Creating Community-Based Models for Change

SCIENCE-BASED ADVOCACY; MODEL ORGANIC LAND MANAGEMENT PRACTICES

BEYOND PESTICIDES

Protecting Health and the Environment with Science, Policy, and Action

Annual Report | July 2022–June 2023 | beyondpesticides.org
The July 2022–June 2023 Annual Report highlights Beyond Pesticides’ major programs in the context of our strategic goal to transition away from toxic, fossil fuel-based pesticides and fertilizers to meet the existential public health, biodiversity, and climate crises of our time. For more details on Beyond Pesticides’ programs, visit beyondpesticides.org. Our website contains our ongoing efforts and campaigns to protect health and the environment with science, policy, and action.

beyondpesticides.org
A Message from Leadership

Amid environmental and political chaos in the country, Beyond Pesticides is charting a path that offers solutions for a livable world. Our work starts at the community level, with values, practices, and policies that serve as models for confronting the existential health, biodiversity, and climate crises of our time. We see the work to transition land management to organic practices, which we are doing in communities across the country, as bright spots at a time when solutions seem out of reach.

We seek fundamental change in eliminating petrochemical pesticides and fertilizers in the management of land, in our parks, playing fields, schoolyards, homes, and agricultural fields. We do this with the recognition that the regulatory system in place at the federal and state level has failed to stave off the crises that we are experiencing nationally and worldwide.

We capture the health crisis in our daily cataloguing of adverse health effects associated with pesticide exposure through air, food, and water. The data on the devastating range of pesticide-induced diseases, from cancer to reproductive to neurological and immunological effects, is maintained in our Daily News and databases. Meanwhile, this peer-reviewed science is not captured by the regulatory review of widely used pesticides, so real impacts of the chemicals go unevaluated—including the effect of endocrine disruptors defying classical dose-makes-the-poison toxicology, epigenetic and multigenerational effects, impacts on the gut microbiome and the relationship to disease, and synergistic effects of multiple chemical exposures, to name a few.

A sole focus on the banning of individual pesticides that adversely affect people’s health and wreak havoc with ecosystems, although important, ignores the need for a holistic strategy required to meet the urgency of the crises.

In this moment, we recognize that specific toxic pesticides or families of chemicals are poster children for systemic regulatory and statutory failures, exemplifying the need for clearly defined acceptable land management practices that end petrochemical pesticide and fertilizer use and draw down through soil-based carbon sequestration the billions of pounds of atmospheric carbon dioxide (CO₂) now required. In addition to the release of CO₂ from these petrochemicals, synthetic fertilizers and pesticide fumigants release nitrous oxide, which is 300 times more potent than CO₂ as a greenhouse gas.

The true cost of dependency on pesticides and fertilizers is extraordinary. Studies consistently document that the cost of petrochemical-use-externalities (morbidity and health care, lost pollination, water contamination—and now the costs of floods, fires, mudslides, and storms)—must be factored in for more realistic accounting.

We can improve our quality of life, enhance productivity and resiliency, increase profitability, and better protect against insect-borne diseases, with clearly defined regenerative organic systems where we live, work, and learn.

Thank you for your support of Beyond Pesticides!

Jay Feldman, Executive Director
Paula Dinerstein, President
The time for systemic change is upon us as we reflect on crises in health, biodiversity, and climate that are increasingly documented in the scientific literature and playing out in family and community catastrophes that are experienced across the U.S. and worldwide. Beyond Pesticides has structured its program to ensure public access to science that empowers action and focuses its resources on the implementation of model land management practices that eliminate reliance on toxics. These replicable models across the country support our call for the elimination of petrochemical pesticides and fertilizers by 2032.

Creating Models for What Change Looks Like

We call for the elimination of toxic pesticides and fertilizers because we are showing it can be done, documenting that reliance on these deadly toxics is unjustifiable and unnecessary. Beyond Pesticides’ daily tracking of science and policy and the maintenance of databases provide decision makers and advocates with the justification for moving ahead—and moving urgently.

The fact that pesticides and synthetic fertilizers are not needed has been proven in organic agriculture (and now organic parks and playing fields), which we have pushed for since our founding in 1981—helping to grow and now preserve the integrity of the values and principles that define certified organic standards and labeling of food products. While growing this market to become mainstream continues by increasing consumer demand and support for the transition to organic food production, communities still lag behind in their dependency on toxics in the management of parks, playing fields, schoolyards, open space, and rights-of-way. Beyond Pesticides is changing this with a strategic program that works directly with communities nationwide to replace synthetic, toxic pesticides and fertilizers with organic practices and materials.

