

# The Building Isn't Green Until the Plants Arrive



# Interior Plants Offer a Solid Return on Investment

## Proven to Deliver Bottom-Line & Environmental Benefits

According to recent findings from internationally renowned scientists out of Australia, the United States and Europe, an adequate installation of interior plants can deliver significant bottom-line benefits while bringing many "green" qualities to the workplace. In their efforts to maximize sustainability and improve indoor environmental quality, building and facility management professionals can no longer afford to ignore the physical and psychological benefits of interior plants.

Research verifies that interior plants are proven to inspire worker productivity and increase workplace satisfaction. Additionally, the "green" attributes of interior plants include a positive impact on indoor air quality, thus vastly improving health and attendance in the workplace. Interior plants have even been shown to increase occupancy and retention.



## "Green" = Productive!

In a study conducted by Dr. Virginia Lohr of Washington State University, Pullman, Wash., subject reaction times to a computer program were 12 percent faster when plants were present. Blood pressure readings taken during the same study showed that visual exposure to plant settings could produce significant recovery from stress within five minutes.

Depending on the size of a company's labor force, an increase in productivity of this measure could translate into millions in final revenue earnings.

## The Value of Workplace Satisfaction

European case studies and academic research reveal that plants produce positive emotions and improve focus in office environments. In these studies, subjects exhibited a more upbeat, creative state of mind when plants were present.

Humans are proven to be the most valuable and expensive assets of any business. In terms of cost per square foot, the human asset is 10 times the building operating cost and nearly 100 times the energy cost. When a business takes steps to keep its human assets happy, the business wins.



## Improved Indoor Air Quality & Attendance

Findings indicate that an adequate installation of interior plants in a modern, sealed office structure could save U.S. companies \$258 billion via contributions to improved indoor air quality alone.

In various studies, plants have been shown to reduce absenteeism by 14 percent. The air inside sealed, energy-efficient buildings is often 10 times more polluted than the air outside due to toxic emissions from a variety of building constituents. Researchers William J. Fisk and Arthur H. Rosenfeld of the Lawrence and Berkeley National Laboratory, Berkeley, Calif., found that \$58 billion could be saved annually by preventing sick-building illnesses. They also found that \$200 billion could be saved in worker performance improvements by creating offices with cleaner indoor air. The same study verified that 40 percent of all sick days are related to poor indoor air quality.

The work of NASA scientist Dr. B.C. Wolverton and others clearly indicates that interior plants can reduce the airborne molds responsible for sick-building illnesses in sealed office environments by as much as 50 percent.



## Reduced Sick Building Symptoms

In a two-year study of an office, Professor Tove Fjeld of the Agricultural University in Oslo, Norway noted the following reduction in ailments after the introduction of plants:

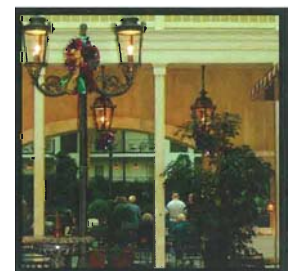
Ailment	% Reduction
Fatigue	20
Headache	45
Sore/dry throats	30
Coughs	40
Dry facial skin	25

Fjeld also carried out studies in a school and a hospital x-ray department with similar results.



## Plants Can Improve Tenant Occupancy & Retention

The Opryland Hotel (Nashville, Tenn.) enjoys occupancy rates of over 85 percent each year, well above a national average of 68 percent (Trends). According to a scientific case study performed by Michael Evans, former Associate Professor of Hotel, Restaurant and Institutional Management at the VA Polytechnic Institute, the hotel's high occupancy rate is due to the largest investment in indoor gardens in the country. Currently there are 12 acres of indoor space with approximately 18,000 indoor plants (and 600 species) valued at well over \$1 million. The rooms overlooking the gardens are the first to be reserved and command a premium price over rooms that do not offer garden views.



**Interior Plants Are Vital to Any "Green" Design Environment that Aims to Be Healthy, Supportive & Sustainable**

Cheaper to maintain than silk plants, live interior plants are now absolute necessities in today's energy-efficient buildings. To learn more about the "green" qualities of interior plants, give us a call today.

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