

Elevating Outrage in the Fight Against Pesticides



The Fight Against Monsanto's Roundup: The Politics of Pesticides, Mitchel Cohen, New York, Skyhorse Publishing, 2019

Mitchel Cohen's book, *The Fight Against Monsanto* is a collection of essays from a range of scientists and activists, interspersed with his own critiques of the social, political, economic, and scientific dimensions of the pesticide threat. The analyses in the book drive the outrage that we all feel about the involuntary pesticide

poisoning that has plagued our country with increasingly sophisticated and problematic biocides since World War II. Mr. Cohen brings an analysis of the social movements that have struggled against inequality and injustice and contextualizes pesticides as a symptom of vested economic interests that normalize practices harmful to the social good. With this analysis, he brings readers the thinking of 15 authors, including the forward by Vandana Shiva, the acclaimed international environmental and social justice leader.

Whether the reader agrees with Mr. Cohen's broad economic analysis, or even the science of a particular contributing author, the book is a forum for views that should spark debate and perhaps controversy. Having worked to tackle this problem for four decades, I have learned the value of hearing all viewpoints, whether they reinforce my worldview or criticize it. This comes after decades of studying the science on pesticides and pesticide policy, talking to regulators and legislators, listening to the victims of pesticide poisoning, discussing with farmers the damage caused by insect and weed resistance to pesticides, hearing the devastating experiences of beekeepers struggling to maintain the health of their hives, and watching the demise of species.

The author embraces the basic message and underlying science of Rachel Carson, when she writes in *Silent Spring* about the importance of protecting complex biological communities. He and contributors reject reductionist science that looks at "smaller and smaller isolated parts" which "more often than not hammers into place a way of examining the world that precludes the ability to see or understand the whole, and to construct a morality and sense of justice based on it." He continues, "One purpose of this book is to restore a more holistic vision that provides a framework for understanding the patterns beneath all the related "facts.""

Mr. Cohen, a leader in New York City's No Spray Coalition, recounts a lawsuit that the coalition filed with Beyond

Pesticides and other organizations in 2000 under the *Clean Water Act* after the city sprayed toxic insecticides over the city's waterways, contrary to the label, in its West Nile Virus spray program. After successfully settling the suit, and years later city officials were still asking the coalition, "Which less toxic chemical sprays should we use?" Mr. Cohen's answer: "None! Bring in goats, dragonflies, bats!" The author writes, "The use of natural predators of the so-called pests in question was to [officials] so far outside the boundaries of the dominant chemical mindset as to seem absurd."

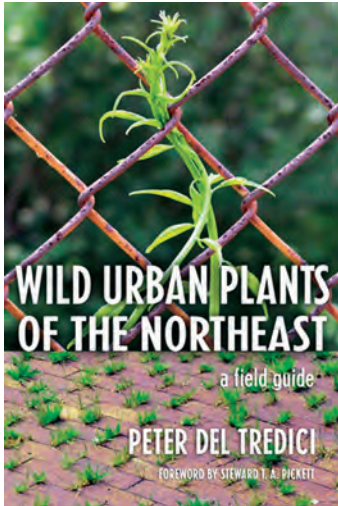
When people rose up against the use of glyphosate in 2016, Mr. Cohen writes, "[G]oats were finally brought into the city from an upstate New York farm to feed on weeds in a fenced-off section of Prospect Park (Brooklyn). The goats chomped happily on the wild plants. Children got to see them "at work," and appreciated their new connection to nature. That section of the park was safely "weeded" in record time."

In capturing our outsized societal dependence on pesticides, corruption in the pesticide industry and government, and the failure of science to prevail over politics, this book adds to the call for urgent action.

Monsanto/Bayer's history looms large in the book, including controversy on company manipulation of scientific studies purported to be independent and the studies on Agent Orange, used in the Vietnam war. Stacy Malkin, with U.S. Right to Know, contributes a piece on the corporate influence of science coverage in the media, and how the truth came out. The book offers a wealth of citations in support of the critique. And, as a bonus, the book includes a chapter by the late Stephen Tvedten, who left the chemical pest control industry after he realized he poisoned himself and his customers. You'll have to read the book to find out, in Mr. Tvedten's words, "Why I Stopped Using Pesticide Poisons."

