





01

Companion Planting with Herbs

LESSON 01

In This Lesson, You Will Learn

- Principles of regenerative gardening
- The benefits of Companion Planting
- Which herbs are important companions to vegetables
- Using herbs in integrative pest management

01

When we grow food and medicine we can't just extract plants from the soil.



02

Its important as we grow both food and medicine that we also heal the land.



03

“Regenerative agriculture” is the concept we can heal both ourselves and the land by growing food and medicine.

**Regenerative agriculture is
all about healing the soil.
Healthy soils produce healthy
food and medicine.**



5 Principles of Regenerative Agriculture

1. Keep the soil covered
2. Minimize soil disturbance
3. Maximize crop diversity
4. Maintain living roots in the ground year-round
5. Integrate livestock

Companion planting satisfies 4 out of 5 of these principles.



Regenerative Agriculture: Principle 1



By using nitrogen fixing cover crops and mulch, we **keep the soil covered**

- This encourages mycorrhizal relationships between plants and fungi/bacteria
- It prevents erosion
- It minimizes soil compaction
- It encourages soil life

Regenerative Agriculture: Principle 2

By using raised beds, permaculture growing zones, and mulch we reduce the need for tilling and **minimize soil disturbance.**



Regenerative Agriculture: Principle 3

Using companion planting we can encourage crop diversity, which feeds pollinators, integrates pest management, and nurses vegetable crops during the growing season.



