

Environmental Working Group's 'dirty' marketing serves 'big organic' donors, not consumers

For each of the last twenty years, an organization called the Environmental Working Group has issued what it calls a "Dirty Dozen List." It names crops it claims to have high pesticide residues and recommends that consumers purchase organic versions of these crops.

[Editor's note: Read the GLP's profile on the Environmental Working Group [here](#).]

They base their list on a seriously distorted interpretation of a taxpayer-funded testing program called the PDP ([Pesticide Data Program, USDA](#)). What the PDP actually documents is that our [food supply is extremely safe](#). EWG has repeatedly been [called out](#) for promoting this science-free list and for the [counter-productive effect](#) it is having on produce consumption by Americans. Yet, EWG persists in employing this strategy as a means of fundraising. Presumably it also serves the interests of their corporate funders in the organic food industry (see list below). Note that these are very large, processed food players with only one produce company in the list.

EWG Funders image for funders type unknown

List of corporate partner funders from the EWG website

In its latest campaign, EWG is singling out a few crops for added demonization – notably spinach. They highlight certain specific chemicals that were detected in spinach samples by the USDA in 2015. I have looked in detail at this same, publicly available data. It turns out that 7% of the 2015 spinach samples were organic. The very same chemicals that EWG chose to talk about were found on those organic samples. As with virtually all of the residues found on all crops, the quantities that the USDA analytical chemists found were at very low levels – well below any possible level for health concern. Still, it is ironic that the same flawed logic that EWG uses to scare consumers away from perfectly safe conventional spinach says that they should also avoid the organic alternative.

[Experts agree](#) that one of the best things we can do for our health is to consume a lot of fruits and vegetables. Sadly, all too [few Americans do that](#). Spinach is [one of the more popular vegetables](#) that can help move consumers in the right direction, particularly since it has become available as a convenient fresh, pre-washed option. Discouraging consumption of any kind of spinach is a notably irresponsible thing to do, particularly through disinformation. An industry group that represents both conventional and organic produce companies (and many are both) offers an [on-line calculator](#) using the USDA's data and legitimate toxicological information. With this tool consumers can visualize just how safe products like spinach actually are. For instance, a child could safely eat up to 310 servings of spinach a day without negative effects from the trace chemicals on that crop.

[As I've written](#), organic and conventional produce are actually quite similar when it comes to the presence of low levels of pesticide residues. Because EWG singled out spinach in its recent fund raising email campaign I thought it would be worthwhile to get into the details for that crop. For instance, EWG focuses on the [synthetic pyrethroid insecticide](#), permethrin, which it calls a "Neurotoxic bug killer." That sounds

scary, but pyrethroids all have the same mode of action as the natural product called [pyrethrin](#) derived from Chrysanthemums (pyrethrin is used on organic crops). As a class the pyrethroids are only slightly toxic to mammals and are considered safe enough to be in many household, garden and pet products sold to consumers. One of the synthetic versions, Permethrin, is among the most used crop protection agents on spinach to prevent damage from caterpillar pests and infestations with aphids. These are not things we would like to find in our salads!

The USDA detected an average of 0.8 parts per million of permethrin on the 2015 conventional spinach samples. That is only 4.2% of the conservative tolerance set by the EPA, meaning it isn't even close to something to worry about. On the organic samples from the same season, the USDA detected an average of 0.9 parts per million permethrin— essentially the same level as with conventional.

EWG also calls out the fact that traces of DDT and its metabolites were found in some spinach samples. These are unfortunate, long-term soil contaminants still slowly decomposing decades after that old product was banned. Their presence is certainly not related to whether the current spinach crop is grown conventionally or under the organic rules. Fortunately, the levels are tiny – seven parts per billion for the conventional and 11 parts per billion for the organic. These are only 1-2% of the level that the EPA considers to be of concern.

Permethrin and DDT are the products detected on spinach that the EWG chose to talk about. There were residues of 30 other synthetic pesticides on the organic spinach in 2015. The USDA does not test for at least two dozen other organic-approved pesticides that are used on spinach (biocontrol agents, mineral compounds, natural product chemicals). None of this means that organic spinach is “dirty.” Conventional spinach isn't “dirty” either. What is “dirty” is the tactic is telling consumers they need to buy organic because of residue concerns without acknowledging that the organic products have similar, low-level residues.

In my opinion the “Dirty Dozen” should refer to the eleven big-organic companies that support the EWG and the EWG itself.

A version of this article appeared at Forbes as “[Is Conventional Produce Dirty? No, But The Marketing Tactics Of Big Organic Are](#)” and has been republished here with permission from the author and the original publisher.

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For more background on the Genetic Literacy Project, read [GLP on Wikipedia](#)