



GROWING INDOOR PLANTS TO GENERATE MORE OXYGEN

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ABSTRACT:

This research is motivated by the poor oxygen level indoors. The purpose of this research is to increase public awareness on sustainable development of oxygen level by growing indoor plants. Because of not having proper oxygen indoors, creating health problems in peoples like headache, giddiness, nausea, asthma etc. A field survey was conducted in Mahabubnagar district, Telangana by questionnaire method and found that due to urbanization and overcrowding congested situation are observed. Not only the outdoor environment is polluted, but also the indoor environment is also much more polluted because of toxic chemicals like benzene, formaldehyde, toluene etc, which are seen in the room because of paints, cleaners, personal care products, perfumes and deodorants and also from printers, fridge etc. Majority of the people already know the importance of indoor air quality, but they are not having the knowledge to increase the air quality indoors. The cost effective easy to implement methods are needed to increase oxygen level indoors. As an alternative we can grow indoor plants. People are growing house plants for beauty and aesthetic value but if they grow indoor plants they benefit more.

Key words: Indoor plants, air quality, health problems, pollution, environment.

INRODUCTION:

India is the largest populated country. In this modern period day by day the area of urbanization is seen increasing in an alarming way. Mahabubnagar district is one of the populated district of Telanagana State. Due to urbanization the outdoor air as well as the indoor air is polluted. This is a great concern of human health. We have conducted the field survey in the Mahabubnagar district from different sources like work places, environmental places and residential areas, because all these places are not ventilated properly, with many occupants in a small area with a minimum required amount of

fresh air. The present investigation is an attempt to provide awareness to people on indoor plants for sustainable development of oxygen levels and also to stop the spread of SARS-CoV-Virus it is necessary to live in rooms with ventilation and fresh air.

MATERIALS AND METHODS:

The authors have conducted an extensive field survey in the Mahabubnagar district from different sources like work places such as offices, banks, net centers, schools, colleges, entertainment places such as cinema hall, shopping malls and residential places such as apartments and homes etc. Because all these places are not ventilated properly with many occupants in a small area with a minimum required amount of fresh air.

First hand information is gathered through interaction with school childrens, college students, inhabitants of apartments, houses and common people. Further interaction sessions and workshops were held at Mahabubnagar district to tap the information on indoor plants. In the interaction we have gathered information on indoor plants of people they possess and have done questionnaire. To ascertain the benefits of these indoor plants the earlier published scientific literature sources like research has shown that “plants remove many indoor air pollutants, including ozone, toluene and benzene(Darlington et al, 2001, Wood et al, 2002, PapinChak et al,2009). Plants in room, however, have been found to improve performance(eg Shabita & Suzuki, 2004) and Lower feeling of physical discomfort (Lohr & Pearson-Mims, 2000).

RESULT AND DISCUSSION:

The indoor plants used for sustainable development of oxygen level indoors are enumerated with their vernacular name, scientific name, family, habitat and benefit were mentioned in table -1.

Table-1. List of some mention indoor plants develop oxygen levels indoors.

S.No	Vernacular name	Scientific name	Family	Habitat
1	Snake plant	<i>Dracaena trifasciata</i>	Asparagaceae	Herb
2	Areca palm	<i>Dyopsis lutescens</i>	Areceae	Tree
3	Money plant	<i>Crasula ovata</i>	Areceae	Climber
4	Aloe	<i>Aloe vera</i>	Asphodelaceae	Herb
5	Spider plant	<i>Chlorophytum comosum</i>	Asparagaceae	Herb
6	Gerbera	<i>Gerbera jasmisonii</i>	Asteraceae	Herb
7	Lucky bamboo	<i>Dracaena sanderiana</i>	Asparagaceae	Herb
8	Chinese evergreen	<i>Aglonema comotatum</i>	Areceae	Herb
9	Peepal	<i>Ficus religiosa</i>	Moraceae	Tree
10	Arrow headvine	<i>Syngonium podophyllum</i>	Areceae	Vine

A total number of 10 plants of 5 families are reported as indoor plants grown in Mahabubnagar district, Telangana state, India. Areaceae (figure 1b,c,h,j) Asparagaceae (figure.1 a,g) Asphodelaceae (figure 1.d) Asteraceae (figure 1. f) Moraceae (figure 1.i). All these plants produce oxygen not only in day time even in nights also.



Figure 1. a

b

c

d

e



F

h

i

j

g

Figure 1. (a) *Sansevieria trifasciata* (b) *Dypsis lutescens* (c) *Crasula ovata* (d) *Aloe vera*
 (e) *Chlorophytum comosum* (f) *Gerbera jamisonii* (g) *Dracaena sanderiana* (h) *Aglonema comotatum*
 (i) *Ficus religiosa* (j) *Syngonium podophyllum*

Many of the above mentioned plants develop oxygen level indoors have been supported by the literature (B.C.Wolverton, and J.D. Wolverton 1993)(Tennessen and Cimprich, 1995)(Lohr et al 1998) (Wood, A Ronald et al 2006) (K.D.Kobayshi, A.J.Kaufman, J.Griffs and J.Mc Connell 2007) (T. Bringsmark, T.Hartik, G.Patil 200).

The information provides enough incentive to study the active principle involved in sustainable development of oxygen levels indoors.

CONCLUSION:

A critical study of 10 indoor plants have the properties to develop oxygen levels indoor. So there is a need to provide awareness to people of Mahabubnagar district. As the global concern during the pandemic, people are staying at home. People are growing house plants in their gardens and lawns for beauty and aesthetic value. But if they grow indoor plants they can get benefit of it. It is necessary to live indoor with good ventilation and fresh air.

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