

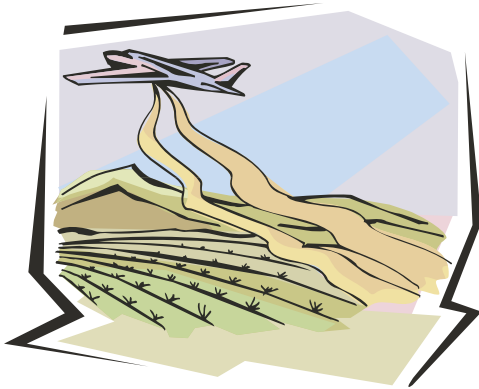


## Fact or Fiction?

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# Pesticides and Fear

"Pesticides have one indisputable effect: they cause emotions to boil over. That's just what happened when a group of golfers noticed that a chemical sprayer was out on the course as they were completing their round. By the time they got into the clubhouse, several were complaining of headaches, rashes and general malaise, and angrily approached the superintendent to protest what they believed was an irresponsible activity. The golfers linked their symptoms with the chemicals being sprayed on the grounds because they were convinced that the use of pesticides is inherently unsafe." Joe Schwarcz asks, were they right?<sup>1</sup>



If you believe the health and environmental claims devised by scaremongers you could understand the golfers' reactions. As Terence Corcoran of Canada notes, "It's easy to generate a junk science scare. You make stuff up, exaggerate the risks, politicize the subject and spin it into a corporate and ideological battle. And, above all, you ignore the facts. For more than a decade, the likes of Greenpeace, the Ontario College of Family Physicians, *The Globe and Mail* and scores of activists and city politicians have waged a relentless campaign against pesticide use."<sup>2</sup>

Here's one example. The *Audubon Magazine* showed a large colored picture of a belching smokestack and reported the following: "Pesticides have become more

toxic and their use more widespread. Since 1945 global use of pesticides has risen 50-fold. In the US, more than 220,000 people die each year as a result of pesticide exposure."<sup>3</sup>

Wow! That's half as many as the number of deaths from automobile accidents each year. Is there something wrong with this picture? You bet. In the following *Audubon* issue, a correction was made in an obscure spot not highlighted with a belching smokestack: "In 'Death by Breath,' we reported that 220,000 people in the United States die each year as a result of pesticide exposure. In fact, the figure is a worldwide estimate."

With further digging one finds that more than 90% of these deaths are suicides, but this wasn't reported by *Audubon* (More on this in my June 2003 column<sup>4</sup>). Joe Schwarcz observes, "Believe it or not, about a million people in the world do away with themselves every year. More than three-quarters of these are in Third World countries, where life can be so miserable that the alternative seems more attractive."<sup>4</sup> So, yes, pesticides can kill, but not at the levels approved for routine usage.

By the way, just what was that dastardly chemical being sprayed on the golf course, the one that caused such severe reactions in the golfers? Good old water! "Fear itself can sometimes be hazardous," notes Schwarcz.<sup>1</sup>

Now here's a story on pesticides that wasn't picked up by the media. On May 16, 2008, Health Canada's Pest Management Regulatory Agency (PEMA) released its final reevaluation of 2,4-D, the leading pesticide in use in Canada. It was one of the most comprehensive science reviews in Canadian history, carried out exclusively by Health Canada scientists. The conclusion; 2,4-D is safe when used as directed. The decision on 2,4-D was consistent with that of regulators in other Organization for Economic Co-operation and Development countries, including the

United States, New Zealand and countries of the European Union, as well as the World Health Organization.<sup>5</sup>

Terence Corcoran notes, "No major media - not one - picked up the story, even though it systematically demolished every health and environmental claim the scaremongers had dumped onto a gullible community of journalists. Almost two weeks later, the *Ottawa Citizen's* Dan Gardner wrote a column on how the media missed the story. Still no reaction." Think of the reaction if Health Canada had concluded that 2,4-D was harmful. The media and environmentalists would have had a field day. Corcoran adds, "The limited fallout from Mr. Gardner's report is instructive. A *Global News* reporter picked it up and raised the Health Canada report with officials in Toronto. Health Canada's conclusions were dismissed by a city council member, and the views of an activist with the Toronto Environmental Alliance were repeated: 'Many studies have linked 2,4-D to some serious health concerns such as cancer reproductive developments in our children and even birth defects.' One of the most comprehensive scientific reviews in Canadian history, carried out exclusively by Health Canada scientists and reviewed by independent government and university researchers trashed in 30 seconds by an activist repeating claims rejected by the review. All that work and the last media report ends with repetition of the junk science Health Canada had spent millions disproving."<sup>2</sup>

In commenting on why the Health Canada report wasn't taken up by the media, Dan Gardner observes that this is a typical reaction. He states, "The media routinely give prominent play to research that comes to very scary conclusions while downplaying or ignoring studies that find there's nothing to worry about. It's frightening to watch a major debate involving a scientific question move from stories in newspapers to politicians' speeches to legislative action-all with little or no con-

nection to the best science as interpreted by the best scientists.”<sup>6</sup>

In another column Gardner reported, “Some folks objected to the report’s conclusion that 2,4-D is safe ‘when used as directed.’ People may misuse it, they said, and then it would be harmful. That potential is reason enough to ban it. This ignores two things. First, literally any substance is potentially harmful. Oxygen can, in some circumstances, cause blindness. Drink too much water and the body’s sodium and potassium levels will be thrown off, leading to seizures, coma and even death. And don’t get me started on what coffee can do to the human body.” He adds, “Of course, we have to drink huge quantities of water to be harmed by it so water is quite safe. Obviously, pesticides - and lots of other substances - are not so safe. But what most people don’t realize is that regulators build a wide safety margin into their standards. In the case, of pesticides, the potential level of exposure can be no more than 1/100 of the dose that showed no effect in animals.”<sup>7</sup>

A final note on pesticides. If you worry about these types of things, this will really set you off. We get much more natural pesticides than synthetic pesticides in

our diet. Bruce Ames and his colleagues at the University of California, Berkeley report that about 99.99% of all pesticides in the human diet are natural pesticides from plants. All plants produce toxins to protect themselves against fungi, insects and animal predators, such as man. Tens of thousands of these natural pesticides have been discovered, and every species of plant contains its own set of different toxins, usually a few dozen. When plants are stressed or damaged (such as during a pest attack), they increase their levels of natural pesticides manifold, occasionally to levels that are acutely toxic to humans. Ames estimates that Americans eat about 1,500 mg per person per day of natural pesticides, which is 10,000 times more than we eat of synthetic pesticide residues. He also estimates that a person ingests annually about 5,000 to 10,000 different natural pesticides and their breakdown products.<sup>8</sup> **P&SF**

## References

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