

---

---

# Off the Beat

---

---

## Should you talk to your plants?

Curiously, now that we've entered the Age of Aquarius, where people are supposed to discover their nature scientifically, people are hankering after mysticism, intuitionism, astrology and the occult. God may be alive after all, pervading even lowly plants, according to books now inundating bookstores—*Plant Consciousness*, *Plant Care*; *Talk to Your Plants*; *Mother Earth's Hassle-Free Indoor Plant Book*; *The Secret Life of Plants*. The last, by Peter Tompkins and Christopher Bird, was recently published by Harper and Row. It promises to be a best seller and is also being made into a movie.

*The Secret Life of Plants* expounds on research conducted during the past couple of centuries to the present, showing that plants respond to human emotions, noise, electromagnetic forces and other stimuli. Written in an exuberant, anecdotal and oft poetic style, the book entices the reader to swallow the message: that apples crave your sensuous bite, that plants respond to your love. While reading the book I mused on my mother-in-law, who has the message already. She coos to her plants, waxes their leaves, lets them take turns by the window. Her botanic results would make the greenest thumb envious.

The book has not seduced the scientific community, though. Much of their criticism is justified. Frank B. Salisbury, a plant physiologist with the Atomic Energy Commission, writes in the April *BIO SCIENCE*: "I can't yet prove, for example, that plants don't react to my thoughts, but I can indicate that plant anatomists haven't found a trace of a plant nervous system, that plants in the wild don't seem to depend upon people who care and that plant physiologists have been attaching electrodes to plants for years without observing the outlandish effects now being reported. . . ." And, as Arthur W. Galston, a plant physiologist at Yale University, points out in the March *NATURAL HISTORY*, some of the investigators whose work is stressed in the book have said some unpardonable things from a scientific view.

For instance, Cleve Backster, a former Central Intelligence Agency polygraph expert who hooked lie detectors up to plants and who is highly publicized in the book, has said: "The only problem in this kind of research



is that nature doesn't want to jump through the hoop ten times in a row simply because someone wants her to. It's difficult to structure repeatable experiments. . . ." But nature is not capricious. Other scientists should be able to hook lie detectors up to plants and get comparable results.

The book might also be criticized because some of the research is by people not trained in the scientific community and some of the techniques they've used are zany. Sometimes the authors let their rapture outweigh the evidence, as with this statement: "What makes plants live, or why, does not appear to be the purview of science."

Still, the book isn't a complete bomb. If you can keep a clear head in Tompkins' and Bird's flower patch, you might be impressed with the enormous amount of research that has been conducted on plants. This fact alone surprised me. As a result, I found myself acquiring new respect for my parlor palm and prayer plant, if not as bosom buddies, at least as intricate biological systems interacting with the human world. True, much of the research played up in the book is open to scientific question. But other research that is detailed has been conducted by reputable scientists and published in respectable scientific journals. For example, L. E. Murr's findings that an environmental electric field influences plant growth was published in a 1963 issue of *NATURE* (SN: 12/14/63, p. 377). Some of the evidence in the book has been substantiated by trained scientists—such as the favorable effects of noise on plant growth. A team of

physicists, biologists and chemists at the University of North Carolina reported to the American Physical Society in 1972 that high-level sound makes turnips sprout faster (SN: 7/15/72, p. 44).

The danger is that while the book is turning the public on, it may set back serious scientific efforts. Sober research now being conducted on plants may find itself discredited or without funding because it is associated with questionable work. Worse, scientists may turn away from confirming legitimate research and giving it the credibility it needs if it is to be accepted scientifically. And only if it is accepted scientifically, will its real potential be exploited.

I really can't accept this closed-minded, contemptuous prediction of Galston: "In time, the effects of the book will fade away—you can't fool too many people for too long a time. Meanwhile some plant lovers will croon to their cattlevas and murmur to their mimosas. This may comfort the vocalizers, but it won't do a thing for the plants. . . ."

Rather, Salisbury has the right idea: "We must remain willing, even anxious, to accept truth from any source. (Perhaps plants *do* react to sound—one can imagine how sound waves might act on cellular organelles—and the 'aura' seems to be a special case of corona discharge.) That is the spirit of science. But the spirit of science is also an insistence upon proper controls, accurate and objective observations and valid logic. . . ."

—Joan Arehart-Treichel