

Which book ignited the environmental movement in the United States?

- A. Green Chemistry: Theory and Practice by Paul Anastasia and John Warner
- B. Silent Spring by Rachel Carson**
- C. The End of Nature by Bill McKibben
- D. Blessed Unrest by Paul Hawken

Rachel Louise Carson (May 27, 1907 – April 14, 1964) was an American marine biologist and conservationist whose book *Silent Spring* and other writings are credited with advancing the global environmental movement.¹

First synthesized in 1874, dichlorodiphenyltrichloroethane's (DDT) insecticidal action was discovered by the Swiss chemist Paul Hermann Müller in 1939 who was awarded the Nobel Prize in Physiology or Medicine in 1948.² DDT, the most powerful pesticide the world had ever known, exposed nature's vulnerability. Unlike most pesticides, whose effectiveness is limited to destroying one or two types of insects, DDT was capable of killing hundreds of different kinds at once. It first distinguished itself during World War II, clearing South Pacific islands of malaria-causing insects for U.S. troops while being used as an effective delousing powder in Europe.³

Disturbed by the profligate use of synthetic chemical pesticides after World War II, Carson changed her focus in order to warn the public about the long-term effects of misusing pesticides. In *Silent Spring* (1962) she challenged the practices of agricultural scientists and the government and called for a change in the way humankind viewed the natural world.⁴ *Silent Spring* took Carson four years to complete. It meticulously described how DDT entered the food chain and accumulated in the fatty tissues of animals, including human beings, and caused cancer and genetic damage. A single application on a crop, she wrote, killed insects for weeks and months—not only the targeted insects but countless more—and remained toxic in the environment even after it was diluted by rainwater. Carson concluded that DDT and other pesticides had irrevocably harmed animals and had contaminated the world's food supply. The book's most haunting and famous chapter, "A Fable for Tomorrow," depicted a nameless American town where all life—from fish to birds to apple blossoms to human children—had been "silenced" by the insidious effects of DDT.⁴

Carson expected criticism, but she did not expect to be personally vilified by the chemical industry and its allies in and out of government. She spent her last years courageously defending the truth of her conclusions, testifying before Congress in 1963, until her untimely death in 1964.³

As a result of Carson's efforts, DDT came under much closer government supervision and was eventually banned. The public debate moved quickly from *whether* pesticides were dangerous to *which* ones were dangerous, and the burden of proof shifted from the opponents of unrestrained pesticide use to the manufacturers.³ *Silent Spring* was published in 1962, and in 1967, the EPA officially started the campaign against DDT.

In 1972, EPA issued a cancellation order for DDT based on its adverse environmental effects, such as those to wildlife, as well as its potential human health risks. Since then, studies have continued, and a relationship between DDT exposure and reproductive effects in humans is suspected, based on studies in animals. In addition, some animals exposed to DDT in studies developed liver tumors. As a result, today, DDT is classified as a probable human carcinogen by U.S. and international authorities.⁵

1. https://en.wikipedia.org/wiki/Rachel_Carson
2. <https://en.wikipedia.org/wiki/DDT>
3. <https://www.nrdc.org/stories/story-silent-spring>
4. <http://www.rachelcarson.org/Bio.aspx>
5. <https://www.epa.gov/ingredients-used-pesticide-products/ddt-brief-history-and-status>