

How to Build Your Trench Garden

What is a trench garden?

Trench gardens look similar to conventional garden plots, but the difference is that they contain fertilizing and moisture-retaining layers dug into the ground.

The layers of the trench garden retain moisture and nourish the soil, making it more productive than a conventional garden. Also, the garden is made from materials that are all available at low cost.

Trench gardens are well-suited for small- and medium-sized crops such as spinach, carrots, onion, beetroot, radish, turnips, garlic, rape, cabbage, tomatoes, peppers and chilies, peas, potatoes, eggplant, beans, herbs, and squash.

Benefits of the trench garden

Soil enrichment

- The layers of organic materials decompose over time, adding nutrients to the soil.
- The manure or compost included in the trench provides nutrients for plants.

Labor saving technology

- The soil nourishment and moisture retention reduce the amount of time required to maintain the garden.

Low-cost design

- All construction materials should be readily available (at low cost) to gardeners.
- Gardeners might need to purchase seeds for planting, however.

Moisture retention

- The layers soak up moisture, so the garden requires less water to remain moist.

Year-round vegetable production

- The stones of the garden wall absorb heat from the sun, protecting crops from the cold winter temperatures in Lesotho.

Materials needed to construct your trench garden

Stones and rocks no smaller than fist size	Spades
Thatching grass and leaves	Free-fallen aloe leaves and tree branches found along the roadside
Tin cans or cardboard	About 15 wheelbarrows of manure

Note: the materials for the trench garden can be gathered before construction begins. It is ideal to locate materials that are naturally occurring in the community.

Steps in Construction

- Collect stones, fallen aloe, branches, manure, and grass.

- Measure out a 1 meter by 2 meter plot of land.
- Within the 1 by 2 meter plot of land, dig a trench that is about the length of a shovel deep.

- For the first layer of the trench, lay down aloe, twigs, tin cans or cardboard.

- On top of this aloe layer, add soil, followed by thatching grass and leaves.

- Next is a thin layer of soil, followed by a thick layer of manure.

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- Top the garden off with a mixture of soil and manure. Form the mounded edge of the garden just as you would with a conventional plot.
- Line the edge of the garden with flat stones.

Key points

- Between all of the layers (aloe/tin, thatching grass/leaves, and manure) is a layer of soil, which helps the biodegrading process.
- Placing rocks and stones around the edge of the garden prevents damage caused by erosion and allows for heat retention.

Maintenance of the trench garden

Watering

- The garden should be watered regularly so that the garden soil is moist.
- Clean water is used on the topsoil.

Soil

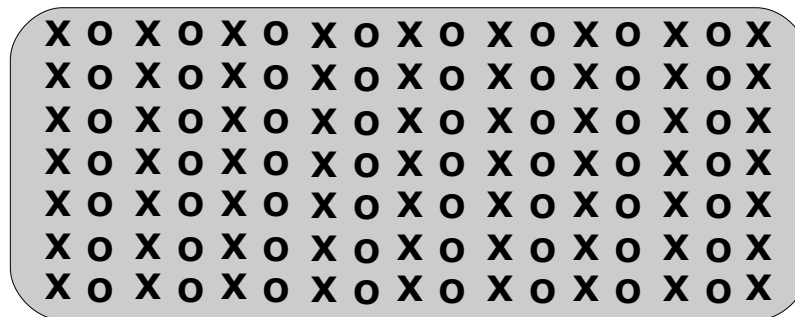
- Dry manure and compost should be added to the garden when possible so that it does not become sapped of its fertility.

Garden construction

- Over time, the garden may lose its nutrients, and vegetables stop growing well. You then need to rebuild the garden. This is usually done every 4–5 years.

Planting your trench garden

Space, soil nutrients, and pest management are key considerations in planning your garden. Companion planting is planting different kinds of crops together in the same garden in order to best satisfy those needs. Different methods include planting leafy crops next to root vegetables or planting pest-resistant vegetables (like onion or garlic) next to regular crops. To best ensure that your garden will stay fertile and resist pests, plant a minimum of **four vegetable types**.



One idea for companion planting.

X: leafy plants

O: root plants

Succession planting

Succession planting is planting gardens in regular time intervals so that you can harvest vegetables from one garden while another is still maturing. Consider building three or four trench gardens and planting in one garden each week. By the time the fourth garden is being planted, you will be able to harvest vegetables from the first garden.

You can plant a garden again within a week after harvesting. This way, you can keep a constant supply of vegetables coming from your trench gardens.

