

Making vegetable beds

1st method - Two-layers bed

- Prepare the bed to be about 1 meter wide and as long as needed
- Dig the first layer about 10–15 cm deep and set the soil aside
- Mix this soil with approximately 30% plant residues (e.g. dried bean husks or straw)
- Then dig the second layer another 10–15 cm deep and break up the soil into a fine texture
- Mix it with around 20% plant residues (e.g. peanut shells or dry grass), and add 2 kg of organic compost per square meter
- Refill the bed by covering the second layer with the prepared mixture from the first layer
- Let the bed dry in the sun for about 7 days before use

2nd method - Single-layer bed

- Prepare the bed to be about 1 meter wide and as long as needed
- Loosen the soil by digging to a depth of about 20 cm
- Mix the soil with approximately 20% plant residues and 2 kg of organic compost per square meter
- Turn the bed over to ensure even mixing
- Let the bed dry in the sun for about 7 days before use



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Material

Grab-hoe, shovels, knife, buckets, sprinkler, plastic sheet

Land improvement (twice a year)

First time (rainy season from May to October)

-Level the soil or raise the beds 15–20 cm above ground level

Second time (dry season from November to April)

-Mulch the soil surface or bury organic matter 1–2 cm deep

Benefits of these methods

-Mixing soil with plant residues and compost increases fertility and improves soil structure. Loose soil allows better aeration and drainage, and also helps suppress weeds

-Exposing the soil to sunlight for a few days before use helps eliminate pests and weed seeds

-Land improvements are necessary to enhance drainage, conserve water, manage high humidity, and maintain adequate soil moisture

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Technical Leaflet ORGANIC VEGETABLE GROWING TECHNIQUES



Location of Implementation
Pek District, Xiangkhouang
Province, Laos

Agroecological system:

Zone	Main activities	Climate	Rainfalls	Temperature
Plain	Rice, maize, organic vegetables and livestock	Subtropical highland climate (rainy season: May to October)	~1500–2000 mm/year	Avg max: 23°C - Avg min: 14°C

Integrated cropping

Integrated cropping is a sustainable approach to vegetable farming that promotes higher yields, healthier soils, and natural pest control. It combines practical, low-cost methods to support resilient and efficient agricultural practices.

General sowing (rainy season)



This refers to sowing seeds directly into garden beds or fields. For very small seeds, it's best to use a small container or box with a lid to help distribute them evenly. Make small holes in the lid to sprinkle the seeds uniformly. After sowing, lightly cover them with compost or soil, and water gently until the soil is moist.

Fertilizer application (dry season)



Fertilizer application should be based on the soil fertility of each area and follow the recommended rates for garden use. In general, organic compost is applied twice per vegetable cycle at a rate of 1 kg per 2 square meters. The first application is made when the plants develop their first two leaves, and the second is applied once the plants reach maturity.

Mulching



After planting the vegetables, cover the soil evenly with straw, dry grass, or fresh bean leaves. This helps suppress weed growth, prevents soil from splashing onto the leaves, and retains moisture in the soil. Mulching is a simple and effective way to protect and care for your crops.

Crop rotation



Crop rotation involves planting different types of crops each season. Growing the same crop repeatedly can lead to a buildup of pests and diseases, making plants more vulnerable to insect damage.

Transplanting



This method involves sowing seeds in one location and later transplanting the seedlings to another. Use a stick or small tool to gently lift the seedlings with soil around their roots. This helps the plants establish more easily and promotes healthy leaf growth.

Watering



Watering should be adjusted according to weather conditions to keep the soil evenly moist—not too wet and not too dry. Check soil moisture twice a day. In the dry season, water the plants in the morning and again in the evening. In the rainy season, once a day is usually enough. (This applies to home gardens only.)

Planting in holes



Dig individual holes and plant 1 to 3 seedlings in each. You can also sow seeds directly into the holes or transplant seedlings into larger plots when water is limited. In some cases, holes are placed in the center of the bed to make better use of space.

Harvesting



Harvesting depends on the type and maturity of each vegetable. It's best done in the early morning or evening when temperatures are cooler, and the plants should be watered beforehand. To keep vegetables fresh longer, leave the roots attached and wrap them upright in bamboo leaves. Avoid packing them too tightly, as this can lead to overheating and faster spoilage.