

# Specialized Garden Designs

# Unconventional spaces and urban gardening



# Unconventional spaces and urban gardening

## LEARNING OBJECTIVE

Gardeners will learn techniques for growing gardens in small, unconventional spaces.

## DURATION



## MATERIALS NEEDED

### Bring with you:

- Flipchart and pens
- Container types for all three kinds of gardens (horizontal sack gardens, vertical sack gardens, and container gardens)
- A cylindrical tube (such as downpipes for rainwater harvesting or a bucket or tin that has been opened on both ends) that can be used to add a column of rocks into the center of the vertical sack garden. The diameter of the tube should be smaller than the diameter of the sack.
- Multiple seed options
- Seedlings for demonstration
- A knife for cutting holes in containers and sacks

### Prepare at the training site:




- Water
- Rocks
- Mulching material
- Compost, composted manure, and/or high-quality soil



## KEY CONCEPTS

- Not every household has a backyard or field where they can build a garden. But that's ok! Plants can grow almost anywhere if they have a bit of soil, sunlight, and water.
- Just a few well-chosen plants can help families access more vegetables that can be incorporated into their daily meals.
- If space is an issue for your area, consider if container or sack gardens are appropriate for your participants.

## TRAINING AGENDA

1	Introduction to container or sack gardening	 DISCUSSION	30 min
2	Identifying container or sack garden resources around us	 PRACTICAL ACTIVITY	1 hour
3	Building container and sack garden	 PRACTICAL ACTIVITY	1.5 hour

# 1. Introduction to container or sack gardening

## INTERACTIVE DISCUSSION

---

**GOAL OF DISCUSSION:** Gardeners learn how to identify new resources and spaces that can help them grow vegetables in containers or sacks to improve their daily diets.

---

**MATERIALS NEEDED:** Flipchart and markers

---

1. Introduce the concept of container or sack gardening to gardeners.
2. Ask gardeners to brainstorm vegetables that are well suited to grow in a container or sack and list these vegetables and their benefits for all to see. Have gardeners think about what they like to eat and discuss if it can be grown in a container.
3. Remind gardeners of the 5 Resources categories introduced in Identifying Resources. Ask gardeners to name resources that could be used in container or sack gardening. Encourage gardeners to think creatively about the resources around them.
4. Discuss with gardeners the best places to put a container or sack garden. The key characteristics of a good site for a container or sack garden are similar to those of a good garden site, as introduced in Site Evaluation.

---

## KEY MESSAGES

---

### WHAT IS A CONTAINER OR SACK GARDEN?

- Container gardens use different kinds of buckets, pots, barrels, baskets, tins, boxes or other containers to produce vegetables. The container must be large enough to hold the plant(s) you want to grow, and have drainage holes so excess water can escape. Care should be taken with dark-colored containers that might retain too much heat in hot months.
- Sack or bag gardens use sacks with drainage holes in them to produce vegetables. Sacks can be placed either upright or on their sides.
- Container or sack gardens can be used by gardeners who are limited in the planting space available to them, experience a lot of crop theft in their area, or are limited in their personal mobility to fields because of cultural norms or safety conditions in their area.
- Gardeners can place either individual plants or a small assortment into a vessel that is then are placed in well-thought out areas around a household.

### WHAT VEGETABLES SHOULD I GROW IN MY CONTAINER OR SACK GARDEN?

- The depth of the container will determine the type of root structure that will fair best. Shallow containers, such as a jerrycan cut in half, will be best suited for shallow or fibrous rooted vegetables, such as leeks. Large containers, such as rice sacks, can grow vegetables with more extensive root systems, such as tomatoes.
- Local indigenous vegetables are hardy species that may grow well in container or sack gardens.
- What vegetables will provide ample yields that can easily be incorporated into family meals? For example, chard leaves can be harvested regularly and used in cooking daily for many months while taking up very little space. Bushy plants, like eggplants, may take up a lot of space while only yielding a few fruits.

## 2. Identifying container or sack garden resources around us

### PRACTICAL ACTIVITY

**GOAL OF ACTIVITY:** Gardeners are encouraged to become observers of their own environment, identifying the richness of resources that they do have around them that can help them build a container or sack garden.

**FACILITATOR PREPARATION:** Select a training site where gardeners can walk around their community freely to find resources that can be used for container gardening. They will need to end at a homestead or other suitable place where they can identify locations to place garden containers.

**STEP 1.** Organize gardeners to go on a group walk to identify natural resources in their local area that are useful for container or sack gardening. Many of the resources needed for container or sack gardening are freely available: discarded containers/sacks, rocks, animal manures, or plants that can be used for mulching. Ask gardeners to each pick up at least one resource on their walk to bring back with them.

**STEP 2.** After the walk, gather gardeners in a circle and ask them to show their resource to the group. They should explain what their resource is and what it is used for. Encourage gardeners to explain how the resource will help them grow plants in unconventional spaces.

