



Edwin Diamond, now a senior editor of *Newsweek* and formerly that magazine's science editor, worked with Rachel Carson at the outset of the book project that resulted in Miss Carson's 1962 best-selling report on pesticides, *Silent Spring*. A disagreement over how to proceed ended the collaboration.

The myth of the "Pesticide Menace"

By EDWIN DIAMOND

Thanks to an emotional, alarmist book called "Silent Spring," says this science writer, Americans mistakenly believe their world is being poisoned.

Thanks to a woman named Rachel Carson, a big fuss has been stirred up to scare the American public out of its wits.

A year ago, in a book entitled *Silent Spring*, Miss Carson warned that pesticides were poisoning not only pests but birds and humans too. It was just what the public wanted to hear. No matter that Miss Carson's conclusions were preconceived; no matter that her arguments were more emotional than accurate, *Silent Spring* became a best seller and a conversational fad, and in Washington a congressional committee met to investigate the "pesticide menace."

Implied in this attack on pesticides are the much more serious charges that scientists are ignoring human values, experimenting for the sake of experiments, and upsetting the traditional "natural laws" and the so-called "balance of nature." Caught up in all the noise over *Silent Spring's* revelations, we tend to forget, perhaps, that the lamentably widespread distrust of scientists and their works is anything but new.

When I was growing up in Chicago, I read, bug-eyed, a book that described the wholesale poisoning of the American public. A best seller of the time, the book was *100,000,000 Guinea Pigs*, and it recounted how an unholy trinity of government bureaucrats, avaricious businessmen and mad scientists had turned American consumers into laboratory test animals. I recall most vividly the danger ascribed to a certain toothpaste, which, if used in sufficient quantity, could cause a horrible death.

Today, a generation later, the American population has changed in many respects; for one, there are almost 190 million of us now instead of the 125 million around at the time the guinea-pigs book was written. In other respects, however, Americans are not much different. They still love to buy a book like Miss Carson's *Silent Spring* to read about their imminent death.

An indictment of the use of pesticides on farms, in forests and in suburban backyards, *Silent Spring* might just as easily have been called *190,000,000 Guinea Pigs*. For in *Silent Spring* I met again the old

villains of my childhood, dressed in more graceful prose. "As matters stand now," Miss Carson wrote, "we are in little better position than the guests of the Borgias." She conjured up an apocalyptic vision of a "silent spring," a time when plants, birds, animals—even humans—poisoned by DDT and other man-made chemicals, sickened and died.

In June, 1962, *The New Yorker* serialized portions of *Silent Spring*. Newspapers carried stories about the book before its publication the following September. With this running start *Silent Spring* landed on the best-seller lists in a few weeks. The Book-of-the-Month Club offered it as the October selection. *CBS Reports* did two TV shows about it, and President Kennedy was questioned on pesticides at his news conferences. The ultimate accolade came when Miss Carson appeared before a Senate committee investigating pesticides: One of the Senators asked her for her autograph.

I have heard several theories to account for the vast stir that *Silent Spring* has created. First, there is Miss Carson's reputation and literary style. A quiet-spoken, retiring, single woman, Miss Carson for 16 years was employed as a biologist and later as editor-in-chief in the Bureau of Fisheries and the U.S. Fish and Wildlife Service. In 1951 she published the evocative and widely praised *The Sea Around Us*, which was on the best-seller lists for 86 weeks and was translated into 30 languages. In 1955 she followed with another best seller, *The Edge of The Sea*. While *Silent Spring*—with its impassioned listing of case after case of sick sheep, sterile robins and dead fish—has little of the beauty of the earlier Carson books, it nevertheless has a high expository gloss. As one of her critics said, "She's an alarmist and a sensationalist—and she's done it beautifully."

Second, there was the timing of the book, coming as it did soon after the thalidomide drug tragedy had stirred Europe and the United States. Though *Silent Spring* does not deal with the licensing and marketing of new drugs, Miss Carson herself suggested in a newspaper interview at the time, "It is all of a piece,

