

Prosperity Catalyst – Haiti Beekeeping and Agroforestry Project – Progress Report as of May 31,2023

Summary of Progress to Date:

Building the Capacity of the Beekeeping Groups and Associations

After obtaining commitments from a total of 5 different institutional donors and several board members and individuals, Prosperity Catalyst launched this project in January by rehiring our field team, who immediately began by re-engaging with the 32 existing beekeeping groups. As a first step, our mentors and agricultural extensionists conducted a wellness check of each group, making sure that members became re-acquainted with their by-laws; held elections for the leadership committee, if they were due; and shared information about what to expect during the upcoming project. The group assessment looked at a variety of factors including governance, leadership, program implementation, and financial and inventory management. The results of the assessment will serve as a baseline and a guide to the types of capacity-building the groups require to become self-sustaining.



These group meetings were also used to assess the level of interest of the groups in forming a regional beekeeping Association. All groups voted in favor of organizing regional associations. The groups of Leogane, Petit Goave and Grand Goave voted to organize two separate ones, one representing the 8 groups in the communes of Petit Goave and Grand Goave and the other representing the 7 groups in the commune of Leogane.



The groups in the communes of Arcahaie and Cabaret were the first to develop their association by-laws with help from PCat’s mentors and Ag Extension team. They have also already filed all the necessary paperwork with local government to become a legally registered farmer association. The approval process

will take two or three months. This new Association has also identified a suitable site for their aggregation site where their members can store, bottle, transform, and sell their honey, wax and other farm products. They have signed a three-year lease with the owner of the property and are busy getting it ready for use. The other two associations have developed their by-laws and are getting ready to submit their paperwork for legalization. Once this happens, there will be a total of 4 beekeeping associations.

Agro-forestry and Beekeeping Training



agroforestry expert.

PCat used a competitive recruitment process to identify Future's Agribusiness, a US-based consulting firm that has both Agroforestry and Beekeeping expertise as well as affiliated consultants based in Haiti. The firm is led by John Leary, who has decades of experience delivering training in Agroforestry and Jean Tsafack-Djiague, a Cameroonian who has years of experience working on developing the Green Belt of Africa and working to find markets for agroforestry products. We were interested to learn from Jean that Haiti is considered to be a part of the Green Belt of Africa project. Jean had experience working in Haiti with the two local consultants, Gerard Michel, a beekeeping and agroforestry expert, and Jean Samuel Alteus, an

The two local consultants worked with our field staff to conduct a series of focus group meetings during which they developed an agroforestry plan for the area based upon information provided to them by the beekeepers about the food and cash crops they grow; the soils, the seasons, and the trees and plants that do well in their area and attract bees.

The results of that work can be seen in Attachment#1. This plan guided the design of the training curriculum which was delivered to 71 beekeepers (56% women) half of whom gathered for a Training of Trainers workshop in Petit Goave the week of April 24th and the other half in Arcahaie the week May 22. (Please see the English outline of the curriculum in Attachment #2 and the Creole language curriculum that was delivered to the participants in Attachments 3 and 4). The beekeeping





curriculum provided a refresher in the basics and introduced advanced topics such as harvesting bee pollen and royal jelly, both high value bee products. The agroforestry curriculum introduced techniques such as contour farming, intercropping, natural pest management, live fencing, and home gardens. The plantings along the contour include vetiver and lemon grass. We have had good success distilling essential oil from lemon grass in the past and we have found a buyer in China willing to buy between 1 – 2 kilos of our current stock, at \$30/ounce, giving Fann Limye a 200% margin. If lemon grass works out well on the contours, it can be trimmed and

sold by the beekeepers to Fann Limye for distillation and sale as oil. Eventually, we would like to move the distillation process down to the aggregation sites.

All trainees are replicating what they learned at the TOTs for their beekeeping group peers with help from PCat's ag extension team. A key part of the replication is to help these farmers establish at least one Agroforestry Demonstration site in their area for the other members of their beekeeping group to observe the techniques being practiced. The Beekeeping Demonstration sites already exist in each group area and will serve as the venue for replicating beekeeping lessons from the TOT.

Hive Construction

One of the goals of this project is to ensure that every beekeeper trained by PCat and interested in practicing beekeeping has at least one hive. We had originally assumed that the beekeepers would have the resources to purchase their own hives, but our survey last summer told us otherwise with 60% of those trained telling us that they did not own a hive. As a result, we plan to build and distribute several hundred hives. We plan to tie the distribution of hives to achieving certain benchmarks in terms of implementing the lessons learned from the agroforestry training.



With help from our consultants, we have developed a point system for ranking the beekeepers. (See Attachment #5 for the tracking tool that will be used by each group to monitor their member's adoption of the 10 agroforestry techniques they learned on their farms.) The

beekeepers charged with replicating the TOT training will also be rewarded with hives, based upon how well their trainees score in adopting the agroforestry and new beekeeping skills.

A problem we encountered last year was moving wood and other hive construction supplies from Port-au-Prince to the rural areas. As gangs continue to impede safe passage of people and goods along the main highways in and out of Port-au-Prince, our team has researched local markets closer to



our beekeeping communities and identified new wood vendors. They also reached out to the beekeepers who have traditionally supplied us with bee colonies and let them know that we will be needing several hundred colonies before the end of the year. It takes time to rear new queens and split colonies, so informing them ahead of time is key to ensuring that we get the colonies we need when our bee boxes are ready to distribute. In doing our vendor research, we learned that the price of double-decker hives with colonies has gone up slightly from \$170 to an average of \$186. Our hope is that the prices remain stable over the coming months.

For more details on our progress in implementing the project, please see the updated workplan below.



Challenges Encountered and Solutions:

The security situation in Haiti has not improved significantly over this period. It is a given that our staff in Haiti takes security into account as it plans and implements its activities. To minimize risk to our staff traveling back and forth to the field from Port-au-Prince, Thony Querette has arranged for all Fanm Limye staff and consultants to travel on UN plane and helicopter flights. By procuring needed project supplies closer to our field areas, we also decrease the risk faced by our staff and/or truckers charge with transporting them to the beekeepers.

Another challenge we have encountered has been accessing cash from our dollar account. Where possible, we pay in local currency. When a vendor insists on payment in USD, we give them a realistic assessment of how long it will take before the bank will disburse the funds. Keeping this problem in mind, PCat will be making smaller and more frequent transfers to Fanm Limye's account and where vendors agree we will transfer funds directly from our US account.

Next Steps:

1. Procure basic tools and equipment that will be needed by the beekeeping groups to establish their agroforestry demonstration sites.
2. All 71 beekeepers trained in Agroforestry and advanced beekeeping will help replicate the training they received and establish agroforestry demonstration sites in their communities through weekly sessions.
3. Procure wood to build the hives and procure bee colonies.
4. Train at least 10 more women in hive construction.
5. Procure seeds and seedlings to facilitate the planting of 50,000 new trees.



Progress against Original Workplan

	Updated Workplan		
1	Improve the productivity of beekeepers trained in prior years by at least 50%		
1.1	Deliver advanced beekeeping Training to 1,108 graduates of our beekeeping program, at least 60% women.	Two TOTs involving of 71 group leaders (56% women) and PCat's staff from all 8 communes where we operate. Trained group members will replicate the lessons learned through weekly beekeeping meetings at their beekeeping demonstration sites.	Ahead of schedule
1.2	Distribute at least 808 hives with bee colonies to past graduates.	Identified suppliers of wood and bee colonies located near the beneficiaries. Production will begin in all three project regions in June, along with Training for additional women in hive construction.	On schedule
1.3	Provide extension support to beekeepers in improved hive management skills to enhance honey yields	Not started.	On schedule
2	At least 50% of the beekeepers practice one or more agroforestry techniques on their farms.		
2.1	Conduct a Training of Trainers for our extension staff and two leaders from each group (64), at least one woman, in agroforestry practices.	TOT of 71 group leaders during April and May	One month behind schedule; 111% of target achieved.
2.2	Train 1,108 graduates of our beekeeping training program in agroforestry techniques for each of 32 beekeeping groups	Trained group leaders will create agroforestry demonstration site in area where they will replicate training for their groups.	On schedule
2.3	Provide Extension Support to trainees on their farms to assist them in adopting these techniques.	Our extension team participated in the Training of Trainers and will now support the group leaders in replicating the training. They will monitor the adoption of the techniques on the individual beekeepers farms	On schedule

		using the tool included in Attachment #5.	
3	At least, 50,000 new trees planted on beekeeper farms.		
3.1	Strengthen existing tree and plant nurseries in targeted communities.	With consultant helped, assessed existing nurseries to identify those best suited for expansion. Agroforestry Demo sites will also serve as nurseries for the beekeepers in their area.	Slightly behind schedule; but ready to ramp up all 8 communes.
3.2	Expand production of beneficial pollinating trees and plants that can serve as live fencing and wind break, prevent erosion, and produce plant and tree crops for consumption and sale.	With help from consultants, conducted focus groups with beekeepers to identify the tree and plant species best suited to bees and agroforestry. See Attachment #1.	On schedule
3.3	Distribute trees and plants through beekeeping groups.	Not Started; currently procuring the seeds.	Two months behind
3.4	Provide extension support to trainees on their farms on care of newly planted trees to maximize survival rate.	Extension visits to beekeepers during the start-up phase have been focused upon assessing the status of their hives and farms. Their focus in coming couple months will be on helping those that participated in the TOT to establish their demonstration sites and hold training sessions to replicate their lessons learned for their peers.	On schedule
4	Three regional associations of beekeepers exist and are managing an aggregation site where they store, transform and sell their honey and other farm products.		
4.1	Strengthen 32 existing beekeeping groups through refresher training around by-laws, elections, group planning and management.	Mentors conducted an assessment of each beekeeping group. In the process, 21 held elections to refresh their leadership committee in accordance with their bylaws.	On schedule

4.2	Assist each group to develop a disaster management and recovery plan.	Not started.	This will be done at the end of the project.
4.3	Strengthen existing regional association in Nippes through training on business planning and financial management.	Not started yet	
4.4	Make an additional investment in productive tools and equipment for the Nippes Aggregation site.	Not started yet	
4.5	Assist groups in Arcahaie and Cabaret and those in Petit Goave, Grand Goave, and Leogane to explore the pros and cons of developing a regional association; decide whether they want to organize an association; and support them in the creation of an association, if that is what they decide.	The Groups in Arcahaie and Cabaret have already taken a vote and moved forward on organizing their Beekeeping Association. They developed the by-laws and filed all the paperwork required by the Mayor to become a registered legal entity. The Groups in Petit Goave, Grand Goave, and Leogane have also decided to move forward on organizing an Association; however, given the large number of groups and beekeepers in the region, they have decided to form two instead of one. The two associations have drafted their bylaws and are in the process of filing their paperwork to become legally registered entities.	Ahead of schedule
4.5	Assist new regional associations to establish an aggregation site to store, transform and sell honey and other farm products.	The Association created in Arcahaie and Cabaret has already signed a three-year lease for a property where they will establish their aggregation site.	Ahead of schedule

Financial Report

Our financial report covers the period October 2022, when our fiscal year starts, through April 2023. Spending during the first quarter was minimal. By January, we had re-hired our staff, so most of the expenses in this report reflect the period January – April. As of the end of April, we had expended 27% of the 12-month budget. Expenses for professional services have been high during this period because those activities have been paid for during the first and second quarters of the fiscal year. We don't expect to spend any additional funds on professional services.

We have commitments for the full budget. All funds have been received except for a \$100,000 grant which has been committed by Food for the Poor to finance the construction of beehives. They are in the process of raising those funds. Of the \$80,000 commitment from OIF, we received 88%; they will disburse the balance over the coming months. If you would like any further details on our finances, we are happy to provide them to you.

Spending over the coming months will ramp up. Now that the Training of Trainers has been completed, the replications by each beekeeping group will begin on the demonstration sites and investments will be made in trees, plants, tools and equipment needed to establish the 64 demonstration sites. Now that we have identified supplies of wood near our beekeeping zones, we will start buying the supplies to build the hives, which will be distributed during the final quarter of the project.

