center.
Wednesday	25 August	Installation of biodigester, making of shrimp fermentation, compost activities.
Thursday	26 August	Discussions on the visits, review of conversion plan, compost activities.
Friday	27 August	Office day for report.
Saturday	28 August	Travel back to Costa Rica.

2. TexBel Conversion Plan

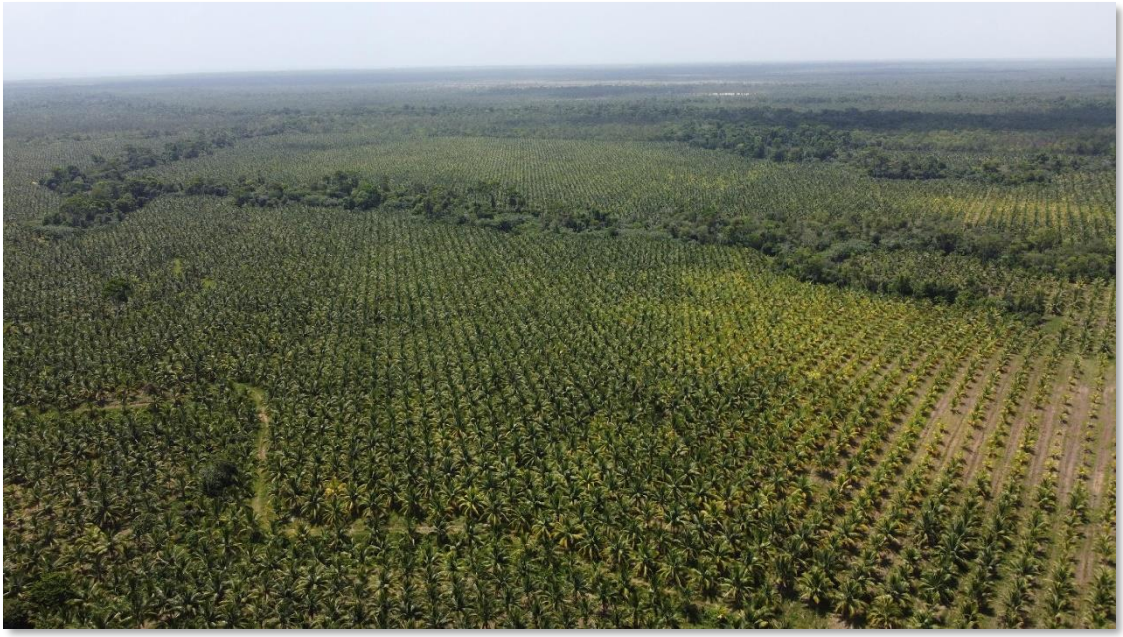
2.1. Recommended Conversion Plan for TexBel

2.1.1. Farm organism and landscape

The farm has to be developed as an ecosystem, meaning that it has to create circles of biomass, energy and minerals, having a diversity of the main kingdoms of nature, minerals, plants, animals and human interaction. Each farm has to be understood as an individual system that can interact and function in cooperation with other farms.

Nevertheless, each imported input to the farm has to be seen as a medicine for a sick organism, so priority should be given to creating mineral and biomass circles.

- Generate a system of native hedgerows that allows to comply with 10% of native biodiversity;
- Increase plant cover in all the farms, with local herbs and weeds;
- Integrate animal modules, such as chickens, sheep, cow, horses, etc.
- Create compost and biol production units on each farm, to use the biomass from each place to recirculate on itself.



Drone photo of Maya Center, 26/08/21

The current scenario shows a simple landscape. Even if the river line is protected, and the surrounding natural reserve is close, there is a lack of biomass and diversity within the crop.

By adding soil cover and green manure, and native hedgerows around roads, a diversity effect could be seen.

2.1.2. Diversity

Diversity is the basis of healthy ecosystems. The concept has to be understood in several aspects such as: leaving spaces with no intervention, promoting local and wild diversity to interact with the farm, planting intercrop of legume bushes to promote biomass development, or creating more biological corridors around the farms.

