

Preserving Biodiversity Is the Key to Sustainability

Our focus on biodiversity in this issue seeks to focus local, state, and national strategies on decisions that sustain life. The importance of biodiversity has been lost on the policy and decision makers who address specific environmental and health problems, ignoring the context of these problems. Can we really protect any species without preventing the conditions that lead to their demise, including our own? Because the answer is certainly “no,” certified organic farmers are, by law, required to develop an organic systems plan with a focus on biodiversity.

Biodiversity as if life depends on it

Biodiversity is the web of life, including the complex array of organisms that live in the environment and their interactions and interdependencies. The functionality of biodiversity has deep significance to nurturing and protecting the many individual species in the environment as part of a greater whole.

As a society, we have understood this to some degree. The *National Environmental Policy Act* (NEPA), which became law in 1970, lays out an approach to major federal actions that instructs us to look at the full impacts of a development project, a broadscale pesticide use, or the introduction of a genetically modified organism –evaluating their impact on biodiversity and determining the essentiality of the proposed plan by considering the full range of alternative approaches, including protecting the status quo. However, in 1993, the White House’s Council on Environmental Quality (CEQ) said of NEPA, “Although federal agencies have routinely evaluated the effects of their proposed actions on certain specific resources (primarily wetlands and endangered species) in their NEPA analyses, they have not usually included the full range of effects or the appropriate scale required for adequate consideration of biodiversity.” This is still the case today.

A focus on limited contaminant effects

We have been passing laws that focus on contaminants that have given license to poisoning and contamination without asking why it is necessary to do so. Virtually every environmental law, while affording government agencies the authority to protect biodiversity, instead have been focused on developing what the chemical industry has called “so-what” levels of chemical exposure and residues, knowing that those analyses are deficient in their comprehensiveness and evaluation of key health and environmental endpoints.

But we are not just writing to critique an historical and continuing problem, but rather to again highlight, from a critical angle, the extraordinary model for protecting biodiversity that we have as a nation in our organic law. It is a law, the *Organic Foods Production Act*, that is focused on food production, but lays out an approach to saving biodiversity and the earth. The law is based on a core value of protecting the systems that support life. This must be a basic tenet in community and personal decisions, including the decision of our

local institutions and our daily decisions in the marketplace.

Biodiversity actually supports human existence, but not if exploited without concern for its health. For example, biodiversity itself keeps unwanted insects and plants (so-called invasive species) in check. It is actually a free service that organic farmers have incorporated into their thinking on how they treat their soil, attract natural predators, and support a balanced ecosystem. Organic farmers have consistently pointed out that nature is their pest control, healthy soils supporting healthy plants that are not vulnerable to disease and infestation. The concept of “pest” is absent from the system. I was at a meeting of organic farmers and consumers recently and, after listening to a researcher from a respected land grant university discuss research on the efficacy of natural pest control products, a farmer said, “I don’t have any of these pest problems since I switched by fertility program to a manure-based compost program.” To the researcher’s credit, though in a separate research project, he is also studying the effect of nurturing the soil food web and all the microorganisms in the soil. Synthetic fertilizers are harmful to the balance of microbial activity in the soil, as is discussed in this issue.

Expanding the application of the organic model

This understanding of the relationship between healthy soil and healthy plants is not unique to agriculture, which is a critical point. Turf management, which uses more fertilizer and pesticides on a per acreage basis than agriculture, must turn to the same principles that organic farmers embrace. In nurturing the soil and the mechanisms that contribute to plant health, there is no need for toxic chemicals in our parks, schoolyards, home yards, and rights-of-way.

Our goal is to bring public attention to biodiversity to a higher level, with an understanding that pest outbreaks are a function of our destructive exploitation of nature, supported by decisions that allow adverse impact up to a threshold of harm not completely understood and defined. So, we see honey bees disappearing while cause and effect is not fully established, as we dump millions of pounds of unnecessary, systemic neonicotinoid pesticides with known harmful effects on farms, lawns, and gardens, despite regulatory deficiencies. What sets organic apart in environmental law is its embracing of a precautionary approach.



The biodiversity article in this issue is a tool to be used in our communities to bring a higher consciousness to the urgent need to transition to organic approaches in the management of our land and buildings and in our state and federal environmental laws.

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