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RACHEL CARSON AND ECOLOGICAL CONSCIOUSNESS

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For the environmental movement the year 2012 marked an important the fiftieth anniversary. It is the publication of the book *Silent Spring*, of Rachel Louise Carson (1907-1964). This book caused so much repercussion in the decade of 1960 which is even today considered one of the founders of the international environmental movement. It was originally published by *The New Yorker* magazine, in parts, between June and July 1962. In September of the same year, he released the book.

The strength of the arguments and facts that she reported in the text on the use of pesticides and its effect on the environment and the people was so great that the book became an instant best seller. Using a language that blended literary skill, rigorous research to bring scientific knowledge of the lay public, *Silent Spring* had instant impact, was more than two years in the lists of best-selling books and soon resonated globally. The book made the first global alert about the harmful effects of pesticide use and questioned the direction of the relationship between man and nature.

In its pages, Carson denounced various negative effects of the use of DDT in plantations and in disease prevention campaigns. The applications will not kill only pests (insects, weeds, fungi, etc.) which was heading, but also many other species, including natural predators of these pests. This pesticide, it showed, reaches the entire ecosystem — soil, water, fauna and flora-and enters the food chain, reaching humans.

While the population sent numerous letters of support to Carson, pesticide manufacturers came together to discredit the author and his collaborators. Scientists committed to the production of pesticides published articles questioning the legitimacy of the book because the author, a marine biologist, had no doctorate (was master in Zoology), and others attacked with biased arguments, calling it "nature's nun", "old maid", "witch", hinting that should shut up just by the fact of being a woman.

This extraordinary woman faced in 1935, prevailing prejudices at the time against women in scientific research environment, and the only job you got was screenwriter on radio programs over the ocean, produced by federal government department dedicated to the study of forests and seas. But, from an early age she became involved with the dissemination of science, the cause to which he devoted himself in life. Rachel Carson devoted nearly full time from 1958 to the research and writing of what would become his greatest legacy to the society.

But Carson was already the subject of pesticides since 1945, when American biologists began to study the effects of dichlorodiphenyltrichloroethane (insecticide DDT) in the environment. It is likely that a personal health problem, she died as a result of a breast cancer, has tilted with more strength to the research that he and that became the book. She interviewed hundreds of fellow scientists, employees of government agencies related to agriculture, doctors studying the relationship between cancer and exposure to pesticides. Thereby, conducted a comprehensive survey of the use of pesticides and their possible consequences for human health and the quality of the environment.

DDT was synthesized in 1874, in Germany, but its properties insecticides were only discovered in 1939 by the Swiss chemist Paul Hermann Müller (1899-1965). As the compound was employed initially, successfully, to fight the bugs (lice, mosquitoes and other) transmitters of diseases (typhoid, malaria, yellow fever and other), the discovery was singled out as a revolutionary and gave Müller, in 1948, the Nobel Prize in medicine.

After World War II, DDT began to be used in fighting insects attacking agricultural crops, but in little more than a decade began to be reported episodes of water and soil contamination and death of animals.

In 1958, Carson received a letter from a friend, the journalist Olga Huckins (1900-1968), counting on dead birds in your yard, due to aerial spraying of DDT. This was the ' last straw ' for the decision to write silent spring. As they investigated and got information about pesticides, Carson realized the seriousness of the problem and, at the same time, the urgent need to report it to the world.

She knew that the topic was controversial and could cause negative reaction of pesticide manufacturers. To insure themselves of the charges, he researched a lot. Came into contact with scientists from different countries, forming a network of collaborators.

DDT was banned in several countries, starting with Hungary (1968), Norway and Sweden (1970) and Germany, and United States (1972). Today, the Stockholm Convention

on Persistent Organic Pollutants, signed by approximately 180 countries, restricts the use of the special cases of disease vector control. In Brazil, the manufacture, import, export, marketing, maintenance and use of DDT were banned in 2009.

Had people concerned with the devastation of nature well before Silent Spring, but the environmental movement of political character was certainly boosted by the publication of the book. While criticizing the use of pesticides, Carson was a fundamental issue, the relationship of man with nature. In excerpts of the book, she asked: *"The Supreme value is a world without insects, even though it is a barren world?" (...)* *"How can intelligent beings seek to control a few undesirable species through a method that contaminated the entire environment and brought the risk of illnesses and even deaths of their own species?"*

After 50 years, the book of Rachel Carson remains extremely relevant. In the context, in which Brazil loads the daunting title of world's largest consumer of agrochemicals, Silent Spring is current and necessary. The words of this researcher and writer can help us rethink our values. After all, it's much more worth having spring and noisy, which can be heard both the sounds of people as the sounds of nature.

The book's title is an allusion to a future in which spring, if not changed the agricultural pest control, wild birds and animals have disappeared, devastated by poisons against these pests.

It is true that the environmental alert is important and should be a universal concern. However, the relationship of humanity with nature does not have to be avoided. Thus, the knowledge and the planning of actions involving these relations should be a priority. Agricultural practices can no longer be purely empirical. The use of pesticides must follow clinical criteria, i.e. from the agronomic prescription, in Brazil, established by Federal law 7,802 of 1989, to the monitoring of the implementation by an agronomist. This professional has in his crate of disciplines, a total of 16, between compulsory and elective courses, which deal with the relations of agricultural production and the environment, knowledge of crop pests, plants "weeds" and the use of these inputs in the crops. Thereby, it is inconceivable that the use of these inputs may continue to be applied without the accompaniment of this professional.

Silent Spring is still a milestone for environmental consciousness of mankind, leading her to know, understand, protect and use nature in favor of sustainable development. It is vital that more people are aware of this legacy of Rachel Carson.