

This guide contains information on plant species that have been shown to naturally repel mosquitoes. Humans have used plants in this capacity for hundreds of years. In fact, many of the insect repellants we use today are made from plant extracts. The addition of mosquito repellent plants can help to reduce the mosquito annoyance level in your yard while adding curb appeal. The leaves or flowers of some of the plants can be rubbed directly onto the skin or clothing to provide personal protection. Also, several of these species can be used in cooking or as potpourri.

	<p>Lavendar <i>Lavandula angustifolia</i></p>	<p>Many homemade mosquito repellents include lavender oil. Apparently, many bugs, including mosquitoes, fleas, and moths, can't stand the scent. Lavender is a pretty hearty plant that's easy to grow. It'll take over any garden space, so just be sure to keep it pruned or in a large pot.</p>
	<p>Basil <i>Ocimum basilicum</i></p>	<p>As one of the most pungent herbs, basil makes an excellent natural mosquito repellent. It makes sense, because basil is known as the perfect companion plant to tomatoes to help keep bugs away. It can also be used for cooking.</p>
 	<p>Rosemary and Thyme <i>Rosmarinus officinalis and Thymus vulgaris</i></p>	<p>"Researchers at Seoul National University in Seoul, South Korea, found that thyme volatiles repelled mosquitoes as well as or better than DEET, and that thyme volatiles lasted as long as DEET." Garden Design adds, "Rosemary is an herb that many of us are very familiar with and their woody scent is exactly what keeps mosquitoes as well as cabbage moths and carrot flies away." Lastly, rosemary and thyme are easy-to-grow container herbs. Plus, you can use these when you're cooking at home.</p>
	<p>Lemongrass <i>Cymbopogon citratus</i></p>	<p>Lemongrass contains citronella oil, which is known for its bug repellent property. Lemongrass is a perennial plant which grows up to two feet tall and requires a warm climate. Lemongrass oil is used as a pesticide, and as a preservative.</p>

 <p>http://www.easywildflowers.com/quality/mon.cit.htm</p>	<p>Horsemint (aka Beebalm) <i>Monarda spp.</i></p>	<p>Horsemint is an adaptable perennial plant which repels mosquitoes much the same as citronella. It gives off a strong incense-like odor which confuses mosquitoes by masking the smell of its usual hosts. Horsemint is a fast growing, shade-tolerant and drought-resistant plant which reaches a height and width of 2 – 3 feet. Horsemint can also be planted in pots for moving indoors in cold climate zones. Horsemint leaves can be dried and used to make herbal tea. Its flowers will also attract bees and butterflies to your garden.</p>
	<p>Marigolds <i>Tagetes spp.</i></p>	<p>Commonly grown as ornamental border plants, marigolds are hardy annual plants which have a distinctive smell which mosquitoes, and some gardeners, find particularly offensive. Marigolds contain Pyrethrum, a compound used in many insect repellents. Potted marigolds can be positioned near entrances to your home and any common mosquito entry points, such as open windows. The smell may deter mosquitoes from going past this barrier. While marigolds can be used as border plants around the patio, we do not advise putting marigolds on the patio table since the bright blooms may attract wasps.</p>
 <p><small>Gabriel Valley Farms gabrielvalleyfarms.com</small></p>	<p>Garlic <i>Allium sativum</i></p>	<p>Though garlic is well-known for its culinary uses, very few people know that garlic is a mosquito repellent plant as well. The reason as to why garlic repels mosquitoes is unknown as of now. However, some say it is the strong smell of this herb that wards off the mosquitoes. The bulbs of garlic are specifically used as mosquito repellents.</p>
	<p>Citronella Grass <i>Cymbopogon nardus</i></p>	<p>Citronella is the most common natural ingredient used in formulating mosquito repellents. The distinctive citronella aroma is a strong smell which masks other attractants to mosquitoes, making it harder for them to find you. Although citronella is used in many forms, such as scented candles, torches and citronella ‘scented’ plants, the living plant is more effective because it has a stronger smell. Citronella is a perennial ‘clumping’ grass which grows to a height of 5 – 6 feet. When purchasing citronella, look for the true varieties, <i>Cymbopogon nardus</i> or <i>Citronella winterianus</i>. Other plants may be sold as ‘citronella scented’, but these do not have the mosquito repelling qualities of true citronella.</p>