What Distinguishes Beyond Pesticides’ Program

Beyond Pesticides’ program for getting off the pesticide treadmill distinguishes itself from strategies that seek to amend or enforce a broken regulatory system propped up by deficient federal and state laws. Certainly, hazardous chemicals need to be removed from the market and the faulty assumptions that characterize harm in risk assessments need to be corrected. However, the unending chemical “whack-a-mole” approach and standards of acceptable harm have failed, bringing us to the brink of collapse—with health crises (from cancer to nervous, immune, reproductive, and respiratory system diseases), biodiversity collapse, and the climate emergency. We use our voice in the regulatory and policy arena to exemplify the failure of the regulations and underlying statutes. The pesticide-induced cancer crisis is not solved by banning glyphosate (Roundup), and the bees, butterflies, and birds are not protected with the banning of the neonicotinoid pesticides. These chemicals are merely the poster children for a failed regulatory and statutory approach that continuously fuels the syndrome of pesticide dependency.
What Does Meaningful Change Look Like in the Current Crises

An organic system is composed of management practices that protect health, biodiversity and help to mitigate the climate crisis. The organic system protects complex biological communities of organisms in the ecosystem who would otherwise be adversely affected by the use of toxic chemicals. The adoption and implementation of defined organic standards and practices, drawn from federal organic law, establish a community’s commitment to a sustainable future that is replicable for all land management, creating a model for a livable future.

In adopting an organic approach, we are:

- **Eliminating toxic chemicals that harm health** of communities, children, older people, with disproportionate harm to people of color communities, including farmworkers, landscapers and those who handle the chemicals;
- **Protecting organisms in the soil that provide ecosystem services** by helping to cycle nutrients naturally, retain moisture, enhance resilience, reduce reliance on water, and control erosion;
- **Nurturing biodiversity**, including bees, butterflies, birds, while helping to curtail the steep decline in insect populations that support the web of life; and
- **Mitigating the climate crisis** by ending the reliance on petrochemical pesticides and fertilizers, which contribute to greenhouse gases, and facilitating a process of drawing down atmospheric carbon through soil sequestration.

How Does It Get Done?
Meaningful systemic change happens with strong voices of our community members who are equipped with the science that supports the need for action and the tools to adopt the on-the-ground changes that must be put in place. Beyond Pesticides plays a critical role in enhancing public understanding of the science and the practical hands-on experience to inform the urgent steps that must be taken at the local, state, and national levels—whether as professionals or lay people, local elected officials or concerned advocates.

Beyond Pesticides assists in this process with:

- **The science that supports action** through the daily tracking of the scientific literature on the connection between pesticide and fertilizer use and existential adverse effects and the updating of our resources, which make science and policy deficiencies accessible through our databases—Gateway on Pesticide Hazards and Safe Pest Management, Pesticide-Induced Diseases Database, and What the Science Shows (on pollinators), and
- **The tools that support transition to organic land management** through collaboration with parks, public works departments, school districts, and college campuses in the development of plans based on soil testing, evaluating of soil characteristics and the soil foodweb, which informs a strategy for building soil health, the cycling of nutrients, increased stress resistance, water retention, and long-term cost reduction.
Advocacy for Systemic Change

Moving from Mitigation to Prevention

Beyond Pesticides’ actions in collaboration with our network create a framework for systemic change. Although the founders of the organization recognized the importance of measures to restrict pesticide use through improved chemical regulation and effective toxic pesticide use reduction and elimination strategies, we believe a crosscutting grassroots organization is needed to help reframe the public debate that has emerged since the publication of Silent Spring. Many important laws governing clean air, water, food safety, and pesticides had been adopted in the early 1970’s with the focus on mitigating hazards associated with pesticides. Our work to advance organic agricultural and public and residential land management systems creates a new policy framework that is nurturing a precautionary approach, starting with the premise that we do not need toxic chemicals to achieve food productivity goals or beautiful landscapes.

Action Informed by Science and Disproportionate Harm

The voices from our network are critical to government accountability as well as creating a record for change. The governmental response, or lack thereof, helps to inform the local debate on appropriate action to advance change in communities. The failure of Congress and the U.S. Environmental Protection Agency (EPA) and other government agencies to heed the preponderance of the independent, peer-reviewed scientific evidence of catastrophic harm on the horizon and deficiencies in safety standards and risk assessments are a deadly mix. In the U.S. and worldwide, the foundation of conventional agriculture and the management of the built environment are intricately tied to polluting practices, with disproportionate harm affecting segments of the society that are exploited, low income, in ill-health, and people of color.

Integrating Science, Policy, and Action

The program takes a holistic approach to advocacy by integrating an analysis of science, policy, and action to inform positions that are meaningful as a means of prevention or in response to existing problems. Our three categories of work are:

Science. With a confluence of never-before-seen threats to life, science empowers calls for change that, going beyond typical pesticide mitigation and reduction...

Photo: Getty/ktsimage

ACTION OF THE WEEK provides our supporters and network with one concrete action that can be taken each week to have their voice heard on issues that are harmful to the environment and public and worker health, maintain or increase pesticide use, or undermine the advancement of organic, sustainable, and regenerative practices and policies. These weekly actions typically generate between 2,000 and 4,000+ participants. The range of issues targets corporations, state and federal government, and the U.S. Congress. Our voices make a difference and show local governments the importance of their action in the absence of an adequate state and federal response.