	One Year Budget	Actuals October 22 - April 23	Balance	% of Budget Expended
Prosperity Catalyst - Haiti Beekeeping/Agroforestry				
Sub-total Field Staff	\$ 175,950	\$ 58,993	\$ 116,957	34%
Sub-total Training and Capacity Building	\$ 56,564	\$ 12,612	\$ 43,952	22%
Sub-total Equipment and Supplies	\$ 178,360	\$ 21,438	\$ 156,922	12%
Subtotal Direct Project Costs	\$ 24,000	\$ 5,201	\$ 18,799	22%
Sub-total Other Field Operating Costs	\$ 15,300	\$ 12,173	\$ 4,507	80%
Sub-total Professional Services	\$ 12,540	\$ 14,765	\$ (2,225)	118%
Total Direct	\$ 462,714	\$ 125,182	\$ 338,912	27%
Indirect @10%	\$ 46,271	\$ 12,518	\$ 33,891	27%
Total Direct & Indirect	\$ 508,985	\$ 137,700	\$ 372,803	27%
Haiti Fundraiser - Raised	\$ 22,000	\$ 22,000	\$ -	100%
Board donations Received	\$ 50,000	\$ 50,000	\$ -	100%
Flora Family Foundation - Approved and Received	\$ 36,500	\$ 36,500	\$ -	100%
OIF - Approved and Received 88%	\$ 80,000	\$ 70,289	\$ 9,711	88%
Week of Compassion - Approved and Received	\$ 200,000	\$ 200,000	\$ -	100%
Light a Single Candle - Approved and Received	\$ 25,000	\$ 25,000	\$ -	100%
Funds Raised	\$ 413,500	\$ 403,789	\$ 9,711	98%
Balance Pending	\$ 95,485	\$ 105,197	\$ 9,711	
Committed Not Yet Received - Food for the Poor	\$ 100,000		\$ 100,000	

Prosperity Catalyst and Fanm Limye are grateful to all our donors for making this project possible. We are particularly grateful to Week of Compassion, who required us to match their \$200,000 grant, before finalizing their commitment. It helped galvanize us all into action and work together to make this project happen. Thank you all for helping us change women's lives.

My name is Gerlande Jule-fils, from the beekeeping site in Betèl, Cabaret. I thank PCAT and the Fanm Limye staff for the week of training I received. I was very happy with the training and field practice. I learned many techniques I can now apply on my farm, including drone breeding and agroforestry. I can't wait to share my knowledge with others in my group. I am very proud to have the skills to set up my agroforestry demonstration site. Thank you for this great opportunity.



Attachments:

- #1 Seasonal Calendar
- #2 English Language - Master Training Guide
- #3 Creole Language - Curriculum 1
- #4 Creole Language - Curriculum 2
- #5 Implementation Monitoring Booklet for Beekeepers

Master Trainer Guide

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Beekeeping Training Agenda

1.5 Days

Day 1

8:30 am:

Morning

- Welcome from project officials
- Introductions of participants and sharing strengths/interests of each
- Discuss what makes a great ToT?
- Haitian whispers (communication)
- Discuss the role of the Trainer
- Assign modules/activities for participants to lead the following days.

Lunch 1 h

1:30 pm: Presentation of Apiculture in Haiti: impact environmental, economic and medicinal

2 pm: Biology of bees; worker, drone and queen and role of each category

3 pm [am animation](#)

3:30 Where can we raise bees? (situation)

4 pm: Bee hive management: difference between colony and swarm how to avoid swarming, annual activity in the colony

Day 2:

8:30 am: exercise, reviewed of the first day. Each participant says what he remember and asked question to another participant

9:00 am: Presentation of the workshop

9:30 pm: Workshop: each group will present the needs to get a good apiary and nectar chart of their zone

10:00 am: Good apiary management:

- harvest,
- good condition to harvest
- Storage the products (honey, Wax, propolis)
- Monitoring
- Hive evaluation
- Split
- Queen Raising

12:30 pm: *Disease and pest management*

- *American foul brood*
- *European foul brood*
- *Nosema*
- *Varroa*
- *Diarrhea*

- *Wax moth*
- *Sacciform brood*
- *Calcined brood*

2 h Pm end

Team work

Team 1
Sujet
Division d'une colonie
Les besoins
Quand et comment y faire

Team 5
Sujet
Fusionnement de colonies
Besoins
Quand et comment
Les risques ?

Team2
Sujet
Nourrir une colonie avant la période miellée
Besoins ?
Mode préparation

Team 4
Sujet
Stockage de miel
Besoins
Control de qualité
Etat du dépôt et récipient

Team 3
sujet
Installation d'une ruche
Besoins
Positionnement

Agroforestry Training Detailed Agenda

1. Agroforestry Plan practice - 4 hours

Goal

We want to help each farmer create an **Optimized Agroforestry Plan** showing all the recommended agroforestry techniques in the field. The map should show detail inside and outside of the farm, the direction of the sun, north-south, rocks, roads, and all the planned vegetation and rows of trees.

Instructions

First, using a large piece of paper, draw all the features, trees, and vegetation on the field. Walk around the field to get as much detail as possible. Draw everything you see on the flipchart. Mark any large dispersed trees.

Second, add the following agroforestry techniques using a different color marker if possible, or another piece of paper. Let farmers know that even though they may not be familiar with all these techniques, they will all be learning to do these skills in the coming days:

1. First draw the border of the field. Add a **living fence** made of hundreds or even thousands of trees like Gliricidia and Moringa planted closely together along the border. (We will practice tomorrow.)
2. Add **Alleys or contours** with a combination of fruit trees, vetiver and nitrogen fixing species. There should be at least **50** fruit trees along multiple rows. On flat land, orient the **alleys east to west** to follow the path of the sun. On hilly land, orient contour rows perpendicular to the slope to reduce erosion. (We will practice tomorrow.)
3. Mark any seedlings that have naturally regenerated. Protect any hogs plum, ceiba, and coconut, and protect any volunteer saplings existing in the field. (We will practice this later this afternoon)
4. A **compost** pile or pit under a largest tree. (We will practice tomorrow.)
5. Plan to grow staple crops in alleys using **regenerative agriculture** techniques. Rather than growing monocrop rows in the alleys, we recommend diversifying rows with crops that complement each other. Techniques we will discuss include companion planting with legumes, leaving cover crops or mulch on the field in the off season, adding compost and compost tea, and rotating crops.

After all small groups have made maps, have two volunteers from each group present their designs.

Ask the following debrief questions:

- How big is the farm? Is the border clearly shown on the map?

- Is there sufficient detail on what is occurring outside around the farm? - Pests, dead trees, risks, erosion, etc.
- Are all of the main agroforestry components represented in the plan? - Living fence, contour or alleys, fruit tree portfolio.
- Are there numbers and labels on the map to provide detail on spacing and numbers of trees? - Numbers will assist with nursery planning.

2. Collect Seeds - 90 minutes

Goal

We want to help every Fanm Limye member to create a seed bank with several tree and vegetable seed varieties. It should be stored in a dry, cool place. The containers are sealed and labeled and show no signs of infestation.

Instructions

Divide farmers into small groups. Begin by asking them to discuss following questions in small groups and then share their best responses.

1. Where do you source seeds from? What should we look for in a healthy mother tree?
2. Which seeds can you Source from the market?
3. Which type of fruit trees need to be grown with specific rootstock because they should be grafted? What are the best rootstock varieties for mangos, citrus and avocados?
4. Which fruit tree seeds can you collect from the fruit you eat? Why is it important for the fruit to ripen on the tree and be overripe when you collect the seeds?
5. What type of processing needs to be done with seeds you collect? How is it possible to damage seeds when cleaning them?
6. What type of containers are good for storing seeds?
7. How can you keep seeds cool and dry until you need them?

Then provide each small group some samples of seeds to process by hand (i.e. separating seeds from pods and/or fruit). Let each farmer practice using a nail clipper to pre-treat seeds. Then show how to submerge the seeds in hot and cold water.

3. Create Nurseries - 2 hours

Goal

We want to help every farmer set up a nursery that is producing over 500 seedlings and as many as 2,000-3,000. Whether you use bareroot nurseries or nursery bags, we want to help you have a high germination rate of seeds, and we hope to see that in the nursery the soil medium is properly mixed with compost and is not rocky. The nursery should be weeded and the soil always moist, not dry.

Instructions

Begin by diving participants into small groups of five. Ask them questions to have participants describe best practices in nursery production:

For bareroot beds, ask the following questions:

1. How do you double dig and prepare the soil?
2. How can you frame the bed and raise it up with concrete blocks for wooden planks?
3. Do the seeds we want to plant in bareroot beds need to be pre-treated?
4. How closely do you place the seeds in rows?
5. How deeply should seeds be planted?
6. How can we lay grass on top at first to help protect the seeds when we water?

For nursery bags, ask the following questions::

1. How should you prepare the soil by mixing sand and compost? Why is it important to get all the rocks out?
2. How full do you fill each bag?
3. How far down do you seed each bag? How many seeds should you put in each bag?
4. How do you pre-treat the species that will be grown in nursery bags?
5. How do you carefully water the nursery in the first couple weeks?

After participants have answered many of the questions above, instruct different groups to work together in small teams to create a bareroot bed of moringa and the first few rows of a nursery using nursery bags. Trainers should walk around and provide feedback as the groups work together.

For the BAREROOT Bed: Prepare a bareroot bed 1 meter wide and multiple meters long. Double dig the bed and add compost or dried manure. Seed the trees closely together in rows.

For the nursery using NURSERY BAGS: Fill nursery bags toward the top with a mixture of $\frac{1}{3}$ compost and $\frac{2}{3}$ sand. Arrange the nursery bags in rows 1 meter wide. Do not place each seed too deeply in the bag; plant the seeds just beneath the

surface. Water the nursery very gently until the seedlings sprout.

4. Prepare Fields - 90 minutes

Goal

The farmer's field is prepared for the planting season. There is a compost pile with a mixture of brown and green materials. Young volunteer saplings have been identified and the farmer pruned any lateral branches to help them grow straight up. The contour rows have also been marked with sticks.

Instructions

Give all framers an opportunity to practice creating a compost . Also give them all an opportunity to use an A-Frame.

For the COMPOST: Create a compost pile under a tree or in an unused section of the field. Make layers with dry brown material and fresh green plant material, and add manure and ash in between the layers to accelerate the process. Keep the compost moist by covering with a plastic tarp. Mix it occasionally.

Questions to ask when making compost:

1. Brown materials make up most of compost. What are some examples of brown materials?
2. Green materials Are also very important for compost. what are some examples of green materials?
3. How much Ash, charcoal or other things can be added into compost?
4. How much water should you add and why is it important for the compost to remain moist?

For NATURAL REGENERATION: Walk around your field and identify small tree seedlings. rather than removing the seedlings prior to cropping, protect it with cactus or other protective barrier. Prune all the leaves off of the seedling leaving only those at the top. As the sapling continues to grow throughout the season, continue pruning the lower leaves and branches to encourage the tree to grow up.

For natural regeneration:

1. What do you do when you find new tree saplings growing on your farm?
2. How can you assist saplings to grow?
How does it help the tree to prune the lateral branches?

For Practice Marking THE CONTOURS: Working together as a team and using an A-frame and many sticks, mark the location of the Contour lines across the field. The lines should stretch from one side of the field to the other, and there should be multiple lines in each field. The steeper the field, the more Contour Rows it should have. To calculate the optimal

number of rows, start at the highest point on the field, and add another row for every two-meter drop.

Questions to ask before marketing contours:

1. How do you make an A-frame? How do you use an A-frame?
2. Where do you start marking contours on a field? Why is it important to have a couple helpers for this task?
3. How do you dig into the contour to create a berm along the contour?
4. Where in the berm should you plant the vetiver, the fruit trees, and the pois congo?

5. Regenerative Agriculture - 30 minutes

Goal

The farmer is **companion planting** beans along with other types of crops in the alleys in order to add more nitrogen. The farmer is adding **compost** and **mulch** to improve the soil in the alleys. The farmer is also planning to **rotate crops** in so that the same crops are not grown the next season.

Instructions

Make a plan for planting staple crops along alleys along with nitrogen fixing companions and lots of green manure. Plan for cover crops to protect and fix nitrogen in the soil in the counter season. Add this detail to the Agroforestry Design.

Questions to ask farmers to generate discussion on regenerative agriculture techniques:

1. Why is it good to plant legumes with Maize and other staple crops?
2. What are the many benefits of planting pois congo across your field? How do you know if a crop fixes nitrogen?
3. How should farms apply compost along an alley? How do you apply mulch for the off season?
4. What is crop rotation and what are the benefits?

6. IPM & 10. Dry Season care - 30 minutes

Goal

The farmer is aware of the main pests for the farm, ranging from goats to insects to diseases. The farmer is protecting the field from goats and is using natural pesticide solutions to ward off pests.

Instructions

Questions to ask before making the sample:

1. What is your experience using neem and other natural insecticides?
2. How is neem processed? Which parts of the tree do you use?
3. How is a natural solution applied to plants and vegetables? How often? Why do we avoid contact with bees and apply in the evening?

Then have the participants work together to make a neem-based pesticide application to repel insects using the seeds and leaves of neem trees. Also have some participants show how to use thorny barriers to protect seedlings from goats and grazing animals.

7. Plant Living Fence - 45 Minutes

Goal

The farmers has planted a living fence around the field with tree species planted very close together, approximately every 25-50 cm. There are no major gaps in the living fence. The farmer pruned the tops of all the trees to encourage lateral growth in the fencing rather than vertical growth.

