

# Science<sup>®</sup> News

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Incorporating Science News Letter

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**COVER:** Sunlight has long been taken for granted by the scientific community. But now the systematic study of the interactions of light with plants and animals is growing in scientific importance. See p. 386.

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<b>Editor</b>	Kendrick Frazier
<b>Senior Editor and Physical Sciences</b>	Dietrick E. Thomsen
<b>Senior Editor and Behavioral Sciences</b>	Robert J. Trotter
<b>Biological Sciences</b>	Joan Arehart-Treichel
<b>Science and Society</b>	John H. Douglas
<b>Space Sciences</b>	Jonathan Eberhart
<b>Writer/Copy Editor</b>	Lisa J. Shawver
<b>Art Director</b>	Dale Appleman
<b>Assistant to the Editor</b>	Esther Gilgoff
<b>Books</b>	Margit Friedrich
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June 15, 1974

# To the Editor

## Opposing views on plants

Re: Joan Arehart-Treichel's fine article on the private life of plants ("Off the Beat," SN: 5/18/74, p. 326). Some scientists have, by their own closed minds, cast upon all of us the reputation for the same. These men have become more like bishops and shrinks, who claim to have direct yet untraceable lines to the only truth. Exclusion by fiat of areas of investigation from the province of science is their most unpardonable offense. Under such circumstances, it is proper to reject the fiat and publish data outside the administrative mechanisms of "acceptable" science, such as these investigators have done.

Joanne Steele  
New York, N. Y.

I was surprised at the review of *The Secret Life of Plants*, which was given a full page space. If a publication like SCIENCE NEWS is not going to call a spade a spade and label this nonsense as pure, unadulterated, junk—who is? It is not a question of whether or not one agrees with what they say. The problem is that the authors have no scientific training, do not know how to conduct an experiment, do not know what controls are, and give in no important case any reference by which the reader can check on their evidence and interpretations.

The reviewer says "... some of the techniques are zany." I defy her to quote me one which was rational. The whole book was a joke. It is part of a tidal wave of sheer, 100 percent, 14-karat, homogenous, anti-scientific garbage which is presently flooding the country.

Mortimer T. Cohen  
New York, N. Y.

Joan Arehart-Treichel's article on plant behavior was very heartwarming. However, I must agree with Arthur Galston of Yale University and many others of the scientific community that the belief that plants respond to human emotion is clearly unscientific, if not ridiculous.

First of all, the physiological make-up of plants is relatively elementary when compared to mammals. They have no nervous system of any kind which would seem necessary if plants are to carry on such complex behavior as emotion, personality, etc. Instead, plants have a system

of hormonal regulation carried on principally by substances called auxins. However, these plant hormones (which are only responsible for growth patterns) only institute their effect in response to stimuli of abiotic nature like gravity and light. They could hardly be expected to respond to such an intangible stimulus as human emotion. The problem involved is how this stimulus could be conveyed to the plants.

One may cite brain waves as a factor here. But, if this were the case, it would seem logical that plants would need more differentiated cells of even greater specialization to receive these waves and relay their message for a response. Unfortunately (for brain waves), plants have a greater proportion of unspecialized tissue than mammals, who have developed an efficient nervous system while plants have not.

Plants, with their many colors and forms, no doubt contribute much to the beauty of this earth. Nevertheless, I do believe that plant enthusiasts should have more knowledge of their plants' physiology before they try to treat them as pets, or even more lovingly as people.

Jerome Liebelson  
Spring Valley, N.Y.

## Sorting out the credit

I was disturbed by Dietrick E. Thomsen's article entitled "Proteins and Metals Stick Together" (SN: 5/18/74, p. 324).

At the beginning of the article Thomsen quotes Ivar Giaever as saying: "There was no literature so I decided to find out myself." Then comes a description with diagrams of a typical experiment I have so often described in numerous articles published in the last few years: How a nickel-plated slide coated with bovine serum albumin adsorbs specifically homologous antibodies when dipped into an antiserum solution. Also, Christian Mathot and myself have already pointed to the potential usefulness of such a method for clinical applications.

The nice and original contribution of Giaever in this field is described towards the end of the article and is limited to the use of an indium-coated slide for estimating layer thickness.

It is most unfortunate that Giaever should have presented his work in such a manner that a reporter was led to believe that he, Giaever, is the author of the method for carrying out immunologic reactions at a liquid-solid interface.

Alexandre Rothen  
Rockefeller University  
New York, N.Y.

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