

Companion planting

Companion planting is the practice of combining plants in ways that produce extra benefits for one or both. It is an aspect of IPM (Integrated Pest Management) and one of the keys to successfully growing vegetables and herbs organically. There are 5 main reasons companion planting is used. They are:

Trap Cropping - Examples are planting Nasturtium or Collards with cabbage and broccoli. Aphids are attracted to the Nasturtium or collard more than the cabbage.

Symbiotic Nitrogen Fixation - Legumes can "fix" atmospheric nitrogen thus improve the fertility of the soil. Examples are using cover crops of clover, alfalfa or vetch in an orchard or planting beans and corn together.

Biochemical Pest Suppression - The companion plant releases a chemical that mimics a fright or scatter hormone of an unwanted pest thus repelling it. At the same time, that chemical attracts beneficial insects. An example is the Marigold which repels aphids but attracts Hover flies whose larvae feed on aphids.

Physical/Spatial Interactions -Planting in levels to produce more food in less space.

Beneficial Habitats - Provide food plants for beneficial insects such as ladybugs, ichneumon wasps and hover flies by interplanting or using borders and backdrops.

The 3 Sisters planting of the Native Americans is a perfect example of companion planting. Corn, beans and squash were all interplanted. The beans used the corn stalks for support and shaded the young ears from burning. The nitrogen fixed by the beans provided additional nutrition for the corn. The squash at the feet of the corn and beans received the benefit of shaded

soil so their roots stayed cooler and moister and the beans repelled squash vine borers. The squash, being a somewhat prickly vine, kept varmints away from the ripening corn and beans!

Below is a partial list of plants that are useful as companion plants along with some of their attributes:

ANISE - A good host for predatory wasps, it also repels aphids. Deters pests from Brassicas (Cabbage, broccoli, etc) by camouflaging their odor.

BASIL - Plant with tomatoes to improve growth and flavor. Repels flies and mosquitoes.

BEANS - All beans enrich the soil by fixing nitrogen. They are good for planting with all vegetables EXCEPT for Alliums (onions, garlic, leeks). Summer savory repels bean leaf beetles and will improve the beans flavor.

BEE BALM - Lures bees and hummingbirds to the garden for better pollination. Improves the growth and flavor of tomatoes.

BEETS - Good for adding minerals to the soil. Good companions are lettuce, onions and Brassicas. Do not plant with beans as they will stunt each others growth.

BORAGE - Good to plant with tomatoes, squash and strawberries. It will deter hornworm and cabbage looper. Adds trace minerals to the soil and attracts bees and ichneumon wasps. Borage will benefit almost any plant it is growing near by increasing its resistance to disease and pests.

CARAWAY - Good for loosening compacted soil so it benefits all shallow rooted crops. Attracts beneficial insects.

CATNIP/CATMINT - This one deters flea beetles, aphids, squash bugs, ants and weevils. It will also repel mice!

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CHAMOMILE - Improves the flavor of cabbages, onions and cucumbers. It accumulates calcium, sulphur and potassium, returning them later to the soil. It is a host for hoverflies and good wasps. Increases the production of essential oils in herbs.

CHERVIL - Improves the flavor and growth of radishes. Keeps aphids off lettuce and is said to deter snails.

CHIVES - Improves growth and flavor of carrots and tomatoes. Keeps aphids away from mums and sunflowers. When planted by roses it helps prevent black spot.

CHRYSANTHEMUM - Deters and kills root nematodes.

COMFREY - Accumulates calcium, phosphorous and potassium. A good trap plant for slugs.

CORIANDER - Repels aphids, spider mites and potato beetle. A tea made from it is a good spray for spidermite.

CUCUMBERS - Work well with sunflowers, carrots, peas and beets. Planting dill nearby attracts beneficials. Nasturtiums will improve growth and flavor. **Keep sage away!**

DAHLIAS - Repels nematodes

DILL - Improves the growth and health of cabbage and lettuce. Plant by tomatoes to trap the tomato hornworm. Attracts many beneficials. **Do not plant by caraway or carrots!**

ELDERBERRY - A decoction (the extraction by boiling water-soluble substances down) of the leaves is an effective spray for aphid and cucumber and diabrotica beetle. Repellent to moles.

GARLIC - Plant by roses to repel aphids. Deters cabbage loopers, codling moth and peach borers.

GERANIUM (Zonal) - Repels cabbage worm, corn ear worm and leafhoppers. Plant by grapes, roses, corn and cabbage.

HYSSOP - Highly attractive to bees but **do not plant near radishes**.

LEMON BALM - Deters many bugs, especially mosquitoes and squash bugs.

LOVAGE - Improves the growth and flavor of most plants. Encourages beneficial, predatory ground beetles.

MARIGOLD - Discourages beetles, whiteflies and nematodes. Acts as a trap plant for spidermites and slugs. **Do not plant near cabbage or beans**.

MARJORUM - Improves the growth and flavor of all vegetables.

MINT - Deters cabbage moth, ants, rodents, aphids and fleas. Attracts hoverflies and predatory wasps. Attractive to earthworms.

NASTURTIUM - Plant as a barrier trap around tomatoes, radishes, cabbage, cucumbers and fruit trees. Deters whiteflies and squash bugs. Good trap crop for black aphid.

ONIONS - Plant with carrots, leek, beets, lettuce, Brassicas and strawberries. Improves other plants disease resistance. **Do not plant with peas**.

PEPPERS, HOT - Root exudates prevent root rot and Fusarium diseases of eggplant, tomatoes, swiss chard, squash and cucumbers.

ROSEMARY - Plant with cabbage, carrots, beans and sage. Deters cabbage looper and bean beetles.

TARRAGON & THYME - Both are beneficial to plants throughout the garden.

YARROW - Increases the production of other herbs essential oils. Attracts beneficials.