The following are recommendations based on farm visits:

- Life barriers and intercropping should be developed with legume trees and bushes. Use legume trees like *eritrhyna poepigiana* or *gliricidia sepium*, to create living fences and barriers that can be biomass donators;
- Create wild not disturbed areas around the farm, in creeks, not accessible areas etc. The existing wild areas, has to be identified and measured, to be sure every farm has not less than 10% biodiversity and conservation areas;
- Increase the intercropping of cash crops, using the current experience, intercropping can be a key practice on reducing pest and diseases propagation;
- Integrate with local impulses in the region and community to promote and make feasible biodiversity conservation.

Drone photo of Camalote, Blocks I-H-F, 26/08/21

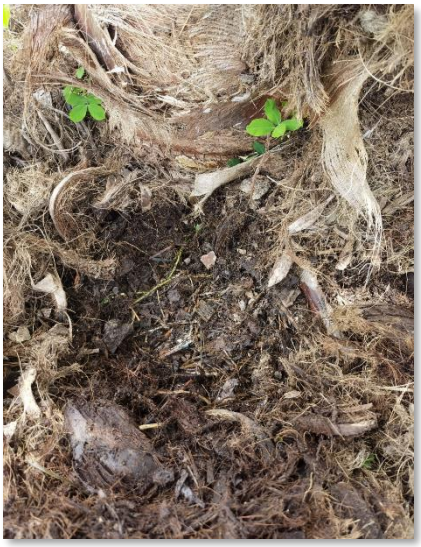
This spot in Camalote farm shows a great example for organic farming. Even if those trees need to be replaced (which is a great opportunity for renewal), the plot is surrounded by forest and there are islands of native vegetation inserted into the plot.

2.1.3. Soil care and protection

Soil is the basis of agriculture. Its protection is a must, and has to be carried with attention. Good soil management has a productivity effect, since healthy soils create healthy and productive plants. In all the farms it is needed to develop a soil protection model based on soil cover, since the main hazard for soils is the lack of cover.

The farm has to have a mowing schedule that allows the rows to grow bigger, keeping the plant circle clean. The objective is that more biomass is developed on site. Some new plants should be planted to create better cover, like ***mucuna spp***, ***canavalia***, ***crotalaria.*** The main goals are:

- Have no bare soils, and no trees without mulching;
- Strip chopping model, leaving the trees clear;
- Adding a cover crop development and management to get more biomass to cover the soil;
- Integrate composting on each site, detailed in the fertility chapter, compost is the key element to bring new life to soils.



Initial trials of using coconut mulch developed during mission 1, are effective and showing beneficial response. This practice is urgent to be spread over the entire farm operation, as a soil and fertility protection protocol.

2.1.4. Crops special considerations

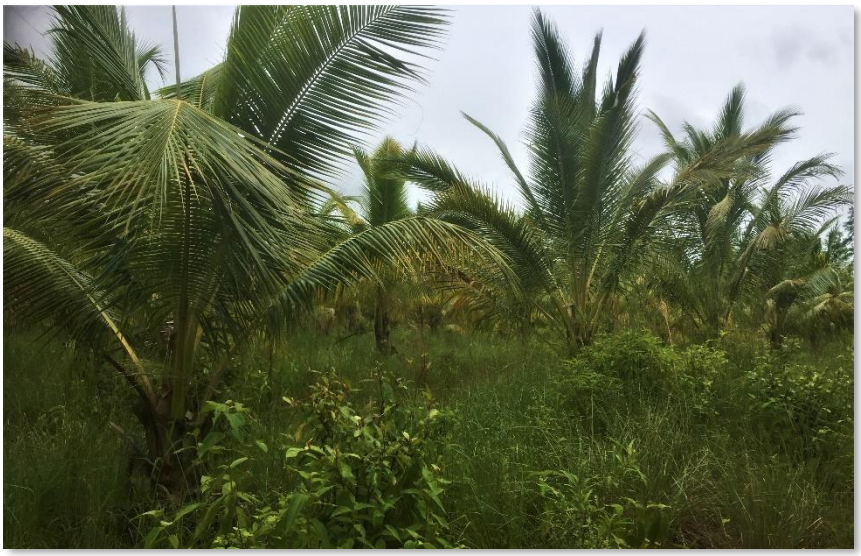


Photo of coconut trees in Maya Center 12/07/21

COCONUT	SEP-OCT	NOV-DEC	2022	Other
General	Revitalization sequence*		Maintenance plan	Keep an annual crop maintenance plan
Fertility	Add mineral mix, soil cover, Biol.	Biol	Compost 4 m3/acre Liming 1 MT/acre Mineral mix Dry Cover, self-mulching. Biol x 6 times	
Pest and Disease	Beetle inspection and elimination of infected trees + spray organic pesticides as needed		Beetle inspection and elimination of infected trees.	
Cover	Strat soil cover plan, with revitalization sequence.		Achieve 100% trees with mulching.	