Instructions

Ask the following questions before going out into the field to practice planting a living fence:

1. Which species are used in the living fence?
2. How closely should the species be planted together?
3. How do you plant Gliricidia cuttings?
4. Why is it important to prune the tops of trees in the living fence? How high should they be pruned?

Then have the farmers work together in small groups to plant *Gliricidia* cuttings and seedlings very close together all around the border of the field to enclose the farm and protect it with a green wall.

8. Plant alleys or contours - 90 - 120 minutes

Goal

The farmer planted multiple contour rows on the field. They are dense enough to slow the flow of water. The rows are full of vetiver and other grasses to stop the water, and they are also comprised of many fruit trees planted every 4-6 meters

Instructions

Post some of the Agroforestry Designs on a wall and reference the contour rows and alleys. Divide farmers into those who have flat land and those who have farms on hillsides.

Then ask the following questions to explain the orientation and composition of these two types of row plantings.

1. How do you build an A-frame? How do you use it to find the Contour?
2. How do you dig channels along the Contour to form a berm?
3. How do you replicate vetiver grass? How do you prepare vetiver bayonets for planting?
4. FOR CONTOURS: Where should the fruit trees, grasses, pineapple and other species be planted in relation to the berm? Why?
5. FOR ALLEY CROPPNG: Where do you place *Gliricidia*, *Cajanus cajan*, fruit trees and other species in alleys?

After the discussions, move to the field and give farms an opportunity to each practice planting.

For flat farms, plant rows of nitrogen fixing trees East to West to form alleys. Space the *Cajanus cajan*, *Gliricidia*, bamboo and vetiver all very close together along the row. Place a fruit tree every five to ten meters along the row.

For farms on hillsides or mountainsides, plant multiple rows of vetiver and bamboo in belts along the the side of the hill.

9. Plant fruit trees - 45 minutes

Goal

The farmer pre-dug fruit tree holes (50 cm wide and 50 cm deep) throughout the field and put compost in each hole. The fruit trees were then planted at the correct height, with the

root collar of each seedling resting close to the surface of the soil.

Instructions

Ask the following questions to share best practices in planting fruit trees:

1. How deep and wide should you dig a fruit tree hole and why?
2. Why do we add compost in the bottom of the hole? How much?
3. What other things can be added in or around the hole to protect the young fruit tree?
4. How much spacing do you need to leave for all the major fruit trees we will plant?
[Note to include the chart]
5. How do you measure distances of spacing with your steps?

Plant fruit trees every five to ten meters along the alleys and contours rows among the vetiver and bamboo. For each fruit tree, dig a deep hole 50 cm deep and wide. Add compost to the hole before planting the fruit tree so the roots can begin to regrow quickly.

10. Dry Season care (Sep/October) - 30 Minutes

Goal

The farmer placed thorny branches and sticks around the field to protect the seedlings. Individual covers protect the most valuable fruit trees. The farmer has weeded around every newly planted tree seedlings, and the farmer has pruned any damaged or deformed trees. The farmer has a neem solution in place to ward against pests, and is actively walking the field periodically to monitor it.

Instructions

Begin by asking the following questions to identify risks:

1. What are the biggest risks for the seedlings throughout the dry season?
2. How does putting mulch around all the fruit trees conserve water and help them survive?
3. How can we protect goats and other roaming animals?
4. What other pests do you expect to stress the trees?

Work to ensure seedlings survive their first dry season. Make sure all weeds are removed around every seedling on the field. Prune the living fence at the top to encourage lateral growth, and prune the fruit trees on their sides to encourage vertical growth. Use neem solutions and physical barriers to ward off pests. Cover the alleys with cover crops or mulch, and spread mulch around the young fruit trees.

5 - Day Agenda

Day 1 May 24, Monday

Morning (10 am - Lunch)

PLENARY - EVERYONE TOGETHER

- **10 am** - Welcome from project officials
- **10:10** - Organize into teams of 5 and do introductions.
- **10:15 am** - Discuss What makes a great ToT?
 - Plenary discussion
 - The key: Learn both information to teach, and how to teach it.
- **10:30:** Haitian whispers (communication)
- **11 am:** Discuss the important role of the Trainer/Demonstration site in Fanm Limye's model. Presentation on key results from focus groups.

Afternoon:

Group A	Group B
1:30 - Presentation on lists of trees to include on the farm. (Focus group feedback) 2 - 1. Agroforestry Plan practice - 4 hours	1:30 pm am: Introduction on Apiculture in haiti: Environmental, Economical and Medicinal Impacts and Opportunities for Fanm Limye producers. 2:00 pm: Biology of bees; worker, drone and queen. 3 pm: Different function of the bees 3:30 pm Where we can raise bees (situation) 4:00 pm: Bee hive management: difference between colony and swarm

Day 2 Tuesday, May 25

Morning

Group A	Group B
<p>8 am: Introduction on Apiculture in haiti: Environmental, Economical and Medicinal Impacts and Opportunities for Fanm Limye producers.</p> <p>8:30 pm: Biology of bees; worker, drone and queen.</p> <p>3 pm: Different function of the bees</p> <p>3:30 pm Where we can raise bees (situation)</p> <p>4:00 pm: Bee hive management: difference between colony and swarm</p>	<p>8 am - Presentation on lists of trees to include on the farm. (Focus group feedback)</p> <p>8:30 - 1. Agroforestry Plan practice - 4 hours</p>

Afternoon

Group A	Group B
<p>2. Collect Seeds</p> <p>3. Create Nurseries</p> <p>4. Field Prep</p> <p>5. Regenerative Ag</p>	<p>8:30 am: exercise, reviewed of the first day. Each participant says what he remember and asked question to another participant</p> <p>9:00 am: Presentation of the workshop</p> <p>9:30 pm: Workshop: each group will present the needs to get a good apiary and nectar chart of their zone</p> <p>10:00 am: Good apiary management:</p> <ul style="list-style-type: none"> ● harvest, ● good condition to harvest ● Storage the products (honey, Wax, propolis) ● Monitoring ● Hive evaluation ● Split ● Queen Raising <p>12:30 pm: <i>Disease and pest management</i></p> <ul style="list-style-type: none"> ● <i>American foul brood</i> ● <i>European foul brood</i> ● <i>Nosema</i> ● <i>Varroa</i> ● <i>Diarrhea</i> ● <i>Wax moth</i> ● <i>Sacciform brood</i> ● <i>Calcined brood</i>

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Day 3: Wednesday, May 26 - Agroforestry

Morning

Group A	Group B
<p>8:30 am: exercise, reviewed of the first day. Each participant says what he remember and asked question to another participant</p> <p>9:00 am: Presentation of the workshop</p> <p>9:30 pm: Workshop: each group will present the needs to get a good apiary and nectar chart of their zone</p> <p>10:00 am: Good apiary management:</p> <ul style="list-style-type: none"> ● harvest, ● good condition to harvest ● Storage the products (honey, Wax, propolis) ● Monitoring ● Hive evaluation ● Split ● Queen Raising <p>12:30 pm: <i>Disease and pest management</i></p> <ul style="list-style-type: none"> ● <i>American foul brood</i> ● <i>European foul brood</i> ● <i>Nosema</i> ● <i>Varroa</i> ● <i>Diarrhea</i> ● <i>Wax moth</i> ● <i>Sacciform brood</i> ● <i>Calcined brood</i> 	<ol style="list-style-type: none"> 2. Collect Seeds 3. Create Nurseries 4. Field Prep 5. Regenerative Ag

Afternoon

Group A		Group B	
1:30	7. Plant Living Fence 8. Plant alleys or contours 9. Plant fruit trees 4. Field Prep & 5. Regenerative Agriculture	1:30 pm:	Harvest, good conditions to harvest and store the products 2 pm: General questions

Day 4: Thursday, May 27 - Agroforestry

Morning

Group A		Group B	
8:30:	Harvest, good conditions to harvest and store the products 9 pm: General questions	8:00 am	7. Plant Living Fence 8. Plant alleys or contours 9. Plant fruit trees
		11 am	6. IPM & 10. Dry Season care

Afternoon

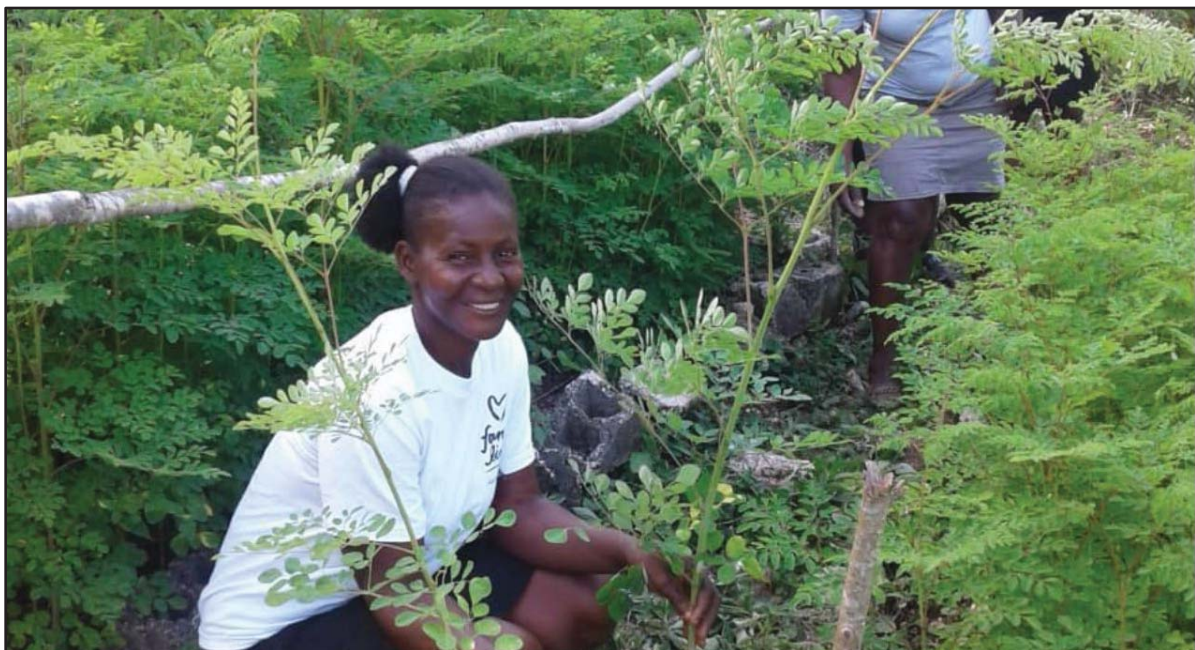
PLENARY SESSION (Alteus)

2 pm Closing discussion making plans for demo sites and nurseries.
2:30 Leave to go home



Prosperity Catalyst
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**Agroforestri Plan Aksyon ak Manyèl Fòmasyon
Pou**

