



Module 8: Permagardening for the Market



Goal

Farmers will meet new market opportunities by expanding vegetable production, increasing garden diversity, and scheduling planting and harvesting to meet demand.

Learning Objectives

1. Learn appropriate land preparation and planting techniques for the vegetables selected during the current season.
2. Learn how to time planting and harvesting to meet market demand.
3. Learn improved planting, harvesting, and post-harvest processing and storage techniques.

Venue and Timing

This module should be given at the start of the main gardening season, commonly the cool dry season that follows the rainy season. The training should be held at the lead farmer's or a participant farmer's Forest Garden.

Relevant Technical Manual Chapters

Before this training event, the facilitator should review and thoroughly understand the following chapters and sections in the Technical Manual:

- Chapter 5: Seedling Propagation (Soils and Caring for Your Seedlings in the Nursery sections)
- Chapter 13: Permagardening

Preparation

- Draw seasonality chart on flip chart paper (empty, to be filled in during workshop).
- Fill in important holidays in the correct months, to help farmers better understand the agricultural season during which each holiday falls.
- Purchase vegetables – identified in Module 5 – at the market to bring to the workshop to use for the opener activity. There should be at least one vegetable from each of the four rotational planting groups.

Supplies

- 5 hoes
- 5 shovels
- Wheelbarrow
- 1 wheelbarrow of finished compost
- 1 bucket of charcoal powder
- 1 bucket of wood ash
- 3 watering cans
- Bucket
- String
- A variety of vegetables
- Roll of flipchart paper and tape
- Markers

Total Time

4-5 hours

Handouts in Farmer's Workbook

- Families of Vegetables for Crop Rotation Planning
- Types of Vegetables for Crop Rotation Planning
- Seasonal Crop and Market Analysis Chart
- Market Opportunities
- Garden Design

Module 8: Permagardening for the Market

Summary of Activities

Opener: Sorting vegetable types (30 mins)

- Explain the different categories of vegetables and relevance to crop rotation
- Farmers sort vegetables by type

Activity 1: Market analysis (1 hour)

- Ask farmers about what they grow now to sell in the market
- Use happy face, neutral face, and sad (disappointed) face pictures to discuss current market prices for select vegetables
- Create seasonal market analysis chart for the selected vegetables

Activity 2: Market planning (1 hour)

- Group selects top three vegetables from the seasonal market analysis
- Small groups create a plan for how to sell that vegetable at market when the price is highest
- Small groups present plans and get feedback
- Group discussion on which vegetables to produce and sell together

Activity 3: Growing the vegetables (1 hour)

- Discuss best practices for planting and harvesting the select vegetables
- Prepare garden beds in the Forest Garden
- Practice transplanting seedlings from germination beds to sacks, trench and/or bareroot beds

Take Home Activity 4: Start your market garden (30 mins)

- Debrief permagardening best practices
- Instruct farmers to transplant slow-growing fruit trees in the nursery (if it has not yet been done)
- Follow-up

Opener: Sorting Vegetable Families

Description

The facilitator brings a variety of common vegetables from the market and farmers sort them into the four main families: leaf, fruit, root, and legume.

Instructions for Farmers

1. Farmers sort vegetables by type

I brought vegetables from the market.

- Who can tell me which group these vegetables belong in?
- What other vegetables do you grow? Which group does each belong in?

2. Explain the different categories of vegetables and relevance to crop rotation

Different types of crops take different amounts and types of nutrients from the soil.

They also attract different pests and diseases. To improve long-term soil health and productivity, it is important to rotate crops in your Forest Garden so that you are not planting the same thing in the same place season-after-season. It is important to rotate vegetables in the garden for the same reasons.

- What are the four main types of vegetables?
- Which types need the most nutrients from the soil?
- Which types do not take as many nutrients from the soil?
- Which types give back nutrients to the soil?
- In what order should you rotate different types of vegetables?
- How does crop rotation minimize pests and disease?

Activity 1: Market Analysis

Description

Farmers discuss the prices of vegetables in the market place at different times of the year.

Instructions for Farmers

1. Ask farmers about what they grow now to sell in the market

Today we will discuss growing vegetables to sell in the market.