*Revitalization Sequence for Coconut

TREATMENT	SMALL TREE	MEDIUM TREE	BIG TREE
Cleaned circle	1 m	2 m	2,5 m
Lime	1 lb.	2 lbs.	5-10 lbs.
Mineral Mixture	According to plan	According to plan	According to plan
Compost self-made	20 lbs. if available	50 lbs. if available	Up to 100 lbs. if available
Cover	Shredded coconut husk and local material	Shredded coconut husk and local material	Shredded coconut husk and local material

Photo of soursop trees in Maya Center 26/08/21

SOURSOP	SET-OCT	NOV-DEC	2022	Other
General	Revitalization sequence needed in some places, can be applied as a general fertility action		Revitalization maintenance plan.	Keep an annual crop maintenance plan.
Fertility	Add mineral mix, soil cover, Biol.	Biol	Compost 7 m3/acre Liming 1 MT/acre Mineral mix Dry Cover Biol x6 times	
Pest and Disease	Beetle inspection and elimination of infected fruits. Stop the use of any chemical insecticide, substitute for organic inputs.	Develop a Beetle annual calendar control.	Beetle inspection and elimination of infected fruits. Apply beetle control plan.	This is the key issue to be controlled to increase yield in this crop. Fruit protection with paper?

TREATMENT	SMALL TREE	MEDIUM TREE	BIG TREE
Cleaned circle	0,5 m	1m	1,5-2m
Lime	1 lbs.	2lbs.	2-3 lbs.
Mineral Mixture	According to plan	According to plan	According to plan
Compost self-made	20 lbs. if available	50 lbs. if available	Up to 100 lbs. if available
Cover	Shredded coconut husk and local material	Shredded coconut husk and local material	Shredded coconut husk and local material
Other		Apply the bio dynamic tree paste recipe.	Apply the bio dynamic tree paste recipe.

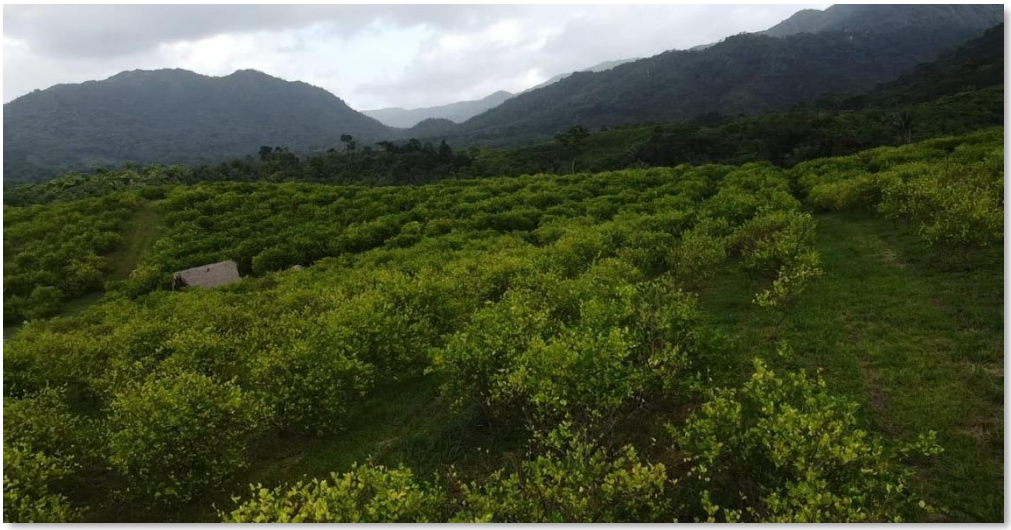


Photo of citruses at LimeCo, shows nutrient deficiencies that supports the immediate need for launching an intensive fertility plan

