

THE NASA Guide TO Air-filtering Houseplants

It won't surprise you to hear that the majority of people spend the bulk of their time indoors, whether it's at home or working in an office environment. As such, it's important to ensure that air quality is of a high standard, something that regular houseplants can help achieve. Back in 1989, NASA conducted a Clean Air Study in association with Associated Landscape Contractors of America, in an effort to find the most effective common indoor plants for filtering harmful toxins and pollutants from the air. Their results have stood the test of time, and the most effective air filtering plants can be found below.

WHAT'S IN OUR AIR?



TRICHLOROETHYLENE

Found in printing inks, paints, lacquers, varnishes, adhesives and paint remover/stripper.



FORMALDEHYDE

Found in paper bags, waxed papers, facial tissues, paper towels, table napkins, particle board, plywood panelling, and synthetic fabrics.



BENZENE

Used to make plastics, resins, synthetic fibres, rubber lubricants, dyes, detergents, drugs and pesticides. Can also be found in tobacco smoke, vehicle exhausts, glue, paint and furniture wax.



XYLENE

Found in printing, rubber, leather and paint industries, tobacco smoke and vehicle exhausts.



AMMONIA

Found in window cleaners, floor waxes, smelling salts and fertilizers.

WHAT ARE THE EFFECTS ON HUMANS?

Like most chemicals, the adverse health effects you may encounter depend on several factors, including the amount to which you are exposed, the way you are exposed, the duration of exposure and the form of the chemical. Below are common symptoms associated with each toxic agent.



TRICHLOROETHYLENE

Symptoms associated with short term exposure include excitement, dizziness, headache, nausea and vomiting followed by drowsiness and coma.



FORMALDEHYDE

Symptoms associated with short term exposure include irritation to nose, mouth and throat, and in severe cases, swelling of the larynx and lungs.



BENZENE

Symptoms associated with short term exposure include irritation to eyes, drowsiness, dizziness, increase in heart rate, headaches, confusion and in some cases can result in unconsciousness.



XYLENE

Symptoms associated with short term exposure include irritation to mouth and throat, dizziness, headache, confusion, heart problems, liver and kidney damage and coma.



AMMONIA

Symptoms associated with short term exposure include eye irritation, coughing and sore throat.

PLEASE NOTE

Several of these plants are known to be toxic to cats, dogs and other pets. If you are a pet owner, please do check the toxicity of plants before introducing them to your home.

AIR-FILTERING PLANTS



DWARF DATE PALM
Phoenix robelenii



BOSTON FERN
Nephrolepis exaltata



KIMBERLEY QUEEN FERN
Nephrolepis oblitterata



SPIDER PLANT
Chlorophytum comosum



CHINESE EVERGREEN
Aglonema modestum



BAMBOO PALM
Chamaedorea seifrizii



WEeping FIG
Ficus benjamina



DEVIL'S IVY
Epipremnum aureum



FLAMINGO LILY
Anthurium andraeanum



LILYTURF
Liriope spicata



BROADLEAF LADY PALM
Rhapis excelsa



BARBERTON DAISY
Gerbera jamesonii



CORNSTALK DRACAENA
Dracaena fragrans 'Massangeana'



ENGLISH IVY
Hedera helix



VARIGATED SNAKE PLANT
Sansevieria trifasciata 'Laurentii'



RED-EDGED DRACAENA
Dracaena marginata



PEACE LILY
Spathiphyllum 'Mauna Loa'



FLORIST'S CHRYSANTHEMUM
Chrysanthemum morifolium

love the garden.com

SOURCES + REFERENCES

nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19930073077.pdf

wolvertonenvironmental.com/MsAcad-93.pdf

gov.uk/government/collections/chemical-hazards-compendium