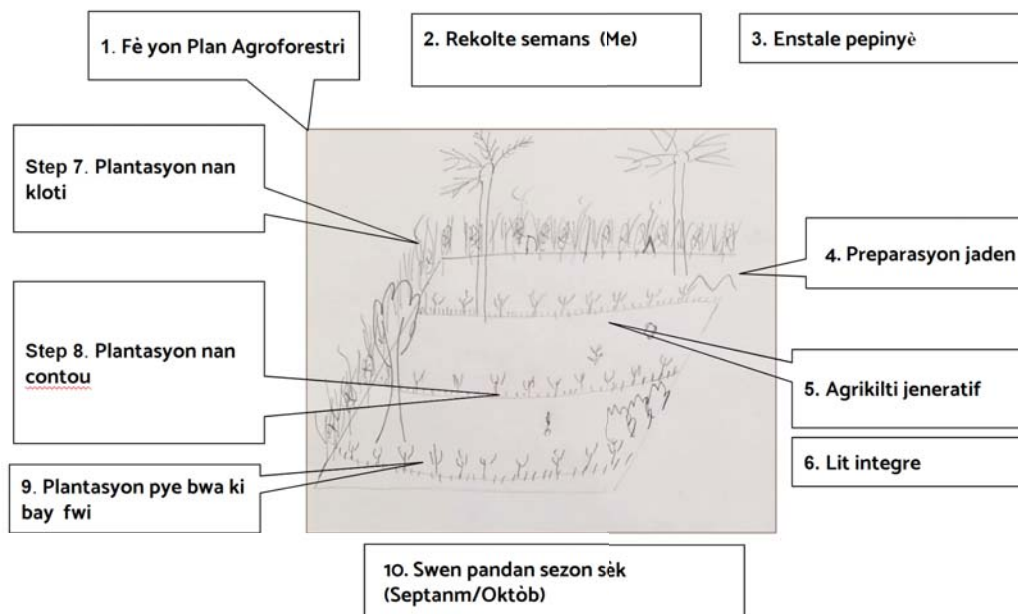


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Etap kle ak delè



Etap Me Jen Jiyè Out Septanm Oktòb

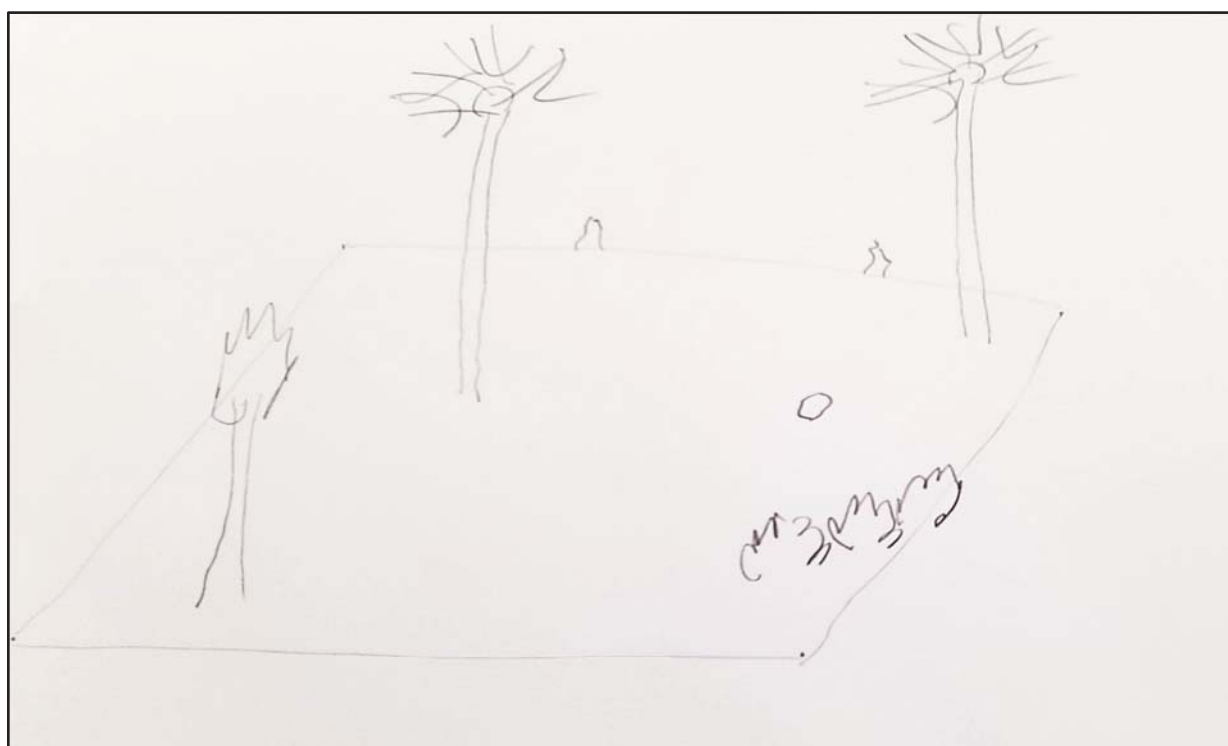
<u>Etap</u>	<u>Me</u>	<u>Jen</u>	<u>Jiyè</u>	<u>Daout</u>	<u>Sektanm</u>	<u>Oktob</u>
1. Fè yon Plan Agroforestri	X					
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5. Agrikilti jeneratif		X				
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10. Swen pandan sezon sèk (Septanm/Oktòb)					X	X

1. Fè yon Plan Agroforestri

- Kijan pou fè kat fèm nan kounye a epi fè yon plan pou lavni

Enstriksyon yo

Premyèman, sèvi ak yon gwo moso papye, trase tout karakteristik yo, pye bwa, ak vejetasyon sou jaden an. Mache nan jaden an pou jwenn plis detay ke posib.

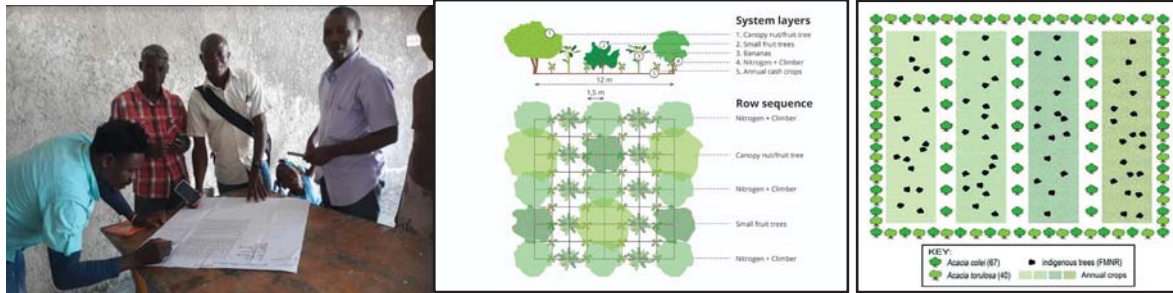


Dezyèmman, ajoute teknik agroforestry sa yo, sèvi avèk yon makè koulè diferan si sa posib. Fè kiltivatè yo konnen ke menm si yo ka pa abitye ak tout teknik sa yo, yo tout pral aprann devlope konpetans sa yo nan jou k ap vini yo.

1. Yon kloti vivan ki fèt ak plizyè santèn oswa menm dè milye pye bwa tankou Gliricidia ak Moringa ki te plante byen ansanm sou lizyè a.
2. Ale oswa kontou ak yon konbinezon de pye bwa fwi, vetiver ak espès ki fikse nitwojèn. Ta dwe gen omwen 50 pye bwa fwi sou plizyè ranje. Sou tè ki plat, oryante ale yo bò solèy leve a lwès pou swiv chemen solèy la. Sou tè mòn, oryante ranje kontou pèpandikilè ak pant lan pou diminye ewozyon.
3. Make gwo pyebwa ki gaje yo tankou kochon prin, ceiba, ak kokoye, epi pwoteje nenpòt plant volontè ki egziste nan jaden an pou yo ka rejenere natirèlman.

4. Yon pil konpòs anba yon pi gwo pye bwa
5. Pratike teknik agrikilti rejeneratif nan anpil ale yo.

Ekzanp yo



Kesyon kle yo

1. Ki gwosè fèm nan ye ? Èske lizyè a montre klèman sou kat la?
2. Èske gen ase detay sou sa kap pase deyò alantou fèm nan?
3. Èske tout eleman prensipal agroforestry yo reprezante nan plan an?
4. Èske gen nimewo ak etikèt sou kat la pou bay detay sou espas ak kantite pye bwa?

Ribrik Evalyasyon

Eksplike kisa li pran pou chak patisipan resevwa twa zetwal ☆☆☆ an tèm de reyalize rezilta fòmasyon yo prevwa a.

3 - Kiltivatè a te kreye yon Plan Agroforestri Optimize ki montre tout teknik agroforestye yo rekòmande nan jaden an. Li montre detay andedan ak deyò fèm nan, direksyon solèy la, nò-sid, wòch, wout, ak tout vejetasyon ki te planifye a.

2 - Kiltivatè a te kreye yon konsepsyon Plan Agroforestry men li manke detay.

1 - Kiltivatè a te kòmanse yon Plan Agroforestry men li poko fini

0 - Kiltivatè a pat fè yon Plan Agroforestry

o-o

2. Rekolte semans (Me)

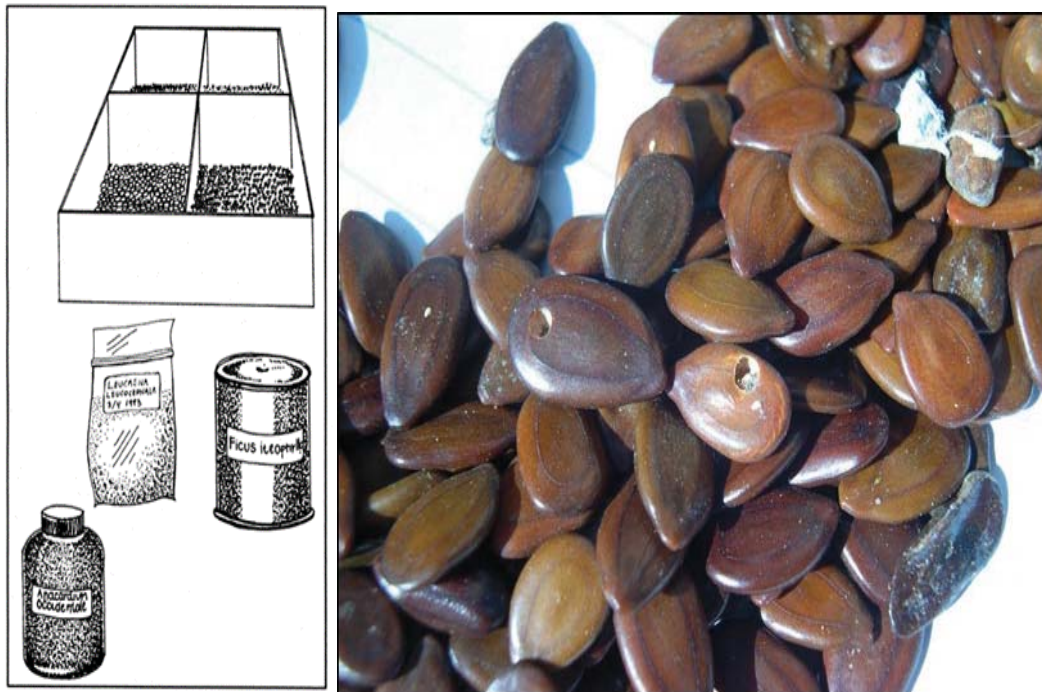
- Kijan yo kolekte epi estoke semans
- Kijan yo trete davans grenn yo pou fè yo pouse

Enstriksyon yo

KOLEKSYON: Kolekte grenn ki soti nan pye bwa manman ki gen matirite, ki an sante ak fwi ki mi anpil ak gous grenn. Retire fwi a, separe grenn yo ak chè yo pou yo kapab seche epi pwòp anvan yo mete yo nan depo. Konseve semans yo nan resipyan fre, sèk nan lonbraj la. Pa janm kite yo nan solèy la.

PRE-TRETMAN: Tranpe grenn yo nan dlo cho oswa frèt pou 1-2 jou pou fè yo kòmanse jèmen ak grandi pi rapid. Fè yon ti kase nan po ki kouvri semans lan.

Egzanp



Kesyon kle yo

1. Ki kote ou jwenn grenn? Kisa nou ta dwe chèche nan yon pye bwa ki an sante?
2. Ki grenn ou ka achte nan mache a?
3. Ki kalite pyebwa ki donnen ki bezwen pou yo grandi ak yon plant espesifik paske yo ta dwe grefe? Ki pi bon varyete ou kapab itilize kom pot grèf pou mango, Citrus ak zaboka?
4. Ki grenn bwa ou ka kolekte nan fwi ou manje a? Poukisa li enpòtan pou fwi a mi sou pye bwa a epi yo twò mi lè ou kolekte grenn yo?
5. Kijan pwosesis la oganize lè wap kolekte grenn nan pye bwa? Kijan grenn yo kapab andomaje lèw ap fè netwayaj nan pye bwa?
6. Ki kalite resipyan ki bon pou estoke grenn?
7. Kijan ou ka kenbe grenn yo fre epi sèk jiskaske ou bezwen yo?

Ribrik Evalyasyon

3 - Kiltivatè a gen yon bank semans ki gen plizyè kalite pye bwa ak grenn legim yo estoke nan yon kote ki sèk, fre. Resipyan yo sele epi make epi yo pa montre okenn siy kontaminasyon.

2 - Kiltivatè a te kòmanse yon ti bank grenn epi li sere youn oswa kèk espès.

1 - Kiltivatè a te kòmanse mete kanpe yon bank semans.

0 - Kiltivatè a pa t kolekte epi estoke grenn.

o-o

3. Enstale/ Mete an plas pepinyè (me/jen)

- Kijan pou fè yon platabann?
- Kijan yo grandi plantil ki nan sachè pepinyè?

Enstriksyon yo

Rasin ekspoze: Prepare yon platbann nan dimansyon ki kapab varye, 1 mètr lajè ak plizyè mètr longè. Double fouye platbann lan epi ajoute konpòs oswa fimye sèk. Semans yo dwe byen aliye, byen ranje nan siyon an pou evite gaspiyaj.

Sachè nan pepinyè: Ranpli sachè pepinyè anlè ak yon melanj $\frac{1}{3}$ konpòs ak $\frac{2}{3}$ sab. Fè aranjman pou pepinyè yo nan ranje 1 mètr lajè. Pa mete semans twò fon nan sachè a. Plante grenn yo jis anba sifas la. Wouze pepinyè ak anpil moderasyon jiskaske plant yo pouse.

