
Letters to the Editor

Federal Scientific Research

Under the title given above, R. G. Roberts and H. H. Beard (*Science*, 1945, 102, 660) object to a proposal which they attribute to the "Board of Governors of Yale University." There is no such body. Reference to the article cited (*Science*, 1945, 102, 524-525) reveals that the group in question is the Board of Permanent Officers of the Sheffield Scientific School—in other words, the full professors in the Division of Science of the Graduate School, Yale University.

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One World, Yet Different Biologies?

Although in his work, *One world*, the late Wendell Willkie wrote a good bit without saying anything, the concept implied in the title is currently attracting favorable attention, even among political leaders. Of all groups, one might have expected that scientists would be most insistent that there is but a single sort of their particular branch of endeavor—one biology, one chemistry, one physics, and so on.

Accordingly, it has been rather disconcerting to find successive articles appearing in recent issues of *Science* under the title "Soviet Biology." For, the use of a modifying term in this manner implies that there is some other kind of biology which is different and, presumably, inferior—perhaps racial, e.g. Polynesian Biology; or religious, as Baha'i Biology; or even, dare we say it, Capitalist Biology.

Mr. Editor, when further articles of this sort reach your desk, would it be too much to ask that you alter the title so that no racial, religious, or political term is permitted to modify the word science, or any branch thereof? If an article is headed "Shangri-La Biology," could it not be changed to "Biology in Shangri-La"?

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The Abstracting of Biological Films

The section on visual instruction in *Biological Abstracts* provides a useful service to prospective film users. However, its usefulness would be greatly increased if the coverage could be extended to all biological films. At the present time the section is limited to the fields of microbiology, immunology, and public health, which are reviewed by a committee of the Society of American Bacteriologists headed by Dr. H. E. Morton. Correspondence with the editorial office of *Biological Abstracts* indicates that they are very willing to publish abstracts of all biological films that can be located. Other societies have committees on visual instruction, but they have not been set up to furnish such abstracts. In some cases these committees list approved films for the benefit of

the members of their societies. Other films do not appear on the approved lists because of errors or misconceptions within the films. However, the work of such committees would be much more useful if all of this information were made generally available in abstract form to a larger group of film users.

The present abstracts furnish precisely the information that a prospective user needs. By giving the shortcomings and limitations of a film the user can frequently adapt it to his purposes. Although useful information may be obtained from the *Educational Film Guide* published by H. W. Wilson Company, this publication does not ordinarily reach the desk of the biologist, and the information supplied is not complete. Adequate coverage of all biological films in *Biological Abstracts* would serve to keep the biologist abreast of this expanding field. It is to be hoped that the other biological societies may so constitute their committees on visual instruction that a program for abstracting all films of interest to the biologist may ultimately be worked out.

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Glutamine From Rye Grass

Greenhill and Chibnall (*Biochem. J.*, 1934, 28, 1422-1427) and Curtis (*Plant Physiol.*, 1944, 19, 1-5) noted marked exudation of glutamine on grass fertilized in the spring with nutrients high in ammonia. Greenhill and Chibnall did not get similar results later in the season, and Curtis was unable to reproduce the phenomenon.

In the tomato (G. J. Raleigh. *Plant Physiol.* In press) marked guttation followed the addition of either nitrate or of ammonium salts to solutions deficient in nitrogen. With the thought that a period of growth with low available nitrogen and consequent high carbohydrate reserves might be a prerequisite for glutamine exudation, domestic rye grass was seeded 25 September 1944, in flats with hardware cloth bottoms containing 1½ inches of potting soil. The flats were kept in the greenhouse until 28 October when they were moved out-of-doors to a sheltered area. In order to facilitate leaching, they were placed on cinders approximately 8 inches deep.

By 28 March the rye grass had made good growth but was light in color, indicating nitrogen deficiency. From that date to 26 June a total of 52 flats were fertilized with ammonium chloride dissolved in water at the rate of 300 pounds of the dry salt to the acre at 8 different times during that period. In most cases, the grass was clipped before the applications of fertilizer. The NH_4Cl was applied in mid-afternoon on days when the weather prediction indicated a clear, cool night.

Without exception, usually on the first or second day following fertilization, nitrogen-deficient grass produced quantities of exudate sufficient to make it possible to collect it, by clipping and drying the grass, rubbing it