

## USING PLANTS AS AIR PURIFIERS IN THE HOME AND OFFICE



Studies have shown that indoor air pollutants are 3 to 70 times higher than outdoors; on average we spend 80% of our time indoors.

Most homes and offices have indoor air quality problems Volatile Organic Compounds (VOC's) these are just some of the causes are; photo copiers, office furniture, computers, printers, carpets, glues, white out, many of the cleaning agents that 'hang around' make a substantial contribution.

One simple way to improve air quality is to introduce plants which can absorb the pollutants. The list below provides air-improving plants for three of the most common indoor air pollutants: benzene, formaldehyde and trichloroethylene.

Keeping plants around the home and office purify and renew our stale air by filtering out toxins, pollutants, harmful viruses, mold spores and the carbon dioxide we exhale, replacing these with life sustaining oxygen. In other words they literally suck the toxins out of the air, and they look great too. It's important to keep these plants chemical free as they will not be effective as air purifiers, plants grown in organic soil and cared for using organic methods.

<p><b>BENZENE</b> found in:</p> <p>Inks, oils, paints, rubber, dyes, detergents, gasoline, pharmaceuticals, cigarette smoke, synthetic fibres.</p>	<p><b>Potential Health Effects:</b></p> <p>Skin and eye irritation, may be a contributing factor to chromosomal aberrations and leukemia in humans; chronic exposure to even low levels causes headaches, appetite loss, drowsiness, nervousness, psychological disturbances, anemia, bone marrow disease, carcinogenicity</p>	<ul style="list-style-type: none"> <li>• Dwarf Schefflera</li> <li>• Gerbera Daisy</li> <li>• Golden Pathos</li> <li>• Janet Craig</li> <li>• Madagascar Dragon Tree</li> <li>• Peace Lily</li> <li>• Pot Mum</li> <li>• Chrysanthemums</li> <li>• Silver Queen</li> <li>• Kentia Palms</li> </ul>
<p><b>TRICHLOROETHYLENE</b> found in:</p> <p>Primarily used in the metal degreasing and dry-cleaning industries; also in printing inks, paints, lacquers, varnishes and adhesives.</p>	<p><b>Potential Health Effects:</b></p> <p>Irregular heart rhythm, Liver, Kidney and neurotoxicity, cancer. It's on the hazards list of the National Institute of Health list.</p>	<ul style="list-style-type: none"> <li>• Gerbera Daisy</li> <li>• Peace Lily</li> <li>• Pot Mum</li> <li>• Kentia Palms</li> <li>• Ficus Benjamin</li> <li>• Areca Palm</li> </ul>
<p><b>FORMALDEHYDE</b> found in:</p> <p>Foam insulation, plywood, particle board, pressed wood products, wrinkle resisters, water repellents, fire retardants, adhesives, binders in floor coverings, carpet backing, permanent press clothing, cigarette smoke, natural gas, kerosene.</p>	<p><b>Potential Health Effects:</b></p> <p>Irritates mucous membranes of the eye, nose, and throat; can cause contact dermatitis, irritation of upper respiratory tract and eyes, headaches; can cause asthma and is suspected of causing a rare type of throat cancer.</p>	<ul style="list-style-type: none"> <li>• Azalea</li> <li>• Bromeliad (photosynthesize at night)</li> <li>• Gerbera Daisy</li> <li>• Golden Pathos</li> <li>• Madagascar Dragon Tree</li> <li>• Orchid (photosynthesize at night)</li> <li>• Kentia Palms</li> <li>• Boston Ferns</li> <li>• Philodendrons</li> </ul>

Healthy, robust plants in top shape are the most effective in cleansing the air. The more indoor plants you have, the cleaner your air will be. But you don't need to turn your home into a jungle; two to three plants in 8- or 10-inch containers for every 100 square feet can do the job.

### **A few tips to keep your Green Machines well tuned to do their job efficiently.**

**THINK LIGHT** -- When choosing a particular a plant, consider its light requirements. If you can read a book in a room on a foggy day without the aid of artificial light, there is plenty of natural light to suit most plants.

Most plants do not care for bright direct sunlight, especially from south or west windows. Direct sunlight from a warm window will burn the foliage of most plants. Bright diffused light is best. Most house plants can, however, tolerate light from north and east windows.

**KEEP THEM WATERED** - The rule of thumb when watering indoor plants is to water only when the top inch of soil becomes dry. Give the plants a good soaking, enough so that water pours from drainage holes. Don't water again until soil surface becomes dry. This watering technique helps to leach fertilizer salts out of the soil. Salt build-up is often responsible for browning leaf tips on many plants, especially palms and spider plants.

Over-watering indoor plants can cause problems. Not only can you kill the plant, you also invite mold to form on the top of the soil. Worse yet, soggy soil attracts fungus gnats, irritating little flies that feed on moist, decaying potting soil. In high humidity climates such as ours it is best to maintain house plants in a potting soil that is not too heavy with peat moss.

**PLANTS NEED TO EAT** - Monthly fertilizing with a high nitrogen plant food will keep plants green and growing.

**BATHING IS A MUST** - At least once a month give your plants a good hosing down, either outside or in the shower. Be sure to wash the undersides of the leaves as well.

Removing household dust from the foliage allows the plants to "breathe" better. It also helps prevent infestations. Palms especially need their leaves washed regularly to deter spider mite infestation.

**DON'T SHINE THEM** - Do not use leaf shines or polishes to brighten up plants. These preparations clog the stomata, or leaf pores. Plants need to breathe in order to photosynthesize. If you keep plants well-fed and bathed they will produce their own natural glow.

**NO DRAFTS** - Do not place indoor plants, especially palms, near drafty doors or windows. Pests like aphids, spider mites and mealy bugs easily blow in with the wind.

**INSPECT REGULARLY** - Every other week or so take a look at the undersides of leaves and the growing tips of your plants. Spider mites cause mottling or stippling of leaves. Aphids congregate at the growing tips and undersides of leaves.

If plants begin to develop stickiness on the leaves, suspect aphids or scale, a regular spray of worm juice making sure you get under the leaves should do the trick.

[www.denverplants.com/Plantscape/html/cleanair\\_2.htm](http://www.denverplants.com/Plantscape/html/cleanair_2.htm)

**Further reading 'Growing Fresh Air' by Dr. B C Wolverton**