



### The Last Word on DDT

**Editor's note:** The September issue of *Plating and Surface Finishing* carried pro and con letters from readers about a controversial subject discussed by Jack Dini in his monthly column, "Fact or Fiction." More on the subject of DDT from another reader follows, along with what columnist Dini has to say (both edited for publication).

#### Editor:

I am most disturbed by the last "Fact or Fiction" articles on DDT by Jack Dini. I have great respect for his knowledge and expertise of plating technology. I question, however, his scientific qualifications to assess the potential harm of organic chlorine compounds to future generations and the environment. The ingestion of tablespoons of DDT by Dr. Edwards, without any apparent ill effects, only shows that DDT is not poisonous.

Dini believes that DDT is the magic bullet that will eradicate malaria all over the world. He completely disregards the evidence that after only short-term use of DDT, strains of DDT-resistant mosquitoes, lice and flies appear. These pesticide-resistant insects are more difficult to control and health problems [associated with them] are aggravated.

An article in *Chemical and Engineering News* reported that a National Research Council Committee recently issued a report "Hormonally Active Agents in the Environment." Briefly, it concluded that exposure to endocrine disrupter chemicals that stimulate or retard the production of hormones (such as DDT) found in the environment can cause adverse reproductive and developmental effects to humans and wildlife. Until more research has been done regarding the dose-response effect and the level at which prenatal exposure produces birth defects, it is prudent for all of us to avoid all contact with DDT and other pesticides.

I respectfully suggest to Jack that he read Rachel Carson's *Silent Spring*. It is still a good book.

—Konrad Parker, Park Ridge, IL

#### Dear Konrad:

Sorry I upset you so much. Here is my response:

You question my qualifications to do what I've done, so let me begin by defending why I write about issues like DDT, and what I consider to be my background. My attempt has been to provide factual, documented evidence for evaluation of our environmental status and prospects. Our industry is heavily involved in environmental issues and I strongly feel we have to know what has happened in the past so we can be better aware of how to react to present and future situations regarding the environment. To this end, I have followed and researched environmental literature for the past 10 years. My files include more than 1,000 technical articles, and I've now read more than 200 books. My published thoughts are not original; they are well documented with literature references. With all due respect, I do feel I have some background in the areas I am writing about.

You suggested that I should read Rachel Carson's book, *Silent Spring*.<sup>1</sup> It was one of the first books that I read and I still refer to it. In fact, it is mentioned and referenced in the DDT articles. I agree that it has some good information, but it also has some very misleading facts and is one of the reasons that drove me in the direction that I've taken.

I never said that DDT was a magic bullet, but that it was better than anything else in treating malaria. I grant you that strain-resistant mosquitoes have appeared. Desowitz<sup>2</sup> states "This can be laid to the intemperate and inappropriate use of DDT by farmers, especially cotton growers who used the insecticide at levels that would accelerate, if not actually induce, selection of a resistant population of mosquitoes."

Roberts<sup>3</sup> recently commented: "The multifaceted issues of DDT use for malaria control and the applicability of the Global Malaria Control Strategy to the Americas should be the subject of intensive national and international debate." Even if it is strain-resistant, some folks would still like to save a few million lives before something better comes along.

Now, regarding endocrine disrupters. The *Chemical and Engineering News*<sup>4</sup> article also states: "The NRCC report concludes that studies done to date do not support an association between adult exposure to DDT, DDE (a metabolite of DDT), dioxins, and PCBs and breast cancer. But not enough work has been done to determine if adult exposures to these compounds cause testicular, prostate, or endometrial cancers, or if fetal exposure results in cancer later in life, the report says."

Others have some things to say about endocrine disrupters. Robert Golden, a PhD toxicologist, has said: "The one endocrine modulator environmentalists love to hate—the pesticide DDT—would cause no endocrine effect in a fetus exposed to more than a pound of DDT over the course of a pregnancy." Steven Safe<sup>5</sup>, a toxicologist at Texas A&M, tested the effects of organochlorine compounds in the average human diet. He concluded that the total estrogenic activity of these compounds is 40-million-fold lower than that from the natural components of vegetables and other food consumed daily, such as soybeans, barley, cabbage and corn. These results and others have led Fumento to call these items truth disrupters rather than endocrine disrupters. He said<sup>6</sup>: "It is likely that the public's fear about endocrine disrupters will subside someday, as they have subsided over power lines. But, they will probably have occasioned a fair amount of economic disruption in the meantime."

—Jack Dini

#### References

1. R. Carson, *Silent Spring*, Houghton-Mifflin (1962).
2. R.S. Desowitz, *Malaria Capers*, W.W. Norton (1991).
3. D.R. Roberts, L.L. Laughlin, P. Hsieh & L.J. Legters, "DDT Global Strategies and a Malaria Control Crisis in South America," *Emerging Infectious Diseases*, **3**, 295 (July-September 1997).
4. "NRC Calls for More Endocrine Disrupter Research," *C&EN*, August 9, 1999.
5. S.H. Safe, *Environmental Health Perspectives*, **103**, 346 (1995).
6. M. Fumento, "Truth Disrupters," *Forbes*, **162**, 146 (November 16, 1998).