 <p>http://en.wikipedia.org/wiki/Pyrethrum</p>	<p>Pyrethrum (aka Chrysanthemum) <i>Chrysanthemum cinerariifolium</i> and <i>Chrysanthemum coccineum</i></p>	<p>Pyrethrum helps to repel a whole host of insects and bugs, including: aphids, leafhoppers, spider mites, harlequin bugs and ticks. Pyrethrum is best used as a 'companion plant' to protect other plants with its insect repellent properties.</p>
	<p>Ageratum <i>Ageratum spp.</i></p>	<p>Also known as Flossflowers, Ageratum emits a smell which mosquitos find particularly offensive. Ageratum secretes coumarin, which is widely used in commercial mosquito repellents. Ageratum is a low-lying annual ornamental plant which reaches heights of 8 – 18”, and is easily recognized by its blue flowers, although there are varieties with pink, white and violet blooms. Although the leaves of Ageratum can be crushed to increase the emitted odor, it is not advisable to rub the crushed leaves directly on the skin.</p>
	<p>Catnip <i>Nepeta cataria</i></p>	<p>Catnip is a natural mosquito repellent. In August 2010, entomologists at Iowa State University reported to the American Chemical Society that catnip is ten times more effective than DEET, the chemical found in most commercial insect repellents. Catnip is very easy to grow. This perennial herb is related to mint and grows readily both as a weed and a commercially cultivated plant in most areas of the US. While catnip will repel mosquitoes in close proximity to the plant, some people apply crushed catnip leaves or catnip oil for more robust protection. However, cats will respond to you similarly as they would respond to the plant itself. Cat owners may want to choose an alternative plant for repelling mosquitoes.</p>
	<p>Pennyroyal <i>Hedeoma pulegioides</i></p>	<p>Pennyroyal helps to repel mosquitoes, gnats and also ticks and fleas! Pennyroyal is often used in commercial natural insect repellent creams and sprays. Pennyroyal is great to plant in the garden, but it is best utilized as a topical insect repellent applied to the skin. If you crush pennyroyal leaves and rub them onto your skin, this acts as an effective insect repellent. Additionally, you can also crush the stems and put them in pockets, bags and hats. Crushed pennyroyal leaves and stems can also be rubbed on dogs to help repel ticks and fleas. Actually you will often see dogs rubbing in pennyroyal patches when outdoors.</p>

 <p>http://www.mskcc.org/cancer-care/herb/feverfew</p>	<p>Feverfew <i>Tanacetum parthenium</i></p>	<p>Feverfew is great for repelling mosquitoes and other flying biting insects. It is ideal for planting around outdoor seating areas, pathways and close to doorways and windows; for maximum benefit, plant in conjunction with citronella grass and lavender. In addition to its insect repellent qualities, feverfew also has many medicinal uses. It is historically used to help treat nervous disorders, headaches and it also works as a laxative and helps ease bloating.</p>
 <p>http://plants.usda.gov/core/profile?symbol=MADI6</p>	<p>Pineapple weed <i>Matricaria matricarioides</i></p>	<p>Pineapple Weed is a common weedy species that grows all over North America. It can be found growing in lawns, edges of roads, and other disturbed areas. The aromatic crushed plant can be applied to the skin to help repel mosquitoes.</p>

Cultivated Plants That Repel Mosquitoes:

Citronella Grass, Peppermint, Rosemary, Lemon Balm, Clove, Eucalyptus, Tea tree

Wild Plants That Repel Mosquitoes:

Vanilla Leaf (*Achlys triphylla*), Nodding onion (*Allium cernuum*), Wild bergamot (*Mondarda fistulosa*), Snowbrush (*Ceanothus velutinus*), Sweetfern (*Comptonia peregrina*), Cedars (*Thuja* spp.)

***Please note that in addition to repelling mosquitoes, some species mentioned here may attract other pollinators, such as bees. Additionally, not all plants mentioned here are edible and not all can be applied directly to skin. If you have questions on mosquito repellent plants, please call Elizabeth Hodson, Biologist, at 757-890-3792.

In addition to planting mosquito repellent plants, you can also or alternatively add plant species which attract natural mosquito predators, such as dragonflies.

York County Mosquito Control is committed to the development of environmentally conscious pest control. Please check our website regularly for updates and additional information at www.yorkcounty.gov/mosquitocontrol.

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