



Feeling at home in the workplace: the advantages of plants in the office



HEALTHY PLANTS
IN THE WORKPLACE

People who feel 'at home' at the office enjoy work more and are less likely to be ill and therefore take time off work. They are better equipped to handle stressful situations and their productivity is higher. Both employers and their staff benefit from a workplace where the health, safety and comfort of the workers is given consideration.

Well-known prerequisites for a healthy office are a risk-free, ergonomically stable working environment, a healthy climate and good posture while working (good seating posture, regular breaks, opportunities to move around). A varied and meaningful job, room for initiative and the opportunity to develop are equally important. What is less well known is that having plants in the workplace increases our mental and physical wellbeing.



Green is in our genes

Humans have walked the earth for tens of thousands of years. Most of this time we spent outdoors; hunting, fishing and gathering food. Plants played a vital role in this lifestyle: they indicated where water could be found and provided handy building materials, food, medicine, clothing and much more. The evolutionary bond with plants is deeply rooted in our genes and continues to manifest itself in all sorts of ways. For example, we can distinguish between no less than 2,000 hues of green, but only a handful of red shades.

As soon as man started spending more time indoors, he began to surround himself with foliage. In China, people kept houseplants as early as 1,000 BC; the Romans decorated their atriums with potted plants, while European adventurers brought back exotic plants from their faraway travels – both for their special medicinal and nutritional properties, and later on for aesthetic reasons. From the eighteenth century, plants were cultivated and kept in orangeries and greenhouses, and it was only after the Second World War that a true houseplant culture erupted, partly due to the development of central heating which guaranteed pleasant temperatures. Since the Sixties, house plants have become more popular in offices too and nowadays they form an integral part of the office environment.

The many advantages of plants

Our special connection with plants can be used to promote a healthy workplace. It is a scientific fact that the presence of plants keeps people calmer and makes them feel good. Plants encourage a positive work atmosphere, which in turn leads to better performance. Plants also improve the quality of the indoor environment, and consequently the health of the personnel. A hospital study showed that absence from work due to illness could be reduced from 15 to 5% within six months, when plants were placed near workers' computer screens. Five years on, sick leave has stabilised at around 5.6%. Another study has shown that plants in the office help reduce common complaints like fatigue, headaches and the irritation of mucous membranes.

The effects of plants on the indoor environment

There are quite a few substances in an office environment which release particles that affect air quality - printers, copiers, computer screens and upholstery are just a few examples. Plants also reduce the concentration of carbon dioxide and other substances potentially harmful in high concentrations, such as formaldehyde and benzene. This filtering helps to minimise contaminated air, so leaving indoor air fresher.



An ideal climate at work is not that easy to accomplish, especially in winter when the heating is on and humidity levels are low. Low humidity can lead to dryness of the mouth, a blocked nose and eye and skin irritations. Colds and 'flu are two important causes of absence due to illness. Did you know that more than 97% of the water absorbed by plants, is released back into the air through their leaves? So those plants that need a lot of water can increase the atmospheric humidity by some 10 to 15%. Research has shown that absence due to illness in offices where there are such plants is reduced by as much as 3.5 days per employee. Plants can also increase the "thermal comfort" as they help to cool down the office area through evaporation and by providing shade.

The effects of plants on our wellbeing

Numerous studies have shown that looking at plants and other natural elements reduces stress levels. Positive feelings increase whilst anxiety, anger and sadness subsides. It has also emerged that a view of greenery stimulates the recovery of hospital patients, while staff working behind computer screens experience less stress and call in sick less often.



Various social science perception studies have indicated that plants ensure a pleasant working environment, and less boring and sterile work conditions. One study revealed a correlation between interiors with plants and fewer health complaints and improved mood. Another study showed that half of the respondents visited a shopping mall more often after plants had been installed. The reason? Plants provide a more pleasant atmosphere, brighten up the environment and improve the perceived air quality.

A Dutch study has shown that there is a positive link between plants placed in an office and *productivity* (reported by workers themselves). This holds true in particular for people who work behind a computer screen for more than four hours a day. Plants at work also seem to have a positive effect on worker's creativity and ability to concentrate. Plants are also effective noise absorbers, which is why decorating an office with plants makes an excellent investment from an economic point of view (see the sample calculation).

Plants in the workplace...

- absorb harmful substances
- keep up the atmospheric humidity levels
- reduce stress levels
- encourage better performance
- filter out dirt and dust from the air
- have a cooling effect
- lift the general mood
- dampen sounds

Effective use of plants

Different types of plants have different positive characteristics. Good examples of air-purifying plants are Boston ferns, Gerberas, rubber plants, ivy and date palms. Among those plants with a high water consumption that can help improve the atmospheric humidity are ferns, ornamental grasses, Chinese windmill palms, Kentia palms, Ficus plants, ivy, Philodendrons, Spathiphyllums, African hemp and banana plants.

Plants need sufficient space, light, water and nutrients. There is no set rule for the choice and combination of suitable indoor plants, but it is advisable to consult an expert when looking to add more greenery to the working environment. At any rate, one can safely assume that an investment in greenery will pay for itself through the positive effect on health, productivity, reduction of absence due to illness, and overall working enjoyment!



An investment in plants in the workplace can be earned back within a year. The following calculation illustrates the benefits for a company with 100 employees working behind computer screens, where absence due to illness is reduced by 1%.

One-off investment in 100 plant troughs	£ 10.000,-
Annual costs	
Maintenance/replacement	£ 3.000,-
Write-offs	£ 2.000,-
Annual savings	
– 1% absence due to illness = annual salary at	£ 20.000,-
Yield	
First year	£ 5.000,-
Consecutive years	£ 10.000,-

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See also:
<http://www.healthygreenetwork.org>

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