

Companion Planting and Weed Control

Reston Association Community Gardeners
All Gardeners Annual Meeting
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By Diana Dickinson, Master Gardener



Companion Planting

- “If we fight nature’s rules, we’re forced to rely on chemicals to keep our crops productive. But if we cooperate with nature, we can have it all: a beautiful garden, a great harvest, and lots of fun long the way.”



Great Garden Companions

Sally Jean Cunningham, Master Gardener
Cornell Cooperative Extension

Companion Planting

- Garden Companions such as flowers and herbs:

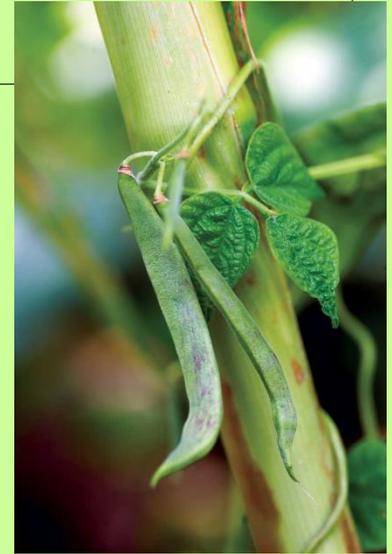
- Attract beneficial insects
- Repel pests
- Lure pests away from productive plants
- Discourage weed growth
- Attract pollinators
- Provide ground cover or shade
- Condition the soil



Companion Planting

- Historical example:

- Native Americans planted the "Three Sisters" of corn, pole beans, and pumpkin or squash together in a hill



- The tall corn stalks provide a support structure for the climbing beans
- The beans do not compete strongly with the corn for nutrients since as legumes, they can supply their own nitrogen
- Pumpkins/squash provides a dense ground cover that shades out many weeds which otherwise would compete with the corn and beans

(<http://www.gardening.cornell.edu/factsheets/ecogardening/complant.html>)

(The Old Farmer's Almanac <http://www.almanac.com/content/companion-planting-three-sisters>)

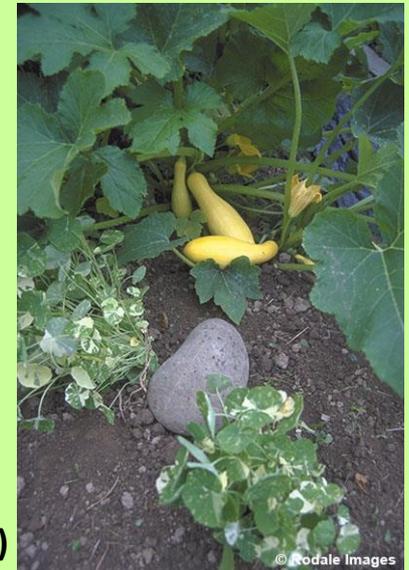


Companion Planting

- Good general companions:



- Sunflowers attract birds and bees for pollination
- Aromatic plants such as onion, garlic, sage, thyme, mint, rosemary and lavender repel insects
- Marigolds discourage insects and keep soil free of nematodes
- Nasturtium deters aphids
- Petunias protect beans



(for more complete list see *The Encyclopedia of Organic Gardening*, J.I. Rodale)

Companion Planting



Combination Examples:

- **Roses and chives:** Gardeners have been planting garlic with roses for eons, because garlic is said to repel rose pests. Garlic chives probably are just as repellent, and their small purple or white flowers in late spring looks great with rose flowers and foliage.
- **Tomatoes and cabbage:** Tomatoes are repellent to diamondback moth larvae, which are caterpillars that chew large holes in cabbage leaves.
- **Cucumbers and nasturtiums:** The nasturtium's vining stems make them a great companion rambling among your growing cucumbers and squash plants.
- **Cabbage/broccoli/brussels sprouts and dill:** The cabbage-family plants support the floppy dill, while the dill attracts the tiny beneficial wasps that control imported cabbageworms and other cabbage pests.

Companion Planting



- **Corn and beans:** The beans attract beneficial insects that prey on corn pests such as leafhoppers, fall armyworms and leaf beetles. And bean vines climb up the corn stalks.
- **Lettuce and tall flowers:** Nicotiana (flowering tobacco) and cleome (spider flower) give lettuce the light shade it grows best in.
- **Radishes and spinach:** Planting radishes among the spinach will draw leafminers away from the spinach. The damage the leafminers do to radish leaves doesn't prevent the radishes from growing nicely underground.
- **Potatoes and sweet alyssum:** The sweet alyssum has tiny flowers that attract delicate beneficial insects, such as predatory wasps. Plant sweet alyssum alongside bushy crops like potatoes, or let it spread to form a living ground cover under arching plants like broccoli. Bonus: The alyssum's sweet fragrance will scent your garden all summer.

What is a weed?

- “What is a weed? A plant whose virtues have never been discovered.”

--Ralph Waldo Emerson



What is a weed?

- A plant considered undesirable, unattractive, or troublesome, especially one growing where it is not wanted, especially in a garden.

--TheFreeDictionary.com



What is a weed?—cont'd

- A weed competes with valued plants for essential nutrients, light and moisture.
- Uncontrolled weed growth may kill or seriously inhibit the growth of less vigorous desired plants.
- Weeds may act as “host” plants for pests or diseases.



Weed Control

- Most gardens can survive healthily with some weeds.
 - Aesthetic consideration aside....
 - Weeds break up and condition the soil and help retain moisture in the soil
 - So long as they are not permitted to go to seed
- Cultivation is a good practice
 - By hand, hoe or hand fork
- Household vinegar



Weed Control—cont'd

- Mulch laid on warm *bare* surface (will not inhibit established weeds)
 - Chipped bark (only if untreated and composted or properly aged)
 - Newspaper
 - Old carpet
 - Boards
 - Woven plastic (NOT sheet plastic which will inhibit oxygen and water infiltration to the soil for your desired plants)



(examples are specific to a community garden as they are easily incorporated or removed)

For more information on a variety of gardening topics go to the public website of the Fairfax County Master Gardeners Association:

<http://fairfaxMGA.org>

