

BEYOND PESTICIDES

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> Statement of Jay Feldman, Executive Director, Beyond Pesticides In opposition to AB2509 to Committee on Agriculture California State Assembly

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Honorable Chair and Members of the Committee. We submit these comments in opposition to AB2509 because the bill will enshrine in law standards that will increase pesticide (including herbicide) use, not solve the long-term problems associated with vegetation management, and contribute to the escalating and existential crises of chemical-induced diseases, biodiversity collapse, and the climate threat.

Beyond Pesticides is a national, grassroots, membership organization that represents community-based organizations and a range of people seeking to improve protections from pesticides and promote alternative pest management strategies that reduce or eliminate a reliance on toxic pesticides. Our membership spans the 50 states, the District of Columbia, and groups around the world. We are submitting this statement on behalf of our supporters in California.

AB2509 contains two elements that must be corrected in the light the state and national reliance on petrochemical pesticides (including herbicides) that is a threat to the health of the residents of California and the long-term sustainability of its environment.

Integrated Pest Management (IPM)

As defined in the legislation, integrated pest management (IPM) would be enshrined in law as a methodology for land management that continues to rely on hazardous materials that are not necessary to achieving the pest management goal. The central problem with IPM Is its lack of (i) prioritization for nonchemical practices that prevent unwanted organisms, whether insects or plants, and (ii) an allowed list of substances that are compatible with ecosystems and holistic management practices.

AB2509 meets neither of these basic criteria for effective and safe management systems. It should be noted by the Committee that those who have been involved in IPM as practitioners and academics have concluded that the approach and its definition have not lived up to the expectations that it would eliminate, rather than just "reduce," the use of hazardous pesticides and fertilizers and replace them with practices and materials in sync with nature.

Published in *Agronomy for Sustainable Development.* 41(38), 2021, researchers wrote an article entitled Integrated pest management: good intentions, hard realities, a review in which the authors state, "More than half a century after its conception, IPM has not been adopted to a satisfactory extent and has largely failed to deliver on its promise. . . . Despite six decades of good intentions, harsh realities need to be faced for the future. . . . IPM has arguably reached its limits." The research team, all of whom have worked as IPM scientists and proponents, seems to mourn that IPM has "lost its way" over the decades — moving from ecological and health concerns as primary to its current state, in which (usually chemical) control methods are central.

In contrast to AB2509, language is needed that specifically requires a systems approach to land management and the use of mechanical, biological, and a list of allowed materials that are compatible with the ecological systems approach governed by a systems-based land management plan.

As we have suggested, sustainable management systems are needed that address the existential health and environmental crises of our time with carefully defined allowed materials. In this context, we suggest language that requires organic systems plans for land management with allowed materials that include the following definition:

(i) Synthetic substances are prohibited unless specifically listed as "allowed" on the U.S. Department of Agriculture's National List of Allowed and Prohibited Substances (the "National List"), 7 U.S.C. Sec. 6517;
(ii) Non-synthetic substances are allowed unless specifically listed as "prohibited" on the National List;

(iii) Pesticides determined to be "minimum risk pesticides" pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and listed in 40 C.F.R. § 152.25(f)(1) or (2), as may be amended from time to time, are Allowed.

Defining Invasive and Nontoxic Methods

Any legislation on "invasive species" must carefully define (i) management systems and (ii) the conditions that give rise to the problem. AB2509 fails on these basic precepts.

The use of the term "invasive species" to justify hazardous pesticide use results in otherwise unacceptable means in an attempt to exterminate an unwanted organism that is defined as an economic, environmental, or human health threat. In this sense, the definition of "invasive" is reactive to the presence of a species without requiring an understanding of its ecological context—including the underlying issues or conditions that support or invite that species. In fact, there are few, if any, species that are truly ecologically invasive—that is, capable of

invading and persisting in intact ecosystems. Instead, such situations usually involve species that can take advantage of disturbed habitats ("weeds" or "weedy species").

A plan for a sustained solution, therefore, requires an emphasis on healing the disturbance (to which end, so-called "invasives" may sometimes be helpful), rather than killing the opportunist colonizer. Removal of such opportunist colonizers may be necessary based on an ecological assessment and an evaluation of the options to ensure a long-term solution compatible with environmental health, but the use of toxic chemicals are rarely, if ever, justified in the process.