**STEP 3.** Ask gardeners to look around and identify sites where garden containers or sacks can be placed. In addition to spaces on the ground, have gardeners think about vertical or above-ground options.

### KEY MESSAGES

- Useful resources for sack or container gardens are all around us, such as manure, ash and fertiliser plants such as *Tithonia diversifolia*.
- Containers or sacks can be placed on window sills, rooftops if they are accessible and partially shaded, low walls, or in places where vining plants, such as squashes or climbing beans, can fill vertical spaces.



# 3. Building container and sack gardens

## PRACTICAL ACTIVITY

**GOAL OF ACTIVITY:** Gardeners participate in building three types of gardens (horizontal sack gardens, vertical sack gardens, and container gardens) and learn the skills required to repeat the exercise on their own.

### MATERIALS NEEDED:

**Bring with you:**

- Flipchart and pens
- Container types for all three kinds of gardens (horizontal sack gardens, vertical sack gardens, and container gardens)
- A cylindrical tube (such as downpipes for rainwater harvesting or a bucket or tin that has been opened on both ends) that can be used to add a column of rocks into the center of the vertical sack garden. The diameter of the tube should be smaller than the diameter of the sack.
- Multiple seed options
- Seedlings for demonstration
- A knife for cutting holes in containers and sacks

**Prepare at the training site:**

- Water
- Rocks
- Mulching material
- Compost, composted manure, and/or high-quality soil

**STEP 1.** Set up three stations around the training site, one for building a horizontal sack garden, one for a vertical sack garden, and one for a container garden. Assemble the necessary equipment at each site, such as soil, compost, and rocks, or put it in a centralized location where all can easily access it.

**STEP 2.** Do each station with gardeners gathered around and explain the steps as you go.

**STEP 3.** Discuss with gardeners the benefits of each style of container garden and how each might be used for different crops and spaces.

## KEY MESSAGES

- Container and sack gardens are beneficial for small spaces and places with no arable land, such as in urban spaces. When you add high-quality soil and compost to the container it will stay loose and fluffy for longer, but poor quality soil will easily become compacted. Container gardens will need to be watered more frequently than plants in the ground as water easily evaporates out.
- All manner of sacks and containers can be used for gardening. Encourage gardeners to be creative!

