E. P. Wheeler - Medical Dept.

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DDT Briefing Paper
National Agricultural
Chemicals Assn.

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Dr. Calandra at Industrial Bio-Test provided me with the attached "briefing paper" which summarizes the NACA's view on the DDT controversy

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I. B. T.
(Industrial Bio-Test Labs)

The entire issue of conservation is one of major importance to all of us. Your known interest in this area and its attendant issues of air and water pollution are the main reasons why the NACA is sending you the enclosed compendium of facts. Since it is our intention to develop additional fact sheets in the months ahead, you may expect to receive others of a similar nature.

The time, effort, and money annually spent in attempting to control environmental problems obviates the simple fact that no easy solution is possible. Thus, we must proceed with caution and not with emotion.

Attacks on the use of qualified pesticides, such as DDT, in farm and household situations serve to distort the truth. A ban on the use of a pesticide having the time-tested ability of DDT would cripple the farmer's efficiency in producing marketable food for our expanding population, and stifle attempts to combat insects and pests in our homes and gardens.

NACA's ecologist, Dr. Donald A. Spencer, concisely states the real issue: "The enemy is the pest, not the pesticide."

Sincerely,

Jack Watts

Jack Watts
Director of Public Relations

JW/jaz

Enclosure

DSW 201060

DDT - STORY IN BRIEF

DDT's low human hazard, its residual effectiveness, low cost, and the fact that there are no alternative controls for some insect problems, translate into user benefits.

DDT contributes to:

1) Improved health in man and domestic animals
2) Increased production of food
3) Protection of building structures and fabrics
4) Reduction of disease and parasites affecting wildlife
5) Maintenance of habitat cover for wildlife

DDT is a low cost item, wholesaling at 17-18 cents a pound. Almost any alternative pesticide would bring a greater return to the manufacturer. In Wisconsin, the annual sales of DDT, at the basic manufacturer's level, amount to a total of $17,000, hardly the basis for any financial interest by the often accused chemical industry.

At least 60 percent of the total production of DDT from its very beginning in the 1940's has been used in foreign public health programs. For example, in 1967, 82 million pounds were exported, chiefly for use in controlling malaria.

In 1964, the most recent year for which figures are available, only 24 percent of the total production of DDT was used in agriculture. Another 15 percent was used in this country in public health programs, to control structural insects such as termites, and to mothproof carpets, clothing, etc.

The largest agricultural use of DDT is in the production of cotton, which used about three-quarters of the 24 percent of agriculture's DDT use. Tobacco took another 3.7 percent.

Even four years ago, the use of DDT to produce food crops required only about 14 percent of the total DDT used in the United States.

International public health programs still depend importantly on the use of DDT, where its long "persistent" action is a valuable characteristic. Has anyone bothered to inquire of the World Health Organization of the United Nations as to how seriously their programs would be impaired by an abrupt withdrawal of DDT?

DDT is "persistent" in that the amounts applied to control insects lasts for a considerable period of time.

DDT does degrade, however, first to the less toxic TDE and DDE metabolites, finally changing entirely to harmless compounds.

All species of animals, insects, fish, amphibians, birds, and mammals that have been studied are able to degrade and excrete DDT residues they have acquired in their fat.

This ability to rid themselves of residues necessitates constant exposure to sustain any observed level.

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Body residues resulti[illegible] from a low level environ[illegible]ntal contamination do not continue to increase [illegible] lethal levels, but reach [illegible] steady state where input and excretion balance. Commonly, this fat-immobilized DDT residue is of no significant harm to its host.

DDT in soil degrades at variable rates, depending on soil types and climates. Its half-life is as short as a few weeks or as long as one to three years.

Bacteria and fungi which are normally found in soil, help hasten DDT's degradation rate. In laboratory tests, where unrealistically large doses of DDT are added to soil samples -- sometimes on a ratio as high as 400 pounds per acre -- these natural properties are overwhelmed and killed. With soil thus "purified," DDT residues can be found on a half-life basis for 10 years, 17 years, and even up to two decades.

So, while lab tests can demonstrate an extended half-life for DDT, they have no practical application to the normal agricultural use of DDT, where bacteria and fungi continue to work with DDT. Similar tests can be conducted with common table salt -- with similar results. But, just as a diner does not drown his meal with salt, neither does the farmer inundate his fields with DDT.

Five segments of the complex nationwide Federal-State pesticide monitoring program have now reported. Essentially, these state that DDT residue levels in the environments studied are not increasing in:

1) cultivated soils
2) lower Mississippi River silts
3) Great Lakes fish
4) human fat, since 1951
5) Food & Drug Administration's "Market Basket" food survey

The President's Science Advisory Committee (May, 1963), recommended that "The accretion of residues in the environment be controlled by orderly reduction in the use of persistent pesticides." (p.20, item 5)

The report continues, "as a first step, the various agencies of the Federal Government might restrict wide-scale use of persistent insecticides."

Both of these recommendations are being complied with.

First, the use of DDT on public lands and in Federally assisted projects ceased except when approved by the Federal Committee on Pest Control, when other means of control were not available.

Second, the availability of alternate control methods and changes in use have tended to reduce the domestic use of DDT between the years 1958 and 1967 by 51 percent (based on USDA's Economic Research Service's disappearance from inventory, Pesticide Review, 1968).

Third, further deletion or modification of agricultural use patterns are expected to be reflected in significant reductions.

The purpose of this outline is to introduce some facts to the current issue concerning DDT -- facts which have been largely ignored by various groups that have called for the banning of DDT. DDT has been employed for man's benefit and should be retained as a servant of society.

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