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In his rebuttal of 20 January to Jon Cohen's articles about the "Duesberg phenomenon" (Special News Report, 9 Dec., p. 1642), Duesberg misrepresents data from the San Francisco Men's Health Study (SFMHS) cited by us. Duesberg asserts that all of the AIDS cases occurring in the reported 96month follow-up of the SFMHS cohort "had used poppers in addition to other recreational drugs...," implying a causal role for the drug. In fact, we reported that of these 215 patients (not 213 as stated by Duesberg), 54 had a history of "heavy" popper use, weekly or more often, during the 2 years before they entered the study, and 161 had a history of "light" use, defined as no use or less than weekly. There were 27 nonusers of poppers among the 161. With respect to other recreational drugs, 36% of homosexual men in the cohort reported heavy use, as defined above, of marijuana, 7% reported heavy use of cocaine, and 1% reported heavy use of amphetamines.

Duesberg also says that our commentary included data that can be interpreted as supportive of a causal role for AZT use in AIDS. Although we made no mention of AZT (1), relevant data from the SFMHS are available. Among 233 AIDS patients, 169 (73%) had been treated with AZT at one time or another. However, 90 (53% of the 169) had received their AIDS diagnosis before beginning AZT treatment, and another 51 (30% of the 169) had CD4⁺ lymphocyte counts of less than 300 cells per microliter before initiation of AZT treatment. These data are not consistent with the hypothesis of a causal role for AZT in AIDS.

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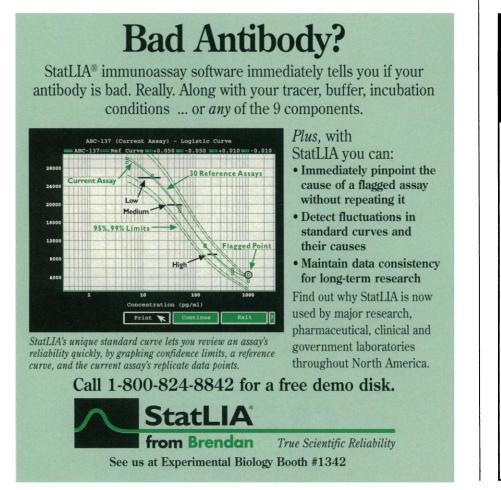
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Fungicide Regulation and Food Safety

I take exception to Philip H. Abelson's editorial (25 Nov., p. 1303) about the Environmental Protection Agency's (EPA's) proposed settlement of a lawsuit with Natural Resources Defense Council, the State of California, and others over the EPA's implementation of the anticancer Delaney clause. Abelson cites the settlement as an immediate cause for concern that could lead to the "banning of fungicides" and eventually to "food scarcities." It will not.

While the settlement commits EPA to decide about the applicability of the Delaney clause, as the law requires, it does not require that we ban any pesticides. It addresses only the use of certain carcinogenic pesticides—those that are applied directly to processed food or that appear to concentrate when raw food is processed.

Abelson says that distribution of the widely used fungicide captan "is slated eventually to cease." In fact, of its more than 50 uses, only three—application to grapes, tomatoes, and plums—would be covered by the settlement; and EPA may conclude that the Delaney clause does not affect them. Similarly, his forecast of drastic cuts in production of fruits and vegetables



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rests on the faulty premise that no synthetic fungicides would be available. In the extreme, most uses of fungicides would be unaffected by full implementation of the Delaney clause. Only about 100 of the approximately 9000 applications of pesticides to food would be covered by the settlement. Even if old chemicals are banned, new ones are coming onto the market constantly. For example, in the last 2 years, EPA has approved 15 new fungicides.

I agree that the Delaney clause is an outdated approach for protecting consumers from pesticide residues. Clearly, the loss of selected pesticide uses may affect the price or seasonal availability of particular commodities. Theoretically, a "zero risk" approach to cancer for these few pesticides could lead to use of alternative pesticides with more net risks, but no cancer risks. These costs to society buy little in the way of additional public health protection. That is why in 1994 the Clinton Administration sought to amend the nation's food safety legislation to replace Delaney and other standards with a single legal standard of a "reasonable certainty of no harm" (a "negligible risk" for carcinogens) for all pesticide residues on all foods. Such a public health-based standard would allow Congress to ensure

that the people in this country would continue to enjoy the safest food supply in the world.

Unfortunately, the debate over the Delaney clause has been contentious and has resulted in a protracted deadlock. Inaccurate facts and overheated rhetoric only hurt the chances of breaking the deadlock in any constructive way and divert attention from the central issue—how to strengthen our food safety protection system.

Lynn R. Goldman Assistant Administrator, Office of Prevention, Pesticides and Toxic Substances, U.S. Environmental Protection Agency, Washington, DC 20460, USA

Response: Goldman avoids presenting relevant facts concerning trends in the banning of fungicides. She does not mention that during the past 11 years EPA has completely banned 21 food use active ingredients. In addition, EPA has substantially limited applications of seven of the best remaining. Many uses of captan already have been stopped. Under terms of the settlement, 11 of the remaining fungicides—including captan—are in hazard of curtailment. Most of the 11 are substances of proven efficacy in combating numerous fungal diseases that affect fruits and vegetables.

Goldman states that 15 new fungicides have been approved during the past 2 years. A search of the *Federal Register* reveals that 6 of the 13 new fungicides that could be documented as being registered during the past 3 years were approved for limited specific applications that do not include broad uses on fruits and vegetables. The permitted uses are on turf, on lumber, on ornamental shrubs and trees, on mushrooms, on peanuts, and on wheat. The dependability or long-term efficacy of the remaining seven is questionable.

A substantial fraction of the small complement of scientists at EPA recognize the archaic quality of risk assessment applied by the agency. However, regulatory decisions at EPA are made by a powerful, large staff of lawyers. In the recent settlement, EPA stipulated that a chemical is to be deemed a carcinogen "in animals despite the fact that increased tumor incidence occurs only at high doses or that only benign tumors occur and despite negative results in other animal feeding studies."

If the same standards were applied to the natural pesticides in fruits and vegetables, their sale would be prohibited.

—Philip H. Abelson

