

The Beginner's Guide to Permaculture Gardening



Everything You Need to Start Growing a Self-Sustaining Garden

- The 3 ethics & 12 principles explained simply
- Soil building, composting & no-dig methods
- Companion planting quick-reference
- Design your own 7-layer food forest
- Water-smart gardening techniques
- Zone planning for any size space
- Your first weekend project: step by step

Welcome, Fellow Gardener

You picked up this guide because something about your garden feels like it could be more. Maybe you are tired of battling pests every season, buying bags of fertilizer, or watching perfectly good rainwater run off down the driveway. You are not alone. Millions of gardeners around the world have discovered that nature already solved these problems, and the solution looks like a forest.

Permaculture is simply the art of designing gardens (and lives) that work with nature instead of against it. It was developed in the 1970s by Bill Mollison and David Holmgren in Australia, and has since spread to every continent. The word itself blends 'permanent' and 'agriculture' and later 'permanent culture,' because the principles apply far beyond the garden.

This guide distills the core ideas from some of the best permaculture literature, including Toby Hemenway's *Gaia's Garden*, David Holmgren's *Principles & Pathways*, Ross Mars' *Basics of Permaculture Design*, and our own 46 articles on growperma.com, into a practical starting point you can act on this weekend. No ten-acre farm required. A balcony, a backyard, or a community plot will do.

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What Is Permaculture?

The ethics and principles that guide everything

At its core, permaculture is a design system. It is not a set of gardening techniques but rather a way of thinking about how the pieces of your garden (or farm, or household) connect. As Hemenway puts it, an ecological garden is more than the sum of its parts, because the relationships between plants, soil, water, insects, and people create something greater than any single element could achieve alone.



The Three Ethics

Earth Care

Take only what you need and replenish what you take. Build soil instead of depleting it. Catch and store water. Support biodiversity.

People Care

Ensure that all people have access to the resources they need to thrive. Share knowledge freely. Grow food that nourishes your family and community.

Fair Share

Set limits on consumption and redistribute surplus. When your apple tree produces 200 pounds (90 kg) of fruit, share with neighbors, compost what falls, and feed the birds.

Why This Works

Every technique in this guide traces back to these three ethics. When you are unsure whether to spray, dig, or buy, ask: Does this care for the earth? Does it care for people? Does it share the surplus? If the answer is yes to all three, you are on the right track.

The 12 Permaculture Design Principles

Developed by David Holmgren | Your garden's operating system

1 Observe & Interact

Spend a full year watching your site before making big changes. Where does water pool? Where is the sun strongest?

3 Obtain a Yield

Every garden must feed you. It is fine to grow beauty, but make sure some of that beauty is edible.

5 Use Renewable Resources

Mulch with leaves from your own trees. Compost your kitchen scraps. Let nitrogen-fixing plants fertilize the soil.

7 Design from Patterns to Details

Plan the big picture first. Where are the paths, water sources, and sun angles? Then choose individual plants.

9 Use Small & Slow Solutions

Start with one 4 x 8 foot (1.2 x 2.4 m) bed. Master it. Then expand. A small garden well tended beats a large one neglected.

11 Use Edges & Value the Marginal

The edge where lawn meets garden is the richest zone. Wavy bed borders create more edge, which means more planting space.

2 Catch & Store Energy

Harvest sunlight, rainwater, and organic matter. A rain barrel, a compost pile, and a south-facing wall are energy banks.

4 Apply Self-Regulation & Feedback

If your tomatoes get blight every year, that is feedback. Change the variety, the location, or the watering pattern.

6 Produce No Waste

A weed is a plant whose virtues have not yet been discovered. Dandelion greens are a salad. Grass clippings are mulch.

8 Integrate Rather Than Segregate

Plant polycultures, not monocultures. A tomato, basil, and marigold bed outperforms any of those plants grown alone.

10 Use & Value Diversity

Grow 30 species instead of 3. Diversity means resilience. If one crop fails, eleven others still produce.

12 Creatively Use & Respond to Change

Your garden will surprise you. Embrace volunteers, adapt to shifting seasons, and treat every failure as data.

Soil: The Foundation

Build living soil and everything else follows

Healthy soil is the single most important factor in a productive garden. One teaspoon of healthy garden soil contains more microorganisms than there are people on Earth. These bacteria, fungi, protozoa, and nematodes form a living network that breaks down organic matter, makes nutrients available to plant roots, and even protects against disease.



1 tsp

Contains billions of microorganisms

6 inches

Of topsoil takes 1,000 years to form naturally

50%

Of healthy soil is air and water space

Five Ways to Build Soil (Without Digging)

- 1 Sheet mulch (lasagna method): Layer cardboard, compost, and straw directly over grass. The soil food web breaks it down for you.
- 2 Compost everything: Kitchen scraps, garden waste, coffee grounds, shredded cardboard. A simple bin produces black gold in 3 to 6 months.
- 3 Grow cover crops: Plant clover, vetch, or winter rye in empty beds. They fix nitrogen, prevent erosion, and feed soil biology when chopped and dropped.
- 4 Mulch constantly: 3 to 4 inches (8 to 10 cm) of wood chips, straw, or leaf litter suppresses weeds, retains moisture, and feeds earthworms.
- 5 Chop and drop: Instead of removing plant debris, cut spent plants at ground level and leave the roots to decay in place. The root channels become highways for water and air.