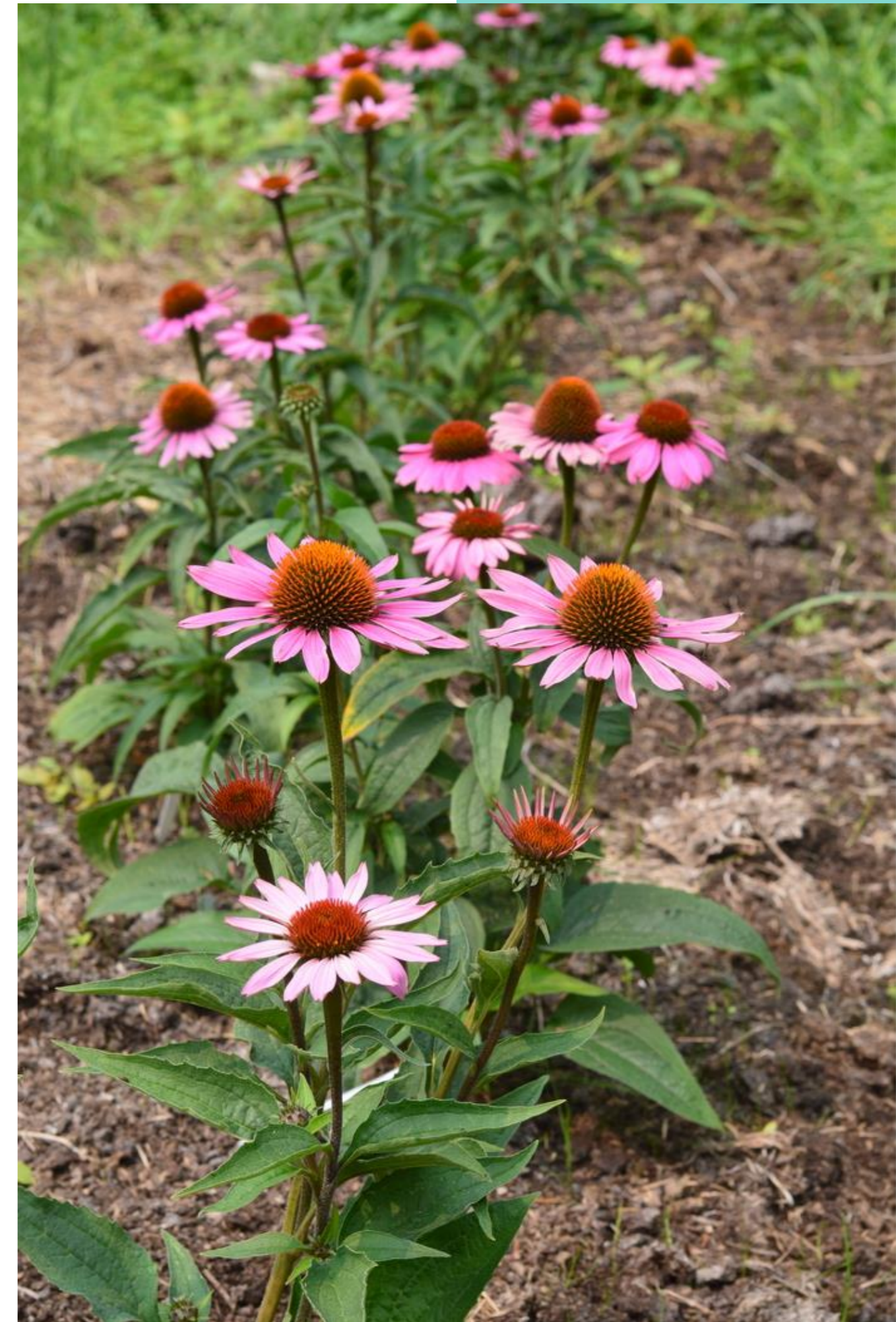
Regenerative Agriculture: Principle 4

- Companion planting with perennial herbs and nitrogen fixing cover crops **helps keep living roots in the soil year round.**
- Living roots nurture active soil life, reduce soil compaction, keep the soil aerated, and help increase organic matter in the soil.