- What do you plan to grow this year? How have you traditionally decided what to grow?
- How much do you plan to consume and how much do you plan to sell?
- Who do you sell to?
- Is it always easy to sell products?
- Why is it more difficult to sell during certain times of the year?
- If you are going to the market with a bag of maize and everyone is selling maize, will the price of maize be high or low?
- If you are going to the market with a bucket of tomatoes and everyone is selling maize, will the price of tomatoes be high or low?

2. Use happy face, neutral face, and sad (disappointed) face pictures to discuss current market prices for select vegetables

I brought some vegetables today that I purchased from the market. I want us to discuss the prices for these vegetables at different times of the year. I have three pictures: a happy face, a neutral face, and a sad (disappointed) face. The faces represent the price of the vegetable as high, average or low.

- If you were a farmer selling this vegetable in the market **today**, would you be happy, neutral, or disappointed about the price?
- What are other vegetables you can grow and sell in the market for a good price?

3. Create seasonal market analysis chart for the selected vegetables

I created a calendar on the flip chart paper that represents an entire year. Now I want to discuss the prices for these vegetables in different seasons. I will draw a happy face, neutral face, or sad face to show whether the price is good, average, or bad at different times of the year.

- When is the best time to sell?
- For the months when prices are highest, why are they high?
- For the months when prices are lowest, why are they low?
- In what months would you want to sell?
- How could you and your group sell more in those months?
- Why is it important to think about how prices change during the year when deciding what to plant

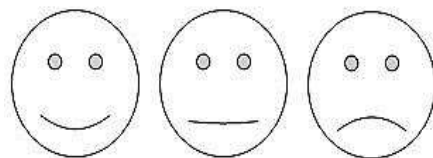


Figure 1: Empty seasonal market analysis to fill in during workshop. This can be done by month or by season.


















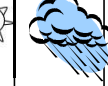
































	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Holidays												
	Dry 	Dry 	Dry 	Rain 	Rain 	Rain 	Rain 	Rain 	Rain 	Rain 	Dry 	Dry 

Figure 2: Example of a seasonal market analysis that is filled in.

	J	F	M	A	M	J	J	A	S	O	N	D
												
Haricots 												
Sorgho 												

Activity 2: Market Planning

Description

Small groups develop a plan for collectively growing their selected vegetables. The small groups present their plans and the group decides if they want to produce and sell vegetables together.

Instructions for Farmers

1. Group selects at least three vegetables from the seasonal market analysis

We have discussed many different vegetables and the prices they fetch in the market. The group should pick at least three vegetables from the ones selected and we will talk more about how to grow them.

2. Small groups create a plan for how to sell that vegetable at market when the price is highest

Form three groups. Each group will develop a plan for how you can sell one of the vegetables you selected at a high price.. Then each group will present their plan.

- Which variety should you grow? Do you know where to get seed?
- When is the price highest? How can you try to get your goods to market during the best time? When should you plant to get your product to market at the best time? (mark on seasonal calendar when they should plant)
- What are challenges to getting your goods to market when the price is highest?
- Is it possible to produce the vegetable to sell in the market at this time?
- Is it possible to store the vegetable until the price is highest?
- Is it possible to process the vegetable to add value?
- What do you consider to be high quality for your product? How do you know which is high quality and which is not?

3. Small groups present plans and get feedback

Each group will now present their plan for how to grow and sell the vegetable they selected.

- Do all markets have the same price? Or does the price change depending on which market you sell in?
- Which buyers pay a higher price for higher quality? Which buyers accept lower quality?
- Do you sell higher quality products for a higher price? Do you sell lower quality products for a lower price?
- Is it better to eat or sell the best looking products?

4. Group discussion on which vegetables to produce and sell together

Does the group want to collectively grow and sell vegetables? Which ones?

- Which vegetables are best to sell as a group?
- Which are best to sell as an individual?
- What are the advantages/disadvantages of marketing as a group?

Activity 3: Growing the Vegetables

Description

The facilitator discusses different varieties and best practices for growing the vegetables the group chose in Activity 2. Small groups then prepare the garden area based on instructions from the facilitator. The facilitator and host farmer should decide how large of the garden area to use for the practical activity.