2022 ACTIONS

12/19 Preserve Local Democracy and the Right of Communities to Restrict Pesticide Use
12/12 The National Organic Program Must Evaluate Undisclosed “Inert” Ingredients Used in Organic Production
12/05 Save Manatees from Extinction Caused in Large Part by Toxic Runoff
11/28 Tell EPA To Ban Pesticides that Reduce Sperm Counts
11/21 EPA Must Complete Thorough Reviews Before Registering Pesticides
11/14 Tell EPA To Ban Antibiotics in Agriculture, Lawns, and Landscapes
11/07 Tell Congress To Address Contamination with PFAS and Other Legacy Chemicals
11/01 Tell EPA That Clean Air, NOT “Sanitized” Air, Protects Against Disease
10/21 Turn Breast Cancer Awareness into Breast Cancer Prevention
10/17 Eliminate Systemic Racism and Environmental Injustice in Pesticide Policy
measures or specific chemical phaseouts, adopt strategies to eliminate toxic pesticide dependency and embrace organic practices and policies. The science reflects a pattern of pesticide-induced illness and disease throughout ecosystems that is generational and escalating exponentially.

Policy. Decades of pesticide policy and “reforms” have increased society’s dependency on toxic chemicals. The need for pesticides is assumed in law and regulatory review. The failure to regulate pesticides in a manner that incentivizes the marketplace to move to nontoxic and regenerative organic practices results in crises that may be resolved in court after the damage is done—such as multimillion-dollar court victories for cancer victims of glyphosate/Roundup exposure. However, the policies in place allow continued threats to pollinators and endangered species, hazardous exposure through drift, secret agency meetings with industry to recalculate risk levels, and more. Policy debates in the current Congress, important to shining a light on the need for change, help to motivate the phaseout of toxic pesticides in communities.

Action. The very bright spot, exemplifying what is possible to confront the health, biodiversity, and climate crises, is found in the action that is taken in communities and states to eliminate toxic pesticide use. Much of this work is still incident-driven and focused on specific chemical threats, like the neonicotinoid insecticides that kill bees, or PFAS—per- and poly-fluoroalkyl substances—that have contaminated farmland, the food chain, and ecosystems. Importantly, communities are phasing out pesticides in their parks and on playing fields—such as multi-million dollar court victories for cancer victims of glyphosate/Roundup exposure. However, the policies in place allow continued threats to pollinators and endangered species, hazardous exposure through drift, secret agency meetings with industry to recalculate risk levels, and more. Policy debates in the current Congress, important to shining a light on the need for change, help to motivate the phaseout of toxic pesticides in communities.

Photos (Top to Bottom): Getty/Eduard Andrica; Getty/Kanjana Jorruang; Getty/SDI Productions

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Organic Land Management
Leading the way forward

At Beyond Pesticides, we see organic as the transformative change that is needed to meet the existential crises associated with petroleum-based inputs in agriculture and land management—the health crisis, biodiversity collapse, and the climate emergency. Organic must lead in how we manage the soil, sequester carbon, take petrochemical pesticides and fertilizers out of land management—and then, under continuous improvement—how we move to eliminate plastics, and adopt nonpolluting disinfection practices.

Hands-On Organic Land Management—Parks, Playing Fields, Lawns

The nexus for change is Beyond Pesticides’ program that works with communities to transition their land to organic practices. We have worked with over 50 communities, continue to facilitate the transition in over 25, and added Grinnell College (Grinnell, IA), Novato Unified School District (CA), and Austin, TX to the list of communities and institutions working on transition this year.

Press Conference in New York City

Eco-Friendly Parks for All (a coalition spearheaded by Beyond Pesticides, The Black Institute, Grassroots Environmental Education, and Icahn School of Medicine at Mount Sinai) held a press conference in June with the New York City Parks Deputy Commissioner for Environment and Planning, parks staff, and a City Council member to announce the launch of the organic demonstration park project. The event was held at Morningside Park, one of the parks in the pilot in East Harlem.

Advocating for Local Community Policy

As part of our testimony in Hallowell, ME, we presented our new factsheet, Myths and Facts about Lawn Care Restrictions. The factsheet states: Those with vested interests in the sale or use of toxic pesticides often make claims that belie the science on the hazards of these toxic chemicals, ignore independent scientific findings, and misrepresent the experience of numerous jurisdictions and landscapers throughout the country who have stopped the use of toxic pesticides.

- **Myth 1:** Federal and state pesticide law provides adequate protections from toxic pesticides.
- **Myth 2:** Restrictions on toxic pesticide use will lead to an increase in residential pesticide use by homeowners.
- **Myth 3:** Organic Listed pesticides do not face regulatory scrutiny.
- **Myth 4:** Lawn care legislation will result in landscaping companies losing business.
- **Myth 5:** Signage requirements at point-of-purchase place an undue burden on retailers.
- **Myth 6:** Natural and organic land management costs too much.

We provide the facts for all these myths. Hallowell City Council passed an ordinance that stops all toxic pesticide use on their public landscapes.

Parks for a Sustainable Future

Natural Grocers and Stonyfield Organic collaborate with Beyond Pesticides on our Parks for a Sustainable Future program and provide financial support through their “Ladybug Love/Organic Parks Project” and StonyFIELDS initiative, respectively.
The principles and values embedded in the Organic Foods Production Act (OFPA) create the foundation on which we advance ecosystem-compatible land management practices to protect health and the environment. We are affirming and defending methods that are intended to establish integrity, incentivize innovation, challenge conventional wisdom, are cutting edge and establish public trust in the USDA organic label.

