



THE CLEAN AND GREEN
KARACHI

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THE CLEAN AND GREEN KARACHI

1. INTRODUCTION:

The **mosquito-borne diseases** in the monsoon season are getting more common. In Karachi, the bug is known to transmit dangerous illnesses, including malaria and dengue fever, in addition giving their victims abrasive and irritating bites. The plant's oils hold the secret to repelling insects. These very concentrated oils, which are located within the leaves, truly repel mosquitoes.

Adding a few plants that repel mosquitoes will probably be at the top of your list of garden ideas. They should only be used in conjunction with other strategies or tactics though. Mosquito repellent plants, that are not only pretty but can help in the constant war against bug bites.

2. OBJECTIVE:

The monsoon diseases have become very common and take so many lives per year just because of poor sanitary conditions and stagnant water. This produces mosquitoes and flies, which become carriers of many diseases. The most common in Karachi are **DENGUE** and **MALARIA**. Other diseases include typhoid fever, gastroenteritis, diarrhoea, and **chikungunya**. Other than the monsoon season, these diseases or any other disease can be spread due to mosquitoes or air pollution. The air purifiers are necessary in Karachi to prevent these conditions and provide a fresh, purified, and healthy environment to every individual.

The requirement of fresh air is not only essential outdoors; it is also much needed in indoor environments in buildings, parks, hospitals, schools, or any place where numerous people reside.

3. DESCRIPTION/SOLUTIONS:

The naturally occurring mosquito repellent plants are TULSI, MARIGOLD, CITRONELLA GERANIUM, CATNIP, BASIL, SAGE, MINT and LEMON GRASS.

1. TULSI:



Ocimum tenuiflorum, commonly referred as holy basil or tulsi, is an aromatic perennial plant in the family Lamiaceae. The **TULSI plant** is natural air cleaner and a mosquito repellent. Hazardous gases like carbon monoxide, sulphur dioxide, and carbon dioxide are absorbed by the tulsi plant.

It also contains anti-inflammatory, anti-tubercular, anti-bacterial, and anti-asthmatic properties. This plant can help you breathe cleaner and less polluted air. TULSI PLANT can survive in 4 hours of part-sun light but needs 6 hours of direct sunlight to thrive. This plant can flourish in Karachi's climate with no problems. It offers fresh, pure air.

1. MARIGOLD:

In the Asteraceae family, Tagetes is an annual or perennial plant that is mostly a herb. While marigolds may grow in virtually any soil, they prefer a medium-fertile, well-drained environment.

Pyrethrin, a mosquito repellent, is found in marigold. This plant is a natural mosquito repellent that grows readily in Karachi.



How do you make marigold mosquito repellent spray?

Collect one packed cup of marigold stems, leaves and flowers.

Mix them in a blender with two cups of water.

Place the mixture in a glass jar, capped tightly, and let steep for 24-48 hours.

Shake it gently a few times while it steeps.

2. CITRONELLA GERANIUM :

They are called the mosquito plant, and they give off a scent mosquitoes don't like. And they are effective in repelling mosquitoes in small areas. It requires full sun to partial shade.



3. CATNIP:

Catnip may be beloved by cats, but it repels mosquitoes. It includes a substance called nepetalactone, which works similarly to mint in repelling insects and attracting cats. Although catnip does well in poor soils and some shade, it grows best in full sun and medium, well-drained soil.



4. BASIL :

Basil, also known as Ocimum basilicum, is a culinary herb, a spiritual plant, and belongs from family heirloom. It contains volatile compounds which interrupt mosquito's sensors and hence worked as mosquito repellent. Basil plant requires full sunlight and moist damp soil.



BASIL MOSQUITO REPELLENT SPRAY:

Place the basil leaves in a spray bottle and pour the boiling distilled water over them.

Allow the leaves to steep for 30 minutes to 1 hour.

Remove the leaves if storing for more than 5 hours.

Spray generously to repel mosquitos.

