

LETTERS

DDT Ban: A Judgment of Emotion and Mystique

Instant experts sometimes make me sick, even if they are ecologists or other types of biological scientists! The immediate cause of my nausea is the statement by Eric Johnson (Letters, 2 Oct.): "The continued use of chemicals such as DDT is the greatest act of ecological irresponsibility, *especially in light of the fact that safer substitutes are available*" (italics added). Who says? If the italicized statement is true, it surely is the world's best kept secret! Also, if some of our vocal scientists would remove their ecological blinders and really investigate the subject, they would find that the "safer" substitutes, which they so freely recommend, generally are ones that create the greatest ecological imbalance and havoc among biota, including man. All informed persons, ecologists or not, freely subscribe to the plea that, "where nonpersistent substitutes for DDT are available, they [should] be used," provided the substitutes are *practical* and, in fact, really safer to use than DDT. Even if one accepts the emotional oratory about the apparent decline of certain species of birds and fish (who derive their main nutritional needs from DDT-accumulating food chains) and about the presence of DDT residues in mothers' milk, the fact remains that there is not any evidence, emotional or not, of harm to man and his useful animals from the legitimate use of DDT and other persistent chlorinated insecticides despite widespread, high-volume use for over 20 years. Problems, yes, but harm, no. Again I ask: why not make a studied, informed effort to find ways and means for the utilization of well-proven tools, such as DDT, for pest control rather than urge abandonment of them on the basis of emotional appeals or "holy-cow" ecological reasoning or irresponsible, misleading statements? Why not assemble all of the facts and carefully digest them, before suggesting action in regard to the continued use of DDT?

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E. V. Johnson's letter reiterates several shibboleths concerning DDT in the environment. . . . One such contention lies in the apparent paradoxical prop-

erty of DDT to enhance its toxicity inversely to dose exposure. Johnson therefore advocates the use of equivalent, "nonpersistent" substitutes, but proposes none. The World Health Organization has critically examined over 1000 such possible substitute pesticides to replace DDT in the worldwide antimalaria program, and has found none that can meet the essential requirements of availability, efficacy, safety, stability, and cost.

The use of DDT in the malaria-control program in Ceylon was abandoned in the mid-1960's after some 15 years of virtual freedom from this major killer, in an area where malaria and its vector, the anopheline mosquito, had been endemic for millennia. By 1968 there were over 1 million cases of human malaria in a population of 10 million people, and no part of the island of Ceylon was free of the disease or its vector. The Singhalese government sent out an emergency call for 10 million pounds of DDT in 1969 to recover control.

Lettuce, lima bean, sweet corn, and a number of other crops have had to be abandoned in eastern vegetable production areas because of the inefficacy of the DDT substitutes to control major insect pests (such as *Heliothus zea*). Return to the discriminate use of DDT in these areas was recommended this year.

In Sweden, where DDT was first banned, its use was restored for control of certain forest insects, which could not be effectively controlled with the recommended substitutes, and which, if left uncontrolled, would have seriously injured the economy of that country's largest industry.

In the eastern states the gypsy moth is extending its epizootic relentlessly even in the face of the widescale use of the so-called DDT substitutes. Over 100,000 acres of hardwoods were ravaged in northern New Jersey alone in 1970—up twofold from 1969 and up fourfold from 1968. Much of the repeatedly infested area is now permanently destroyed, including some 1 million oak trees. Apparently the substitutes are ineffectual against the gypsy moth, although their impact on other wild life is more substantial.

The domestic and wild bee colonies in areas sprayed with substitutes, for example, have been curtailed approximately 25 percent. This will be reflected in reduced pollination of both domestic and wild plants. In addition, the long-

term pharmacology of the substitutes is considerably less known than is that of DDT.

It is interesting to speculate how far this absurd campaign will go to replace effective, safe, and proven pesticides with ineffective, hazardous, and relatively unknown compounds. Major insect-vector human diseases are spreading; we are losing essential food and feed crops accompanied by an escalated cost of living; vast areas of wildlands, forests, public parklands, and private estates are being devastated, with concomitant injury to wildlife; and there is a proliferation of vast hordes of flies, fleas, mosquitoes, cockroaches, termites, and myriad other annoying household and home garden insects. Will the afflicted public finally be aroused to return the administration of pesticides to those trained and experienced scientists, operators, and administrative officers who are obviously best qualified to exercise such jurisdiction?

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Relieving Stress with Drugs

Lennard, Epstein, Bernstein, and Ransom appear themselves to have fallen victim to mystification ("Hazards implicit in prescribing psychoactive drugs," 31 July, p. 438). They discuss what should be done to help those persons who respond to normal quantities of environmental stress with abnormal quantities of symptoms, such as anxiety or depression. It is clear, from the amount of these symptoms in the population, that a problem exists and warrants remedy. The medical profession suggests drug therapy for relief of these symptoms. The rationale is the same as that for other drug therapy. It either provides symptomatic relief or aids in the recovery of the individual (since the symptoms may interfere with recovery), or both.

Lennard *et al.*, however, object to pharmacological therapy in this area of medicine. They object because of postulated differences between the "psychological (as opposed to physiological) alterations produced by chemical agents." The "cognitive-physiological effects" are said by these authors to be