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Letters

Plants and pollution

"Greenery filters out indoor air pollution" (SN: 9/30/89, p.212) represents a rather substantial extrapolation and an old story continually being reshaped. NASA has been doing the same preliminary-type experiments of 24-hour tests in sealed chambers with nonrenewed pollutant levels since at least 1983. The air pollutants may simply be dissolving in the plant sap or soil solution, or absorbed onto plant or soil surfaces. There is no need, and there are no data, to support the idea that "microbes and plant roots can degrade them."

It's about time researchers conducted some longer-term tests (weeks or months) with plants in actual "sick" buildings with typical ventilation levels and the continual outgassing of air pollutants.

David R. Hershey
Assistant Professor of Horticulture
University of Maryland
College Park, Md.

This Week

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Cover: Football coaches typically tap their experience and intuition to judge when blockers react fast enough or hit hard enough. For more accurate assessments, they can now recruit PVDF, a plastic that transforms even slight pressure changes into electrical signals. Here, PVDF sensors in a mock football and in a pad on the blocking sled feed electrical signals into circuitry that interprets and then displays them as digitized reaction times and blocking power. As the price of PVDF goes down, more scientists and engineers are finding imaginative uses for PVDF, whose applications already read like a technological laundry list. (Photo: Rae Crowther Co.)



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As an indoor-air-quality analyst, I am often asked by clients whether I would recommend more green plants to improve the air quality of their office buildings. My response is always neutral. While plants are well known to exchange oxygen for carbon dioxide and have been reported previously to absorb air pollutants, they have some unpleasant impacts on real office environments. We have observed many offices where leaves and other organic debris have dropped into perimeter air-conditioning vents. Here, combined with moisture in condensate pans, they provide a medium for the growth of bacteria and fungi, which are then blown into the office air. It is ironic that *Ficus*, which you mentioned in your article, is one of the worst offenders. These plants can deposit thin layers of sugary sap on nearby surfaces. We have found luxuriant growths of *Cladosporium* and *Penicillium* fungi growing in the vicinity of these plants.

A related impact of plants in offices is that watering them often results in some spillage. Bacteria and fungi thrive in wet carpeting and

furniture, and can cause significant health problems. Unless great care is taken to avoid these problems, I would regard indoor greenery as a mixed blessing at best.

Eric deLaubenfels
Aqua-Aire Inc.
Beltsville, Md.

Having spent time in dissection labs, I know how irritating formaldehyde can be. A modest assortment of *Ficus*, potted mums and Gerbera daisies might go a long way toward relieving the lingering effects of formaldehyde exposure.

Patricia Bartlett
Ft. Myers, Fla.

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All letters subject to editing.

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