

Massachusetts Master Gardener Association

FACT SHEET



Have Gardening Questions? The **Master Gardener Help Line Hours** are 10 a.m. – 2 p.m. on Fridays (all year) as well as Wednesdays (March-November) and Mondays (April-October).

Phone: 617-933-4929 Email: mghelpline@masshort.org.

Houseplants Clean the Air

Houseplants do more than just add color and living energy to a room; they act as natural air filters improving indoor air quality by absorbing contaminants. All plants make the oxygen we breathe as part of the photosynthetic process. Research has found many common houseplants also absorb ammonia, benzene, formaldehyde, carbon monoxide, trichloroethylene and xylene as well. NASA studies show common houseplants could remove up to 87 percent of air toxins in 24 hours. The air inside our homes may be more seriously polluted than outdoor air thanks in part to many of the products we use. We need all the help we can get!

Research has shown that the following plants are most effective all around in counteracting chemicals and contributing to balanced internal humidity: Areca palm, Reed palm or bamboo, Boston fern, Dwarf date palm, Janet Craig dracaena, English ivy, Australian sword fern, Peace Lily, Rubber plant, Weeping fig, Spider Plant, Golden Pothos, Chinese Evergreen, and heartleaf, lace tree or elephant ear Philodendrons.

Micro-organisms in the soil and roots also play an important role in removing air-borne pollutants. When exposed to these chemicals for longer periods of time they become adept at using trace amounts of them as a food source. Their effectiveness is increased if lower leaves covering the soil surface are removed. That way there is as much soil contact with the air as possible.

Although all plants require light, many varieties of houseplants originated in the dense shade of tropical or sub-tropical forests where they received light filtered through the branches of taller trees. Because of this, they can photosynthesize efficiently under relatively low light conditions, making them ideal for homes and

offices. To clean air, one plant should be allowed for each 10 square yards of floor space. You will need two or three plants to contribute to good air quality in the average domestic living room of about 20 to 25 square yards.

There are also certain plants that clean specific pollutants. Formaldehyde, one very common pollutant, is found throughout the house in items such as plywood, particle board, carpeting, furniture, household cleaners and water repellents. But luckily there is a variety of common houseplants that absorb formaldehyde. These include chrysanthemum, philodendron, spider plant, golden pothos, corn plant, peace lily, Chinese evergreen and mother-in-law tongue.

Benzene is another frequent polluter, often present in tobacco smoke, synthetic fibers, plastics and detergents. But it can be “cleaned” up by peace lily, English ivy, Gerber daisy and chrysanthemum.

Circulating air by fan, open window or air conditioner helps get these toxins moving so the plants can absorb them. To make your plants more effective at cleaning, keep them clean. A monthly wash of the leaves removes dust and other contaminants. Small plants can get a quick rinse in the sink. For larger plants use a dampened soft cloth to wipe off individual leaves.

There are enough known plants that do a good job of removing pollutants from the air we breathe to cause us to view houseplants as more than just an attractive feature in decorating our homes and offices.

The Massachusetts Master Gardener Association is a non-profit organization whose mission is to share knowledge and experience with the public through outreach programs in education, horticulture and gardening; to provide the Master Gardener Training Program to interested members of the public; and to provide graduates of the Master Gardener Training Program with educational and practical opportunities to extend their knowledge and interests in gardening and related topics. <http://www.massmastergardeners.org/>