Beyond Pesticides plays an active role in commenting every six months before the National Organic Standards Board (NOSB), established by Congress to oversee those materials allowed in organic management and advise the U.S. Secretary of Agriculture on organic standards. Beyond Pesticides rallies the public to comment on issues before the NOSB through our Keeping Organic Strong webpage and outreach to our network.

Why This Is So Important
First, consumer supporters of organics do not generally want synthetics in their food. Second, organic consumers and farmers, at least the ones who spearheaded the adoption of the law and today embrace its values and principles, do not want a food supply that loads up the environment with synthetics. Third, organic consumers are not interested in shortcuts in handling or processing or elements of the chemical-intensive market that rely on synthetics. With organic, we have carved out a way to take the best and reject the worst from our land management and food production history—whether we are talking about pest prevention, humane conditions for livestock, or processing aids.

The standards behind organic and the USDA organic label require protection and continuous improvement to meet the looming existential crises of our time. These are some of the issues that we have brought to the NOSB and public process:

- **Eliminate plastic** and bioplastic mulch film, contributing to reliance on petroleum-based products that create microplastics, and utilize intercropping, cover cropping, and natural mulches.
- **End the 5% allowance of non-organic ingredients** in processed organic food when organic form is viable or when chemical-intensive practices are not analyzed.
- **Prohibit the Routine Allowance of Ingredients Processed with Ion Exchange.** Ion exchange creates synthetic resins through chemical change—removing some components and substituting other chemicals—that are used in processed food. It is not simply filtration. All resins must be subject to National List review.
- **Organic Agriculture Is Climate-Smart Agriculture.** The NOSB must stress the need for USDA to promote conversion to organic farming. We must be asking how USDA programs can assist organic producers and those seeking to convert to organic.
CREATING COMMUNITY-BASED MODELS FOR CHANGE

Beyond Pesticides’ unique databases, consistently updated throughout the year, continue to serve as key-stone information for advocacy. Our goal is to empower advocates with the tools that they need to effect change—to talk with policy makers, elected officials, and land and pest managers. This requires tracking the current science and making it accessible to lay people through an abstract of technical scientific findings that call for action. We bring the essence of the findings out of scientific journals to inform action needed to protect health and the environment. We take the same approach with policy, providing critiques that enable a community and state discussion on the limitations of those policies that, again, inform the need for action. Our key databases updated over the year are Gateway of Pesticide Hazards and Safe Pest Management, Pesticide-Induced Diseases Database, What the Science Shows (on pollinators), and ManageSafe (on alternative, nontoxic management strategies).

BRINGING THE SCIENCE TO LOCAL COMMUNITIES

Our testimony to city councils and departments reflects our broad commitment to bring science-based information to the deliberations of local governing bodies. We provide an analysis of the chemicals that are typically used in land management, their adverse effects to health and the environment, the limitations of the federal and state pesticide registration process that justifies local action, and the viability of organic management practices.

OBJECTED FILED FOR FOREST SERVICE SPRAY PROGRAM

In submitted comments, we objected to the U.S. Forest Service moving forward with a pesticide spray program under its Invasive Plant and Interfering Vegetation Treatment for the Allegheny National Forest. Because the Service proposed a major escalation of pesticide use, with eight pesticides (including glyphosate, imazapyr, indaziflam, and triclopyr) on federal land, we noted that the science justifies an in-depth review of hazards and alternative management practices in an Environmental Impact Statement, which is not included in its Environmental Assessment.

BUREAU OF LAND MANAGEMENT

We told the Bureau of Land Management that its proposed use of seven pesticides will contaminate the environment due to moderate to high leachability, mobility, bioaccumulation, and particle-bound transport. We summarize, in our statement, hazards to human health and the environment, including adverse effects on reproductive health and cancer development, as well as acute toxicity to the ecosystem, from plant to animal species. There is little serious attention to alternative management strategies that we recommend.

RESTRICTING RODENTICIDES

We evaluate rodenticides, like all pesticides, in the context of the availability of nontoxic approaches to management and prevention. First, we outline successful nontoxic approaches for management. An integrated system for managing rodent problems focuses on limiting access to the food, water, and harborage required by the rodents. Then, we raise issues of 11 anticoagulants and non-anticoagulant poisons and their nontarget exposure to wildlife.
Environmental Justice
Continuing our historical position of eliminating pesticides to protect farmworkers and their communities

Unnecessary Chemical Exposure to Farmworkers
We vehemently opposed California EPA’s proposal to remove existing limits on the use of the highly toxic fumigant 1,3-D (Telone), allowing Californians to breathe much more 1,3-D than state toxicologists at the California Office of Environmental Health Hazard Assessment—charged with establishing safe limits of exposure—say is safe, highlighting the dangers to which farmworkers are routinely exposed. We said it is unacceptable to allow farmworkers—whose labor was judged “essential” during the pandemic—to be routinely exposed to highly toxic pesticides, which could be replaced by certified organic food production, a large and growing agricultural sector in California, across the country, and worldwide.