Instructions for Farmers

1. Discuss best practices for planting and harvesting the selected vegetables

We will now talk about how best to grow the vegetables we talked about today.

Does anyone here have experience growing these vegetables? Please come to the front and help me teach the group the proper techniques.

- Do you need to nurse the vegetable before planting? How long to nurse?
- What is the spacing between seeds for nursing?
- What are the companion plants?
- What are common pest problems? How can you address those pests?
- What category of vegetable is this? (leaf, root, fruit, legume)
- When do you plant it in the crop rotation? What was planted in this bed last season? What should be planted this year?
- What is the best spacing for planting the vegetable?
- What is triangular spacing and why is it helpful?
- What are two things you should do after planting these vegetables?

2. Form small groups and prepare vegetable beds in the Forest Garden

Now we all know how to plant these vegetables and which type of bed to prepare. Form small groups and each group should prepare a bed for one of the vegetables the host farmer will plant in his/her Forest Garden.

- What type of bed will you prepare?
- Should it be sunken? Ground level? Raised? Why?
- Should it be double-dug? Why?
- How do you amend the soil? (need to amend the garden area every season)
- What is the appropriate spacing for this vegetable?

Take Home Activity 5: Start your market garden

Description

Farmers start a vegetable nursery for their market garden. After the workshop, the facilitator will give the vegetable seeds the group chose to grow to the lead farmer to distribute to the group. Farmers who have not yet transplanted their slower-growing fruit seedlings in their nurseries will do so.

Instructions for Farmers

1. Debrief permagardening best practices

After the workshop, you will start your own vegetable nursery. The lead farmer will come inspect your nursery within 2 weeks and then distribute the seeds that the group chose to grow and sell together.

- What are the top 3 challenges you might face in your garden?
- How and when do you water your garden?
- Why do you mulch?
- When do you weed?
- How can you control pests?
- How do you improve the soil quality?

Follow-up

The lead farmer visits participant farmers' Forest Gardens within 2 weeks. When the garden area meets the criteria, the lead farmer will distribute the vegetables seeds for farmers to plant in their gardens. The lead farmer will also inspect the fruit tree nursery to ensure fruit seedlings were transplanted properly from Flexible Activity 2.

Evaluation Checklist for Skills Learned in Module 8



At the end of the year you will be evaluated on the following practices that you learned and discussed during training events. Those in bold are topics that we discussed or practiced today. In demonstrating that you have completed the Year two evaluation criteria, you will be invited to continue into the third year of the project.

Year 2 Evaluation Criteria

- Green Wall
 - At least two rows planted, surrounding the entire site
 - At least part of the third row is planted
 - Dead trees and gaps from the first year are replanted
 - Proper spacing between rows
 - Proper spacing between trees within rows
 - Woven branches, Pruned into a hedge
 - Brush and weeds cleared
 - Dead fence surrounding green wall (for all projects where this is determined to be a requirement)
- Alley Cropping and/or Contour Planting
 - Minimum of 3 rows planted across cropping area
 - Agroforestry trees interspersed throughout site
 - Proper spacing between rows
 - Proper spacing between trees within rows
 - Contour lines followed (on sloped sites)
 - Coppiced or pollarded in year 2
- Fruit Trees
 - At least 3 species of fruit trees/plants
 - Proper spacing between fruit trees planted
 - Trees appear to receive enough water
 - Each tree is weeded and mulched
 - At least 2 species of fruit root stock growing
 - Fruit trees for grafting are transplanted from beds to sacks or trenches
- Compost
 - Three active piles, Passes stick test
 - Demonstrated product and use
- **Permagarden**
 - **Raised or sunken beds**
 - **Amended soils, Mulching**
 - **At least six species/types**
 - **At least two new species/types that were not planted previously by family**
 - **Rotation planting**

Module 8: Facilitator's Notes



The facilitator should use the following pages to note down any questions or findings from the group that should be kept for or addressed at a later time. Depending on the module this may include species selection by group, crops identified in seasonal calendars, or anything else that should be noted.