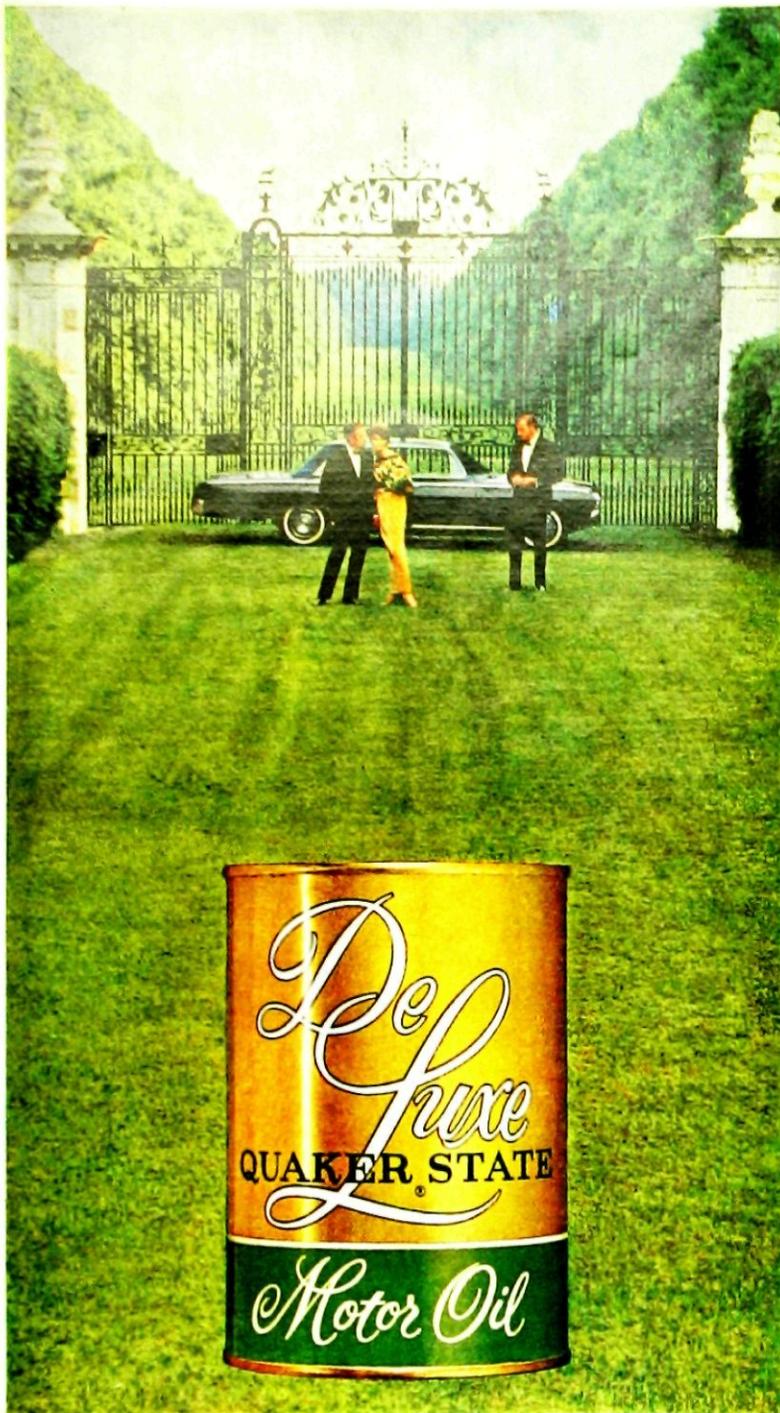
thalidomide and pesticides. They represent our willingness to rush ahead and use something new without knowing what the results are going to be."

Third, there is the attention-getting quality inherent in any exaggeration. Re-reading the reviews of *Silent Spring* not long ago, I found this echoed in such disparate journals as *The New York Times* ("She tries to scare the living daylight out of us and, in large measure, succeeds.") and the magazine *Scientific American* ("... what I interpret as bias and oversimplification may be just what it takes to write a best seller").

Undoubtedly the noisy year that has followed publication of *Silent Spring* is as much a result of Miss Carson's alarmist approach as it is of her own literary reputation and the book's fortuitous—for sales—timing. But, at the risk of being charged with practicing psychology without a license, I'd like to suggest that there is another and less well understood reason for the popular reception given *Silent Spring* this past year.

Silent Spring, it seems to me, stirs the latent demons of paranoia that many men and women must fight down all through their lives. At one time or another, all of us have been affected by the feeling that some wicked "they" were out to get "us." In recent years the paranoids among us could be observed in the ranks of such cultists as the anti-fluoridation leaguers, the organic-garden faddists and other beyond-the-fringe groups. And who are the "they" intent upon poisoning or tricking "us"? In the rough handbills passed out on street corners by the anti-fluoridationists, the plotters turn out to be Communists—scientists and dentists who want to soften, literally, the brains of the American citizenry to prepare them for Russian takeover by adding an insidious chemical to the drinking water.

In *Silent Spring* the villains aren't much more subtle. Miss Carson's "they" turn out to be the same tired stereotypes of *100,000,000 Guinea Pigs*. This is "an era dominated by industry, in which the right to make a dollar at whatever cost is seldom challenged," Miss Carson writes by



Made especially for particular car owners

Quaker State De Luxe is the years-ahead motor oil for those who want the very best. Into De Luxe has gone only the choicest pure Pennsylvania oil stocks and new special additives. It exceeds even the most extreme specifications of new car manufacturers. Best for today's stop-and-go driving. It keeps your car on the road, out of the repair shop and saves you money. Quaker State De Luxe is the finest engine life preserver your money can buy.



QUAKER STATE OIL REFINING CORPORATION, OIL CITY, PA.

SPEAKING OUT

way of explaining why the aerosol hiss of doom will continue unabated. Moreover, the greed of the businessman extends to the scientists; they, also, are venal. "The major chemical companies are pouring money into the universities to support research on insecticides," *Silent Spring* reveals darkly. "This creates attractive fellowships for graduate students and attractive staff positions. . . . This situation also explains the otherwise mystifying fact that certain outstanding entomologists are among the leading advocates of chemical control." That, of course, also explains away possible criticism in advance: Anyone who questions *Silent Spring* is obviously on Monsanto's or Shell's payroll. What it doesn't explain is why an industrialist or a scientist, no matter how grasping, would poison our food and water—the same food and water he himself eats and drinks.

