LETTERS

EPA Pesticides Regulation

In his article "Pesticides: Three EPA [Environmental Protection Agency] attorneys quit and hoist a warning flag" (News and Comment, 19 Mar., p. 1155) Luther J. Carter seems to have fallen into the trap of journalistic sensationalism, something which should not be tolerated in a scientific journal. Carter should have done the necessary research to write an article which described the dilemmas of pesticide regulation and the honest struggle to reach sound solutions. Simply to put the white hats on the quitting lawyers and the black hats on the indecisive and fumbling bureaucrats serves little purpose.

What then are some of the real problems? First, scientific knowledge is incomplete on such questions as how to unequivocally identify carcinogens and how to translate laboratory results to the human experience, both with regard to species differences as well as exposure rates.

Second, there is a difference between the legal and the scientific approach to a problem. The scientist can and must consider all available information; the lawyer's argument includes only those aspects beneficial to his client. At first glance this often makes the scientist appear to be indecisive and contradictious, whereas the lawyer appears uncompromisingly clear. But in order to arrive at the truth, the legal approach calls for an adversary opinion and finally for a jury or a judge to render a verdict. The scientific approach is based on argumentation among peers in order to come to a consensus opinion. A split decision is an acceptable outcome, but it does not indicate that someone is right and someone is wrong. Rather, it indicates that the available information can be interpreted in more than one way and that probably more detailed data are needed to arrive at a consensus.

I am not on the side of those who want to poison mankind and the environment for personal gain and treat our gene pool with noxious chemicals. I am on the scientific side, the side which does not quit when things get rough, the side which keeps asking questions and tries to resolve the problems. For the quitting EPA lawyers, the episode is merely another experience under their belt; for the scientists remaining at EPA the struggle goes on.

The EPA has many scientists whose training and experience *have* in fact prepared them for confronting the questions of chemical carcinogenesis, as well as other problems relating to pesticide safety. The question arises of how legal training prepares an individual for confronting these problems.

There is no doubt that the regulation of pesticides needs both legal and scientific support, but these two aspects must complement each other. A "prima donna" attitude on the part of either the lawyers or the scientists does not serve the purpose. We should also not lose sight of the fact that the problems related to pesticides are basically scientific (food production, carcinogenesis, disease eradication, public health, toxicology, biology, and biochemistry) and not legal.

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I take issue with Carter's insinuation that the pesticide decision-making process of the Environmental Protection Agency (EPA) should be the responsibility of its Office of General Counsel (OGC) rather than its Office of Pesticide Programs (OPP). This would not be in the best interest of either agriculturalists or environmentalists.

While I realize that scientists are not always unbiased, I cannot believe that decisions made by the scientists in the OPP will be more biased than those made by the lawyers of the OGC, who confess to having close ties with the Environmental Defense Fund. Although the course of study required to receive a law degree is rigorous, the receipt of a law degree does not instantaneously give an individual perfect insight into ecology or the science of carcinogenesis. To allow lawyers in the OGC to formulate pesticide decisions makes about as much sense as allowing the scientists in the OPP to handle the legal matters of the EPA.

As a member of the staff of the House Committee on Agriculture, I have known and worked with Edwin Johnson, EPA's deputy assistant administrator for pesticide programs. I feel that he is one of the most capable young men in Washington. His decisions have not always been agreeable to environmentalists, nor have they all been accepted with enthusiasm by agriculturalists; but no one can say they have been made with disregard for scientific evidence.

There are always at least two sides to most issues, and pesticide policy is no exception. Environmentalists seemingly are dedicated to banning all potentially toxic substances regardless of the effects on the economy and food production. Agriculturalists, on the other hand, see the benefits of pesticides to their industry and are hesitant to understand

the justification for pesticide cancellations. The only rational decision-making process is one which will balance costs versus benefits and utilize scientific data as a basis for pesticide policy.

It was with this goal in mind that Congress passed legislation amending the Federal Insecticide, Fungicide, and Rodenticide Act to require EPA to prepare and file statements on the impact of pesticide decisions on the agricultural economy, the supplies of food and fiber, and consumer food prices. Since this requirement can only act to benefit all Americans, it would seem to refute Carter's implication that Congress bowed to the agricultural lobby. It is more likely that special interest groups have had an undue influence on the three EPA lawyers, who admit turning to environmental groups for guidance and assistance in their policy-making efforts. The transfer of pesticide decisions back to the OPP should rectify this problem by putting the decisions back in the hands of scientists, who will base their decisions on scientific evidence rather than emotionalism.

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In response to the suggestion that I have engaged in "journalistic sensationalism," I merely point out that the resignation of the three attorneys—made in protest at what they perceived to be a bad turn in EPA policy—was in fact highly unusual, or, if you will, "sensational." Furthermore, I said quite plainly that the merits of their criticism of the organizational and policy changes at EPA must be judged later in light of how well or badly these changes work out in practice.

By insisting that I should have described the dilemma inherent in pesticide regulation, Engler really seems to mean that I should have emphasized how difficult it is for scientists in the Office of Pesticide Programs (OPP) to arrive at judgments on which regulatory decisions can be based. He shows little interest in the other horn of the regulatory dilemma—the necessity of protecting people and the environment from possibly harmful chemicals, even though the evidence as to their effects may be incomplete or ambiguous. When this dilemma is not squarely faced, the result is regulatory paralysis.

Baize speaks highly of Edwin Johnson, the current head of the OPP, and seems to imply that my article puts him in a bad light. The fact is, Johnson, whose predecessor was transferred for failing to deliver, was only mentioned in order to point out that Administrator Russell E. Train has told him that the OPP is now on its mettle to "move ahead aggressively."

Baize also refers to my "implication that Congress bowed to the agricultural lobby." What I wrote was that, at the urging of chemical industry and agricultural interests, the House of Representatives came within only a few votes of adopting an amendment that would have gutted the Federal Insecticide, Fungicide, and Rodenticide Act by giving the Secretary of Agriculture an effective veto over the EPA administrator's decisions.—LUTHER J. CARTER

ESCA Systems

I wish to commend Arthur L. Robinson for the comprehensive nature of his article "Surface analysis: Multiple techniques for monolayers" (Research News, 26 Mar., p. 1255). However, there are some errors in the section on electron spectroscopy for chemical analysis (ESCA). Robinson notes that prices for ESCA instruments range from about $110,000 to more than $350,000 for our most complex machine. Much as we at AEI would like to be able to charge $350,000 for an ESCA system, we do appreciate that this is a highly competitive world and that such a price would severely limit our sales.

In fact our basic working ESCA system is priced at less than $100,000, and our most complicated system, including every available accessory, costs approximately $230,000.

One of the main accessories for an ESCA machine is the ultraviolet source; while Robinson singles out two other manufacturers as the only suppliers of this accessory, we have been a supplier for some years.

Finally, the availability of a monochromatic source on the AEI machine is a point of sufficient uniqueness to warrant some comment.

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Protection of Archeological Sites

I would like to clarify a statement made by Rhodes W. Fairbridge in his article "Shellfish-eating Preceramic Indians in coastal Brazil" (30 Jan., p. 353). Fairbridge states that "although shell middens are theoretically protected by law in both Brazil and the United States,