Egzanp

Egzanp-1



Egzanp-2



Egzanp-3



Kesyon kle yo

Pepinye ki bare an blok ou planch/ rasin ekspoze:

1. Kijan ou double fouye la epi prepare tè a?
2. Kijan ou ka ankadre platbann lan epi ogmante li ak blòk ou byen planch an bwa?
3. Èske grenn nou vle plante nan platbann yo bezwen trete davans?
4. Kijan pou nou byen mete grenn yo nan ranje a?
5. Nan ki pwofondè semans yo ta dwe plante?
6. Kijan nou kapap aranje kouch anlè a pou ede pwoteje grenn yo lè nou wouze?

Pepinyè ki fet ak sachè:

1. Kijan ou ta dwe prepare tè a lè w melanje sab ak konpòs? Poukisa li enpòtan pou retire woch yo?
2. Kijan ou ranpli chak sache yo?
3. Ki distans ou dispoze chak sachè? Konbyen semans ou ta dwe mete nan chak sachè?
4. Kijan ou trete davans espès ki pral grandi nan sachè pepinyè yo?
5. Ki prekosyon ou dwe pran lew ap wouze pepinyè a nan premye semèn yo?

Ribrik Evalyasyon

3 - Kiltivatè a mete kanpe yon pepinyè kap pwodui plis pase 500 plant. Mwayen tè a byen melanje ak konpòs epi li pa gen wòch. Pepinyè a ranje epi tè a nan sachè ak/oswa platban yo imid, li pa sèk. Semans yo montre yon to jèminasyon ki eleve ak tout sachè pepinyè gen semans nan yo.

2 - Kiltivatè a mete yon ti pepinyè e li bezwen antretyen. Yo bay kiltivatè a fidbak pou konplete sezon pepinyè a avèk siksè.

1 - Kiltivatè a kòmanse fè yon pepinyè

0 - Kiltivatè a pa t kreye yon pepinyè

o-o

4. Prepasyon jaden an (Jen)

- Kijan yo fabrike konpòs?
- Kijan fè rejenerasyon natirèl
- Kijan yo make kontou tè a/ piktaj

Enstriksyon yo

KONPÒS: Kreye yon pil konpòs anba yon pye bwa oswa nan yon seksyon jaden an pa itilize. Fè kouch ak materyèl sèk mawon ak materyèl plant vèt fre, epi ajoute fimye ak sann nan ant kouch yo akselere pwosesis la. Kenbe konpòs la imid lè w kouvri ak yon prela plastik. Melanje li detanzantan.

REJENERASYON NATIRÈL: Mache nan jaden ou epi idantifye ti plant pye bwa. Olye ke retire plant yo anvan rekòt, koupe tout fèy yo nan plant yo kite sèlman sa yo ki nan tèt yo. Jenn plant yo ap kontinye grandi pandan tout sezon an, kontinye koupe fèy ki pi ba yo ak branch yo ankouraje pye bwa a grandi.

MARKE KONTOU YO: Sèvi ak yon nivo A ak anpil baton, Make kote liy kontou yo atravè jaden an. liy yo ta dwe detire soti nan yon bò nan jaden an nan lòt la, epi ta dwe gen plizyè liy nan chak jaden. Plis jaden an apik , plis jaden dwe gen plis ranp ladanl.. Pou kalkile kantite pi byen an nan ranje, kòmanse nan pwen ki pi wo sou jaden an, epi ajoute yon lòt ranje pou chak gout de-mèt.

Egzanp yo

Foto-1



Foto-2



Foto-3



Foto-4



Kesyon kle yo

Pou konpòs:

1. Materyèl mawon yo fè pi fò nan konpòs. Eskew konnen kèk egzanp materyèl mawon?
2. Materyèl vèt yo trè enpòtan tou pou konpòs. Eskew konnen kèk egzanp materyèl vèt?
3. Konbyen sann chabon oswa lòt bagay yo ka ajoute nan konpòs?
4. Konbyen dlo ou ta dwe ajoute e poukisa li enpòtan pou konpòs la rete imid?

Pou etablisman koub nivo :

1. Ki jan ou fè yon Nivo A? Ki jan ou itilize yon Nivo A?
2. Ki kote ou kòmanse make kontou nan yon jaden? Poukisa li enpòtan pou w gen yon koup asistan pou travay sa a?
3. Kijan ou fouye ranp lan ou byen canal la pou kreye chemen pou dlo a?
4. Konbyen dlo ou ta dwe ajoute e poukisa li enpòtan pou konpòs la rete imid?

Pou kanal kontou/ oubyen ranp :

1. Kijan ou fè yon Nivo A? Ki jan ou itilize yon Nivo A?
2. Ki kote ou kòmanse make kontou sou yon jaden? Poukisa li enpòtan pou w gen yon koup asistan pou travay sa a?
3. Kijan ou fouye nan kontou a pou kreye yon chemin sou kontou a?
4. Ki kote sou kontou a ou ta dwe plante vertiver la, pye bwa fwi yo, ak pois kongo?

Pou rejenerasyon natirèl:

1. Kisa ou fè lè ou jwenn jenn ti pyebwa kap grandi nan fèm ou a?
2. Kijan ou ka ede plant yo grandi?
3. Kijanw kapab koupe branch lateral pye bwa yo?

Ribrik Evalyasyon

3 - Jaden kiltivatè a prepare pou sezon plantasyon an . Gen yon pil konpòs ak yon melanj de materyèl mawon ak vèt. Yo te idantifye jenn ti plant volontè epi kiltivatè a koupe nenpòt branch lateral pou ede yo grandi dwat. Ranje kontou yo tout te make ak piket.

2 - Kiltivatè a se prèske fini ranp oubyen kanal kontou yo ak koupe jèn pye bwa yo. Kiltivatè a ap ajoute materyèl nan konpòs la.

1 - Kiltivatè a te kòmanse prepare jaden an men li gen anpil travay pou l fè.

0 - Kiltivatè a pat fè preparasyon jaden

o-o

5. Agrikilti rejeneratif (Jen)

- Kijan yo fè plant konpayon ak kouvri rekòt

Enstriksyon yo

Plante rekòt prensipal yo sou ale yo ansanm ak konpayon ki fikse nitwojèn ak anpil fimye vèt. Planifye rekòt kouvèti pou pwoteje ak fikse nitwojèn nan tè a nan sezon kontwa an.

Egzanp

Foto-1



Kesyon kle yo

1. Poukisa li bon pou plante legum ak mayi ak lòt rekòt prensipal?
2. Ki avantaj ki genyen nan plante pwa kongo atravè jaden ou a?
3. Ki sa ki wotasyon rekòt ak sa ki benefis yo?
4. Kijan fèm yo ta dwe aplike payaj ak konpòs sou yon ale?

Ribrik Evalyasyon

3 - Kiltivatè a abitye plante pwa ansanm ak lòt kalite rekòt nan ale yo nan lòd yo ajoute plis nitwojèn. Kiltivatè a ap ajoute konpòs ak payaj pou amelyore tè a nan ale yo. Kiltivatè a ap planifye tou pou vire rekòt yo nan yon fason pou menm rekòt yo pa grandi nan sezon kap vini an.

2 - Kiltivatè a ap demontre yon kapasite pou fè plant konpayon ak teknik amelyorasyon tè nan omwen yon ale, epi kounye a kiltivatè a bezwen replike atravè tout rès ale yo.

1 - Kiltivatè a fèk kòmanse fè rekòt nan ale yo , swa lap grandi divèsite ki ba (sa vle di yon sèl rekòt) oswa li montre sèlman yon teknik (plant konpayon, wotasyon rekòt, amelyore tè ak konpòs).

0 - Kiltivatè a pa koupe oswa fè teknik agrikilti rejeneratif nan ale yo.

o-o

6. Lit intègre (Jiyè)

- Ki jan yo jere ensèk nwizib?

Enstriksyon yo

Fè yon aplikasyon pestisid ki baze sou nim pou repouse ensèk yo lè l sèvi avèk grenn ak fèy pye bwa nim yo, epi fè yon plan pou pwoteje plant yo kont kabrit ak bèt ki nan paturaj la .

Egzanp

Foto-1



Foto-2



Kesyon kle yo

1. Ki eksperyans ou genyen lè w sèvi ak nim ak lòt ensektisid natirèl?
2. Kijan yo trete neem? Ki pati nan pye bwa a ou itilize?
3. Kijan yo aplike yon solisyon natirèl nan plant ak legim? Chak kile?

Ribrik Evalyasyon

3 - Kiltivatè a okouran de ensèk nwizib prensipal yo pou fèm nan, sòti nan kabrit ak ensèk ak maladi. Kiltivatè a ap pwoteje jaden an kont kabrit epi li sèvi ak solisyon natirèl pestisid pou anpeche ensèk nuizib yo.

2 - Kiltivatè a te kòmanse itilize youn oubyen de teknik IPM epi li ka ajoute lòt mezi.

1 - Kiltivatè a kolekte anpil nan engredyan yo men li poko kreye yon solisyon pestisid natirèl.

0 - Kiltivatè a pa t 'fè IPM



7. Plantasyob pye bwa ki repouse nan kloti (nan fen mwa Out)

- Kijan pou plante you plant ki kapab repouse nan yon kloti vivan /oswa brise van sou lizyè a

Enstriksyon yo

Plant Gliricidia koupe ak plant trè pre ansanm tout otou lizyè a nan jaden an fèm nan epi pwoteje li ak yon kloti vèt.

Egzanp



Kesyon kle yo

1. Ki espès yo itilize nan kloti vivan an?
2. Ki pi bon fason yo ta dwe plante espès yo ansanm?
3. Kijan ou plante Gliricidia?
4. Poukisa li enpòtan pou koupe tèt pyebwa ki nan kloti vivan an? Ki wotè yo ta dwe koupe?

Ribrik Evalyasyon

3 - Kiltivatè yo te konstwi yon kloti vivan nan alantou jaden an ak espès pye bwa yo plante trè pre ansanm ak you distans ki evalye anviron chak 25-50 cm. Pa gen gwo twou vid ki genyen nan kloti vivan an. Kiltivatè a koupe tèt tout pye bwa yo pou ankouraje kwasans lateral nan kloti a olye ke kwasans vètikal.

2 - Kloti vivan an prèske fini, men kiltivatè a bezwen ajoute plis plant pou ranpli twou vid ki genyen yo oswa fini ranje.

1 - Kiltivatè a te kòmanse plante yon kloti vivan.

0 - Kiltivatè a pa plante yon kloti vivan



8. Plantasyon nan ale oswa nan kontou / (nan fen mwa Out)

- Kijan nou kapab plante sou ale ak grandi plant yo nan zone ki gen pant ?
- Kijan yo plante nan ale ou byen korido lès-a-lwès?

Enstriksyon yo

Pou jaden ki fet nan teren plat, plante ranje nitwojèn ki fikse pye bwa lès rive nan lwès pou fòme ale. Espas *Cajanus cajan* (pwa kongo), *Gliricidia*, banbou ak vetiver, plante sere, sere sou ranje a. Mete yon pye bwa fwi chak senk a dis mètr distans sou ranje a.

Pou jaden ki fèt nan mòn, plante plizyè ranje vetiver ak banbou nan senti sou bò ti mòn lan.

Egzanp

Foto-1



Foto-2



Foto-3



Kesyon kle yo

1. Kijan ou bati yon (Nivo A)? Ki jan ou sèvi ak li pou jwenn kontou a
2. Kijan ou fouye sou koub nivo a pou fòme pasaj ?
3. Kijan ou fè replike zèb vetiver? Ki jan ou prepare plan vetiver pou plante?
4. **POU KONTOU:** Ki kote yo ta dwe plante pye bwa ki bay fwi, zèb, anana ak lòt espès yo anrapò ak pasaj ou byen chemen ? Poukisa?
5. **pou kilti kif et nan ale:** Ki kote ou mete Gliricidia, Cajanus cajun, pye bwa fwi ak lòt espès nan ale?

Ribrik Evalyasyon

3 - Kiltivatè a te plante plizyè ranje sou ranp yo nan jaden an. Konstriksyon ranp yo se pou ralanti vitès dlo a. Ranje yo plen ak vetiver ak lòt zèb yo sispann dlo a, epi yo tou konpoze de anpil pye bwa fwi plante chak 4-6 mè.

2 - Kiltivatè a te plante plizyè ranje sou ranp yo, epi li bezwen ranfòse chak ranje ak plis espès.

1 - Kiltivatè a te kòmanse plante sou ranp yo.

0 - Kiltivatè a pat plante nan koulwa oswa sou ranp lan.

o-o

9. Plante pye bwa bay fwi (nan fen mwa Out)

- Kijan nou kapab plante pye bwa ki bay fwi yo kòmsadwa nan ranje ki melanje melanje ?
- Kijan yo prepare twou yo pou plante?

Enstriksyon yo

Plante pye bwa ki bay fwi chak 5 a 10 mètr sou ale yo ak ranje nan mitan vetiver la ak banbou. Pou chak pye bwa ki bay fwi, fouye yon twou fon 50 cm pwofondè ak lajè. Ajoute konpòs nan twou a anvan plante pye bwa fwi a pou rasin yo ka kòmanse repouse byen vit.

