

Chemical Kicks Up a Chicken Fuss

By Peter T. Chew
From Washington, D.C.

For years, ecologists have been warning about the dangers of PCB, a DDT-like industrial chemical that has had toxic effects on wildlife and test animals. Monsanto Co., the sole U.S. manufacturer of PCB, last year voluntarily limited the chemical's uses. But last week it was disclosed that millions of chickens possibly tainted with the chemical have been marketed in 10 Eastern and Southern states in recent weeks.

Government officials say the amount of PCB in the chickens was not beyond acceptable levels. Nevertheless, that incident could lead to further restrictions on the use of the chemical. Rep. William F. Ryan, New York Democrat, last week introduced legislation that would ban all manufacture and use of PCB in the United States.

The latest and most serious case of PCB contamination was discovered in mid-July after Holly Farms Industries of Wilkesboro, N.C., one of the world's largest commercial poultry producers, notified that the hatchability of its chicken eggs was diminishing alarmingly. Birds from several of the company's flocks were tested, and their flesh was found to contain PCB residues as high as 20 parts per million. The level decreed by the Agriculture Department as acceptable for consumption is 5 parts per million.

Holly Farms immediately slaughtered and buried nearly 50,000 chickens, and notified Monsanto headquarters in St. Louis. The offending PCB quickly was traced to a Monsanto customer—East Coast Terminal Inc. in Wilmington, N.C.—which had used the chemical to process fish-meal ingredients of chicken feed under an arrangement with South Pacific Protein Co. of Darien, Conn., a Holly Farms supplier. East Coast Terminal shut down voluntarily on July 16, and an investigation was begun by the Agriculture Department and the Food and Drug Administration (FDA).

Government investigators discovered that PCB fluid had leaked from a heat-exchanger unit of a device employed to pasteurize the fish meal before it is mixed with other ingredients that make up chicken feed. The pasteurization is undertaken to rid the fish meal of salmonella, a type of bacteria that causes feed poisoning.

Government officials believe that the PCB may have started leaking into the fish-meal vats about April 30, and continue leaking for 10 weeks. During this time, the plant turned out 16,000 tons of fish meal, and by July 14 had shipped 12,000 tons to North Carolina, Georgia, Alabama, Florida, Delaware, Tennessee, Kentucky, Virginia, South Carolina, and Mississippi. So far, 1,000 tons have been recalled and another 1,000 tons expected to be returned to the company.

Nearly 30,000,000 chickens go to retail outlets in the 10 states every month. It is not known how many chickens shipped after April 30 may have been tainted with PCB. The Agriculture Department, which has been carrying on extensive testing of birds shipped to market in the 10 states since July 23, reports that none of those tested have contained unacceptably high levels of PCB.

PCB is shorthand for polychlorinated biphenyl, a family of chemical substances discovered in the late 1900s. In the early 1930s, Swann Chemical Co., which was later taken over by Monsanto, began developing valuable industrial uses for PCBs. They have served as ingredients in corrosion-resistant paints, industrial adhesives, rubberlike sealants, and as dielectric (insulating) fluids.

The chemical structure of PCB is sim-

ilar to that of DDT, the powerful, long-lived insecticide. Both are among the group of chlorinated hydrocarbons that enter the food chain and affect, among other things, birds' reproductive cycles.

In 1966, a Swedish biologist named Soren Jensen discovered PCB residues in fish, and later in wild birds. Three years later, Robert W. Risebrough, a marine biologist with the University of California at Berkeley discovered PCB in the peregrine falcon.

Scientists say that the sea is the most susceptible environment for PCB. The substance makes its way there through drainage systems, spillages, and the like. It enters fish, which are eaten by sea birds.

PCB also makes its way into the atmosphere through the incineration of the numerous plastic materials that are coated with the substance. Burning PCB-coated plastic at low temperatures releases it in the form of particles that make their way skyward and return to the earth in rain.

Dr. Risebrough has reported that the PCBs "are highly toxic to man when in-

haled as vapors, and the more heavily chlorinated components have greater toxicity. No tolerance limits have been set for human-food supplies, and their cancer-causing properties remain to be determined."

Heeding ecologists such as Dr. Risebrough, Monsanto last year elected to limit the uses of PCBs in "closed systems," such as the heat-transfer units in the Wilmington, N.C., fish-meal plant.

Monsanto has argued that the chemical can easily be controlled in such closed systems. But, contends congressman Ryan, the accident in Wilmington shows that the chemical is unsafe in any usage. Mr. Ryan also criticized the Agriculture Department and the FDA for not revealing details of the chicken contamination until July 23, one week after the accident was discovered, and for their downplaying the possible danger to consumers. The affair, said an angry Mr. Ryan, "tragically illustrates the failure of the Federal Government to take preventive action against the unconscionable use of this deadly chemical."

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