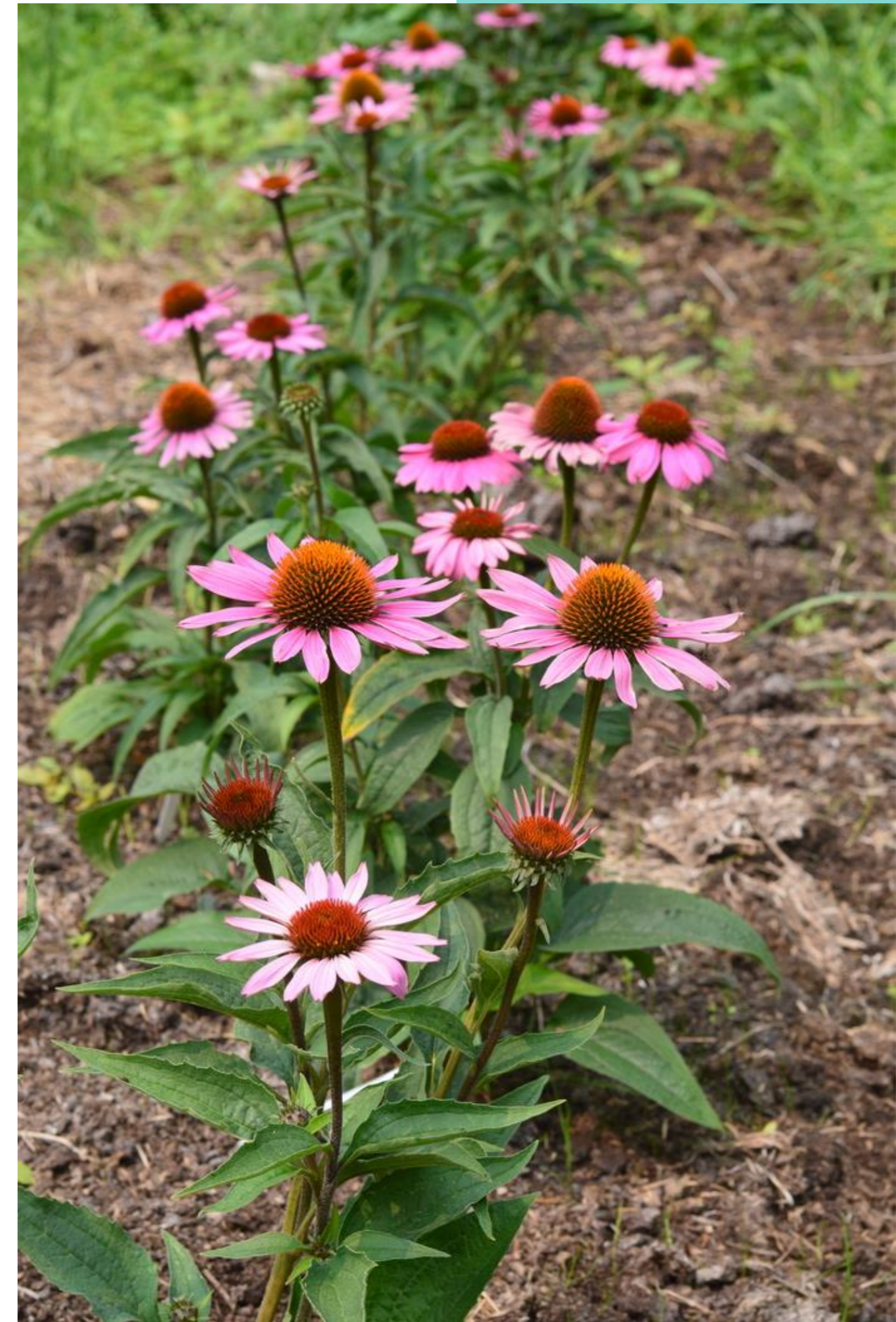
Benefits of Companion Planting

- Protects soil life
- Encourages soil regeneration
- Locks carbon into the soil where it belongs
- Higher vegetable yields



Benefits of Companion Planting

- More flavorful fruits and vegetables
- Less work for the gardener
- Integrates pest management
- Feeds pollinators



Herbs for companion planting

1. Herbs for pollinators
2. Nurse plants
3. Herbs for integrative pest management
4. Herbs for pest traps

Alliums



- Their scent confuses insect pests, voles, and mice
- They attract pollinators when in flower
- They are shallow rooted and do well with roots like carrots and radish.
- They confuse and repel carrot rust fly and radish root maggots.
- Don't put near beans and peas. They inhibit their growth.
- Garlic repels Japanese beetles

Umbellifers like dill, darsa, parsley



- Umbellifer flowers attract predatory wasp that lay their eggs on caterpillars
- Their strong scents confuse insect pests and repel slugs.
- The plant they are protecting needs to be in close proximity for the scent to work.
- Attractive to pollinators and an abundant nectar source

Umbellifers like dill, darsa, parsley



- Plant dill away from tomatoes but near by. Tomato hornworms prefer dill. Dill is a trap plant.
- Plant dill in the same row with brassicas. Cabbage butterflies will lay their eggs somewhere else.
- The plant they are protecting needs to be in close proximity for the scent to work.



Nasturtium are related to brassicas and can be used as a trap crop for cabbage butterfly and for aphids.

Plant it nearby your broccoli, cauliflower, and cabbage but not in the same row. This will draw pest away from your food crops.

Nasturtium flowers and leaves are edible.

Nurse plants



Help other plants that are growing nearby.

- Comfrey
- Chamomile
- Yarrow
- Calendula
- Thyme

Aromatic Herbs



- Plant these throughout your garden to confuse insect pests
- These attract pollinators when they flower
- Their pollen is helpful to feed bees and allows them to raise their young nearby.

Specific Companions and their roles

- Marigold kill root nematodes. Plant them throughout your garden area. They attract pollinators.
- Mediterranean herbs like rosemary and lavender should be planted together and away from vegetables due to their low watering needs. They attract pollinators to the garden. Their strong scent repels codling moth from fruit trees.

Vegetable growers find that companion planting provides many benefits, one of which is protection from pests. A major enemy of the carrot is the carrot fly, whereas the leek suffers from the onion fly and leek moth. Yet when leek and carrot live together in companionship, the strong and strangely different smell of the partner plant repels the insects so much that they do not even attempt to lay their eggs on the neighbor plant. They take off speedily to get away from the smell. This is why mixed plantings give better insect control than a monoculture, where many plants of the same type are planted together in row after row. Even when plants are affected by diseases, a mixed plant culture can usually alleviate the situation.

LOUISE RIOTTE, the Pioneer of Companion Planting

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In This Lesson, You Learned:

- ✓ The benefits of Companion Planting
- ✓ Which herbs are important companions to vegetables
- ✓ Using herbs in integrative pest management

Homework

1. Consider which insect pests are most bothersome in your garden.
2. Find the companion that repels that specific pest.
3. Find the seed and plant it.

LESSON PREVIEW

In The Next Lesson, You'll Learn:

- Nitrogen fixing plants to use in your garden
- Cover crops to use in the garden
- Bio-accumulator plants to increase plant fertility