Egzanp



Kesyon kle yo

1. Kijan pwofondè ak lajè ou ta dwe fouye yon twou pye bwa fwi ak poukisa?
2. Poukisa nou ajoute konpòs nan fon twou a? Konbyen?
3. Ki lòt bagay yo ka ajoute nan oswa alantou twou a pou pwoteje jenn pye bwa a?

4. Konbyen espas ou bezwen kite pou tout gwo pye bwa ki donnen nou pral plante? [Remak pou mete tablo a]
5. Kijan ou mezire distans espas ak etap ou yo?

Ribrik Evalyasyon

3 - Kiltivatè a te fouye twou pyebwa fwi (50 cm lajè ak 50 cm pwofondè) nan tout jaden an epi li mete konpòs nan chak twou. Lè sa a, pye bwa fwi yo te plante nan wotè ki kòrèk la, ak kolye rasin chak plantules repoze tou pre sifas tè a.

2 - Kiltivatè a te kòmanse plante pye bwa fwi kòrèkteman sou kokoye a oswa ale, men kounye a bezwen ranpli jaden an plen ak apeprè 9 pye bwa fwi pou chak ranje.

1 - Kiltivatè a fèk kòmanse prepare twou pye bwa fwi pou plante.

0 - Kiltivatè a pa t plante pye bwa fwi

o-o

10. Swen pandan sezon sèk (Septanm/Oktòb)

- Ki jan yo ranje, wouze, koupe ak defann kont ensèk nuizib pandan sezon sèk la.
- Kijan nou kapab pote imidite bay plant yo nan zezon sek?

Enstriksyon yo

Kouvri tout pwèn yo nan lis verifikasyon swen sezon sèk la pou asire plant yo siviv premye sezon sèk yo. Asire w ke tout move zèb yo retire alantou chak plantules sou jaden an. koupe kloti kap viv nan tèt la pou ankouraje kwasans lateral, epi koupe pye bwa fwi yo sou bò yo pou ankouraje kwasans vètikal. Sèvi ak solisyon neem ak baryè fizik pou anpeche ensèk nuizib yo. Nou kapab sevi avek metod payaj la pou konseve imidite nan sol la.

Egzanp

Foto-1



Foto-2



Foto-3



Foto-4



Kesyon kle yo

1. Ki pi gwo risk pou plant yo pandan sezon sèk la?
2. Ki jan mete paillis alantou tout pye bwa fwi yo konsève dlo epi ede yo siviv?
3. Ki jan nou ka pwoteje bouk kabrit ak lòt bèt k'ap vwayaje?
4. Ki lòt ensèk nuizib ki devlope stress nan pye bwa yo?

Ribrik Evalyasyon

3 - Kiltivatè a mete branch pikan ak baton alantou jaden an pou pwoteje plant yo. Kouvèti endividyèl pwoteje pye bwa fwi ki gen plis valè. Kiltivatè a te ranje ozalantou chak plant ki fèk plante, epi kiltivatè a te koupe nenpòt ki domaje oswa ki defòm. Kiltivatè a gen yon solisyon neem an plas pou pwoteje kont ensèk nuizib, epi li ap mache aktivman nan jaden an detanzantan pou kontwole li.

2 - Kiltivatè a ap itilize anpil teknik pou pwoteje plant yo kont ensèk nuizib yo, men li ka fè plis pou paillis epi konsève imidite alantou chak plant.

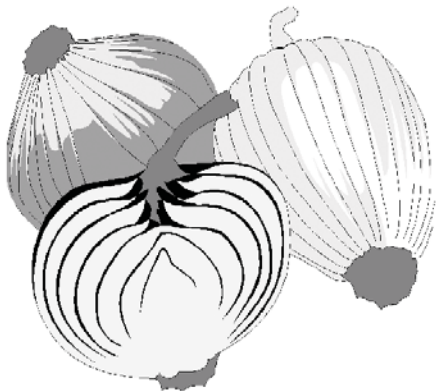
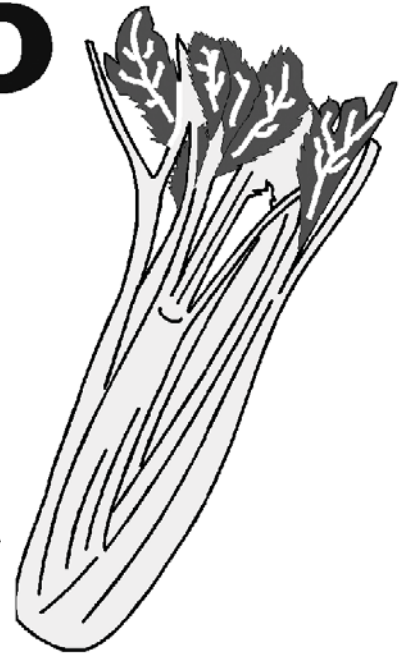
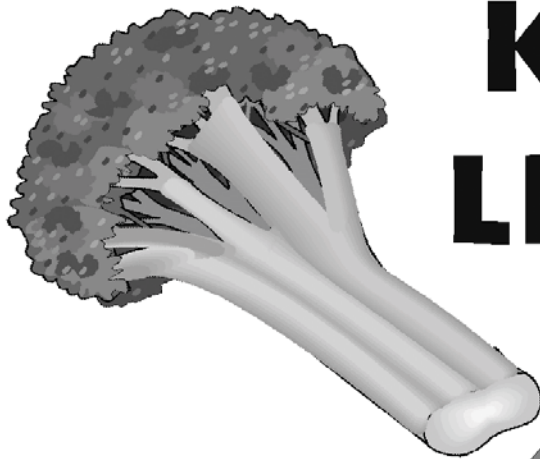
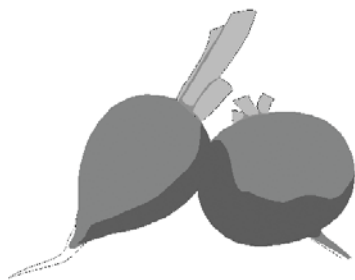
1 - Kiltivatè a kòmanse fè kloti pou pwoteje plant yo kont kabrit ak bèt, men gen anpil travay pou fè pou pwoteje tout jaden an.

0 - Kiltivatè a pa t 'fè swen sezon sèk.

oo



NOUVO GID KILT LEGIM



**Dr. C. Franklin Bishop
Misyon Batis Konsèvatris d'Haïti**

ENSEKTISID NOU KAPAB FE LAKAY NOU

Genyen kèk ensektisid nou kapab fè lakay nou. Pa panse yo mwens fò oswa gen mwens valè pase sa ou kapab achte. Genyen kèk ki pi bon.

Pifò ensektisid ou achte nan magazen dire anpil ane apre yo pèdi fòs pou touye ensèk yo. Yo kapab antre nan tè a osinon nan sous yo. Yo antre nan kò nou epi genyen kèk ki, apre yo fin antre, yo pa soti nan kò nou jiskaske nou mouri. Chak fwa nou pran yon kou pwazon sa yo, yo vin pi plis nan kò nou an. Yon jou yo kapab fè nou malad oswa touye nou.

Ensektisid nou fè lakay nou an pa konsa. Genyen kèk ki pa fè okenn danje pou moun. Genyen lòt ki move pwazon ni pou moun ni pou ensèk. Men yo pa dire nan tè a epi yo pa dire nan kò nou. Men kèk ensektisid nou kapab fè.

6GRENN NIM (Lila)

Non latin: Azadirachta indica

Pyebwa nim kapab fè anpil byen pou nou. Se avèk grenn nim nou kapab fè ensektisid yo. Pwodwi sa yo bon pou touye chèn, podi, charanson, krikèt, pichon, vè fouye, epi mouch blan. Gen twa pwodwi nou kapab fè avèk nim. Men sa pou nou fè:

Premyèman nou gen pou netwaye grenn nim yo. Sa vle di nou wete po ak chè grenn yo, epi lave yo pou fin wete tout chè a. Lèfini, seche grenn yo nan solèy. Kounye a nou konsève yo konsa jiskaske lè nou bezwen sèvi ak yo. Pito ou pa konsève yo nan sache plastik (jelatin)-- yo kani fasil. (Pafwa genyen yon kani ki leve sou grenn yo ki sitèlman fò yon ti tak kapab touye yon moun si li ta pran li nan bouch li.) Se pou nou konsève grenn yo nan yon sak pay oswa nan yon panye.

Genyen twa ensektisid nou kapab fè avèk grenn nim yo. Men yo:

POUD NIM

Lè ou vle fè ensektisid poud nim, pran kèk grenn chèch epi pile yo oubyen pase yo nan moulin pou fè yon poud. Sa se **Poud Nim**. Nou kapab simen poud nim sou plant nan jaden epi a tè a toutotou plant yo. Ou kapab fè l' konsa si ou pa genyen ponp pou aspèje.

DLO NIM

Si ou vle fè pi byen, ou kapab fè yon lòt jan. Nou kapab fè yon pwodwi nou rele **Dlo Nim**. Pou chak lit Dlo Nim ou vle fè ou bezwen demi (1/2) tas poud Nim. (Sa fè 2 tas pa galon dlo oswa 2 ponyen doub pou chak galon dlo). Mete poud Nim tranpe nan dlo pandan lannwit. Demen pase tout melanj sa nan yon twal fen oubyen nan yon paswa byen fèn pou wete mòso grenn yo nan dlo. Kounye a nou kapab aspèje ak dlo sa a, san nou pa fè lòt bagay toujou. Aspèje 1 fwa pa semen toutotan ou genyen pwoblèm avèk ensèk nwizib yo. Dlo Nim pa konsève byen, 3 jou apre ou fè li, li pa bon, li pèdi fòs li nèt. Donk sèvi avè l' touswit. Si ou gen posibilite jwenn yon lwil ki rele NU-FILM 17, ou kapab mele li ak dlo nim pou fè li konsève pi lontan sou plant la. Ou mete 2 ti kiyè NU-FILM 17 nan chak galon pwodwi ou fè. Sa kapab fè dlo nim dire jiska 7 jou sou plant la.

Sonje, pwodwi sa a kapab touye koksinòl. Pran swen avèk li. Pa flite si li pa nesèsè.

LWIL NIM

Yon lòt pwodwi nou kapab fè ak nim se **Lwil Nim**. Pou fè sa nou bezwen pile grenn chèch yo pou nou kapab wete pay la. Donk, pa pile yo twò di pou nou pa kraze anndan grenn yo. Lè nou fin pile grenn yo vannen yo pou retire pay la. Lèfini, pran pati grenn ki te anndan epi moulen li oswa byen pile li. Mete li nan dlo nan yon chodye epi mete l' sou dife. Kite li kwit jiskaske lwil la soti monte anlè. Apre lwil fin soti, retire lwil nan dlo.

Nou kapab konsève lwil sa a nan yon ti bokal. L'ap konsève lontan konsa si nou kite li nan yon vèsò byen fèmen epi nan fènwa.

Lwil Nim bon pou touye Mit Pwa. Pou sèvi avè l' brase 2 ti kiyè ra lwil nim nan youn mamit pwa pou anpeche mit pwa. Pwa sa a toujou ap bon pou manje.

BWA NIVRE / BWA KAYMAN / PWA MANYOK

(*Non latin: Tephrosia toxicaria/Lonchocarpus ehrenbergii/Pachyrrizus erosus*)

Se ak bwa nivre, bwa kayman epi pwa manyòk yo fè ensèktisid yo rele Rotenone. N'ap diskite li pi devan. Nenpòt lè ou li Rotenone kapab touye yon ensèk ou gen dwa sèvi pwodwi sa yo. Genyen de (2) pwodwi nou kapab fè avèk yo.

Pou fè poud ak bwa nivre epi ak bwa kayman se rasin yo nou bezwen. Chache jwenn rasin fen yo-- pi piti pase demi pous lajè. Pile rasin sa yo nan yon pilon pou fè yon poud. Fini. Se ak poud sa a ou ap sèvi.

Si ou pa kapab jwenn bwa nivre oswa bwa kayman ou kapab sèvi ak grenn pwa manyòk pou fè menm pwodwi. Kale gous pwa manyòk pou retire grenn yo. Lefini, pile grenn yo oswa pase yo nan moulen. Ou mèt sèvi poud sila menm jan ou sèvi ak poud rasin bwa nivre.

Nou gen dwa mele poud sa a ak semans lè n'ap plante. L'ap anpeche kèk ensèk pike grenn yo. Si ou simen poud sa sou plant nan jaden yo li kapab anpeche pinèz, trips, mouch blan, podi, pis, sotèz, epi kèk chèni.