5. MINT:

Mentha piperita belongs to Labiate family. Mint is toxic to mosquito larvae. It also repel spiders. Menthol is an active ingredient which fights with bugs and mosquitos. Mint requires partial to Full sunlight and moist soil is required.

(Mint essential oil also help in soothing bug bites)



6. LEMON GRASS:

Cymbopogon, also known as lemongrass belongs from family Panicoideace. Lemon grass contains citronella, the compound in the plant that repels those buzzing good-for-nothing insects. It requires full sunlight and moist damp soil.



4. SCHEDULE/PLAN:

The cost of air purifying plants vary from nursery to nursery, the online shop “plantroops “delivers plants all over in Karachi. According to this online shop single pot costs 250-300Rs. All the above mentioned plants can grow in Karachi’s atmosphere.

The plan is to plant air purifying plants in homes, educational institutions, hospitals, offices to combat with upcoming monsoon season diseases. To provide healthy clean and green environment.

plantroops.com/shop/buy-tulsi-plant/

plantroops.com/shop/buy-mari-gold-plant/

plantroops.com/shop/buy-basil-plant/

plantroops.com/shop/buy-podina-plant/

plantroops.com/shop/buy-lemon-grass-plant/

5. EXECUTIVE SUMMARY:

The initial step in the prevention of diseases caused by air pollution and making Karachi a clean, healthy environment is our essential initiative. The plants discussed cannot eliminate the diseases completely, but they will undoubtedly reduce the frequency of malaria or dengue in Karachi.

THE NASA TEST PLANTS LIST IS MENTIONED BELOW,

<https://www.indiatvnews.com/lifestyle/health-5-nasa-approved-best-air-purifying-plants-for-home-560018> (nasa approved air purifying plants)

NASA Test Plants - Mashrita Nature Cloud						
S/N	Plant Name	Benzene	Formaldehyde	Trichloroethylene	Xylene/Toluene	Amonia
1	Peace Lily	Yes	Yes	Yes	Yes	Yes
2	Florist's Chrysanthemum	Yes	Yes	Yes	Yes	Yes
3	English Ivy	Yes	Yes	Yes	Yes	No
4	Variiegated Snake Plant	Yes	Yes	Yes	Yes	No
5	Red-edged Dracaena	Yes	Yes	Yes	Yes	No
6	Bamboo Palm	Yes	Yes	Yes	Yes	No
7	Money Plant	Yes	Yes	No	Yes	No
8	Flamingo Lily	No	Yes	No	Yes	Yes
9	Janet Craig	Yes	Yes	Yes	No	No
10	Warneckeii	Yes	Yes	Yes	No	No
11	Cornstalk Dracaena	Yes	Yes	Yes	No	No
12	Barberton Daisy	Yes	Yes	Yes	No	No
13	Aloe vera	Yes	Yes	No	No	No
14	Dwarf Date Palm	No	Yes	No	Yes	No
15	Areca Palm	No	Yes	No	Yes	No
16	Boston Fern	No	Yes	No	Yes	No
17	Kimberly Queen Fern	No	Yes	No	Yes	No
18	Spider Plant	No	Yes	No	Yes	No
19	Chinese Evergreen	Yes	Yes	No	No	No
20	Weeping Fig	No	Yes	No	Yes	No
21	Heartleaf Philodendron	No	Yes	No	No	No
22	Selloum Philodendron	No	Yes	No	No	No
23	Elephant ear Philodendron	No	Yes	No	No	No
24	Rubber Plant	No	Yes	No	No	No
25	Dendrobium Orchids	No	No	No	Yes	No
26	Dumb Canes	No	No	No	Yes	No
27	King of Hearts	No	No	No	Yes	No
28	Moth Orchids	No	No	No	Yes	No
29	Banana	No	Yes	No	No	No
30	Lilyturf	No	Yes	No	Yes	Yes
31	Broadleaf Lady Palm	No	Yes	No	Yes	Yes

