

Extension Corner

Written by Linda Langelo, Golden Plains Area Extension



NASA and the Associated Landscape Contractors of America (ALCA) collaborated in a joint study based on 15 indoor plants. Dr. Bill Wolverton, a former research scientist of NASA, lead a team of researchers for two years testing house plants and their effect on removing indoor pollutants from homes and offices.

The three main pollutants present in homes and offices are benzene, formaldehyde and trichloroethylene.

Where do these pollutants originate? The furnishings in our homes, office equipment and building materials.

—Benzene is found in gasoline, inks, oils, paints, plastics and rubber as well as in the manufacturing of detergents, explosives, pharmaceuticals and dyes.

—Formaldehyde is found in particle board, urea-formaldehyde foam insulation (UFFI), in consumer products treated with UF resins such as grocery bags, waxed papers, facial tissues and paper towels. These UF resins are used as stiffeners, wrinkle resisters, water repellents, fire retardants and adhesive binders in floor coverings, carpet backings and permanent-press clothes.

In addition, formaldehyde is also in heating and cooking fuels like natural gas, kerosene and cigarette smoke.

Different plants help remove different pollutants. Here is a listing of what each of the plants do:

—English Ivy, *Dracaena marginata* “Janet Craig,” *Dracaena* “Warneckei,” Chrysanthemum, Gerbera Daisy and Peace lilies remove benzene. Peace lilies also remove carbon monoxide from the air.

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—Philodendron, Spider plant, Golden Pothos, Bamboo palm, Corn plant, Chrysanthemum and Mother-in-law's tongue remove formaldehyde.

Decorate your offices and homes with plants. Now, I know what you are thinking, you would probably kill the plant with forgetting to water it or not having enough light. Well, you are in luck.

Light levels are measured in footcandles. It is a common unit of measurement to calculate adequate light levels of workspaces. By definition, this measurement is the light intensity that an inside surface of one-foot sphere would be receiving if there were a uniform point source of one candela in the exact center of the sphere.

Low-light level—Corn plant, Pothos, Bamboo Palm, Mother-in-law's tongue and Chinese Evergreens. All these plants need for low-level light is a north-facing window or less than 50 footcandles. This translates into two feet from a north-facing window from April-September or if using a south-facing window 6-10 feet back from the window or one foot to the side April to September.

Medium-light level—Dracaena, Philodendron and Peace lily all take 500-1,000 footcandles or two feet from a north-facing window from April-September and 2-6 feet back or one foot to the side of an east or west-facing window.

High-light level—Spider plant, Chrysanthemum and Gerbera Daisy all take over 1,000 footcandles or two feet from a south-facing window from October-March and two feet from an east or west-facing window all year.

Watering requirements for these plants are fairly easy. Wait for the soil to become dry before watering again. However, there are two exceptions to this general rule. The Philodendron likes to be moist but well drained.

You should reduce the water in winter with a Philodendron. The Chrysanthemum likes to be

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watered regularly and kept evenly moist.

Fertilization requirements for these plants vary depending on light levels and their genetic make-up, as well as the seasonal time of year. With most of these plants, no fertilization is required in the winter months.

Chrysanthemums need fertilization if there are no blooms on the plant. Fertilize once every other week until blooms develop.

Philodendrons are heavy feeders. Fertilizing at half strength and feeding on a regular schedule will keep them healthy. Spider plants need fertilizer every two months in high light and every three months in medium light.

Corn plants only need fertilization in spring and through the summer once or twice a month and then no fertilizer during the winter months.

Pothos require the same fertilization schedule as corn plants.

Dracaena plants require fertilization in spring and summer once or twice a month and then once a month in the fall and no fertilizer during the winter months.

Bamboo palms require fertilization in spring and continue through the fall. Do this once a month and no fertilization in the winter.

Mother-in-law's tongue requires fertilization in spring through the fall and then no fertilization in the winter.

Peace lilies need a regular monthly fertilization throughout the year. Brown spots on the leaves

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are an indication of over-fertilization.

Gerber daisies need a fertilization of every other week. They can last up to six months indoors.

Chinese evergreens need a regular fertilization once a month from spring through fall and then no winter fertilization.

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