No Compromise on Farmworker Protection
After the Trump EPA was blocked from weakening the application exclusion zone (AEZ) provisions for protecting farmworkers, the rules reverted to the Obama era rules. Now, EPA proposes to reaffirm part of that rule, while accepting some of the weakening amendments from the Trump administration. We urge our network to tell EPA to strengthen pesticide rules to protect farmworkers with our action: Tell President Biden to sign the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families. Farmworkers need more protections, not industry-friendly compromises. Currently, the average life expectancy for a farmworker is 49 years, compared to 78 for the general population. We highlight the systemic racism of pesticide policies in our country and worldwide, the focus of the second session on environmental justice at our National Forum. Our nation depends on farmworkers to ensure sustenance for the nation and world. Yet, farmworkers’ occupational exposure to toxic pesticides is discounted by EPA, while study after study documents the disproportionate level of their pesticide-related illness.
Arm to pollinators caused by toxic pesticides continues to be an important indicator of our society’s failure to adequately regulate pesticides and more broadly adopt land management practices that eliminate their use. The limitation of individual “whack-a-mole” chemical campaigns, while helpful in highlighting hazards and deficient risk assessments, calls for our holistic community-based strategy to urgently change practices and policies to meet the challenge of looming biodiversity collapse.

Chemical Analyses
We produce hard-hitting critiques of pesticides that serve as poster children for urgently needed systemic change.

DEADLY FUNGICIDE
We tracked the widely used, broad-spectrum, fungicide fenbuconazole, classified as “slightly toxic or nontoxic” to pollinators by EPA, but devastating to male mason bee mating behavior—jeopardizing future generations of critically important pollinators. This follows a regulatory pattern of inadequate review of the neonicotinoid insecticides, bees’ lost navigational skills, and their increased vulnerability to disease and parasites.

The Bad News Informs Action
A quarter of the global insect population has been wiped out since 1990, according to research in the journal Science. Monarchs are near extinction and beekeepers continue to experience declines, as native bees suffer. The 29% decline in bird abundance since the 1970s is closely correlated with insect declines. Pesticides cause biodiversity loss in aquatic ecosystems. Amphibians are particularly at risk.

Failure of Regulatory Tinkering
We urge EPA to (i) conduct a comprehensive evaluation of endocrine disrupting effects, other endpoints, and pesticide product ingredient mixtures devastating to biodiversity, and (ii) recognize the viability, productivity, and profitability of USDA certified organic practices to show lack of chemical benefits.

Protecting Wildlife Refuges
DUNGENESS NATIONAL WILDLIFE REFUGE AND AQUATIC ECOSYSTEM
We sued the Department of Interior with Protect the Peninsula’s Future and the Coalition to Protect Puget Sound Habitat to stop a lease for a 50-acre industrial aquaculture operation in the refuge—after commenting and issuing actions. We acted due to the known harm to migratory and residential birds, salmon, forage fish, other wildlife and their primary feeding areas.

ENDING REFUGE PESTICIDE USE
Following our 2014 lawsuit with others, numerous reports, and the reversal of a U.S. Fish and Wildlife Service (FWS) decision to adopt “a precautionary approach to [FWS] wildlife management practices. . .” and stop the allowance of genetically engineered crops and neonicotinoid insecticides, a Congressional letter was sent to FWS urging a phaseout of pesticide use in refuges.

Protecting Birds
We acted to support conservation of bird habitat, research, monitoring, outreach, and education under the Neotropical Migratory Bird Conservation Enhancement Act (NMBCA), an innovative and cost-effective approach to the conservation of the more than 350 neotropical bird species in the U.S. that travel to Central and South America, the Caribbean, and Canada every year.
Values Drive Community Pesticide Restrictions

Given gaps in federal and state laws

Continuing our historical commitment to community-based decision making for the protection of health and the environment, we are regularly fighting the ongoing pro-pesticide lobby’s attempts to quash local authority—now being negotiated in the 2023 Farm Bill—to restrict pesticides more stringently than the state and federal government.

Giving Voice to Local Rights

With our advocacy, over 120 local officials sent a letter to Congress explaining their concern. Some said:

Mayor Daniel Biss, City of Evanston, IL: “It is critical that local governments have tools to protect the health of our residents and safeguard our environment. The federal government should not tie the hands of local lawmakers aiming to address ongoing crises relating to health, biodiversity, and climate change. Congress should be expanding the authorities available to local governments to address these concerns, not limiting them.”

Mayor Aaron Brockett, City of Boulder, CO: “There is increasing scientific evidence showing that pesticides harm human health, threaten biodiversity, and weaken the natural systems upon which human survival depends. Local governments need to be given the ability to make decisions about how to best protect their community, their children, and the natural world from these toxic substances.”

Councilwoman Sara Continenza, South Euclid, OH: “I am opposed to any sort of preemption . . . particularly as it relates to the ability of municipalities to regulate chemicals. We passed an ordinance banning pesticides on public property due to the extensive evidence of the harm it causes. There are extensive options for natural products and practices . . . without causing harmful algae blooms in our lakes or creating toxic hazards to humans and pets.”

Protecting Hawai’i with Vision

Our Hawai’i program protects a fragile ecosystem and its residents, serving as a model for work in the U.S. and worldwide.

Maui County Pesticide-Free Landscaping

With Maui Nui Marine Resource Council and reef safe landscaping certification, we are teaching about pesticides and organic practices.

Herbicide-Free Roadway Rights-of-Way

Responding to our efforts, Hawai’i County (Big Island) announced it would follow Maui and eliminate herbicide spraying along roadways.