CITRUS	SET-OCT	NOV-DEC	2022	Other
General	Revitalization sequence needed General decision of investing in revitalizing some plants, or remove and replant.	Selected areas are given a step one treatment. General health pruning.	Revitalization maintenance plan is put in place. Bigger impulse is done in spring. Pruning.	Keep an annual crop maintenance plan.
Fertility	Add mineral mix, soil cover, Biol.	Biol	Compost 10 m3 /acre Liming 1 MT/acre Mineral mix Dry Cover Biol x 6 times	
Pest and Disease	Install a pest and disease program,			
Other for calendar			Fertility and revitalization plan in 100% of trees	

TREATMENT	SMALL TREE	MEDIUM TREE	BIG TREE
Cleaned circle	0,5m	1m	2m
Lime	1 lbs.	2lbs.	2-3 lbs.
Mineral Mixture	According to plan	According to plan	According to plan
Compost self-made	20 lbs. if available	50 lbs. if available	Up to 100 lbs. if available
Cover	Shredded coconut husk and local material	Shredded coconut husk and local material	Shredded coconut husk and local material
Other		Apply the bio dynamic tree paste recipe.	Apply the bio dynamic tree paste recipe.

Photo of pineapples in Maya Center 26/08/21

Pineapple plots could be managed with the following planning:

	YR1	YR2	YR3	YR4	YR5	YR6	YR7	YR8	YR9	YR10
Plot 1	GM	P	P Harvest	P Harvest	GM + RC Harvest	G + GM Harvest	GM + P	P Harvest	P Harvest	P Harvest
Plot 2	P	P Harvest	P Harvest	GM + RC Harvest	G + GM Harvest	GM + P	P Harvest	P Harvest	P Harvest	GM
Plot 3	P Harvest	P Harvest	GM + RC Harvest	G + GM Harvest	GM + P	P Harvest	P Harvest	P Harvest	GM	GM + P
Plot 4	P Harvest	GM	P	P Harvest	P Harvest	GM + RC Harvest	G + GM Harvest	GM + P	P Harvest	P Harvest
Pineapple harvest	2 plots	3 plots	2 plots	2 plots	1 plot	1 plot	2 plots	2 plots	3 plots	2 plots
Ginger Harvest				1 plot	1 plot	1 plot	1 plot			
Other root crop harvest			1 plot	1 plot	1 plot	1 plot				

2.1.5. Fertility plan, general guidelines and implementation steps

Mineral amendments

It is necessary that mineral amendments are given to the soil in three steps

1- Add mineral mix according to the fertility plan in three times per year.
2- Add rock dust to compost for P and K, and sulfates to liquid fertilizers to provide K, Mg, Zn, B
3- Develop a local collection of residues for compost making, like fish and shrimp residues, and manures.

The recommendations for the mineral mix are explained in the table on the next page.

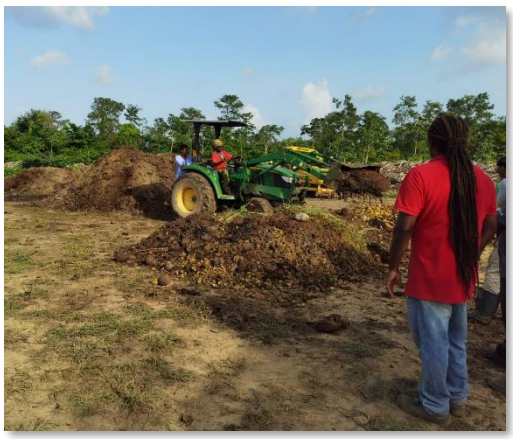
Mineral recommendations for fertility plan. TEXBEL FARMS. NITIDAE team							
Nutrient	**Needed pounds per acre**	**Inputs**	**%**	**Q/acre**	**How to use**	**Times per year**	**Comments**
N	200	Compost, liquid and granular		10 MT		2 - 3	Initially use granular and liquid fertilizer then shift to more compost
P	100	P Rock.	30,00 %	400 lbs.	spread on soil	2	Use for two years the total twice per year. In the future, will be used only in compost
K	200	KSO4	52,00 %	400 lbs.	around the tree	3	Only on productive trees, use in mineral mix
Ca	100	Dolomite, P Rock	20,00 %	1 MT	on the soil, cover all the terrain	1	Once a year at begining of spring
Mg	30	MgSO4	18,00 %	150 lbs.	Mineral mix	3	Mineral mix is recomended to be prepared 3 times per year (⅓ of annual dosis), mixed with compost or other substract, and appy at tree base.
Zn	5	ZNSO4	22,00 %	25 lbs.		3	
B	5	Borax	20,00 %	25 lbs.		3	
Fe	7	FeSO4	20,00 %	35 lbs.		3	
Mn	3	MnSO4		20 lbs.		3	
Cu	3	CuSO4		20 lbs.		3	