In capturing our outsized societal dependence on pesticides, corruption in the pesticide industry and government, and the failure of science to prevail over politics, this book adds to the call for urgent action. It certainly reinforces the immediate need to link science and activism in fighting the power of vested economic interests over public health and safety decisions, as we advance the changes required for a sustainable, regenerative, and just future.

Appreciating the Role and Ecological Function of Wild Urban Plants



Wild Urban Plants of the Northeast: A Field Guide, Peter del Tradici, PhD, Comstock Publishing Associates, a division of Cornell University Press, 2010

Urban areas, as constructs of civilized humans, are by definition highly disturbed environments, and cannot be managed according to standards applied to more pristine habitats. Cities provide vast areas of pavement, poor soils, and frequent severe disturbance—all of which provide challenges to native plants.

Wild Urban Plants of the Northeast is primarily a field guide to 222 species of “spontaneous” plants found in cities within the area delineated by Montreal, Boston, Washington, DC, and Detroit, though the field guide would be equally useful in my town of Lawrence, Kansas. Just as important, however, is the introductory essay, which describes the ecology of urban plants.

The field guide is remarkable in several respects. The photographs offer several different views showing the plant at different stages of growth—including foliage, flowers, and seeds—and variations in growth habit. In addition to the standard plant characteristics, the description of each species offers short accounts of place of origin, germination and regeneration conditions, habitat preferences, ecological functions, cultural significance, and related species. According to the author, “The basic goal of *Wild Urban Plants* is to help the general reader identify the plants that grow spontaneously in the urban environment and develop an appreciation for the role they play in making our lives more livable.” These plants comprise a large proportion of the “nature” encountered by the majority of people who live in cities. The field guide helps us to make connections to the food, medicine, and uses of spontaneous plants.

Urban landscapes in the Northeast include three broad

categories of land: remnants of relatively undisturbed woodlands and wetlands dominated by native plants and requiring little maintenance, managed landscapes (e.g., parks and gardens) dominated by cultivated plants requiring moderate to intensive maintenance, and abandoned or neglected land dominated by spontaneous plants that require no maintenance.

The author of *Wild Urban Plants of the Northeast*, Peter Del Tradici, PhD, chooses to use the term “spontaneous plants” rather than the word “weeds,” which is heavily laden with negative connotations. Spontaneous plants can live and reproduce without human intervention. Spontaneous plants in urban environments do so under conditions that would be adverse to native plants adapted to less harsh conditions. Stressors include paving that reflects and stores heat, producing higher temperatures, and that inhibits the movement of air and water into the soil; chemicals like salts and oils; poor drainage; soil compaction; and air pollution.

Abandoned or neglected land in cities ranges from sidewalk cracks to vacant lots. It is subject to unpredictable disturbance as buildings are torn down or constructed and infrastructure is replaced. Between such disturbances, ecological succession marks changes in plant species as pioneer plants change soil conditions for later colonizers.

The positive ecological functions provided by spontaneous plants in urban environments include reducing temperature, providing food and habitat for wildlife, erosion control, stream bank stabilization, and absorption of excess nutrient runoff. Some plants also help to clean up contaminated sites by selectively absorbing heavy metals. The author encourages readers to use spontaneous urban plants for landscaping. Recognizing that some of these spontaneous plants are elsewhere prized for their beauty, Dr. del Tradici offers suggestions for the “cosmopolitan urban meadow” to capitalize on the aesthetic and ecological virtues of spontaneous urban plants.

Finally, any debate about so-called “invasive” species in urban environments must take place in the context of the ecology of the highly disturbed urban landscape. *Wild Urban Plants of the Northeast* is an important addition to understanding that context.

The positive ecological functions provided by spontaneous plants in urban environments include reducing temperature, providing food and habitat for wildlife, erosion control, stream bank stabilization, and absorption of excess nutrient runoff.