Growing the Food Hub and Institutionalizing Organic

After partnering to launch the Maui Food Hub during the pandemic to ensure a reliable source of local food, we continue to help grow this farmer-consumer model for organic food production. With the Maui County Department of Agriculture, we are developing a strategic plan to include resources to support organic certification for farmers.

Fire Relief

With the devastating fires in Lahaina and Upcountry Maui resulting from the kind of extractive land management that we are fighting, we shifted to offer support in a time of crisis to the affected communities. We pitched in to meet basic human needs and assist with the development of a Lahaina Community Land Trust.
Center for Community Pesticide and Alternatives Information

40TH NATIONAL FORUM: FORGING A FUTURE WITH NATURE—THE EXISTENTIAL CHALLENGE TO END PETROCHEMICAL PESTICIDE AND FERTILIZER USE

The Center provides a place for people and policy makers to contact Beyond Pesticides for assistance on a wide range of questions relating to pesticide hazards, policy, and alternative nontoxic management practices. The Center houses our unique databases, accessible on our website, on hazards, alternatives, and strategies.

National Forum Series

The Forum is an important opportunity to connect with those working as scientists, advocates, land managers (from gardens, parks, play fields to farms), and public decision makers about steps being taken and action needed to prevent catastrophic collapse of the natural systems that sustain life. The goal of the Forum Series is to enable a collective strategy to address existential health, biodiversity, and climate threats and chart a path for a livable and sustainable future. We come together to empower effective action. The Forum was divided into three sessions that addressed biodiversity health and the organic solution, environmental justice, and community strategies for advancing, adopting, and implementing change.

SESSION 1

Ecosystem Health and the Organic Solution

We see solutions in thinking and acting holistically in sync with nature. In this respect, we learn from nature. Nature functions with complex interactions, relationships that are multi-dimensional. In nature, adversity is overcome by balance. Birds cannot live without insects. Pollinators do not exist without nectar, and flowering plants and many food crops do not produce without pollinators or productivity suffers. Nutrients in soil are not cycled without healthy soil organisms (soil health). These interrelationships are interdependencies that are easily disrupted.

SPEAKERS

David Goulson, PhD

The data, as Dr. Goulson documents, describes the importance of nature in contributing to the web of life that sustains the rich diversity needed for a healthy planet. Dr. Goulson is a professor of biology at the University of Sussex in Great Britain, the founder of the Bumblebee Conservation Trust, a fellow of the Royal Entomological Society, a trustee of Pesticide Action Network UK, an ambassador for the UK Wildlife Trusts, and author of more than 300 scientific articles on ecology and conservation of insects. In his book, *Silent Earth: Averting the Insect Apocalypse* (2021), Dr. Goulson writes, “We have to learn to live in harmony with nature, seeing ourselves as part of it, not trying to rule and control it with an iron fist. Our survival depends on it, as does that of the glorious pageant of life with which we share out planet.”

André Leu, DSc

As a leader in advancing organic agriculture, Dr. Leu is the international director of Regeneration International, with more than 370 partners in 70 countries, working with numerous agricultural systems—agroecology, organic perma-culture, ecological agriculture, holistic grazing, biological agriculture, and organic agroforestry. Dr. Leu previously served as president of IFOAM—Organics International, the international umbrella organization for the organic sector with 850 member organizations in 127 countries. His most recent book, *Growing Life: Regenerative Farming and Ranching*, explores organic regenerative systems being adopted worldwide, which, he says, “require a shift in the mindset of the land manager and operator, away from being primarily reliant on external inputs such as fertilizers and pesticides, and toward dependence on knowledge, measurement, and management.” Dr. Leu and his wife, Julia, own and manage an organic tropical fruit farm in Daintree, Australia.

SESSION 2

Environmental Justice

Dr. Martin Luther King, Jr. (1963) said, “Injustice anywhere is a threat to justice everywhere. We are caught in an inescapable network of mutuality, tied in a single garment of destiny. Whatever affects one directly, affects all indirectly.” Sixty years later, people of color in the U.S. and around the world struggle with inequities that cause disproportionate risk in ways that are institutionalized in the economic and social system—given the toxic legacy, high-risk occupational exposures (e.g., farmworkers, landscapers, chemical manufacturing), manufacturing emissions to fenceline communities, pesticide drift in...
agricultural communities, and the continuing registration and use of toxic pesticides that cause disproportionate adverse effects to people of color and their communities. In 2021, the United Nations Human Rights Council declared “the human right to a clean, healthy, and sustainable environment. . . is an important catalyst for change, being crucial for the right to life, food, and decent work, among others.”

**SPEAKERS**

**Marcos Orellana, PhD**  
Dr. Orellana, the United Nations Special Rapporteur on toxics and human rights, is an expert in international law and the law on human rights and the environment. He teaches at the American University Washington College of Law. Dr. Orellana said, after a visit to South Africa in September, “The term ‘environmental racism’ describes institutionalized discrimination based on race or colour.” He has worked with U.N. agencies, governments, and nongovernmental organizations, including on waste and chemical issues. He has intervened in cases before the Inter-American Court of Human Rights, the International Tribunal for the Law of the Sea, the International Centre for Settlement of Investment Disputes, and the World Trade Organization’s Appellate Body. He represented the eight-nations Independent Association of Latin America and the Caribbean on the Paris Agreement on Climate Change. He previously worked for the Center for International Environmental Law.

