

Beacon's GrowGuide



The Complete Companion Planting Guide

Nature's Perfect Pairings for a Thriving Garden

A Beacon Ranch Studio Project

What is Companion Planting?

Companion planting is the practice of growing different plants together that benefit each other. These plant partnerships can boost growth, deter pests, attract beneficial insects, and create a healthier garden ecosystem—all without chemicals!

How It Works

Companion planting works through several natural mechanisms that create mutually beneficial relationships between plants:

Chemical Protection Some plants release compounds that repel pests or inhibit harmful organisms in the soil.


Nutrient Sharing Plants like beans fix nitrogen in soil, feeding neighboring plants naturally.

Physical Support Tall plants provide natural trellises for climbing varieties and beneficial microclimates.

Beneficial Insects Flowering plants attract helpful predators that control garden pests naturally.

Best Plant Partnerships

Tomato Companions

 **Basil** Repels hornworms, whiteflies, and mosquitoes while improving tomato flavor. Plant 12-18 inches apart around the base or between plants.

🌻 **Marigolds** Control root-knot nematodes with alpha-terthienyl compounds and attract pollinators. Plant around bed perimeter or interspersed between plants.

🌸 **Nasturtiums** Act as trap crops for aphids and whiteflies while attracting pollinators. Plant at bed edges to draw pests away from tomatoes.

★ **Borage** Attracts pollinators and repels hornworms while adding minerals to soil and improving tomato flavor. Give adequate space (24+ inches).

Cucumber Companions

🍅 **Radishes** Deter cucumber beetles with methyl mercaptan compounds and improve soil structure. Sow between cucumber plants and harvest before cucumbers need space.

🌽 **Corn** Provides natural trellising and afternoon shade, especially beneficial in hot weather. Plant cucumbers when corn reaches 12 inches tall.

🌿 **Dill** Attracts beneficial insects like ladybugs, hoverflies, and parasitic wasps that prey on cucumber pests. Plant around perimeter and allow to flower.

Pepper Companions

🧄 **Onions & Garlic** Repel aphids, slugs, and beetles through sulfur compounds. Plant in alternating rows or intersperse throughout pepper beds.

🌸 **Sweet Alyssum** Attracts hoverflies and beneficial insects that feed on aphids. Use as living mulch around pepper plants—can grow under and between them.

Bean Companions

🌽 **Corn (The Three Sisters Method)** Beans climb corn stalks while fixing nitrogen for corn. Add squash as ground cover for a complete system. Plant beans when corn reaches 6 inches tall.

🌿 **Rosemary & Summer Savory** Improve bean growth and flavor while repelling bean beetles through aromatic compounds. Plant 12+ inches away from beans.

Natural Pest Control Plants

Pest Problem	Repellent Plants	How They Work
Aphids	Nasturtiums, Chives, Cilantro, Catnip	Trap crops, sulfur compounds, beneficial insect attraction

Cucumber Beetles	Radishes, Tansy, Nasturtiums	Chemical deterrents, scent masking, predator attraction
Tomato Hornworms	Basil, Borage, Marigolds, Dill	Scent masking, beneficial insect attraction
Bean Beetles	Rosemary, Summer Savory, Marigolds	Strong scents, beneficial insect attraction

Plants That Attract Helpful Insects

Ladybugs (Aphid Predators)

- Umbrella flowers: Dill, fennel, cilantro
- Daisy family: Yarrow, cosmos, calendula
- Others: Sweet alyssum, chives

Parasitic Wasps (Control Caterpillars)

- Tiny flowers: Sweet alyssum, thyme, dill
- Herbs: Mint, oregano, thyme family
- Daisy family: Yarrow, tansy, cosmos

Hoverflies (Aphid Predators)

- Flat-topped flowers: Dill, fennel, cilantro
- Sweet alyssum, calendula, cosmos
- Others: Phacelia, buckwheat

Green Lacewings (Multiple Pests)

- Umbrella flowers: Angelica, caraway, dill
 - Daisy family: Coreopsis, cosmos, sunflowers
 - Others: Sweet alyssum, yarrow, thyme
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Plant Combinations to Avoid

- **Tomatoes & Potatoes:** Share same diseases, particularly late blight
- **Onions & Beans:** Sulfur compounds inhibit nitrogen-fixing bacteria
- **Fennel & Most Vegetables:** Produces potent growth-inhibiting compounds

- **Tomatoes & Brassicas:** Cabbage family releases compounds that inhibit tomato growth
 - **Beans & Sunflowers:** Sunflowers produce compounds that inhibit bean growth
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Container Garden Strategies

Container Size Guidelines

- **Tomatoes:** 5-gallon minimum per plant plus companions
- **Cucumbers:** 3-gallon minimum per plant
- **Peppers:** 2-gallon minimum per plant
- **Bush Beans:** 2-gallon container for 3-4 plants
- **Herbs:** Can share 1-gallon containers (2-3 varieties)

Successful Container Combinations

Tomato Trio (15+ gallon container) Bush tomato + basil + marigolds with proper spacing

Cucumber Defense Bush cucumber + nasturtiums + sweet alyssum

Pepper Protectors Bell pepper + basil + sweet alyssum

Bean Buddies Bush beans + summer savory + radishes

Raised Bed Strategies

Layout Methods

- **Border Method:** Plant pest-repelling plants around bed perimeter
- **Alternating Rows:** Create rows of vegetables with companions in between
- **Grid Planting:** Arrange plants in grid pattern rather than traditional rows
- **Three-Layer System:** Tall plants (north side), medium plants, ground cover

The Three Sisters Method

This ancient technique is scientifically validated:

1. Plant corn in clusters, allowing space between groupings
2. When corn reaches 6 inches, plant pole beans around stalks
3. Two weeks later, plant squash around outer perimeter
4. Result: Corn supports beans, beans fix nitrogen, squash provides living mulch

Getting Started

1. **Start Small:** Convert one bed or a few containers to companion planting first
2. **Keep Records:** Note which combinations work best in your specific conditions
3. **Plan Succession:** Replace finished crops with compatible companions
4. **Embrace Diversity:** Aim for 3-5 different plant species per bed
5. **Be Patient:** Some companions (herbs, flowers) take time to establish

Key Success Tips

- Avoid broad-spectrum pesticides that kill beneficial insects
- Tolerate some pest presence to maintain beneficial insect balance
- Combine companion planting with proper spacing, watering, and soil health
- Include early, mid, and late-season bloomers for continuous beneficial insect support
- Use physical barriers or containers to manage incompatible plant combinations

Remember: Companion planting works best as part of an integrated approach that includes proper gardening practices. Work with nature, not against it, for a thriving, sustainable garden!

Happy Gardening! 

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