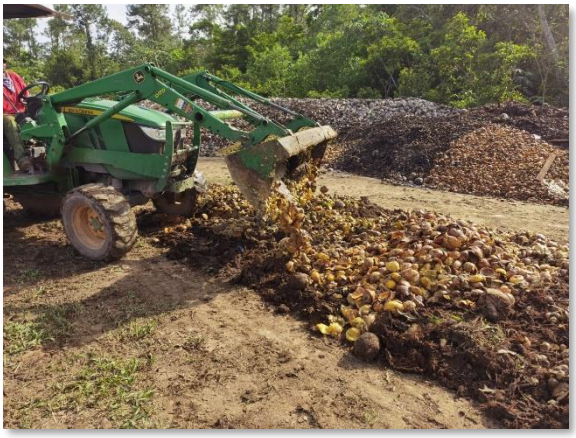
Composting

The farm has to develop an industrial compost operation as soon as possible. The main goal is to be able to process all the material from the processing plant, and have compost operations at every farm.

The next step is to develop a compost production plan. So far, compost training has been performed, and the compost operations have started. It would be helpful to evaluate the effort needed and the amount possible to be processed through accurate record keeping. This will be part of mission's 3 objectives.

There are 2 tasks to begin: first to compost all the material from the processing plants, and second to shred all of the coconut husks piled up, and use it to mulch the trees.





Compost operation began during the second mission.

Liquid fertilizers

Liquid fertilizers are key for organic agriculture, in order to boost the plants. It is more economical to make liquid fertilizers on site because what is sold on the market may be too expensive and unreliable in terms of efficiency. Nonetheless, it would still be interesting to make trials with commercial products and compare their results with self-made liquid fertilizers. It may prove that a combination of purchased inputs in addition to self-made liquid fertilizers will be the most economical and effective solution for maximum tree health.

There are two main opportunities identified for the production of liquid fertilizers: effluent from an installed biodigester, and fermented fish / shrimp residues.

During the visit, an example of a biodigester was installed to start the production of liquid fertilizer. The smallest model has been selected so that the team become familiarized with the technology and the routine. This little unit produces enough liquid fertilizer (BIOL) to spray on 1 ha per day after September 28th. The final recommendation, if TexBel is comfortable with this technology, would be to install a bigger model to treat larger volumes of biomass, especially the fruit pulps from the factory. This would turn a waste stream into a valuable fertilizer that may replace or at least supplement purchased inputs.

Also, installing an animal unit where manure could be collected would be very interesting for liquid fertilizer production with biodigesters.

Biodigester V1 from VIOGAZ company, installed during second mission in TexStar farm

The other opportunity of fermenting residues from a nearby fish / shrimp factory was also experimented during the visit. The methodology was the same as the annex presented in the first field mission report:

Mix the residues collected from the fish factory, then mix it with sugarcane molasses and fill the drum with water. The fermentation can take up to 1 month. If needed, some filtration may have to be done before its use in a sprayer. However, for use in compost it is not needed.

TexBel should try these materials in test plots so that they choose which would be the most efficient and the easiest input to produce. It is highly recommended to have a trial program based on several blocks, with a robust experimental approach. This can be discussed between 2nd and 3rd mission.

List of priorities for the fertility plan

Here are below the implementation steps of such a fertility plan, with listed priorities:

Step 1: Revitalization plan, to be implemented immediately in all the farms

Each tree has to receive the following treatment. This process is simplified as the Revitalization Plan mentioned in the Chapter 3.4. Crops.

a. Maintain all the time a controlled growth from the grass underneath the tree, focus on creating rounds around each tree to avoid grass competition. The inter-rows will be maintained growing, until they reach either 1 m high or they enter in blooming, then they should be chopped and used as green cover, see the green manuring/cover description for further details.

b. Apply a lime treatment, in a circular area according to tree size.

c. Apply high quality compost made on the farm. If not available, follow the rest of the procedure, but as soon as November some trees should start receiving the complete mixture.

d. Mineral mixture: add a mineral mixture to achieve the needed minerals to boost the trees, the mineral mixture guide is in the table below.

e. Mulching: dedicate a big amount of shredded material to create soil cover in every tree, an urgent mulching program has to be installed.

