

Repelling garden pests
Sheri Bethard
Orange County Master Gardeners

There are many ways to repel the pests (bugs and insects), which like to invade our home flower and vegetable gardens. You can use chemicals or go the organic or biological route. With chemicals you risk spraying the product on your vegetables thus contaminating them during their growth process or yourself.

When using chemicals, you must determine what the insect is you want to get rid of as all chemicals are not the same and do not work on all pests. You must read the back of the container to see if the pest you want to get rid of is listed. Pesticides can be toxic to humans and pets along with the environment; they **MUST** be used carefully and as directed. For example, not all pesticides will get rid of spider mites. Only special ones are developed for ridding of spider mites.

Another consideration in choosing and using pesticides is the need to protect bees. Bees are necessary for pollinating fruit, vegetable crops along with ornamental plants. If you are going to use a pesticide, please do not use it during the day when bees are out collecting pollen. Wait until very late in the afternoon to spray and if you have your own hives, cover them during your application process.

Besides the chemical option, there are organic and biological choices. By using either an organic or biological option, you are being more eco-friendly. When you go outside, are insects drawn to you? One way you can fight back against mosquitos, gnats, flies and other pesky flying pests is to use essential oils instead of sticky sprays or chemicals on your body. Essential oils are natural bug repellents and insects tend to avoid them.

Here are some herbs you can plant in your flower and vegetable beds that should help:

1. Basil - repels houseflies, mosquitoes, carrot fly, white fly and asparagus beetles.
Besides repelling insects use it in pork and chicken recipes
2. Lemon Grass - repels mosquitoes. Citronella is a natural oil made from Lemon Grass
3. Lemon Thyme - repels mosquitoes. You must bruise the leaves to release its chemicals
4. Lemon Balm - repels mosquitoes
5. Mint - repels mosquitoes. Best grown in post to control its aggressive spread
6. Rosemary - repels mosquitoes,
7. Catnip - repels ants, weevils, squash bugs, aphids, beetles, cockroaches
8. Chamomile - repels flying insects
9. Chives - repels aphids, beetles, carrot fly
10. Dill - repels squash bugs, spider mites, aphids, tomato hornworm, cabbage loopers
11. Garlic - repels aphids, beetles, carrot fly, rabbits
12. Nasturtium - repels white fly, squash bugs, aphids, beetles, cabbage loopers

13. Oregano - repels a number of pests and will provide ground cover and humidity for peppers
14. Thyme - repels corn earworm, white flies, tomato hornworm, cabbage loopers, cabbage maggots
15. Fennel - repels aphids, slugs and snails
16. Parsley - asparagus beetles

Here is a short list of companion planting for herbs and vegetables:

Herbs	Plant With
Basil	Tomatoes, Asparagus, Carrots, Lettuce
Catnip	Potatoes, Lettuce, Radishes
Chamomile	Anything - repels flying insects
Chives	Anything but Beans and Peas
Dill	Carrots and Tomatoes
Garlic	Tomatoes, Peppers, Potatoes, Carrots
Nasturtiums	Cucumbers, Squash, Tomatoes, Potatoes
Oregano	Beans, Squash, Cabbage, Cucumbers
Parsley	Carrots, Corn, Peppers, Onions, Tomatoes
Thyme	Cabbage, Potatoes, Strawberries

If you want to use a spray instead of planting one of the herbs listed above, there are several products on the market which are organic that are safe to use. Neem Oil and Horticultural Soap are two that I use in my home greenhouse and the Master Gardener greenhouse. Both work very well and do get rid of most all the pesky pest problems I have encountered.

If you rather make your own spray the recipe is below. In order for any pesticide to work it has to be sprayed directly on the pest. The best soap to use to pure-castile liquid soap, which is not a detergent like dish soap. The recipe for this spray is:

1 gallon water

2 $\frac{1}{2}$ tablespoons pure-castile liquid soap

1 tablespoon vegetable oil (optional)

Fill gallon-size sprayer, add soap and oil. Mix well before using. The oil helps the solution stick around longer after being sprayed. When finished, empty sprayer and clean as oil can go rancid over time. For smaller batches use 1 teaspoon pure-castile liquid soap per each quart water.

For pure biological control you can purchase beneficial insects and release in your garden area but once they have destroyed the pests, they will move on. There are certain beneficial insects for the different pests, and this can be very expensive.

I hope this has helped give a little insight on how herbs and other things can help with deterring those pesky garden and outdoor pests.