But what about the accuracy of *Silent Spring*? Miss Carson's supporters frequently argue that, even though her book is slanted, she "got her basic facts right." Praising a science writer for getting the facts right, I would say, is like applauding a musician because he keeps time well. Equally important, however, are the facts that a writer leaves out and the half-facts or nonfacts that are offered instead. *Silent Spring*, to take a hyperbolic example, speaks of the fall of "chemical death rain." This is vivid, but is it a "fact"? As Professor I. L. Baldwin of the University of Wisconsin noted in his review of *Silent Spring* in the authoritative journal, *Science*, "Many may be led to believe that, just as rain falls on our land, so is all of our land sprayed with pesticides. Actually, less than five percent of all the area of the United States is annually treated with insecticides."

Then, too, there is the "fact," gravely stated by *Silent Spring*, that "for the first time in the history of the world, every human being is now subjected to contact with dangerous chemicals from the moment of conception until death." Assuming for a moment that this is true, what does it mean? In May of this year a nine-member panel of the President's Science Advisory Committee noted that deaths from the misuse of pesticides have numbered about 150 throughout the United States each year. To put this figure in perspective, consider these figures: The annual death toll from accidents involving aspirin is about 200 and from bee stings—yes, *bee* stings—is about 150. No one, however, has seriously proposed eliminating the use of aspirin or exterminating all bees. Nor has anyone, with the possible exception of Miss Carson, proposed to abolish pesticides. As the panel put it, the more reasonable goal is to achieve "more judicious use of pesticides . . . to minimize risks."

Another of *Silent Spring*'s facts concerns the "many cats [that] are reported to have died" in western and central Java in the course of an antimalarial program carried out by the World Health Organization. But we are told absolutely nothing about the cat's owners, the numberless Javanese men, women and children who had previously suffered and died of malaria. Nor are we told anything about the fate of life—human life, not a cat's life—where there are no agricultural sprays or other modern food-growing techniques. We hear nothing, for ex-

ample, of the 10,000 people throughout the world who die of malnutrition or starvation *every day*. Nor do we read of the 1.5 billion people—more than half of the world's population—who live in perpetual hunger.

I mourn for the dead cats of Java and for the silent birds of the United States. I understand that the spraying of weed killer along roadsides also destroys some shelter for wildlife and therefore upsets the "balance of nature" so mystically evoked in *Silent Spring*. But is man to refrain from disturbing certain circumstances in nature that if kept in "balance" may balance him right out of existence? Science has been unable to find any such thing as a "balance" in nature, delicately tuned and hovering around some fine ecological point. Nature has been altered by man ever since he first stood upright. If DDT kills some cats but saves many humans, if weed killer destroys a pocket of wildlife shelter but increases highway safety, so much the better.

Silent Spring, of course, is solicitous of humans, when the material suits its point of view. Miss Carson is particularly intent upon establishing a link between chemical sprays and a variety of diseases, including cancer and mental disorders. She acknowledges that "it is admittedly difficult, in dealing with human beings rather than laboratory animals, to 'prove' that cause A produces effect B. . . ." But this difficulty doesn't stop Miss Carson from attempting the same "proof" in the case of hepatitis, an inflammation of the liver. First she cites the increased use of DDT, a chlorinated hydrocarbon, over the past two decades; then she notes that such chemicals can cause damage to the human liver; finally, she cites "the sharp rise in hepatitis that began during the 1950's and is continuing a fluctuating climb." Put them all together, she tells us, and "plain common sense" suggests that there is a relationship between the increase in liver ailments and the DDT spraying. Any number can play in the game of *post hoc, ergo propter hoc* reasoning: Nuclear testing also increased during the 1950's; so did television viewing. But there is no need to play the game at all, for many cases of hepatitis, as at least one critic of *Silent Spring* has pointed out, can be traced to infectious sources such as unsterilized hypodermic needles and water polluted by sewage.

What, finally, is *Silent Spring*'s game? If we were to believe Miss Carson's own description of our times—an era where the right to make an irresponsible dollar is seldom challenged—then the answer would be an easy one. But I believe this description, like so much else in *Silent Spring*, is an extravagant one.

A more accurate description would be that this is an era of stereotyped thinking, scattershot charges, shrill voices and double standards of behavior. "I may not approve of Miss Carson's methods," someone is likely to say, "but she gets things done." In my experience, the speaker is usually the same person who, a decade ago, was most shocked by the flagrant techniques employed in Sen. Joseph McCarthy's Great Communist Hunt. The record shows that the nation, once down from its McCarthyite orbit, was able to deal with subversion without dismantling its noble mansion of constitutional law and civil rights. Similarly, I think the pesticide "problem" can be handled without going back to a dark age of plague and epidemic. THE END