2.1.6. Pest and diseases

As an initial step, all pests and diseases from every crop have to be determined and listed in a chart that shows also the organic treatment to control it. Intensive monitoring is required to have an on-time update on crop condition.

Use of conventional pesticides, fungicides and bactericides have to stop completely. Instead, a plan of prevention has to be developed, for example for a beetle problem, traps and cutting the insects cycle is crucial for an organic control, then the use of organic inputs to control specific situations.

At the moment there are no big problems with pests, but a system has to be installed as soon as possible to be able to tackle any possible pest and disease. The detailed organic pest and disease management is still to be developed. On a general basis, a monitoring has to be developed to study specific situations and develop a clear pest and disease organic control program.

2.1.7. Animals and manures

The animal kingdom has an important role in the integrated farm development. The use of manure to create a life-giving compost is crucial, as animal manures contain microbiology essential for soil diversity and mineral cycling. The ideal integrated farms have animal units, to circulate the farm's biomass into manure and then compost.

Nevertheless, animals require the right conditions before integrating them, it might not be the first conversion step, but it can be in the list of future developments and projects. For example, it could be interesting to use part of the old orange groves for rotational grazing pastures.

The ideal system would be constituted of small units of 15-20 cows, fed in a shelter with washable floors to collect manures for a biodigester. These units can provide enough biomass for a compost operation in every farm. Compost and liquid fertilizer operations would be installed next to the animal modules.

First, a partnership should be put in place with the company Beef Master, next to TexStar farm, and create a plan to get all the manure possible. Similar partners have to be found in every location. The lack of source of manure in Camalote may require that an own-animal module should be developed on the farm. It could be placed in the corner surrounded by forest; a clean space is suited to do an animal module.

3. Description of the trainings performed

During Mission 2, there was the focus on developing introductory workshops on organic farming, the following workshop activities where developed:

<table>
<tr><th>Workshop</th><th>Participants</th><th>Topics</th></tr>
<tr><td>1. General introduction to organic farming with farm workers</td><td>Field workers, and main staff and direction team.</td><td>- Basis of soil fertility
- General aspects of Organic Agriculture</td></tr>
<tr><td>2. Compost making and biomass administration</td><td rowspan="2">Field workers, tractor crew, farm staff</td><td>- How to make a compost pile and basis management aspects</td></tr>
<tr><td>3. Installation of biodigester and its use for producing liquid fertilizers</td><td>- Installation of BD and general management aspects.
- Shrimp and fish head usage for maceration and liquid fermentation.</td></tr>
</table>

4. Next steps and 3rd mission

Here below are the proposed next steps for the development of the conversion program:

1- Generate an online follow up on the urgent fertility and Conversion Plan application;
2- Define a plan on liquid fertilizer production, with trials;
3- The objectives of this 3rd mission should be:

- Confirm Conversion Plan with TexBel
- Evaluate if the pilot actions were found easy and adopted
- Assess the costs of the actions of the conversion plan
- Follow-up, if relevant on: compost and liquid fertilizer plan, pest and disease control plan, animal module plan, 2022 general fertility plan and calendar
- Provide more training if needed

Annex 1: Introduction to the Conversion Plan

As part of the advisory provided by Nitidae to Texbel, the development of the Conversion Plan (CP) is a central part. It is a general document where the clear and comprehensive strategies to achieve an organic conversion are detailed. This part is developed under the CP structure, where the main topics for an organic development are listed and discussed according to organic principles and the farm's context.

The CP is not a manual for organic farming, so there are concepts and strategies that are accompanied with other documents for further understanding. Advisory support is always available for challenges that come in the way. This document defines the farm´s plan and strategies in order to achieve the organic certification, it also explains the technical development needed for an efficient organic system.

The CP represents an agreement between advisors and farm operators, in the activities, strategies and new projects to be developed. It is important to develop a farm plan and calendar, according to the CP strategies.

Organic farming general understanding.

It is important to identify organic agriculture as a worldwide movement, that has developed criteria and principles, that can be applied locally to have a global impact. It is a commitment with higher ideas related to nature and humankind life, that can be developed in the market, but with strong roots on maintaining social and ecological good conditions for future generations.

