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Some Bird Species Called DDT Victims

By QUINCY DADISMAN
Sentinel Staff Writer

Madison, Wis. — A California biochemist testified Monday that his studies have convinced him that DDT and not another commonly found contaminant is the cause of thin eggshells which he believes will wipe out certain predatory bird species.

Robert Risebrough, Berkeley, Calif., was called as an adverse witness by the attorney defending the pesticide at a natural resource department hearing on a petition calling for banning DDT in Wisconsin.

Testified Earlier

Risebrough had testified in December for the petitioners — Citizens' Natural Resource association and the Wisconsin chapter of the Izaak Walton league — about DDE, a form into which DDT changes in living bodies and his conviction that DDE causes a metabolic disturbance in birds which leads to thin eggshells.

The thin shell cracks easily, causing the death of the embryo inside the egg.

Risebrough was called by Willard S. Stafford, Madison attorney who is conducting the defense of DDT for the National Agricultural Chemicals association.

Stafford questioned Risebrough about work he has done with polychlorinated biphenyls (PCBs), a group of by-

drocarbon compounds widely used in industry. PCB's show up in some test equipment in a way that makes separation of DDT in analysis much more difficult.

Only Few Found

Risebrough said that while PCB's are found in large amounts in many marine birds, he had found only a few in which there were more PCB's than DDT or its metabolites. (forms into which it changes in passing through living tissue).

He said that tests with eggs, containing up to one part per million (p.p.m.) of PCB's and up to six p.p.m. of DDT in all forms showed mathematically, by correlation with eggshell thickness that DDE and not PCB's, were 10 to 14 m.e. The tests were made mathematically, he said, with a statistical accuracy of 99.9%.

He said that damage to eggshells from DDT can be traced not only to the DDE in the bird's body fat, but also to the amount present in the food it eats.

"DDT may be comparatively inactive in the body fat," he concluded, explaining that peregrine falcons from Arctic areas seem to be sustaining their numbers better than those from more temperate climates because the food they eat while rearing a second clutch of eggs is "clean."

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DDT Invaluable, Scientist Says

By QUINCY DADISMAN
Sentinel Staff Writer

Madison, Wis. — A New Jersey entomologist told the Wisconsin natural resource board hearing on a proposed ban on the use of DDT Tuesday that he knew of no substitute for DDT for certain uses.

Batley B. Pepper, Edison, N. J., who has headed the entomology department at Rutgers university since 1941 and is a former president of the Entomological society of America, was called by opponents of the ban.

He said he had worked with the DDT since its introduction in 1944 and still considered it an "important weapon in the arsenal of insecticides."

Pepper said he was familiar with all the methods proposed to combat insects — insecticides, biological, environmental and physical controls, farm practices and repellents — and all pose problems.

"Some Not Dependable"

The use of biological controls, principally predatory insects, has been successful in

some cases, he said, but they are not dependable for controlling crop pests. That method, he said, has been in use at least since 1903.

He said that the use of insect disease organisms had been tried but that cultures could become contaminated with other diseases and, in fact, one such material, used against Japanese beetles, was withdrawn from the market recently because the culture may have been infected with antitoxins, a plant disease.

The cotton boll worm — known as the tomato worm in gardens and the corn ear worm in cornfields — is almost impossible to control except by DDT, he said, although earlier witnesses said Sevin is used by most Wisconsin corn growers. Sevin, however, poses hazards to nearby bee colonies.

Although some insects have developed a resistance to DDT, Pepper said it could be used against them after several generations had passed and the resistance had been diluted.

DDT is important in mosquito

control in New Jersey, he said. He said mosquito control was very important there because a reservoir of a mosquito borne encephalitis exists among New Jersey animals. It affects primarily horses and pheasants, he said, but human cases and deaths were reported in 1933, 1953, 1964 and 1958.

Pepper said he had heard of outbreaks of St. Louis encephalitis in the upper Mississippi valley, but he said he did not believe the eastern variety of the disease was found in the Midwest.

Testing Explained

Robert Risebrough, a California biochemist, returned to the stand briefly to explain his method of analyzing samples for small amounts of polychlorinated biphenyls, chemical compounds which sometimes interfere with analyses for DDT and its relatives.

Risebrough said that he had become dissatisfied with analyses provided by the Wisconsin Alumni Research Foundation (WARF) Institute, Inc.,

and had set out to see what was wrong with the reports.

As a result, he said, he at several other scientists met with WARF laboratory personnel last January to work out ways of testing for polychlorinated biphenyls. The new method, he said, makes it possible to distinguish between the chemicals.