

5.8 ppm in 1968. In other countries it ranged from a high in India of 23.3 ppm to a low in England of 2.2 ppm. What does this mean? — nobody really knows. Good or bad?

Men working in factories producing DDT contained 38 to 647 ppm. No problems developed. Leukemia studies concluded that addition of DDT to a diet has no bearing on the development of this problem. According to the American Medical Association journal an isomer of DDT is the only known treatment for adrenal cancer. More research is being done.

The effect on fish numbers of small amounts of DDT and other persistent pesticides is not too well known. In 1967, 2.96 per cent of the accidental fish kill in the U.S. was due to pesticides (329,130). On the other hand, 9 million fish were killed by industrial wastes, manure, selvage drainage, and mining combined. Sometimes fish thinning by pesticides is beneficial. When fish kills are reported in large numbers caused by pesticides they are always done in a derogatory manner. What is the public to think?

Fish catch figures are confusing. Since 1879 total poundage has varied from a low of 79 million pounds to a high of 146 million pounds. In 1967 the catch totaled 127 million pounds. Alewives are not used for human consumption. They accounted for 29 million pounds of fish caught in 1966. Lake trout populations had problems with the lamprey eel. Control of the eel increased the lake trout population. It is difficult to interpret the effect or lack of effect of insecticides using gross counts. So how do you come to a conclusion? Sport fishing is as good as it was 20 years ago.

Next — DDT and birds! Audubon members and bird lovers (I like birds, we have a feeder in our yard) don't get your feathers ruffled. Let's look at the facts!

In the past it was assumed that moderate amounts of insecticides found in any tissue of a bird caused its death. However, death, insecticide content, and application rate were often inconsistent and little correlation, except in massive exposures, could be established.

Eagles vs insecticides made frequent news stories in the past couple of years. Is the decrease in eagle population directly related to DDT? Well, exposure to DDT is nationwide as it is for most other animals. Occasionally enough insecticide is obtained to cause the bird harm, however, most of the eagles that die in the U.S. today die of other causes than pesticide poisoning.

Sterility in eagles? Eagles were fed doses of DDT in various studies at different dosage levels. It was determined that obvious testicular damage occurred only but not uniformly at dosage levels that were generally toxic to this big bird.

Much has been written in newspapers about egg shell thickness and breakage. Results of testing in Britain were duplicated here in the U.S. It was shown that egg shell thickness for eggs of the red-tailed hawk, the golden eagle, and the great-horned owl has not changed in 30 years, while thicknesses in the shells of the bald eagle, the osprey and the peregrine falcon has decreased in the past 30 years.

Bird population fluctuations since 1900 are difficult to access as are fish populations since man has

interfered so drastically with their environment. Audubon Christmas birds counts indicate increasing and decreasing bird species in number since 1945. It is quite apparent that while DDT has had an adverse effect on some bird species, DDT has not affected others. It is quite clear that man is the dominant force of change. Once undisturbed forest is now farmland, commercial factories, tract homes. Unknowingly man has selected habitats from one species and not another. In the year 1909 total bird population of the house sparrow, red-winged black bird, common grackle, meadowlark, morning dove, horned lark, Dick cissel, starling, bobolink and ten others numbered 40,230,000. In the year 1957 total numbers were 37,900,000. What was the people population of the U.S. in 1909 vs 1957? Think about land use then and now.

Many species of wildlife that have declined in numbers since the use of DDT were also declining prior to that time. Highways, airports, golf courses, suburban developments, farming, cars, exhaust fumes, etc., have all been increasing. It is difficult to assess all these factors but it is certain that the wildlife that will survive the future must adapt to man's conditions.

All authorities on the subject of pesticide use believe that insecticides must be a part of our future. Food production and quality must be maintained to feed an increasing population. Wiser use of pesticides will be accomplished.

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