The No-Dig Promise

Charles Dowding's 10-year no-dig trial found that undisturbed soil produced higher yields than dug beds while requiring less weeding and no synthetic fertilizer. The secret: healthy soil structure acts like a sponge, holding moisture and nutrients where roots can reach them.

Companion planting is the practice of growing certain plants together for mutual benefit. Some plants repel pests, others attract pollinators, and many fix nitrogen or provide shade for their neighbors. This is not folklore: university extension research has confirmed that strategic plant pairings reduce pest damage by 40 to 60 percent in field trials.



Top Companion Planting Combinations

Tomato + Basil

Basil repels aphids, whiteflies, and hornworm moths. Plant one basil for every two tomatoes, 12 inches (30 cm) apart.

Corn + Beans + Squash

The Three Sisters: corn provides a living trellis, beans fix nitrogen, squash shades the soil and deters raccoons.

Carrots + Onions

Onions mask the scent that attracts carrot fly, and carrots repel onion fly. Alternate rows for best results.

Roses + Garlic

Garlic planted around roses repels aphids and may reduce black spot. Plant cloves 6 inches (15 cm) from the rose base.

Cabbage + Dill

Dill attracts parasitic wasps that prey on cabbage worms, reducing damage by up to 60 percent.

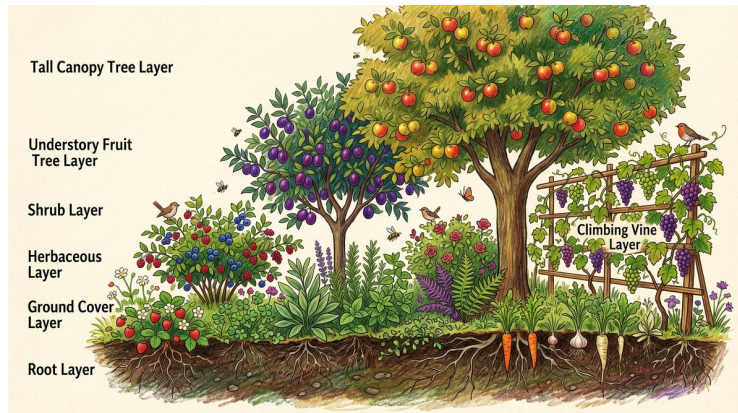
Avoid These Pairings

Fennel inhibits most vegetables. Keep beans away from alliums (onions, garlic). Black walnut trees release juglone, which is toxic to tomatoes, peppers, and eggplant within 50 feet (15 m). Potatoes and tomatoes share blight, so separate them by at least one bed.

The 7-Layer Food Forest

An edible ecosystem in your backyard

A food forest mimics the structure of a natural woodland, but every layer is edible, medicinal, or useful. Once established (typically 3 to 5 years), a food forest requires dramatically less maintenance than a traditional vegetable garden because the ecosystem manages its own fertility, pest control, and water retention.



The Seven Layers

- 1 Canopy (30+ ft / 9+ m): Nut and large fruit trees like walnut, chestnut, and apple. These set the architecture of your food forest.
- 2 Understory (10-30 ft / 3-9 m): Smaller fruit trees like plum, pear, fig, and dwarf apple. They thrive in the dappled light beneath the canopy.
- 3 Shrub (3-10 ft / 1-3 m): Berry bushes like blueberry, currant, gooseberry, and elderberry. These are often the first to produce a harvest.
- 4 Herbaceous (under 3 ft / 1 m): Perennial vegetables and herbs like comfrey, rhubarb, oregano, and artichoke. Comfrey is the ultimate multitasker: fertilizer, mulch, and medicine.
- 5 Ground Cover (soil level): Low-growing plants like strawberry, clover, creeping thyme, and sweet potato. They suppress weeds and retain moisture.
- 6 Root (underground): Garlic, horseradish, Jerusalem artichoke, and turmeric. These occupy space that other layers cannot reach.
- 7 Climber (vertical): Grapes, kiwi, passionfruit, and scarlet runner beans. They use trees and trellises to reach sunlight without competing for ground space.

Start Small: The Backyard Food Forest

You do not need acreage. A 20 x 20 foot (6 x 6 m) patch can hold one canopy tree, two understory trees, six shrubs, a dozen herbaceous plants, ground cover, root crops, and a grape vine. In five years, this mini food forest can produce 100+ pounds (45+ kg) of food per year with just a few hours of maintenance per month.

5

Water-Smart Gardening

Catch it, slow it, spread it, sink it

Water is the most undervalued resource in most gardens. Every inch (25 mm) of rain that falls on a 1,000 square foot (93 sq m) roof delivers 623 gallons (2,360 liters) of free irrigation. Permaculture teaches us to slow water down, spread it across the landscape, and sink it into the soil rather than letting it rush away.



