

## **Interior landscaping in the workplace, benefits to business - Fiann Ó Nualláin**

Since NASA validated the scientific evidence that houseplants have the ability to be biofiltration systems, back in the closing decades of the twentieth century, the twenty-first century has seen a boom in plant rental and interior landscaping. Bolstered too by the building boom and the expectation of high end interior design, there is hardly a waiting room, foyer or reception without the presence of lush greenery or at least a potted plant.

No matter how token, plants are the ambassadors of friendliness; they enable an ambience that is not controlled, robotic, confined – instead by having nature inside, the impression is created of a calm, open, homelike experience. Plants state a caring environment especially if well maintained and healthy and that speaks volumes of your business's attention to detail. It is a well known fact that interior landscaped offices lease faster but they can also play a role in creating a corporate image and even act as a marketing tool: 'Green' and 'natural'. The plant friendly workplace makes it easier to recruit new employees and new customers. It sets a relaxed atmosphere to conduct business and enhance mood while improving general performance.

It is not just the aesthetic or psychological impressions that plants make but how plants scientifically put a person at ease that add value to interior plantscaping. The human eye can perceive more shades of green than of any other colour. Green triggers a response in the sympathetic nervous system to relieve tension in the blood vessels and thus lower the blood pressure, green lowers heart rate and provides an instant feeling of rest and recovery. There has been conducted numerous research on the restorative value of plants notably by Stephen Kaplan and Janet Talbot, that validate the nature reflex in boosting energy, enhancing performance and balancing mood. That restorative dynamic augments clarity and motivation. A break from the computer, work desk or machine, spent in the company of green foliage plants has a boosting effect on personal well-being and enthusiasm. Plants provide impetus.

Plants not only voice a healthy atmosphere but also deliver one: plants produce oxygen and so improve air quality in the workplace which reduces tiredness and boosts concentration. Interior plants also actively remove impurities from the air we breathe. These impurities include dust particles, allergenic particles and pollutants including some of the more dangerous Volatile Organic Compounds (VOCs) that form in the workplace – for example ceiling tiles release benzene, xylene and formaldehyde, while carpets and flooring can release acetones and alcohols into the air over the first few years after installation.

But even if the building has been fully 'off gassed', there are the daily releases via common workplace products: papertowels release formaldehyde, letterheads and printed material release acetone, computers provide toluene and xylene, photocopiers release volatile alcohols and trichloroethylene while printers provide trichloroethylene, toluene, xylene and ammonia. All separate to what ever chemicals are held or utilized on premises – from cleaning products to industrial materials.

House plants absorb VOCs into their leaves and to an extent through portions of exposed growing medium. The VOCs that enter via foliage are translocated to the rhizosphere (the root zone) where micro-organisms living in the growing media and on the roots convert the pollutants into nutrition for the soil and plant. Research has

shown that planted rooms will contain up to 60 percent fewer airborne moulds and bacteria than rooms that contain no plants. Plants also absorb warmth and sound, improve humidity levels and interior convection – which all impacts on decreasing tension and stress and boosting concentration and motivation.

Indoor air quality can be problematic in energy-efficient buildings with little outdoor ventilation. Central heating strips the air of moisture. Electrical devices add static to the room, but plants offer solutions and their bio filtration services are all supplied without the carbon footprint and electricity bill of mechanical systems. Safer, Healthier, more Green. Plants have a very constructive effect on electric charges. It's cheaper to grow a natural humidifying plant or de-ionizing plant than it is to buy a machine, and to heat an office where plants and not open windows are regulating humidity and vapours.

Yet the contribution I'm really referring to is not reduced bills but the decrease in static charges in the air that mess with communications systems, some machinery and with the physical human body. Because the electronic charge of a plant is opposite to that of humans, houseplants also help to counteract the effects of static electricity; ions in the air which are released from synthetic material and electrical machinery including computers, televisions, lights, fridges, air conditioners, humidifiers and dehumidifiers. Static electricity is an enemy in the workplace as it physiologically reduces productivity and motivation.

All the ambience creation and the biofiltration actually helps prevent health related problems like headaches, fatigue, eye irritations, dry throat, stress and thus have a proven track record in reducing absenteeism and improving performance. A well maintained plantscape in the work place also increases employee morale and pride in the workplace.

Dr. Billy C. Wolverton from the John C. Stennis Space Centre recommends for optimum employee health benefit, placing a plant on one's desk, or within six to eight cubic feet of where most of the person's daily activity occurs. For a high aesthetic look with easy maintenance and all the bio-filtration benefits I recommend the follow ten interior plants if you chose to incorporate some green to the office, factory floor or canteen.

#### Top 10 houseplants for office

- Kentia Palm
- Spathiphyllum spp (peacelily)
- Chlorophytum spp (spiderplant)
- Philodendron spp
- Dracaena spp
- Ficus spp
- Scindapsus/Epipremnun
- Hedra helix (ivy)
- Syngonium spp
- Sansevieria spp (snakeplant)

The above list is readily available from local garden centres and even some DIY stores. There are many professional interior plant maintenance companies and plants can

be purchased or rented from them also to suit your needs. With the benefits it makes good business sense to invest in interior plantscapes.