Yon lòt bagay nou kapab fè ak poud sa a se mete li sou bèt nou an (eksèpte kochon) si bèt yo gen pis oubyen pou. Li pa danje pou ni moun ni lòt bèt nou konn gade eksèpte kochon. **Pa mete l' sou kochon.**

DLO GRENN PWA MANYOK

Nou kapab fè Dlo Grenn Pwa Manyòk si nou ta vle aspèje. Men ki jan pou fè li:

- Pou chak galon Dlo Grenn Pwa Manyòk ou ap fè ou ap bezwen 5 kiyè grenn pwa manyòk ak yon bout savon ki gen yon demi pous longè.
- Fonn bout savon nan yon demi tas dlo (youn tyè boutèy kola dlo).
- Mele dlo savonnen sila ak 5 kiyè grenn pwa manyòk.
- Pile melanj sila nan pilon oswa moulen li nan moulen.
- Apre ou fin pile melanj la oswa apre ou fin moulen moulen li nan moulen pase melanj la nan yon twal pou wete poud la.
- Pran likid ki soti a epi rekoule li nan twal fen.
- Mete likid la nan yon veso epi ajoute dlo pou fè yon galon.

Li bon pou mete gan kawòtchou lè ou ap fè pwodwi sa a.

Ou kapab sèvi Dlo Grenn Pwa Manyòk nenpòt lè ou ta sèvi Rotenone. Li touye chèni, pichon, ak vè, men li pa fasil touye yo lè yo gwo.

DLO SAVON

Dlo Savon se yon bon pwodwi pou touye pichon, fo pichon, ak kèk akaryen. Genyen de (2) resèt pou fè li:

- a. Fonn yon bout savon wozita (Rosita) oswa lòt savon tankou li ki genyen 1 pous de longè nan youn galon dlo. Mete nan flit oubyen nan ponp aspèsyon epi aspèje. (Si ou pa konnen si savon ou genyen twò fèb oswa twò fò, eseye kèk sou youn pati youn sèl plant. Demen gade pou wè si plant la pa domaje epi si ensèk yo mouri).
- b. Yon savon pi fò se pou mete 1 tas alkòl nan yon galon. Ajoute Dlo Savon (wè resèt dèyè) pou fè yon galon likid, sèvi avè l' menm jan ak lòt la.

Nenpòt nan Dlo Savon yo konsève lontan si veso byen fèmen. Nou gen dwa fè l' davans epi kite l' lakay pou lè nou bezwen li. Dlo Savon pa fè twòp danje pou moun. Sèlman pa kite l' tonbe nan je oubyen nan bouch. Konsève li yon kote ti moun yo pa kapab mete men sou li.

DLO TABAK (*Non latin: Nicotiana tabacum*)

Dlo tabak se yon bon pwodwi men li fè danje pou moun. Dlo tabak se pwazon pou moun menm jan li ye pou bèt. Si yon ti moun ta bwè yon ti gòdèt dlo tabak, li kapab fasil mouri.

Dlo tabak touye anpil ensèk men li pifò kont sa yo ki souse plant yo-- fo pichon, pichon, akaryen, mouch blan ak trips. Epi tou l'ap touye plizyè kalite chèni, pis avèk vè fouye. Men yon prekosyon lè ou sèvi avèk li, li posib fèy tabak yo te enfèkte ak yon maladi epi si ou aspèje melon, konkonm, ak tomat (epi kèk lòt plant toujou) yo kapab tonbe malad tou.

Men kouman pou fè li:

- Kraze youn ti pake tabak (1 oubyen 2 fèy chèch) epi tranpe li nan yon galon dlo pandan lannwit.
- Demen wete tabak (pase nan yon paswa oswa yon twal) epi ajoute yon ti tak savon ou te gentan fonn nan yon ti dlo.

Dlo tabak sa tou prepare pou aspèje. Li nesesè pou aspèje touswit paske dlo tabak pa konsève byen. Pa kite fèy tabak tranpe plis pase yon jou, yo pouri vit epi apre sa ou pa kapab wete yo nan dlo.

DANJE!! Dlo tabak se yon move pwazon, li pifò pase anpil pwazon ou kapab achte nan magazen. Mete pantalon long avèk chemiz manch long lè ou aspèje. Mete gan kawòtchou tou. Lave tout kò ou byen lè ou fini. Pa goute pwodwi dlo tabak. Nenpòt sa ou aspèje, pa rekolte pou omwens twa jou apre ou aspèje. Pou egzanp si ou aspèje lendi, pa manje nan sa ou te aspèje jiska jèdi oubyen apre jèdi.

LWIL KONSANTRE

Lwil konsantre se yon bon ensektisid nou kapab itilize pou aspèje pyebwa pou touye fo pichon ak kal. L'ap touye move ensèk ki la epi l'ap anpeche yo atake bwa a pou plizyè mwa. Li bon pou nou aspèje bwa ki donnen yo chak ane ak Lwil Konsantre. Men ki jan pou fè li:

Mete nan yon chodyè:

- 1 lit Lwil Mineral (Li kapab make Mineral oil--ou kapab achte li nan yon fanmasi)
- 2 tas (1 boutèy kola edmi) dlo
- 1 bout Savon Rosita (oubyen yon lòt savon tankou li) longè 4 pous oswa 4 ons savon an likid

Chofe tout bagay sa yo sou dife jiskaske yo bouyi. Lè y'ap bouyi brase yo byen brase jiskaske tout savon gentan fonn epi tout bagay byen melanje. Kounye a ou gen Lwil konsantre.

Pou sèvi ak Lwil konsantre mete senk (5) kiyè nan chak galon dlo pou aspèje. Ou a bezwen souke ponp la souvan pandan ou ap aspèje pou tout bagay toujou byen mele--lwil la ap toujou vle monte anlè nan dlo a.

Nou kapab konsève Lwil konsantre pou lavni, men chak fwa nou vle sèvi avè l' nou gen pou chofe li epi brase li ankò.

DLO PIMAN (*Non latin: Capsicum frutescens*)

Dlo piman se yon ensektisid byen fò. Se ak piman zwazo, piman dan chen, oswa piman bouk (piman ki pike) nou fè li. Ensektisid sa a kapab touye plizyè kalite chèni ak pichon. Men sa pou nou fè:

- Ranmase piman yo. N'ap bezwen 1 tas (2 ponyen) pou fè twa (3) galon edmi (4 mamit) ensektisid. Seche piman yo byen chèch.
- Kraze piman ki chèch yo nan yon pilon oswa nan yon moulen jiskaske yo vin yon poud byen fen.
- Mete poud piman nan 2 mamit (6 lit) dlo epi kite li tranpe pandan lannwit.
- Nan demen pase melanj dlo ak piman nan yon mòso twal fen. Rekoule li nan twal yon dezyèm fwa. Jete poud piman an.
- Ajoute yon lòt de (2) mamit edmi dlo (8 lit), ki deja gen 1 kiyè savon an likid ladan li. Brase melanj dlo savon ak dlo piman sa a byen brase. Kounye a li tou prepare pou aspèje.

Toujou sonje pou koupe dlo piman ak lòt dlo paske li byen fò. Si ou pa fè sa ou kapab boule plant yo. **ATANSYON! Toujou mete gan kawòtchou ak linèt espesyal lè ou ap fè epi lè ou ap aspèje dlo piman. Li kapab fasil boule po ou ak je ou. Toujou mete chemiz manch long ak pantalon long.**

Premyè fwa ou ap aspèje Dlo Piman sou yon kalite kilti, li bon pou eseye li sou youn sèl plant pou wè si li pa twò fò. Aspèje plant la. Demen gade li. Si plant la pa domaje ou konnen Dlo Piman pa twò fò. Men, si plant la domaje, ou a bezwen koupe fòs Dlo Piman ak plis dlo toujou.

DLO GRENN KACHIMAN/KOWOSOL

Non latin: Annona squamosa/annonn muricata)

Grenn kachiman oswa grenn kowosòl kapab fè yon ensektisid ki kapab touye pichon ak kèk pinèz vèt. Men ki jan pou nou fè li.

- Ramase grenn kachiman oswa grenn kowosòl, pwòpte yo epi mete yo seche. Ou a bezwen demi tas (youn ponyen) pou chak mamit (3 lit) pwodwi ou ap fè.
- Lè grenn yo fin seche, kraze yo nan moulen oswa nan pilon pou fè yon poud fen. **ATANSYON! Pa kite poud la tonbe nan je ou paske l'ap fè ou soufri anpil!** Mete linèt espesyal lè ou ap fè sa.
- Melanje poud la ak kantite dlo ki dwat-- 1 ponyen grenn pou chak mamit dlo. Kite li tranpe pandan lannwit. Nan demen pase melanj la nan yon twal fen pou retire tout poud. Repase li nan twal la yon dezyèm fwa. Kounye a Dlo Grenn Kachiman/Kowosòl tou prepare pou aspèje.

Ensektisid sa a pa mache vit, l'ap bezwen de (2) ou twa (3) jou pou li fin touye ensèk yo. Li bon pou mete gan kawòtchou ak linèt espesyal lè ou ap aspèje.

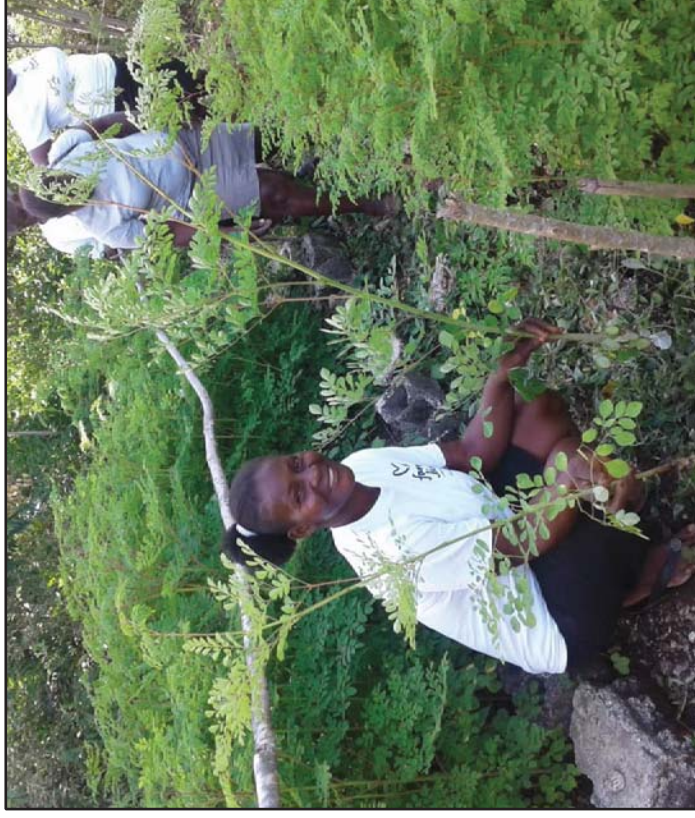
Attachment #5

Sètifikasyon

fòmasyon ak

Siveyans

SIPÒTE MANM NAN ADOPTÉ
AGROFORESTI POU OPTIMIZE
PWODIKSYON



Tab Matyè

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Sètifika Fòmasyon

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25-28 me 2023

Fanm Limye Prezidan

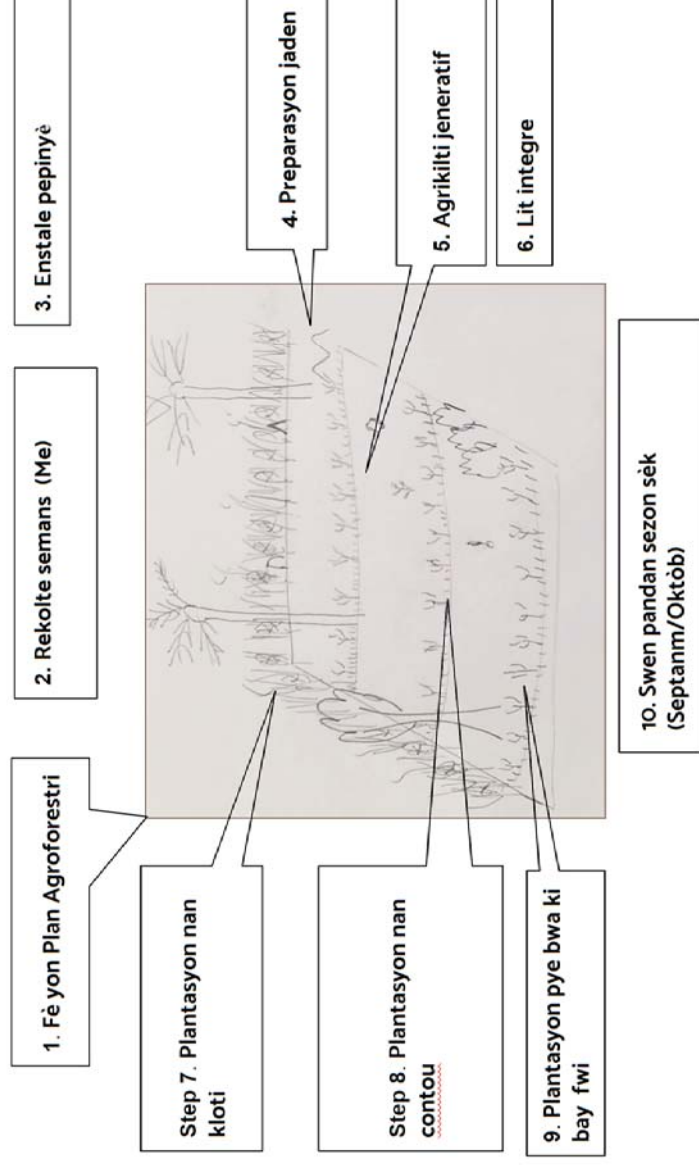
Direktè Catalyst Prosperity

Ajan Ekstansyon Agrikilti

Fanm Limye

Kantite minimòm moun pou ede: 16

Plan



Espès

RECOMMENDED TALL/TIMBER SPECIES

- Mombin (Spondias mombin)
- Mapou (Silk Cotton Tree)
- Cocotier (Cocos nucifera)

