

MAY 9 1969 *Bjell*

Expert Says DDT Ranks Low as Enzyme Producer

By QUINCY DADISMAN
Sentinel Staff Writer

Madison, Wis. — A group of chemicals widely used in industry and difficult to separate from DDT in chemical analysis has five times the effect of DDT in producing enzymes that break down hormones, a hearing on a petition to ban the pesticide was told here Thursday.

Paul E. Porter, a researcher for ~~Shell Development Corp.~~, called by opponents of the ban, said he agreed with the statement when it was read from a paper prepared by Robert Risebrough, a California biochemist.

The hearing is being held by the state natural resources department on a petition from the Citizens Natural Resource association and the Izaak Walton league's Wisconsin chapter. The ban is opposed by the industry task force for DDT of the National Agricultural Chemicals association.

Porter, who lives in Modesto, Calif., is on leave from his post with the Shell Oil Co. subsidiary as an exchange professor in an agriculture school in England. He is an analytical chemist.

Risebrough testified last December in the hearing. The paper from which the quotation

was read was not ready for publication then.

Distribution Cited

In the paper, polychlorinated biphenyls (PCB's) were called, with DDT, the "most widely distributed contaminants" of the environment of the entire world today.

PCB's, which include a variety of compounds, are used as "plasticizers" making the materials to which they are added more elastic and better conductors of heat. They are used in electrical equipment, cutting oils, rubber goods, paint and lipstick.

Much attention has been focused during the hearing on the fact that chemists analyzing samples for small concentrations of DDT by the use of a gas chromatograph have been bothered by the fact that some PCB's cause peaks on chromatographs which "underlie" those caused by DDT and one of its isomers, DDD.

Risebrough's statement with which Porter agreed would indicate that some of the effects blamed on DDT could be the result of PCB's. Enzyme induction has been blamed for the breakdown of sex hormones, particularly in marine birds, resulting in thin egg shells and

reproductive failures among the birds.

Distinction "Difficult"

Porter said that distinguishing between DDT and the PCBs was "possible, with difficulty," but that most commercial laboratories did not go into the complete separation because of the cost involved.

Asked about the Wisconsin Alumni Research Foundation Institute, Inc., laboratory, where many of the tests on which the petitioners base their case were made, Porter said the WARF lab was one of the few commercial laboratories in the United States in which Shell placed enough confidence to send its work.

A WARF employee testified Wednesday that, in some cases, when an indication of PCB interference was found on chromatographs made there, the person asking the analysis would be asked if he wished further work done at an extra charge.

Porter traced the breakdown, in nature, of DDT under various conditions.

In the atmosphere, he said, sunlight and oxygen lead to its decomposition, with about a 12 day half life in sealed petrie dishes, where only sunlight is effective. He said the changes

Turn to Page 10, Col. 3