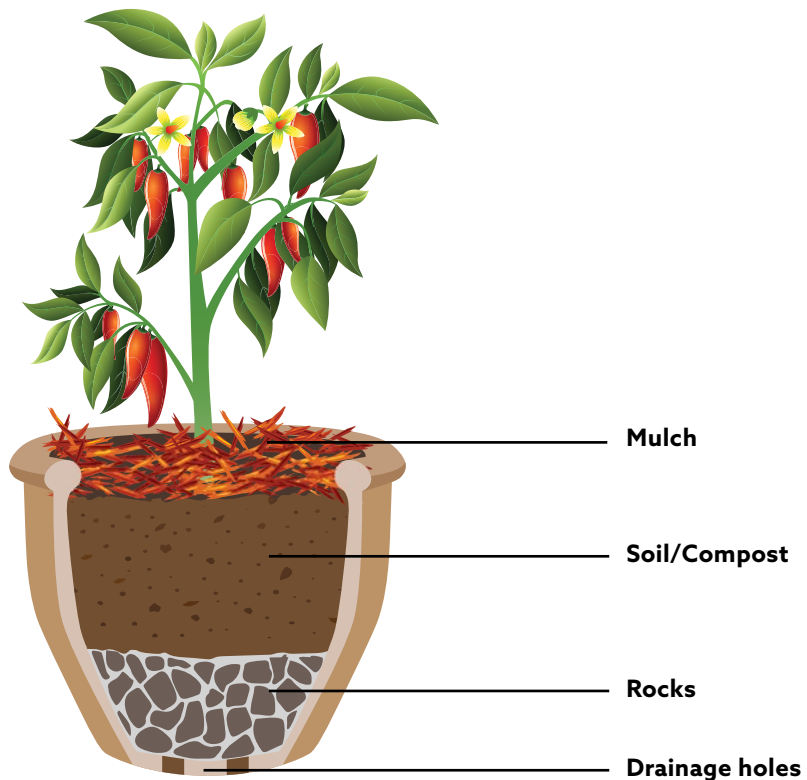




## HOW TO

## BUILD A CONTAINER GARDEN

1. You can use many different kinds of buckets, pots, barrels, baskets, tins, or boxes to produce vegetables. Look for containers that are at least 25 cm (10 in) wide and 30 cm (12 in) deep. Bigger containers hold more soil and retain moisture longer, so you do not have to water as much.
2. On the side, mix soil and compost together in a 50/50 ratio.
3. Poke several holes in the bottom of the container for drainage.
4. Add a layer of rocks at the bottom of the container about 3 cm (1 in) deep.
5. Fill the container with the soil/compost mixture plus manure if available. Leave about 8 cm (3 in) space at the top so there is room to water.
6. Thoroughly water the soil in the container before adding seeds or seedlings. Soak the soil completely, then allow it to sit for a few hours to drain excess water. This time can be reduced during a demonstration but stress to gardeners that the soil should not be waterlogged when seeds are introduced.
7. Sow seeds directly into container or use seedlings. If using seedlings, leave 8–10 cm (3–4 in) of space in between each plant, or according to the seed spacing recommendations. Set seedlings in the soil at the same level they were growing in their pot.
8. Cover the soil in the container garden with a layer of straw, old leaves, or other mulching material to prevent it from drying out.
9. Check plants daily and water when necessary to keep them healthy and productive.
10. Starting about a month after planting, vegetables should be fed about once a week with botanical manure tea.
11. Plants that grow tall or produce vines, like tomatoes and cucumbers, will need support in a container, such as poles or a wire mesh cage.

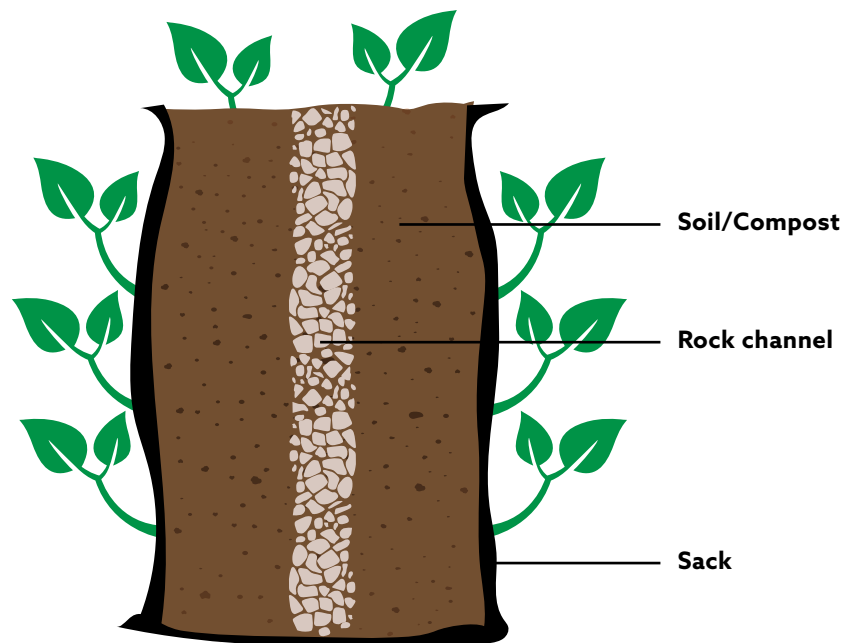




## HOW TO

## BUILD A VERTICAL SACK GARDEN

1. Carefully choose the location for the sack garden as it is challenging to move when full of soil.
2. On the side, mix soil and compost together in a 50/50 ratio.
3. Place about 12 cm (5 in) of the soil/compost mixture at the bottom of the sack. Set the cylindrical tube in the center of the sack and fill with rocks. Surround the tube with soil until you reach the upper rim of the tube. Then slowly lift up the tube so that the rocks remain in the center. Again set the tube in the middle of the sack and fill it with rocks. Surround the tube with more soil. Lift the tube up when this layer of rocks and soil are in place. Repeat until the sack is full. This "rock channel" will make it easy to water your sack garden. Alternatively, you can use some wire mesh, make a cylinder, and set it in the middle of the bag. Fill it with rocks, and then add the soil all around to the top of the sack. The cylinder will stay in the center of the sack.
5. Poke holes into the side of the sack at an even distance about 20 cm (8 in) apart.
6. Transplant seedlings into the holes and tamp soil lightly around the roots.
7. Beets, carrots, lettuce or other vegetables or herbs can be direct-seeded on the top of the sack.
8. Water your sack garden from the top: Pour water into the rock channel until it comes out of the bottom holes.





## HOW TO

# BUILD A HORIZONTAL SACK GARDEN

1. Carefully choose the location for the sack garden as it is challenging to move when full of soil.
2. On the side, mix soil and compost together in a 50/50 ratio.
3. Fill the sack with the soil/compost mixture.
4. Sew up or secure the opening of the sack. Lay the full sack flat on the ground or surface.
5. Poke 1 cm (0.5 in) wide drainage holes into the bottom side of the sack at an even distance about 10 cm (4 in) apart. If the sack is made from loosely woven material that will allow water to drain, you do not need to do this step.
6. On the top side of the sack, cut hole openings for seedlings, or cut row openings for seeds.
7. Transplant seedlings into the holes and tamp soil lightly around the roots OR sow seed in rows at the appropriate depth.
8. Water your sack garden gently from the top.

