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DDT's 'Cousin' Is Suspected To Be Real Ecological Culprit

TALLAHASSEE — (AP) — DDT has been getting the blame for a number of ecological disasters, but the real culprit may be a chemical cousin — polychlorinated biphenyls, (PCB) says the director of the State Pesticide Residue Laboratory.

"The research work is so new on it you hate to point your finger and say this is the problem, instead of this DDT problem," said lab chief Doyle Golden. "I wish this were six months later where we would have more conclusions to draw."

Assuming that Golden's suspicions — which he bared before a House Subcommittee on Hard Pesticides last week — are confirmed, the implications are great.

PCBS ARE commonly used in the manufacture of a wide variety of products, including plastics, sealers, printing inks, waxes and adhesives. Many of the food products sold on supermarket shelves are wrapped in plastics containing PCBs.

"PCBs are generally recognized as safe for man. However, they are being evaluated by the Food and Drug Administration, the U.S. Department of the Interior and the U.S. Department of Agriculture as well as numerous state labs for their toxicity," Golden said.

It is known that PCBs are toxic to certain species of animals. They were blamed for some fish kills last year.

"WE FOUND an extremely high level of PCBs in some of the fishes and animals in the fish kills at Escambia Bay," said Bill Woods of the Game and Fresh Water Fish Commission.

He said the problem was traced to lubricants used at a Monsanto Co. plant which, ironically, is the major manufacturer of PCBs, but at another location.

PCBs, as Golden and Woods explained it, are extremely similar to DDT, in chemical structure and in their environmental behavior.

LIKE DDT, they said, PCBs are slow to breakdown and disappear and they concentrate in the tissues of animals that eat them.

From such evidence — as well as harder data gathered in the pesticide residue lab — Golden bases his theory that many of the damages attributed to DDT and other pesticides are really caused by PCBs.

As an Agriculture Department employe he has an obvious interest in pesticides, but his theory is supported — at least tentatively — by Air and Water Pollution Control Department chemist Jay Carver.

"I THINK the way it's growing a lot of the blame that DDT is getting is going to show up to belong to the PCBs," Carver said. "I can't really say that for sure because not enough work has been done on it."

The laboratory evidence that has influenced Golden's thinking occurred during gas chromatograph tests for pesticide residues in food products.

"What threw me on this whole thing was that all of a sudden the levels of DDT that our laboratory was finding was going up and yet the use of DDT was on a steady decline," he said.

THE chromatograph records DDT in jagged peaks on graph paper. Golden said that PCBs show up in almost exactly the same patterns.

"I question much of the work on DDT," he said. "There is some work which is of questionable nature since the reports of their findings match so closely with those peaks that match so closely with the pesticides," he said.

He said DDT analysis must be considered highly questionable unless samples are first put through an elaborate clean-up process to remove PCBs. Many scientists are now doing so.

PCBS ENTER the environment through disposal of products that contain the compounds, Golden said. They can be distributed through incineration, he said, but a far more common way is through effluents poured into waterways from sewage treatment plants.

"We have found our highest concentrations of DDT near the industrial — municipal runoffs," Golden said.

The state of research on PCBs being as primitive as it is, he said that it is just not known at this time if they will turn into a pollution problem as serious as pesticides.

"LET'S PUT ourselves back 20 years ago with DDT," Golden said. "We are in the same place now with PCBs that we were then with DDT."

Developed during the research boom inspired by World War II, DDT was in use for about 15 years before people first became widely alarmed about its potential danger following publication of Rachel Carson's book "The Silent Spring" in the early sixties.

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