

Gardening

Week Three



Soil Regeneration: From Dirt to Living Soil



Introduction to Permaculture

Permaculture is a sustainable farming practice that mimics natural ecosystems.

Permaculture focuses on regenerating soil health and biodiversity.

Permaculture emphasizes organic methods and holistic approaches.

Clear vs. Black Plastic for Weed Suppression

Clear Plastic:

- 1. Heats soil to kill weed seeds, pathogens, and pests.**
- 2. Best for heavy weed seed banks and full sun areas.**

Black Plastic:

Blocks light to smother weeds and encourage decomposition.

Best for established grasses and cooler climates.

Permaculture Tip: Use clear plastic for sterilizing soil and black plastic for building soil.

Creating Soil

Add Organic Matter:

- Compost, leaf litter, straw, wood chips.
- Feeds soil microbes, improves structure, enhances water retention.

Mulching:

Apply thick layers of mulch to suppress weeds and retain moisture.

Sheet Mulching:

Layer cardboard/newspaper, compost, and mulch to smother weeds and build soil.

Role of Microorganisms and Worms in Soil Health

Microorganisms:

- Bacteria, fungi, and other microbes play roles in nutrient cycling and soil structure.
- Use compost teas and cover crops to feed microbes.

• Worms:

- Earthworms aerate soil, improve drainage, and decompose organic matter.
- Encourage worm activity by adding organic matter and avoiding synthetic chemicals.

Practical Tips

- Rotate crops to prevent soil depletion.
- Use polycultures and companion planting for biodiversity.
- Avoid synthetic chemicals to protect soil life.
- Implement no-till or low-till farming practices.

Companion Planting Made Easy

Warm Season Plant
Combo Number One

Tomatoes, Eggplants, Peppers, Basil, & Marigolds



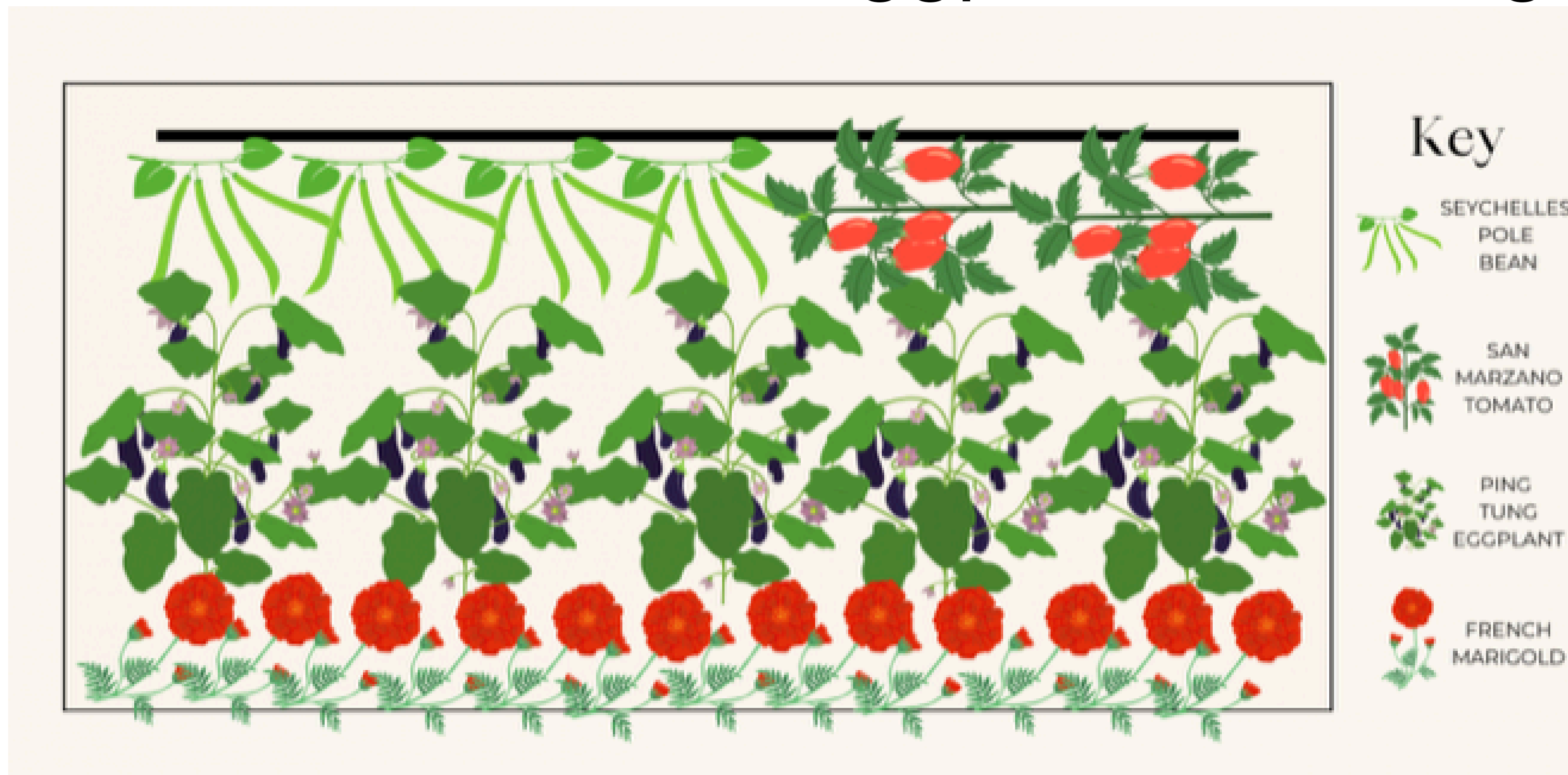
Cucumbers, Bush Beans, Jalapeño Peppers, & Marigolds



Squash, Pole Beans, Bell Peppers, & Marigolds



Pole Beans, Tomatoes, Eggplants, & Marigolds



Cherry Tomatoes, Banana Peppers, Bush Beans, & Mini Sunflowers



Questions?