

Politicizing Science Raises Health and Ecosystem Threats

From a public health and environmental protection perspective, these are challenging times. Amid the attack on institutions and laws established to protect children, families, and the environment under the Trump administration, there is an incredibly positive groundswell of activity seeking to achieve these protections in communities across the U.S. As we plan for our upcoming Forum, *Organic Neighborhoods: For healthy children, families, and ecology*, April 13–14, 2018 in Irvine, California, we are inspired by the level of effective advocacy and changes in practices that are moving forward nationwide. Given the growing failures of our federal government, as discussed in this issue of PAY, the urgency of local action is upon us.

Portland, Maine Goes Organic

The City of Portland, Maine is the latest shining example of the critically important local democratic process exercising its authority to ensure a healthy community. The city in January adopted one of the strongest organic ordinances in the country.

Below is what Heather Spalding, deputy director of the Maine Organic Farmers and Gardeners Association, and I told the people of Portland before the city council voted on its ordinance in January.

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Toxic pesticides, which are of serious concern because of their adverse effects on people and the environment, are widely used in public parks and playing fields and on yards across the city. This shouldn't and doesn't need to be the case for two reasons: First, we can have beautiful parks, playing fields, and lawns that meet community expectations without toxic pesticide use; and second, the scientific literature is filled with studies that link pesticide exposure to a range of serious health concerns—cancer, neurological and immune system damage, respiratory illness and asthma, Parkinson's, Alzheimer's and diabetes. Most troubling, since the vast majority of the areas treated with pesticides are used by children, is the link between pesticides and learning disabilities and attention deficit hyperactivity disorder. Pets, too, are adversely affected.

And hazardous exposure isn't limited to contact with land: It occurs through air and water, too, as a pesticide application moves off the treated site and spreads in air currents and runoff into neighboring properties and waterways.

Perhaps the most widely used weed killer, glyphosate (Roundup), is associated with a wide range of illnesses, including non-Hodgkin lymphoma, genetic damage, liver and kidney damage, and endocrine disruption, as well as environmental damage.

The Need for Local Government Action

Why is city council action needed, especially now? Residents of Portland are not being protected by the U.S. Environmental Protection Agency (EPA). The head of EPA is dismantling the agency, has begun to roll back already-weak regulations that restrict pesticides and place former chemical industry employees or consultants in high-level regulatory positions. This has a direct effect on Portland, the health of residents and the environment, including managed and native bees.

As the concerns about pesticide exposure escalate in the scientific and medical community, land managers in Maine and across the country are rethinking the management of turf on a range of sites, including parks, school grounds, playing fields, golf courses, public spaces, and yards. The approach of putting down a bag of petroleum-based synthetic weed killers and fertilizers is increasingly understood to create a chemical dependency in lawn and garden management that is not only harmful, but costly and unnecessary to achieving desired results.

The local ordinance is just as much about preventing hazards and filling an increasing gap in protection from regulators, as it is about recognizing the viability of sound land management practices that do not rely on toxic chemicals, and result in healthier turf that stands up to stress and is less reliant on water.

The outdated chemical-intensive practices are tied to the belief that parks, playing fields, and home lawns require toxic chemicals and synthetic fertilizers to be managed to community expectations. So, an approach that recognizes the importance of soil biology in cycling nutrients naturally to feed plants is often new to many land managers who have not evaluated and nurtured the soil food web of microorganisms. This attention to the soil systems has been foundational to the success of organic agriculture nationwide.

If critics of this proposal tell the community that organic doesn't work, they are, in effect, challenging the underlying principles of soil management that have enabled the exponential growth of the organic agricultural sector, now a \$50 billion industry and the fastest-growing part of the agricultural economy.

Beyond Pesticides Provides Tools for Action

This issue of PAY is a tool for local action, adding to the work that Beyond Pesticides does to assist elected officials, staff, and advocates in towns, cities, and counties throughout the country. If there ever was a time to take action, now is the time.



Jay Feldman, executive director of Beyond Pesticides