If "invasives" are labeled "weeds" or even "noxious weeds," then it will be necessary to treat them like other plants with that label. Land managers employ a number of strategies and tactics to prevent "weeds" from interfering with their land use goals. If they are environmentally conscious, they cultivate, graze, mulch, mow, or harvest the "weeds." They may plant or encourage competitors or specialist herbivores. Some land managers may use herbicides, and even in these cases, there are situations—as around sensitive areas or in jurisdictions where pesticide bans are in place—where herbicides may not be used.

This is the context, then, in which the label "invasive species" becomes a claim to virtue because the solution is held as protecting the common good, when, in fact, it causes unnecessary harm. It is a situation in which there is independent scientific consensus that the use of toxic chemicals, including pesticides, is not appropriate or effective. However, land managers facing a challenging problem, are comfortable with the methods they know—spraying herbicides. By definition, herbicides kill plants, so the assumption is that any law restricting the use of pesticides must allow for their use in these difficult situations. However, in practice this challenge is confronted where effective alternatives to chemicals are available. It is not often accompanied by an analysis that evaluates the perceived problem, and, if accepted as a problem, its underlying causes. If an analysis identifies the weed or pest as exceptional—that it can invade intact native ecological communities—then pesticide use is potentially justifiable as protecting the environment. In fact, however, it is almost never the case that such "invasive species" can invade intact ecological communities because those communities do not have available niches for the "invader" to occupy. In those cases in which the analysis does not identify the weed or pest as exceptional, the "invasive" label has been used as a claim to virtue to allow otherwise unacceptable methods.

If the Weed Is Not an "Invasive Species," Then What? There are plants and other organisms that invade managed systems. Managed systems include cropland, rangeland, roadsides, turf, gardens, parks, forests, and even "wilderness" areas. Such systems may provide habitat for other species. Appropriate management strategies for unwanted additions to the biota differ according to the setting. Some of these species may be difficult to manage, and it is always appropriate to ask whether their presence indicates a need in the community that the new species could fill. Management strategies for these difficult non-native species are the same as for others, but because of their adaptation to the disturbance may take more effort to implement. Strategies include cultivation, grazing, mulching, mowing, harvesting the "weeds,"

and planting or encouraging competitors. Herbicides, which only reinforce the vacancy in the community, are counterproductive, creating an opening to be filled.

Why Not Herbicides? While herbicides are a popular choice, there are several reasons why they are not the most effective approach. Herbicides address the symptom, not the problem. They create a hole in the plant community that must be filled, and if the underlying problems are not addressed, it will likely be filled by some opportunistic species—i.e., a "weed." Since herbicides are not species-specific, they are likely to kill other plants as well, compounding the problem. Finally, many weeds have become resistant to herbicides through years of selection.

While the likelihood of unintended consequences should be examined for all methods—will those goats eat my oak saplings along with the poison ivy?—the possible consequences of herbicides may extend far from the managed landscape and may have serious effects on the health of humans and ecological systems.

Is this a crisis, or can we take the time to research restoration methods? Poor decisions arise out of crisis. Crisis encourages herbicide use because it addresses the symptoms and does not involve analysis of underlying causes. However, as described above, herbicide use rarely produces a permanent solution. It is always better to take the time to research the appropriate strategies for your situation.

Conclusion

Communities and land managers confront species that are defined by law or in the common parlance as "invasive." While the solution has been to identify those species and then allow the toxic pesticide use exemption under community land management policies and state law, a sustained solution protective of health and the environment requires a more analytical approach that evaluates the species, the problem it poses, and the underlying causes that has invited and supports the unwanted organism. In this context, the threshold for action, the type of action, and the health of the ecosystem in which the organism lives are factors that require consideration. When confronted with an unwanted plant, consideration must be given to both the short- and long-term solution, ensuring that the immediate action does not create a greater problem in the future. The tools exist to effect a strategy for managing unwanted plants that is protective of health and the environment. It starts with asking the right questions.

AB2509 codifies an IPM approach that has failed us and does not ask the right questions. It is time to incorporate more holistic thinking and approaches into the law, not affirm past mistakes that have not solved the issues.

Thank you for your consideration of our comments.