

15 House Plants You Can Use As Air Purifiers

Posted by [admin](#) on Thursday, February 18, 2010 · [62 Comments](#)

Here are 15 plants that could clean your air for just the price of a few drops of water each day.

First lets check some of the evidence behind the claim that plants can purify your household air:

1. NASA RESEARCH

A NASA research document came to the conclusion that “house plants can purify and rejuvenate air within our houses and workplaces, safeguarding us all from any side effects connected with prevalent toxins such as formaldehyde, ammonia and also benzene.”

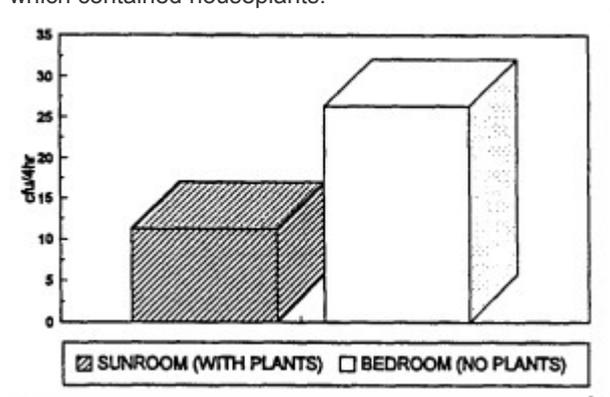
Here are the results of the NASA research study:

	Common name	Scientific name	Score
1	Areca palm	<i>Chrysalidocarpus lutescens</i>	8.5
2	Lady palm	<i>Rhapis excelsa</i>	8.5
3	Bamboo palm	<i>Chamaedorea seifrizii</i>	8.4
4	Rubber plant	<i>Ficus robusta</i>	8.0
5	Dracaena “Janet Craig”	<i>Dracaena deremensis</i> “Janet Craig”	7.8
6	English ivy	<i>Hedera helix</i>	7.8
7	Dwarf date palm	<i>Phoenix roebelinii</i>	7.8
8	Ficus Alii	<i>Ficus macleilandii</i> “Alii”	7.7
9	Boston fern	<i>Nephrolepis exalta</i> “Bostoniensis”	7.5
10	Peace lily	<i>Spathiphyllum sp.</i>	7.5

[Source](#)

2. INTERIOR PLANTS: THEIR INFLUENCE ON AIRBORNE MICROBES INSIDE ENERGY-EFFICIENT BUILDINGS

In another [study made in 1996](#), a bedroom with no plants had 50% more colonies of airborne microbes than a room which contained houseplants.



[Source](#)

3. FOLIAGE PLANTS FOR INDOOR REMOVAL OF THE PRIMARY COMBUSTION GASES CARBON MONOXIDE AND NITROGEN DIOXIDE

During a [laboratory experiment in 1985](#), Dr. Wolverton PHD compared the removal of [carbon](#) monoxide and nitrogen dioxide using a sealed chamber of spider plants.

Experiment	Concentration, ppm@			
	0 h	2 h	6 h	24 h
Carbon monoxide:				
1. Controls w/o pots	110		110	107
2. Controls w/pots	125		115	107
3. <i>Scindapsus aureus</i>	113		84	28
4. <i>Chlorophytum elatum</i> <i>var. vittatum</i>	128	98	68	< 5
Nitrogen dioxide:				
1. Controls w/o pots	43	19	16	8
2. Controls w/pots	44	8	2	1
3. <i>Chlorophytum elatum</i> <i>var. vittatum</i> (soil exposed)	49	2	< 0.5	< 0.5
4. <i>Chlorophytum elatum</i> <i>var. vittatum</i> (soil covered)	47	7	< 0.5	< 0.5

Source

4. DR WOLVERTON – FORMALDEHYDE REMOVAL EXPERIMENT

In another laboratory study by Dr. Wolverton PHD, he compared a number of house plants at removing formaldehyde from a sealed chamber. Formaldehyde is a common household toxin that is released from a variety of household items.

Removal of Formaldehyde from Sealed Chambers for Plants Grown in Potting Soil

CommonName	Botanical Name	Removal Rate*(Micrograms/Hour)
Boston fern	<i>Nephrolepis exaltata</i> “Bostoniensis”	1863
Dwarf date palm	<i>Phoenix roebelenii</i>	1385
Bamboo palm	<i>Chamaedorea seifrizii</i>	1350
Janet Craig	<i>Dracaena deremensis</i> “Janet Craig”	1328
English ivy	<i>Hedera helix</i>	1120
Weeping fig	<i>Ficus benjamina</i>	940
Peace lily	<i>Spathiphyllum</i> “Clevelandii”	939
Areca palm	<i>Chrysalidocarpus lutescens</i>	938
Corn plant	<i>Dracaena fragrans</i> “Massangeana”	938
Lady palm	<i>Rhapis excelsa</i>	876

Source

With reference to the experiments of Dr Wolverton and the NASA experiments, I have compiled a list of 15 house plants that provide the greatest level of air purification.

1. Areca Palm Tree



The Areca palm tree is the very best air purifying plant according to the ratings from NASA's research and has the 8th highest removal rate for Formaldehyde according to Dr Wolverton's data. This house plant was referred to as "the most effective air humidifier" by MetaEfficient.com. The Areca has the ability to maintain your office or home moist throughout dry periods as well as continually removing chemical toxins from your air. In the course of the winter season, it's so effective at putting moisture back in the air that you could switch off your electric humidifiers!