**Jayson Maurice Porter, PhD**  
Dr. Porter is an environmental historian of Mexico and the Americas and teaches science and technology studies, material culture, and black geographies in Latin America. Dr. Porter focuses on oilseeds, agrochemicals, environmental justice, and ecological violence. He is an editorial board member of the North American Congress on Latin America and a Voss Postdoctoral Fellow at the Institute at Brown University for Environment and Society (2022), and he recently began teaching in the Department of History at the University of Maryland, College Park. Dr. Porter’s research has traced the history of arsenic mining and use as an insecticide that has left a legacy of poisoning, pesticide dependency, and contamination. Dr. Porter is the author of Agrochemicals, Environmental Racism, and Environmental Justice in U.S. History (Organic Center, 2022), and coauthor of Cotton, Whiteness, and Poisons.

**SESSION 3**  
**Transformative Community-Based Change from the Ground Up**

**Managing Parks and Playing Fields with Organic Practices and Policies**

Communities are adopting model approaches to grassroots advocacy, public policy, and land management that teach and implement respect for nature and ecosystem services, such as the natural cycling of nitrogen and disease resistance—resulting in resilient plants, landscapes, parks and playing fields, and reduce the existential threats to health, biodiversity, and climate. The focus is on building organic matter and biological life in the soil to nourish plants. The result—beautiful landscapes that are cost-effective to manage. The approach utilizes practices and materials defined in federal organic law, with a systems soil-building approach that enhances biodiversity.

**SPEAKERS**

**Chip Osborne**  
Mr. Osborne is a nationally renowned organic turfgrass expert and a professional horticulturist with 40 years experience, including 20 years in greenhouse production as the former owner and operator of Osborne Florist and Greenhouse in Marblehead, Massachusetts. As founder and president of Osborne Organics in Cape Neddick, ME, he has over 20 years experience in creating safe, sustainable, and healthy athletic fields and landscapes that are managed cost-effectively with organic practices across the U.S. He has served in elective office as the chair of Marblehead’s Recreation and Parks Commission for 20 years.

**Avery Kamila**  
Ms. Kamila cofounded Portland Protectors to bring together Maine citizens to end the use and sale of synthetic lawn care pesticides and fertilizers in her coastal city. Portland Protectors says, “We strive to protect our kids, pets, bees, soil, and Casco Bay from these toxic chemicals, as they drift around neighborhoods and leach into the public water systems.” After the passage of Portland’s 2018 ordinance only allowing organic compatible practices and products on public and private land in the city, Ms. Kamila was appointed to the city’s Landcare Management Advisory Committee, created in the ordinance.

**Ben Gratton**  
Mr. Gratton (parks supervisor, Parks, Open Space, and Trails Department, Longmont, Colorado) has been maintaining and transforming municipal landscapes across the Front Range for nearly 15 years. Using his degree in landscape horticulture, Colorado State University, he supervises the management of more than 600 acres. Mr. Gratton has managed pilot sites in Longmont Colorado as a part of Beyond Pesticides’ Parks for a Sustainable Future program. He told the Longmont Leader, “Instead of using pesticides, Longmont selects turfgrass with more aggressive rhizomes—underground stems—to outcompete weed seeds, engages in more frequent core aeration and in overseeding to decrease weed pressure dramatically.”
Rachel Carson, a marine biologist in what is now the U.S. Fish and Wildlife Service—while most associated with the banning of DDT through her book *Silent Spring*—first and foremost educated us on the complexity of biological systems. In pointing out the pesticide dependency treadmill, she implored us to “make wider use of alternative methods.”

**HISTORIC CALL FOR A DIFFERENT PATH**

The current regulatory approach to chemical restrictions and mitigation of risks, however righteous, has failed to meet the existential health, biodiversity, and climate challenges and the rigorous adoption of alternatives to pesticides. Pesticide reduction strategies—adoption of nebulous “sustainable” practices, the Green Revolution, integrated pest management, and now “regenerative”—are all without clear definitions and an enforcement mechanism that recognize the complex interrelationships that make up the ecosystems on which life depends. Our program calls for fundamental changes in how we manage land in our communities without petrochemical pesticides and fertilizers that contribute to the crises.

**BUILDING LOCAL COALITIONS**

Our work with grassroots people, organizations, elected officials, and institutions in our communities envisions a transition to holistic, organic land management practices, with a clear understanding of synthetic pesticide and fertilizer hazards.

**IDENTIFYING CURRENT POLICY DEFECTS**

In our work, we point to EPA’s review process (exemplified by specific chemicals under review), its inability to control where pesticides move through air and into water, food, and soil, in parks, schools, playing fields, and throughout communities. We point to the effects of low-level exposure and the damage petrochemicals do to soil health, reducing nature’s ability to draw down atmospheric carbon and ameliorate the climate crisis. We show disproportionate harm to people of color and those, like farmworkers and landscapers, experiencing occupational exposure. Then, we point to the fact that we can improve our quality of life, enhance productivity and resiliency, increase profitability, and better protect against insect-borne diseases, with clearly defined regenerative organic systems that eliminate petrochemical pesticides and fertilizers.

