



## Basic Vegetable Gardening

### Lesson 17: Square Meter Gardens

**Lesson Summary:** Members will learn about square meter gardens. This is an alternative type of garden that takes less space. Members will design a square meter garden that they can plant at home or at the school.

#### Intended Learning Outcomes:

Members will list the advantages of planting a lot of plants in a small space, like in 1 square meter.

Members will design a square meter garden.

**Length:** 60 minutes

#### Materials:

One piece of paper and a pencil for every member

Students Guide

Vegetable flash cards

Crop rotation poster

**Background:** This lesson is part of Step 2 – Choosing the Garden Design, and Step 3 – Planting the Garden.

1. Choosing a site: Where to put your garden
2. Preparing a site: Choose your garden design
3. Planting the garden
4. Tending the garden
5. Harvesting, preparing and eating the food

#### Lesson Steps:

##### 1. (5 minutes) – Introduction

Today members will learn about square meter gardens and design their own garden that they can plant at home or school.

##### 2. (15 minutes) – Discuss the option of making a square meter garden for school, community or home use.

**Question to investigate: What are the advantages of a square meter garden?**

**2.1 (5 minutes) Explain a square meter garden.** Square meter gardens are small gardens that are one meter wide by one meter long. The space is divided into 9 squares. In each square a different kind of vegetable is planted.



## **2.2 Ask members what they think the advantages of a square meter garden are.** Allow them to discuss for a few minutes.

### **Expected results:**

- takes up less space
- uses less water
- needs less work
- is easy to weed
- is easy to harvest the produce
- usually has fewer problems with disease and therefore doesn't require pesticides
- works well for people with limited mobility because gardens are smaller
- work well for people who do not own land
- because a new vegetable is planted as soon as one is harvested, the garden is in continual production. It can provide nutrition almost year round.

Square meter gardens are sometimes called *kitchen gardens* because they can be planted right outside the house. A square meter garden does not usually include staple foods like maize, rice or cassava, but nutritious vegetables or herbs.

Square meter gardens use the exact same science as larger, more traditional gardens but in a smaller space.

### **3. Explain square meter gardens.**

**3.1 (10 minutes)** Square meter gardens are usually raised beds that use garden soil with a lot of compost.

This is what you need to start a square meter garden:

- a few seeds per square meter
- the ability to make compost
- the ability to water by hand
- a sunny location or container

After a square meter garden is measured and dug, it is divided into sections for each different plant. The square meter is divided into 9 different sections, each about 33 cm on each side. (The meter is divided into thirds horizontally and vertically.) The smaller sections can be marked with sticks or twine to make the sections visible.

Different seeds are planted in each square to make sure that many types of crops are grown. Common spacing is one plant per square for larger plants, four plants per square for medium large plants, nine plants per square for medium-small plants, and sixteen per square for small plants.



How many plants per square?

1 plant: tomato, pepper, cabbage, kale, eggplant, amaranth, etc.

4 plants: Swiss chard, spinach, beans, greens, etc.

9 plants: onion, beetroot, peas, etc.

16 plants: carrots, scallions or spring onions, garlic, etc.

Plants that normally take up many meters of space as runners—such as cucumbers and melons—are grown vertically on sturdy frames that are hung with netting, or on strings to support the developing crops. They can also be planted on corners and allowed to run over the edge.

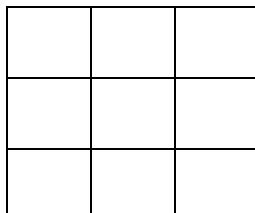
Square meter gardens use succession planting. Succession planting means that immediately after a crop is harvested from a square, compost is added and the square is re-planted. It is important to replant with a different crop for rotation. Crop rotation reduces disease and insect problems. You should NOT wait until the other 8 squares are harvested before replanting.

### **3.2 Have members decide how many of each plant can be planted in a square.**

Distribute the vegetable flash cards. Have members sort the cards into piles or rows according to the number of seeds per square that would be planted in a square meter garden. (Answers above.) Discuss why.

#### **4. (25 minutes) – Members design their own square meter gardens**

**4.1 Members design their own square meter garden** that they can plant at home or at school. Have members draw a square on their piece of paper and divide it into 9 sections. Members can also write their designs in their diaries or manuals.



#### **4.2 Have members label each section with the plant they would plant there.** Write the number of each plant per square.

**Example:**

Onions - 9	Tomato - 1



**Option:** Members may not be familiar with 9 different vegetables. The leader may need to help the members by using the vegetable flash cards to discuss different vegetables.

**Main points:** Do not plant vegetables from the same plant family next to each other. Discuss why.

**Answer:** Insects and diseases attack plants from the same family. By mixing plants, disease and insects cannot spread as easily.

If there is time available, members can draw the vegetable that they will plant after the original plants have been harvested. A plant from a different family should be planted in the old space. This is a type of crop rotation.

Remind the members about the importance of crop rotation. Show the crop rotation poster for help on plant families and the importance of crop rotation.

**4.3 (10 minutes) - Members share their design with other members.**  
Members should walk around the room and show their garden design to several other members.

**5. (5 minutes) - Summary and Debrief**

**5.1 Review the pages on square meter gardening in the Students Guide.**

**5.2 Ask the members these questions:**

- What did we do today?
- What are some of the advantages of planting a square meter garden?
- What garden concepts (theories) used in square meter gardens are used in traditional gardens?  
*Answer:* All – crop rotation, using compost, pest management
- How would you explain a square meter garden to your family members?
- Where can you plant a square meter garden at home?
- Should we plant a square meter garden at school? Why? Why not?

**6. (1 minute) – Close**

If members decided to plant a square meter garden at the school, discuss when they will do it. Plan some time to design the garden and choose what will be planted in what square. Also plan time to plant the garden. Students can plant more than one square meter.



**Note:** The concept or idea of square meter gardens is new to many people of all ages. Therefore they are afraid to try it. Also, many people don't like the idea of a square meter garden because the number of each different plant (and total produce) is less than in a large garden. However, square meter gardens are a good option for many people. It is valuable for members to understand how to plant and maintain this option. Because most members have not seen how to plant a square meter garden, clubs are an excellent place for demonstrations and practice.

