



Basic Vegetable Gardening

Lesson 8: Watering and Mulching

Lesson Summary: In this planning activity, members will learn the proper way to water the plants in the garden. They will learn when and how much water each plant needs. Members will also learn about the importance of mulching to conserve water, and finish the lesson by spreading mulch over the garden.

Intended Learning Outcomes:

Members will measure rainfall and determine if plants need additional water.

Members understand the advantages of mulching a garden.

Members spread mulch in the garden.

Length: 50 minutes

Materials:

Watering cans (jerry cans), pails/buckets

Measuring device such as a ruler

Organic or inorganic materials for mulching

Background: Watering and mulching the garden is an important part of Step 4 – Tending 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

Ask members to tell you why watering is important to plants. Ask if water is a problem for gardeners in this country. Do all farmers have enough water? Do some have to carry water from a well? Is there always enough rainfall? Members will probably say that having enough water is a problem. This lesson will review why knowing about proper watering can save both water and time.

2. (15 minutes) – Learning how to properly water the plants in the garden

Question to investigate: How much water is best for specific plants?

2.1 (15 minutes) Ask the group to brainstorm what they know about watering the plants in the garden. They have already planted and are tending to the garden, so they have much knowledge.

Expected results:

- Water is necessary for the plants to grow.
- Different plants grow at different rates, even if they are the same type of plant. They need different amounts of water. For example, bigger plants or trees may need more water than little flowers or vegetables.
- Some plants have long roots while other plants have branching roots (especially visible when they were transplanting plants).

Some questions to ask:

- Have we been watering each plant with the same amount of water?
- Have you noticed that some plants are growing taller than others, even if they are the same type of plant?
- Have you noticed some areas in the garden that look like they are not getting enough, or getting too much water?

- What can be done to conserve water?

Answer: Members may be able to collect rainwater by setting large containers outside during a rain. Then members can use that rainwater to water their garden.

Be sure to discuss how properly saving rain water is important for malaria prevention.

- How could we measure how much water, including rain, that our plants are getting?

Answer: It is easy to put a container outside to measure the amount of rain in the garden. Place a container near the garden, away from any buildings that would change the amount of rain that goes into the container. Make centimeter markings on the outside or inside of the container. It is helpful if the container is clear. If your group has not done this already, it is a simple project that can be done during a meeting.

In general, plants need about 3 cm of rain in 7 days. If they are receiving that much, then it may not be necessary to water the garden with additional water. If they are not receiving 3cm every week, then it may be necessary to supplement their water with water from a well or a river. The climate and soil in your area will determine how much water is needed.

- What time of day is best to water the plants?

Answer: It is best to water the plants in the morning or in the night. If it is really hot during the middle of the day and you water the plants, the water can get too hot for the plants, and it can also evaporate before filtering into the soil.



- Remind members that plants have different depths of roots. Plants that have roots along the top of the soil may need to be watered more often than plants that have deeper roots. The drawing below gives an example of plants with different root depths. Which ones will need to be watered more often?



3. (25 minutes) Learning how to mulch the garden

3.1 (5 minutes) Discuss mulching

One practice that will help conserve water is called mulching. Spreading mulch around the plants will help keep the water from evaporating. Today you will spread mulch around your plants.

Mulch is made up of coarse plant materials such as leaves, fibers, and wood chips. They can be placed directly into the garden at the base of plants or used to create pathways and borders. Using mulch has many benefits along with conserving water by protecting the soil from sun and wind evaporation.

Mulching also

- Controls weeds by blocking sunlight to reduce weed growth
- Insulates soil by keeping soil cooler in hotter temperatures
- Reduces erosion by slowing the flow of water during heavy rains
- Improves soil structure by reducing the compaction of soil
- Increases biological activity by adding nutrients to the soil.

3.2 (20 minutes) Go outside and mulch the garden

Everyone can go to the garden and spread the mulch around the base of the plants. Be careful not to cover the plants with the mulch. It should simply be spread around the base of the plants, out to about a 25cm. Depending on the design of your garden, it may also be helpful to spread mulch in the paths or walkways. If your garden has a lot of weeds, remove the weeds before spreading the mulch.

4. (5 minutes) - Summary and Debrief

4.1 Ask the members the following questions:

- What did we do today?
- Why is it important to keep track of the amount of water the garden is getting?
Answer: It is important so you can determine if the garden needs additional water.
- Why is it important to spread mulch around the plants?
- Do you think it would be important to spread mulch around plants you are planting at home?
- What materials do we have around the school or around your home that you can use for mulch?
- Do you think it would be important to spread mulch around plants that were planted in small containers?

Answer: it would not be necessary because plants in small containers usually are not affected by a large amount of weeds. However, it would still help to stop the water from evaporating.

- What are some other ways we could conserve water in the garden?
Answer: It may be possible to provide shade for the garden, which would limit the amount of water that evaporates.

We can also plant crops close together, like in a square meter garden, so that plants use rainfall more efficiently.

5. (1 minute) - Close



Tell members that at the next meeting they will learn about natural pesticides and insecticides.