



## Prince Edward County Master Gardeners

### COMPANION PLANTING

Companion planting has become a popular way of gardening, especially since the banning of many chemicals to gardeners. There are traditional & scientific basis for doing this. Although it is usually thought of as a small gardening idea, there are many ways that these practices can be applied to large gardens & even commercial horticulture.

Companion planting is based on the idea that when certain plants are planted near others they can be of great benefit. It also means that planting crops in annual rotation usually a three year rotation that the benefits of the previous years plants provide feed for the following crops. This shows particularly when legumes such as peas & beans fix nitrogen in the soil for the following year. Also when clover is planted in with other grasses in a lawn the nitrogen is available for all the plants in the lawn & fertilizing is not needed. With annual rotation, bugs that remain in the soil during the winter, ready to attack the plant the following year are unable to do this if the plant is changed.

The benefit can be as simple as growing tall, sun loving plants sharing the space with low-growing shade tolerant plants. Such as planting lettuce under corn. Or using tall strong plants to protect more vulnerable plants from wind.

One of the best known Canadian companion planting is planting corn with squash or pumpkin, this is believed to disorient the adult squash vine borer, while the prickly squash discourages raccoons from eating the corn.

Another type of companion planting is to put plants that will provide an attractive environment for beneficial insects, which help to keep pest population in check, leaving alone the vegetables you want for yourself. Planting a mixed variety of cultivars instead of a single variety can also be helpful. If pests spoil a single crop or cultivar, others remain to produce a yield of vegetables.

Some plants exude chemicals from roots & other parts of the plant that suppress or repel pests and protect neighbouring plants. The African marigold, for example, release thiopene, a nematode repellent, making it a good companion for a number of plants.

As you can see companion planting, means a wide variety of gardening practices, that allows you to benefit more from your garden without using chemicals.

There are of course, some plants that do not do well together. Beans, potatoes, strawberries, summer savory do not do well when planted with any of the alliums.

Even when cut some plants will deter pests. For example a fresh Bay leaf can be put into storage containers with beans, grain, and will deter weevils. If you have an invasion of ladybugs in the house, bay leaves spread around where they get in and they should leave.

The following are some suggestions of companion planting for more commonly grown plants:

**BEANS** - All beans enrich the soil with nitrogen. In general they are good company for carrots, chards, corn, beets, brassicas, strawberry and are especially good for heavy nitrogen users such as corn. Haricot beans, sweet corn and melons make a good combination.

**TOMATOES** - planted with basil improve the flavour and growth and when planted with marigolds and peppers can help deter thrips.

BRASSICAS - benefit from having, dill, sage, nearby, but they do need good rich lime to grow well.

CUCUMBERS - grow well with corn and beans. Allow the cucumbers to grow up and over the corn. Dill put nearby attracts beneficial insects. A good companion for your cucumbers are sun flowers, providing a good sturdy support. The sunflowers providing seed heads for the birds. Always great to encourage these to your garden.

EGGPLANT - grows well with beans and marigolds.

FOUR-O-CLOCKS - attract Japanese beetles which dine on the foliage which is poisonous to them. It is important to say that four-o-clocks are also poisonous to humans, so be careful where you plant them. Especially when children are around.

CHRYSANTHEMUMS - have long been used as an insect repellent, in particular, Japanese beetles, aphids and many other unwanted pests. They are even useful planted around apple trees, to attract predators of the woolly aphid.

GARLIC - Accumulates sulphur a naturally occurring fungicide which will help the whole garden with disease prevention. You may not want garlic growing in your rose garden, but a barrier near-by may help.

MARIGOLDS - (calendulas) are given a lot of credit as a pest deterrent the downside of this is they do attract slugs and snails, the varieties that have the most scent do the best.

FRENCH MARIGOLDS - There have been studies that show that the nematodes exuded by the plants last in the soil for a number of years. They can be planted in green houses to deter whiteflies.

NASTURTIUMS - use as a companion for tomatoes, cucumbers, they deter aphids, whiteflies, "Alaska" is a nice variety, it has small variegated leaves is low growing and the leaves, flowers and seeds are all edible & great in salads.

LAMIUM - repels potato bugs a big problem for all potato growers. It is very invasive, but is easy to control.

TANSY - is often used as an ant and bug repellent unfortunately it is a rather straggly, and not very attractive plant. But works well with raspberries and apples. Clippings of tansy can be cut and used as a mulch for peonies and other plants. Also placed near a greenhouse door. You can hang up bunches of tansy to deter flying insects in porch or house. It is a very strong grower, so you can cut back heavily and it will grow again, Tansy flowers keep their colour when dried, so are a nice addition for the dried flower arranger.

As you can see from the few examples above companion growing is a huge subject and very varied, there are many books, articles and information on the internet but one of the best sources of information are gardening friends, who have tried and found successful partners.

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