KEY STAPLE CROPS

- Black beans
- Pois congo
- Maize
- Petite mil
- Pois inconnu
- Pois souche

RECOMMENDED FRUIT TREES

- Chateigne (similar to breadfruit)
- Manguier, mangifera indica
- Cachiman
- Corossolier
- Persea americana (Avocat)
- Mamea americana (Abricot)
- Melicoccus bijugatus (Quenepier)
- Theobroma cacao (Cacaoyer)
- Sapotille
- Citronier (Citrus aurantifolia)
- Lime
- Carambola/Star fruit
- lam veritab (Bread fruit)

KEY TUBERS

- Manioc
- Patate
- Tarot
- Igname
- Mazombèl

MARKET GARDEN & CLIMBERS

- Melon
- Piment
- Poivron
- Panzou (Chamissoa altissima)

RECOMMENDED AGROFORESTRY SPECIES


- Gliricidia sepium
- Calliandra calothyrsus
- Moringa
- Pois congo (Cajanus cajan)
- Vetiver
- Bamboo

Delè

Me Jen Jiyè Out Septanm Oktòb



<u>Etap</u>	<u>Me</u>	<u>Jen</u>	<u>Jiyè</u>	<u>Daout</u>	<u>Sektanm</u>	<u>Oktob</u>
1. Fè yon Plan Agroforestri	X					
2. Rekolte semans	X					
3. Enstale pepinyè	X	X				
4. Preparasyon jaden		X				
5. Agrikilti jeneratif		X				
6. Lit integre			X			
7. Plantasyon nan kloti			X	X		
8. Plantasyon nan contou			X	X		
9. Plantasyon pye bwa ki bay fwi			X	X		
10. Swen pandan sezon sèk					X	X

Fèy Nòt

Non	Nimewo telefòn	Kantite pyebwa										
		Me	Me	Jen	Jen	Jen	Jiyè	Daout	Daout	Daout	Sektanm	Oklob
1												
2												
3												
4												
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6												
7												
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12												
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Total												

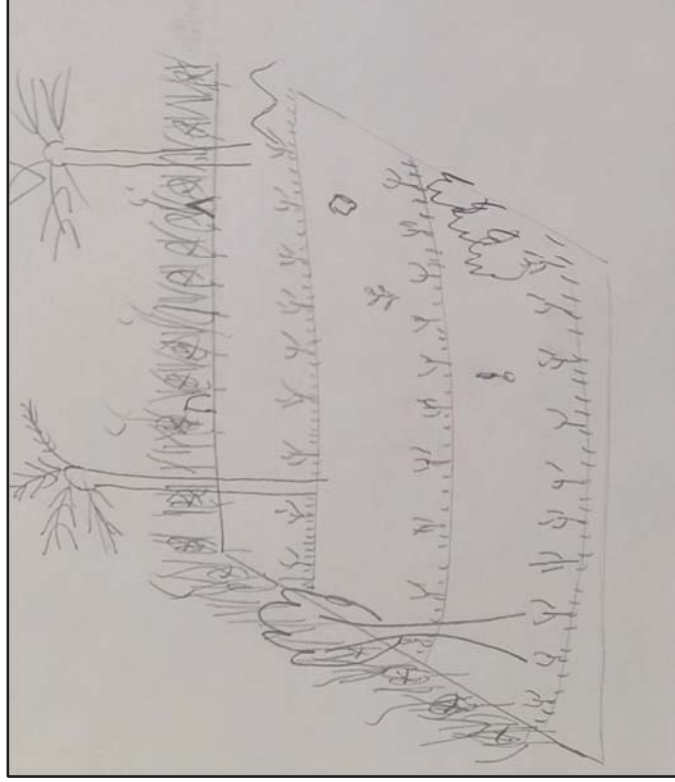
Antre yon nòt 0 - 3 nan chak bwat.

Fèy Nòt

Non	Nimewo telefòn	Kantite pyebwa										
		Me	Me	Jen	Jen	Jen	Jiyè	Daout	Daout	Daout	Sektanm	Oklob
1												
2												
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12												
13												
14												
15												
16												
Total												

Antre yon nòt 0 - 3 nan chak bwat.

1. Fè yon Plan Agroforestri



Ribrik Evalyasyon

3 - Kiltivatè a te kreye yon Plan Agroforestri Optimize ki montre tout teknik agroforestye yo rekòmande nan jaden an. Li montre detay andedan ak deyò fèm nan, direksyon solèy la, nò-sid, wòch, wout, ak tout vejetasyon ki te planifye a.

2 - Kiltivatè a te kreye yon konsepsyon Plan Agroforestri men li manke detay.

1 - Kiltivatè a te kòmanse yon Plan Agroforestri men li poko fini

0 - Kiltivatè a pat fè yon Plan Agroforestri



2. Rekolte semans



Ribrik Evalyasyon

- 3 - Kiltivatè a gen yon bank semans ki gen plizyè kalite pye bwa ak grenn legim yo estoke nan yon kote ki sèk, fre. Resipyan yo sele epi make epi yo pa montre okenn siy kontaminasyon.**
- 2 - Kiltivatè a te kòmanse yon ti bank grenn epi li sere youn oswa kèk espès.**
- 1 - Kiltivatè a te kòmanse mete kanpe yon bank semans.**
- 0 - Kiltivatè a pa t kolekte epi estoke grenn.**

3. Enstale pepinyè



Ribrik Evalyasyon

- 3 - Kiltivatè a mete kanpe yon pepinyè kap pwodui plis pase 500 plant. Mwayen tè a byen melanje ak konpòs epi li pa gen wòch. Pepinyè a ranje epi tè a nan sachè ak/oswa platban yo imid, li pa sèk. Semans yo montre yon to jèminasyon ki eleve ak tout sachè pepinyè gen semans nan yo.
- 2 - Kiltivatè a mete yon ti pepinyè e li bezwen antretyen. Yo bay kiltivatè a fidbak pou konplete sezon pepinyè a avèk siksè.
- 1 - Kiltivatè a kòmanse fè yon pepinyè
- 0 - Kiltivatè a pa t kreye yon pepinyè



4. Preparasyon jaden



Ribrik Evalyasyon

- 3 - Jaden kiltivatè a prepare pou sezon plantasyon an . Gen yon pil konpòs ak yon melanj de materyèl mawon ak vèt. Yo te idantifye jenn ti plant volontè epi kiltivatè a koupe nenpòt branch lateral pou ede yo grandi dwat. Ranje kontou yo tout te make ak piket.
- 2 - Kiltivatè a se prèske fini ranp oubyen kanal kontou yo ak koupe jèn pye bwa yo. Kiltivatè a ap ajoute materyèl nan konpòs la.
- 1 - Kiltivatè a te kòmanse prepare jaden an men li gen anpil travay pou l fè.
- 0 - Kiltivatè a pat fè preparasyon jaden

5. Agrikilti jeneratif



Ribrik Evalyasyon

- 3 - Kiltivatè a abitye plante pwa ansanm ak lòt kalite rekòt nan ale yo nan lòd yo ajoute plis nitwojèn. Kiltivatè a ap ajoute konpòs ak payaj pou amelyore tè a nan ale yo. Kiltivatè a ap planifye tou pou vire rekòt yo nan yon fason pou menm rekòt yo pa grandi nan sezon kap vini an.
- 2 - Kiltivatè a ap demontre yon kapasite pou fè plant konpayon ak teknik amelyorasyon tè nan omwen yon ale, epi kounye a kiltivatè a bezwen replike atravè tout rès ale yo.
- 1 - Kiltivatè a fèk kòmanse fè rekòt nan ale yo , swa lap grandi divèsite ki ba (sa vle di yon sèl rekòt) oswa li montre sèlman yon teknik (plant konpayon, wotasyon rekòt, amelyore tè ak konpòs).
- 0 - Kiltivatè a pa koupe oswa fè teknik agrikilti rejeneratif nan ale yo.

6. Lit integre



Ribrik Evalyasyon

- 3 - Kiltivatè a okouran de ensèk nwizib prensipal yo pou fèm nan, sòti nan kabrit ak ensèk ak maladi. Kiltivatè a ap pwoteje jaden an kont kabrit epi li sèvi ak solisyon natirèl pestisid pou anpeche ensèk nuizib yo.
- 2 - Kiltivatè a te kòmanse itilize youn oubyen de teknik IPM epi li ka ajoute lòt mezi.
- 1 - Kiltivatè a kolekte anpil nan engredyan yo men li poko kreye yon solisyon pestisid natirèl.
- 0 - Kiltivatè a pa t 'fè IPM



7. Plantasyon nan kloti



Ribrik Evalyasyon

- 3 - Kiltivatè yo te konstwi yon kloti vivan nan alantou jaden an ak espès pye bwa yo plante trè pre ansanm ak you distans ki evalye anviron chak 25-50 cm. Pa gen gwo twou vid ki genyen nan kloti vivan an. Kiltivatè a koupe tèt tout pye bwa yo pou ankouraje kwasans lateral nan kloti a olye ke kwasans vètikal.
- 2 - Kloti vivan an prèske fini, men kiltivatè a bezwen ajoute plis plant pou ranpli twou vid ki genyen yo oswa fini ranje.
- 1 - Kiltivatè a te kòmanse plante yon kloti vivan.
- 0 - Kiltivatè a pa plante yon kloti vivan



8. Plantasyon nan kontou



Ribrik Evalyasyon

- 3 - Kiltivatè a te plante plizyè ranje sou ranp yo nan jaden an. Konstriksyon ranp yo se pou ralanti vitès dlo a. Ranje yo plen ak vetiver ak lòt zèb yo sispann dlo a, epi yo tou konpoze de anpil pye bwa fwi plante chak 4-6 mètr.
- 2 - Kiltivatè a te plante plizyè ranje sou ranp yo, epi li bezwen ranfòse chak ranje ak plis espès.
- 1 - Kiltivatè a te kòmanse plante sou ranp yo.
- 0 - Kiltivatè a pat plante nan koulwa oswa sou ranp lan.



9. Plantasyon pye bwa ki bay fwi



Ribrik Evalyasyon

- 3 - Kiltivatè a te fouye twou pyebwa fwi (50 cm lajè ak 50 cm pwofondè) nan tout jaden an epi li mete konpòs nan chak twou. Lè sa a, pye bwa fwi yo te plante nan wotè ki kòrèk la, ak kolye rasin chak plantules repoze tou pre sifas tè a.
- 2 - Kiltivatè a te kòmanse plante pye bwa fwi kòrèkteman sou kokoye a oswa ale, men kounye a bezwen ranpli jaden an plen ak apeprè 9 pye bwa fwi pou chak ranje.
- 1 - Kiltivatè a fèk kòmanse prepare twou pye bwa fwi pou plante.
- 0 - Kiltivatè a pa t plante pye bwa fwi



10. Swen pandan sezon sèk



Ribrik Evalyasyon

3 - Kiltivatè a mete branch pikan ak baton alantou jaden an pou pwoteje plant yo. Kouvèti endividyèl pwoteje pye bwa fwi ki gen plis valè. Kiltivatè a te ranje ozalantou chak plant ki fèk plante, epi kiltivatè a te koupe nenpòt ki domaje oswa ki defòme. Kiltivatè a gen yon solisyon neem an plas pou pwoteje kont ensèk nuizib, epi li ap mache aktivman nan jaden an detanzantan pou kontwole li.

2 - Kiltivatè a ap itilize anpil teknik pou pwoteje plant yo kont ensèk nuizib yo, men li ka fè plis pou paillis epi konsève imidite alantou chak plant.

1 - Kiltivatè a kòmanse fè kloti pou pwoteje plant yo kont kabrit ak bèt, men gen anpil travay pou fè pou pwoteje tout jaden an.

0 - Kiltivatè a pa t 'fè swen sezon sèk.