Four Water Strategies for Any Garden

- 1 Rain barrels: Connect a 55-gallon (208 L) barrel to each downspout. One barrel waters a 4 x 8 foot bed for a week without rain.
- 2 Swales on contour: Dig a shallow trench along the contour of a slope and plant the downhill berm. Water soaks in instead of running off, recharging groundwater.
- 3 Mulch moisture retention: A 4-inch (10 cm) layer of wood chip mulch reduces water evaporation by up to 70 percent compared to bare soil.
- 4 Greywater reuse: Where local codes allow, redirect laundry and shower water to fruit trees. One household generates 20 to 40 gallons (75 to 150 L) per day.

The Permaculture Water Rule

Slow it, spread it, sink it. Every drop of water should pass through as many living systems as possible before leaving your property. A single swale and mulch layer can halve your irrigation needs.

Permaculture zones organize your garden by frequency of use. The herbs you snip every evening belong right outside your kitchen door (Zone 1). The compost pile you turn weekly goes a bit further out (Zone 2). The fruit orchard you visit seasonally sits in Zone 3. This simple framework saves you thousands of steps per year and ensures the plants that need the most attention get it.



The Five Zones

- 1 Zone 0 - The Home: Your kitchen, pantry, and indoor seedling station. Keep a windowsill herb garden and a worm bin under the sink.
- 2 Zone 1 - Daily Harvest: Salad greens, cooking herbs, strawberries, and the outdoor tap. Visit this zone every single day without even thinking about it.
- 3 Zone 2 - Managed Garden: Main vegetable beds, compost bins, chicken coop, and trellised crops. You visit this zone every few days for watering and harvesting.
- 4 Zone 3 - Orchard & Staples: Fruit trees, nut trees, larger berry patches, and grain crops. Managed seasonally with mulch and pruning.
- 5 Zone 4 - Semi-Wild: Native plantings, wildflower meadows, and firewood trees. Minimal management, maximum biodiversity and habitat value.

Adapting Zones to Small Spaces

In a suburban backyard, all five zones might fit in 2,000 square feet (185 sq m). On a balcony, Zone 1 is your railing planters and Zone 2 is your largest container. The principle scales to any size: put what you use most often closest to your daily path.

The best way to learn permaculture is to get your hands in the soil. This project takes about 2 to 3 hours and costs under \$50. By Sunday evening, you will have a productive garden bed that builds soil while you sleep.



What You Need

- Cardboard (enough to cover your bed area, tape and staples removed)
- Compost: 4 to 6 inches (10 to 15 cm) deep. Buy in bulk or use your own
- Straw or wood chip mulch: 3 to 4 inches (8 to 10 cm) for the top layer
- Seedlings or seeds for your first planting
- A garden hose or watering can

Step by Step

- 1 Choose your spot: Pick a sunny area (6+ hours of direct sun). A 4 x 8 foot (1.2 x 2.4 m) rectangle is the perfect starter size.
- 2 Mow or flatten: Cut any grass or weeds short, but do not remove them. They become food for soil organisms.
- 3 Lay cardboard: Overlap sheets by 6 inches (15 cm) so weeds cannot find gaps. Wet it thoroughly with the hose.
- 4 Add compost: Spread 4 to 6 inches (10 to 15 cm) of compost evenly over the cardboard. This is your planting medium.
- 5 Mulch the top: Add 3 to 4 inches (8 to 10 cm) of straw or wood chips. Pull mulch aside when planting seedlings.
- 6 Plant and water: Push seedlings through the compost layer. Water deeply. The cardboard decomposes in 2 to 3 months.

What to Do This Week

- 1 Day 1: Walk your garden and observe. Where is the sun? Where does water collect? Where is the soil richest? Write it down.
- 2 Day 2: Start a small compost pile or bin. Even a 3 x 3 foot (1 x 1 m) heap in the corner transforms kitchen waste into garden gold.
- 3 Day 3: Choose your sunniest spot and mark out a 4 x 8 foot (1.2 x 2.4 m) rectangle for your first no-dig bed.
- 4 Day 4: Source cardboard (appliance boxes are perfect) and order or pick up compost and straw.
- 5 Day 5-6: Build your no-dig bed following the steps in Chapter 7. Plant your first seedlings.
- 6 Day 7: Sit in your garden with a cup of tea. Watch the birds arrive. Notice what is already growing. You have begun.

Recommended Reading

- Gaia's Garden by Toby Hemenway - The best introduction to home-scale permaculture. Practical, well-organized, and beautifully illustrated.
- Permaculture: Principles & Pathways by David Holmgren - Goes deeper into the 12 design principles from the co-ordinator of permaculture.
- The Basics of Permaculture Design by Ross Mars - A clear, readable overview of the full design process from site analysis to implementation.
- Restoration Agriculture by Mark Shepard - How to create productive perennial agricultural systems modeled on the native ecosystems.

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