2. Lady Palm



This house plant – Lady palm (or *Rhapsis excelsa*) achieved exactly the same rating as the Areca Palm tree in NASA's research. This adaptable house plant, can be stored in dry or moist parts of the world (between 20-100° Fahrenheit) and is particularly resistant to the majority sorts of plant insects.

The Lady Palm is not the most effective at removing Formaldehyde so if this is a concern then i would suggest you look at another plant.

[Read more...](#)

3. Bamboo Palm



The bamboo palm was the third most powerful plant at removing formaldehyde from the air. It ranked third in the NASA experiment so is a good all rounder at keeping your room air clean. This house plant will grow best in a moist but not wet soil and in direct sunlight. However this palm will require lots of room to grow, so it might not be the best option if want this plant to sit on your desk.

[Read more...](#)

9. Boston Fern



The Boston fern was the most effective plant at removing Formaldehyde and removed significantly more per hour than the rest of plants examined.

Studies have also shown that the Boston fern will also eliminate heavy metals, such as mercury and arsenic from the soil.

[Source](#)

4. Rubber Plant



This rubber house plant (*Ficus robusta*) has been mentioned as one of the leading Twenty plants by Doctor. B.C. "Bill" Wolverton's "[50 Houseplants That Purify Your Home Or Office.](#)" This rubber house plant provides moisture, eliminates bio effluents, takes away volatile organic compounds as well as suppresses air based microorganisms as soon as it's put into a room

As time passes this rubber plant will become much more skilled at eliminating toxic compounds present in the air.

Bacteria within the rubber plants leaves break up the toxins and also feast on them. The procedure subsequently emits clean air in to the surrounding environment. Since the plant grows, these microorganisms increase.

This increased number of bacteria assist the rubber house plant in becoming progressively more effective at extracting further toxic compounds from the air.

5. Janet Craig – Dracaena



The Dracaena (or *Dracaena deremensis*) places fifth on NASA's ranking with a 7.8 score. According to data it can remove Formaldehyde, at a rate of 1,328 micrograms per hour. It also removes Xylene, at a rate of 154 micrograms per hour according to <http://www.earthwitchery.com/pollution.html>

Recommended Placement in Home: These are especially effective in newly carpeted or newly furnished rooms where formaldehyde levels are at the highest.

Tips to keep this plant healthy:

- Favours vibrant light, although not direct sunlight.
- Water completely through early spring through the winter season and allow the plant's soil to dry out in between watering

6. English Ivy



If your air flow in your geographical area has got stagnant and dried out, English ivy (also known as *Hedera helix*) may be just the solution! WebMD.com talks about this effervescent house plant as “a solution for allergic reactions” observing that sixty percent of air based mold within the space was removed after just six hrs right after English ivy had been introduced.

People that have allergies, asthma, or even the desire to inhale cleaner, more fresh air might be wise to give this English ivy plant a shot!

7. Date Palm Tree



Although it does not position at the top of the purifying scale when compared to its three palm relatives, make no mistake: this Date palm house plant (also known as *Phoenix roebelinii*) remains an extremely efficient and stylish looking method to both cheer up the design of an area and reduce the content level of volatile organic compounds floating all over the air.

The Date house plant is very effective at getting rid of formaldehyde thus works great in combination with other purifier plants (has the second highest removal rate after the fern plant.)

8. Ficus Alii



This ficus alii (also known as the *Ficus macleilandii*) isn't as strong in its pollutant-removing effectiveness as, say, a rubber plant, however it remains an excellent addition to any kind of office or home wherever clear air is missing. Although they aren't terribly difficult to look after, PlantCareGuru.com alerts to us that hand protection ought to be used whilst dealing with the house plant for those who have latex allergic reactions.

10. Peace Lilly



The Peace Lily (also known as *Spathiphyllum* sp.) is a perfect air purifier plant for those who don't have green fingers. Peace Lilies are often found in malls because they are so easy to grow.

If you scared you might kill your new house plant then I recommend you go for this one.

11. Aloe Vera



Aloe vera was proven to be a lot more effective at the elimination of formaldehyde at lesser concentrations when compared with Philodendrons. Aloe vera is likewise famous as being a healing plant acknowledged for its therapeutic qualities, giving it the majority of its nicknames.



The Aloe house plant was also used in the initial photography used for the [Andrea plant air purifier](#) – probably due to the plants purification properties.

12. Spider Plants



The spider plant was used by Dr Wolverton in his 1985 study that examined the plants removal of carbon monoxide and nitrogen dioxide. In a room with many spider plants the amount of carbon monoxide and nitrogen dioxide dropped to near zero after only 24 hours.

[Source](#)

13. Chrysanthemum



This particularly attractive house plant was shown to be effective at removing the VOC compound –benzene which has been known to cause cancer.

Many tobacco products contain high levels of benzene so it would be helpful to have one of these plants in a smoking household. However no house plant can ever negate the effects of tobacco smoke.

Remember to be careful with Chrysanthemum as it is poisonous when ingested or with prolonged skin exposure.

14. Heart leaf philodendron



The N.A.S.A. study showed that the Philodendron house plant was one of the best house plant for elimination formaldehyde from the surrounding air, especially when working with higher concentrations.

15. Snake Plants or Mother of Law Tongue



Snake house plants — these types of plants tend to be incredible growers and also extremely tough. They're excellent at eliminating the majority of toxins plus they are quite happy to grow in areas where other plants may decline and perish (say for example a hot window ledge). Also, they are great bathroom and darker area plants.

One Final Point:

Make sure to Maintain your house plants in a good condition and make sure you have enough of them. The NASA research advised that there should be a six inch plant for every 100 sq feet of interior living space