**COLLABORATING FOR FUNDAMENTAL CHANGE**

After recognizing all the disruption that pesticides have caused, we have a choice for future action:

- Do we continue to manipulate data with huge uncertainties, arbitrary margins of safety, uncertain and incomplete risk assessments and mitigation measures, and chemical restrictions and “benchmarks” that accept unrealistic assumptions of exposure with no attention to preexisting diseases or vulnerabilities? OR

**ON COST**

On the issue of expense, it is not the case that regenerative organic is ultimately more expensive from a management standpoint, especially when calculating the health and environmental costs.

**FOR A LIVABLE FUTURE**

With our work, we are making a cultural and policy shift. The clarity and urgency of our strategy in communities have come into exquisite focus to protect ecosystems and in so doing protect the environment that supports life.
Publications & Communications
Tools for action

Beyond Pesticides’ communications strategy continues to provide people, organizations, and influencers in their community with the information that is needed to effect change. We view our information channels and the issues we cover as an opportunity to engage with our approach to eliminating toxic pesticides and fertilizers and advancing the adoption of organic practices and products. To ensure that those we work with have the most up-to-date information, we are continually tracking the science on adverse effects and alternatives, updating our databases on hazards and safe practices, and developing materials that empower action. (See back cover for list of databases.)

40 Most Commonly Landscape Chemicals
We expanded our most popular factsheets, Health and Environmental Effects of 40 Commonly Used Lawn Pesticides from 30 to 40 chemicals and continue to distribute this widely as a tool for action.

Updated Chemical Factsheets that Inform Action
The updating of our factsheet on some of the most widely used insecticides in homes and communities for a range of crawling and flying insects—the synthetic pyrethroids—makes available information that steers people and communities to alternative land management practices and products, when used with our information on safe practices.

Pesticides and You
Special issue, Transformative Change: Informed by Science, Policy, and Action, a companion issue to Retrospective 2021: Call to Urgent Action, captures the increasing urgency of the petrochemical pesticide and fertilizer threat to health, biodiversity, and climate, and actions being taken to chart a path for a livable future.

Keeping Organic Strong
Reviews issues before National Organic Standards Boards, provides Beyond Pesticides’ comments and links for the submission of public comments.

Infographic
Provides quick overview of key points on critical issues, used as a tool for community education and outreach.
The figures above are drawn from an audit of Beyond Pesticides that was conducted by Kronzek, Fisher & Lopez PLLC, Certified Public Accountants, Washington, DC for the fiscal year 2022.
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Beyond Pesticides works with allies in protecting public health and the environment to lead the transition to a world free of toxic pesticides.

Our work is based on two science-based premises: (i) scientific understanding of the toxic pesticide and fertilizer problem is key to motivating action, and (ii) proven, efficacious, and cost-effective solutions are available. The clarity and urgency of our conversation and strategy in communities have come into exquisite focus on: first, a frightening range of pesticide-induced health threats; second, biodiversity collapse and associated contamination of air, land, and water; and, third, the climate emergency. All these crises—which intersect with fossil fuel-based pesticides and fertilizers—are upon us. To turn things around requires us to be holistic in our thinking—and put an end to petrochemical pesticides and fertilizers.

We facilitate activism of a broad range of community leaders and emerging leaders to: (i) transform their community’s and state’s approach to land management with organic practices, and (ii) hold public officials at all levels accountable to standards of health and environmental protection. We provide technical assistance to: (i) elevate community understanding of the health and environmental threats associated with pesticide use (including cradle-to-grave effects); (ii) understand current policy deficiencies and chemical and allied industry influence in government decision making; (iii) and, effect the transition to holistic organic systems (practices and products) that eliminate the use of toxic pesticides and the associated hazards.

Beyond Pesticides’ program uniquely operates at the intersection of policy (as it relates to organic and toxic chemical laws at all levels of government) and practices that implement a vision for sustainability and regeneration to protect health and the environment. In daily contact with grassroots people and organizations, we are purposefully flexible in responding to issues in real time and provide assistance to the public on a daily basis.

Donations to Beyond Pesticides are tax-deductible. The organization is incorporated in Washington, DC as a 501(c)(3) organization under IRS tax code.

Beyond Pesticides believes that people must have a voice in decisions that affect them directly. To assist in this effort, Beyond Pesticides maintains several online database resources:

**Gateway on Pesticide Hazards and Safe Pest Management**
Lists the health and environmental effects of nearly 400 registered pesticide active ingredients and is searchable by chemical name, product name, or health and environmental effects.

**Eating with a Conscience**
Designed to link purchasing decisions on food to their production effects on workers and the environment, the database includes information on all of the pesticides that have registered tolerance (legal residue) allowances by specific crop on over 80 crops.

**What the Science Shows**
Database of more than 300 studies that identifies adverse effects to bees and pollinators from pesticides. Information also promotes biodiversity, organic practices, and local policies.

**Pesticide-Induced Diseases Database**
Presents over 1,400 epidemiologic and laboratory studies based on real world exposure scenarios that link adverse human health effects to pesticides.

**ManageSafe™**
Organized by pest, this database provides all of the resources needed to manage pests in the home and garden without using harmful pesticides.