

The National Agricultural Chemicals Association and several farm groups are defending DDT on the grounds that it has saved millions of lives against serious diseases and that it is a food production safeguard. They claim that DDT is the most effective and least costly of major pesticides and that there is a lack of hard evidence that current uses of DDT are harmful to man.

The FDA's seizure of DDT-contaminated Lake Michigan coho salmon opens a new area for federal pesticides regulation. Pesticide tolerance levels have been established for fruits, vegetables, meat, and other products, but, until now, the FDA has never set any standards for fish because no significant residues were ever reported. Evidence is now mounting that pesticide residues ranging up to 19 parts of DDT per million and lesser amounts of dieldrin are accumulating in at least one species of Lake Michigan fish—the coho salmon. The introduction of the coho, a Pacific Coast species, into the lake less than 5 years ago has produced a major sports fishery. FDA officials have found that the Lake Michigan coho salmon accumulate DDT residues at substantially higher concentrations than other fish in the lake do, but they are not sure why. Scientists in the Interior Department's Bureau of Commercial Fisheries say the coho may collect relatively large amounts of DDT because it comes high in the food chain; it is a predator fish that may accumulate the pesticides stored in the marine life it eats. Scientists say the DDT tends to concentrate in the coho's fatty tissues, and dissipates very slowly.

Recently there has been increased emphasis on limiting the use of DDT until more is known about its harmful effects on fish, wildlife, and man. A chief complaint is that DDT seems to have a higher residual effect than many pesticides and may persist in a toxic form for many years. In this country there is no such federal ban, but a few states are placing, or have already placed, restrictions on the use of DDT. On 16 April, Michigan's department of agriculture announced that it plans to limit the sale, shipment, and use of DDT in that state by canceling DDT manufacturers' licensing registrations (the regulation is expected to become effective 1 July). Michigan, which was in the process of planting some 3 million coho fingerlings in its streams, was forced to delay its program. Scientists discovered that the salmon used for spawning contained more

DDT residue than the salmon caught by fishermen in open waters. Arizona now has a 1-year ban in effect. Pennsylvania and Illinois are considering pesticide control legislation, and Wisconsin, which has resumed its DDT trials (see *Science*, 7 February), could be moving in that direction.

Despite the attempts elsewhere to limit or ban the use of DDT, the FDA's recent action has raised considerable controversy. Some of the dissent is coming, as might be expected, from farmers, pesticide manufacturers, and the commercial fishing industries. House Minority leader Gerald Ford (R-Mich.), who represents a district where salmon are packed for commercial shipment, is particularly upset. Ford says the FDA should set tolerance levels before it begins seizing fish, not afterward. FDA's action has also left state fish and wildlife officials somewhat dismayed. Although the FDA has no authority to seize fish that are not sold in interstate commerce, its action affects state government activities in this area. The governors of five of the Great Lakes states have asked HEW Secretary Finch not to allow the establishment of federal DDT tolerance levels in fish until the states have studied the matter. They want to make sure that federal action does not impinge on their own regulating and control procedures.

Attempts to limit the use of DDT have been increasing at the federal level. Senator Gaylord Nelson (D-Wis.) and representatives Joseph Karth (D-Minn.) and Bertram Podell (D-N.Y.) have introduced bills to bar the use of DDT in the United States. In addition, Nelson has introduced a bill calling for establishment of a national commission on pesticides, to coordinate government research, monitoring and control programs.

The 11-member federal commission that Finch has named plans to begin its study soon. It is chaired by Emil M. Mrak, chancellor of the University of California at Davis, and includes Paul Doty, professor of biochemistry at Harvard; Lamont Cole, professor of ecology at Cornell; and Julius Johnson, research director for Dow Chemical Company.

These recent government actions, to limit or ban the use of DDT and to investigate the broad general effects of pesticide use in the environment, could lead to whole new concepts about how pesticides should be used.

—MARTI MUELLER

## APPOINTMENTS



A. B. Sabin



H. I. Adler

**Albert B. Sabin**, distinguished service professor of research pediatrics at the University of Cincinnati and chief of the division of virology and cancer research at Children's Hospital Research Foundation, to president of the Weizmann Institute of Science, Israel. . . . **Howard I. Adler**, bacteriologist at the Oak Ridge National Laboratory, to director of the biology division at ORNL. . . . **John D. Kemper**, professor of mechanical engineering at the University of California, Davis, to dean of the College of Engineering at Davis. . . . **Sol Spiegelman**, professor of microbiology at the University of Illinois, to director of the Institute of Cancer Research at Columbia University. . . . **Charles K. Bockelman**, professor of physics at Yale University, to deputy provost for the sciences at Yale. . . . **J. Robert Buchanan**, associate dean of Cornell University Medical College, to vice president of the New York Hospital-Cornell Medical Center.

## RECENT DEATHS

**Clifford C. Furnas**, 68; president emeritus of the University of Buffalo; 27 April.

**Julian W. Giles**, 46; director of the Veterans Hospital, Tuskegee, Alabama; 20 April.

**Nicholas E. Golovin**, 57; technical adviser for aviation and space science and technology in the Office of Science and Technology, Executive Office of the President; 27 April.

**Emanuel Greenspon**, 60; retired general surgeon at Mary Immaculate Hospital, Newport News; 25 April.

**Carl M. Herget**, 56; chief of the biophysics laboratory at Edgewood Arsenal; 24 April.

**Henry C. Taylor**, 97; first chief of the Bureau of Agricultural Economics in the Department of Agriculture; 28 April.