

Alternative of Air Purifier in Home by Natural Plants - A Brief Overview

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Article History

Received: 3.08.2021

Revised: 10.08.2021

Accepted: 16.08.2021

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INTRODUCTION

Do you know that ornamental plants can be grown indoors and outdoors they are actually very friendly and attractive ornamental plants grown for ornamental purpose to live in the garden and protect as land design home ornaments for beauty of house and O₂ level and fresh feeling in the house. Poor air quality has become a common issue in major city and while air purifier are great at eliminating pollutants air purifying plant are another option you can considered pure and fresh air in gradually become a luxury with environmental pollution rapidly depleting the air quality both outdoor and indoor. Major cities are plagued smoke and other pollutants from vehicle power plant and factories. While mask and other protection means can provide as a relief when we step outside protection, caution is also required for indoor. While air purifiers are the most popular appliance for purifying indoor, air indoor plant are a much more nominal environmental friendly and simpler option is always beneficial as part from adding aesthetic value to the living space they are a source of fresh air and vibrancy.

Indoor plants: A indoor plant or house plant is a plant that is grown indoors, in places such as residences and offices for various purposes like.

- Decorative purposes
- To enhance the quality of air.
- Air purification
- To reduce the indoor air pollution by absorbing volatile compounds.

An ideal indoor plant following properties

1. An ideal indoor plant should provide more oxygen.
2. Should help in air purification.
3. Should have nice appearance.
4. Should be easy to grow.
5. Should be easily available.
6. Should be less expensive.
7. Should be easy to maintain and requires less sunlight.

The examples of plants given below are best indoor plants which act as a natural air filter, improve air quality and remove multiple toxins such as benzene, xylene, formaldehyde and carbon monoxide (CO). Thus, purifies air and initiates good health. According to the research conducted in 2017 at IIT Kanpur, the given indoor plants act as natural air filters and enhance the quality of air in our homes. Following is an ideal indoor plant given below.

Areca Palm



Figure 1. Areca Palm

Health benefits of Areca palm

- Absorbs pollutants.
- Healthy lungs.
- Proper development.
- Strengthen the central nervous system (CNS).

Boston fern

Nephrolepis exaltata, also known as sword fern or Boston fern, is a species of fern in the family *Lomariopsidaceae*. This evergreen plant can reach as high as 40-90 centimeters (16-35 inches) and in extreme cases up to 1.5 meters (4 ft 11 inches). It is also known as the Boston Blue Bell fern, tuber ladder fern or fishbone fern.

Scientific name:- *Nephrolepis exaltata*

Family:- Nephrolepidaceae

Boston fern

Dysoxylum lutescens, also known as golden Cane Palm, areca palm, yellow palm or butterfly palm, is a species of flowering plant in the family *Areaceae* native to Madagascar and naturalized in the Andaman Islands. Areca palm is a natural cooler that can remove xylene and toluene from the atmosphere. This plant has the ability to not just filter the air around but also add moisture to the surroundings, absorbing all the toxins, leaving the air clean and fresh.



Figure 2. Boston fern

Boston fern in particular is one of the best plants for indoor air purification. Boston ferns were found to be excellent at removing a variety of indoor air pollutants including formaldehyde, xylene, toluene, benzene and others. It is found to be best at removing formaldehyde.

Peace Lily

A long-time favorite among house plant enthusiasts, peace lily is one of the top indoor plants for cleaning air. This tropical plant breaks down and neutralizes toxic gases, like benzene, formaldehyde and carbon monoxide (CO). Peace lily is a natural air purifier. The most particular type of lily plant is *spathiphyllum floribundum* with the white flowers. They are a decoration in many living rooms.



Figure 3. Peace Lily



Figure 4. Snake Plant

Scientific name:- Spathiphyllum

Family:- Arums

Snake Plant

Sansevieria trifasciata, also known as Mother-in-laws tongue. Snake plant is one of the best indoor plants to have. It is beautiful plant with such a unique look. Research has shown that the snake plant is mostly oxygen producing indoor plant. It converts carbon monoxide (CO) into oxygen even at night. It is easy to grow. It purifies air by absorbing toxins such as carbon monoxide (CO), formaldehyde and benzene. The plant can survive in full sun or full shade and even lack of water, so easy to maintain and grow.

Money plant

Epipremnum aureum, also known as pathos ivy. It is beautiful hanging plant that can be cut and replanted for more plants. Money plant is a wonderful plant for air purification. It absorbs toxins from the air while giving us the oxygen we need. It is easy to grow, grows even in water.

Spider plant

Chlorophytum comosum, also known as spider ivy. It is a beautiful hanging plant. There was one study done which stated that the spider plant eliminated 95 percent of toxic agents from air. It is extremely adaptable. It can grow in low sunlight, partial or bright,

indirect sunlight. Spider plant is safe for pets too.

Aloe Vera

It is a beautiful succulent that likes a lot of light. It is great at absorbing moisture. Aloe vera releases oxygen and absorbs carbon monoxide (CO) at night which makes it a great air purifier. It is super easy to keep alive. It is also great for skin irritations and burns.

Some other alternatives indoor plants given below

- Rhaps Palm (*Rhaphia excelsa*)
- Chinese evergreen (*Dieffenbachia*)
- English ivy (*Hedera helix*)

CONCLUSION

The above indoor plants act as natural air filter. Growing indoor plants is a natural way to enhance the quality of air and to keep our homes beautiful and healthy. Each indoor plant contributes to raise the living health standards.

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