

Creating a Biodiverse Vegetable Garden with Companion Plants

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When planning this year's vegetable garden, consider companion planting with flowers and herbs. It's a rewarding way to attract pollinators, manage pests and promote biodiversity in your garden. The practice will improve your soil's health and the quality of your harvest. As an added benefit, you might enjoy gathering bouquets of fresh-cut flowers throughout the growing season. In addition, flowers, which have more abundant and colorful blooms than vegetables, will attract more pollinators and beneficial insects to your vegetable plants.

While some flowers and herbs repel insect pests, others attract them and may serve as trap crops to divert these pests away from your vegetables. Flowers and herbs also can act as a natural weed barrier to fill empty spaces. By knowing their beneficial characteristics, you can strategically place companion plants where they are most useful in your garden to see if they repel pests.

Consider using a variety of flowers and herbs to entice pollinators early and throughout the growing season. Good choices for early spring pollination are sweet peas, pansies and other cool-season flowers. After the danger of frost has passed, many easy-to-grow annuals can be direct sowed outdoors. Simple choices include zinnias, cosmos, marigolds, calendulas and nasturtiums.

After clearing faded spring crops, sow the seeds directly into the ground following the depth and spacing recommendation on the seed packet. Alternatively, planting nursery seedlings is a good idea to achieve faster bloom time.

Zinnias are known to attract predatory insects and may deter tomato worms and cucumber beetles. Cosmos attract many beneficial predatory insects such as lacewings, parasitic wasps, tachinid flies and hoverflies that feed on insect pests. Some zinnias and cosmos can grow tall, so choose varieties that don't cast shadows where sunshine is needed. Although not proven, there is some scientific evidence that marigolds are helpful at controlling nematodes. The French marigold (Tagetes patula) may offer protection against several types of nematodes. Its scent also may deter rabbits, so for this reason some experts suggest planting marigolds around the perimeter of your vegetable plot. Calendula (Calendula officinalis) is an excellent companion plant. While the flowers will invite aphids and whiteflies, they mostly attract beneficial predatory insects. There is anecdotal evidence that they repel tomato worms and nematodes. You can plant them near your tomatoes, carrots, cabbage, beans and asparagus. Nasturtiums make a colorful ground cover that deters weeds and are a magnet for aphids. They are best planted away from vegetables targeted by aphids such as cabbage and green beans to drive the pests away from these crops. Nasturtiums are edible with delicate blossoms that can brighten up salads or cold drinks.

As for herbs, bees and butterflies love mint, oregano and thyme. Parsley, dill and coriander attract beneficial insects, and chervil may deter slugs from leafy greens. Borage draws both pollinators and beneficial insects to the garden. Consider planting mint and borage in pots to control their aggressive growth habit, or plant them where you have plenty of space. To keep plants blooming throughout the season, harvest some herbs and flowers and leave the rest for pollinators. Be sure to deadhead annuals to encourage more blooms.

As a word of caution, before you select a trap crop, consider the risk of attracting a particular insect pest that was not a problem in the past to your garden. There is no magic formula for choosing flowers to mingle with your vegetables. The main goal is to build a healthy, biodiverse garden. Experiment, try other combinations and enjoy the charming cottage-style garden that you create.

Questions?

Trained volunteers at the UVM Extension Master Gardener Helpline can answer your gardening questions at <u>go.uvm.edu/gardeninghelp</u>. The Helpline is open 24/7/365 for online questions and on Thursday mornings for phone inquiries during the season at 802-656-5421.

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