

Fridays at 6.30 p.m.

Sundays at 10.30 a.m.



DATE: Friday 10th July 1998

TITLE: OFFICE PLANTS

PRESENTER: MALCOLM CAMPBELL

Indoor plants are biological air conditioners. They increase humidity and improve air quality by removing indoor air pollutants. Many of these pollutants come from the outgassing of synthetic fabrics, furnishings, paints, glues and computer terminals. The bioeffluents produced by humans also contribute to office air pollution. These include carbon monoxide, methane, volatile fatty acids, ammonia and phenols.

Most offices are closed systems with fixed windows. Air conditioning results in dry air. The long hours workers spend in this environment can exacerbate health problems such as allergies, asthma, respiratory infections, fatigue and headaches. Research by NASA in the 1980s showed that some indoor plants are efficient removers of air pollution. They also humidify the air. Further research in this area is being done at the University of Technology, Sydney. These findings demonstrate the need to design buildings with space for indoor plants and gardens.

Plants remove air pollutants in a number of ways. Some, such as formaldehyde, are absorbed by the plant and broken down by plant respiration. Others are broken down by microbial action in the potting soil. Some of the most beneficial include:

**Kentia Palm (*Howea fosteriana*)** has bacteria living in association with its roots which metabolise large amounts of volatile organic compounds. It prefers a well-lit situation.

**Boston Fern** is the top performer at removing formaldehyde from the air. It needs regular misting in air conditioned situations.

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