To develop good organic farming, it is needed to understand the farm as an organism, with the main goal of reaching the highest level of self-sufficiency possible, the landscape as a unity that can develop a kind of individuality, by also creating cycles of organic matter, energy, minerals, etc.

Today, organic farming is a clear need in the World's economy. It is fundamental for maintaining productivity of soils, keeping the ecosystems functional, and guaranteeing the supply of quality and healthy food for mankind. Organic farming is framed worldwide under International Forum of Organic Agriculture Movements (IFOAM), the general definition by IFOAM is the following:

> *"Organic Agriculture is a production system that sustains the health of soils, ecosystems, and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic Agriculture combines tradition, innovation, and science to benefit the shared environment and promote fair relationships and good quality of life for all involved." IFOAM General Assembly, 2008*

IFOAM has develop four key principles of organic farming:

Principle of Health

Organic agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.

Principle of Ecology

Organic agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them.

Principle of Fairness

Organic agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities.

Principle of Care

Organic agriculture should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment.

Criteria for organic conversion

The following points are key criteria for developing the organic conversion process. The main criterion goes around understanding nature as a living organism, and managing the farm to achieve self-sufficiency as a major goal. This model, on a large scale, brings a fantastic reaction to the landscape, and makes it possible to develop highly productive organic farms.

We know that from conventional to organic farming an adaptation, and sometimes a healing process, is needed. Currently TexBel farms are not utilizing large amounts of inputs; the farms and trees have adapted to a low input model. This background gives a great possibility to start the organic intervention in all the farms, as often trees struggle to adapt to low input models during transition. Agronomically, the farms need mineral support, as well as biomass administration, this has to be developed in any kind of efficient farming. From this point, two options are possible:

1. to use conventional inputs for 2-3 years to improve tree health and yields and then wait 3 more years for conversion, or
2. convert now since the trees are already adapted to the low input model, and start the conversion now with the goal of being certified organic in 3 years.

The company has the potential to produce large quantities of compost, and liquid fertilizer, and the farms produce enough biomass that only needs to be better managed based on green manuring and soil cover. Most of the farms are surrounded by natural spaces, and few risk areas are to be improved. These advantages make us recommend the option 2, an immediate organic conversion.

To evaluate actions regarding the organic conversion, we divide the main criteria as follows:

Farm organism

Creating the farm with an integrated vision, to develop life cycles on the farm, agriculture based on the criteria of nature's connectivity, integration, diversity and natural processes. We know that developing biodiverse and interconnected natural reserves in the farms help to provide the resiliency and equilibrium well known in regenerative farming. Landscape design is a task to be evaluated in coming years, especially for new projects and plantations, to follow a holistic and well-informed design[1] (understanding better soils, water flow, crops, etc), so criteria of diversity can be developed from the initial stage.

On the other hand, in a practical sense, the farm organism requires biomass circulation, mineral input, and biological impulses, and this means opening activities in the operation focused on taking care of every biomass residue, some will be transformed into compost of liquid fertilizer, others will integrate and generate a cycle of biomass on the farm where soil cover is a main condition.

[1] For example, the Regrarians Platform

Diversity

It is clear that adding diversity to the farms is helpful to get better health conditions. Diversity could be added through local and native areas where local biodiversity could interact with farm species, but it could also be added with intercropping, and green manuring, in between crop rows, to promote functional agro-diversity. Diversity requires technical and ecological analysis, to decide what and how to add new components

Soil care and protection

Soil is the basis of agriculture, using practices to protect soil, care for it and increase its vitality is a profound basis of organic farming. According to every situation a soil protection strategy needs to be in place.

Crops special considerations

A detailed understanding of the specific cultural practices for each crop is key to developing a healthy system. Providing good agronomic conditions, and microclimate context, is an important point for organic farming, as well as creating comprehensive calendars of activities, following the crop behaviours and climate evolutions.

Fertility Plan

Fertility in organic farming should be understood as developing vitality in the soil, improving physical, biological and chemical conditions of soil, to guarantee the best crop development. The plan describes the general practices to develop a natural fertility process.

Crop protection

Biodiversity is a key element, but also natural bio control. Natural extracts and physical actions have to be undertaken to protect plants from pests and diseases. Always a precautionary action should be taken, and focus on creating the best conditions possible to reduce the effect of any pest or disease. When needed, approved inputs can be used to support the control of a pest or a disease.