

Commentary

Our Disposable Society

By Suzanne Fisher

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Throw away, cast off, disposable – are terms we would use for trash or waste, right? We certainly would not use these terms to describe our friends, our families, our loved ones, or ourselves. However, large corporations, hand in hand with our government, are now telling us that many of us in our society *are* disposable.

In our world, the ‘quick fix’ has become the preferred method of dealing with things. We spray away odors, bugs, weeds, and anything else that bothers us. Our penchant for haste and ease has led us to want increasingly more products we can use in this manner. Moreover, our government and industry have tacitly formed a partnership to bring them to us, many times without prior studies to determine the hazards posed by these time-saving products.

Throughout the past twenty years, many pesticides in particular (a term that includes herbicides) have been developed to replace the DDT and dioxin-related ones that caused so many past environmental problems. The newer pesticides are supposedly safer, but are they? We assume that our government would not allow products to be sold that were hazardous to society. But, is our assumption correct?

We depend on our governmental agencies to protect us from products that are harmful. But the misshapen and deformed thalidomide babies born in the seventies showed us that these agencies are not as watchful as we would like them to be. Nor do most of them have the regulatory authority to adequately protect the American public.

The watchdog for pesticides, the Environmental Protection Agency (EPA), is a case in point. The EPA and the chemical industries have a revolving door, through which chemical industry executives go to work at the EPA, and EPA employees are hired by the chemical industry. The pesticide-producing chemical companies are huge contributors to Presidential and congressional campaigns. Any incentive to toughen laws on pesticides to adequately protect the public from their potential harm is lost in these massive contributions. Many EPA employees are dedicated to their jobs and concerned about the effect of pesticides on humans and the planet we inhabit. Their job of protecting the public, however, is complicated by the lack of adequate laws and regulations.



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These regulations include the one that allows pesticides to be registered by the EPA (and offered for sale) after **manufacturers** supply information on the toxicity of the active ingredient. Unfortunately, there have been many instances in which the toxicity information supplied to the EPA was wholly or partially fraudulent. Most people assume that the EPA tests these products when they are submitted for registration. The EPA not only does not test pesticides, it does not even have a system for ensuring that the tests that are done by the manufacturers are accurate. Registration of pesticides is based solely on the test data submitted for the active ingredient.

The active ingredient, however, is only one part of the full pesticide toxicity. Pesticides contain inert ingredients (surfactants, stabilizers, etc.) that in many cases are much more toxic to humans (and other animals) than the active ingredient. Some pesticides have even been found to contain toxic waste. Since the full formulation of the pesticide is never tested, the synergy between the inerts and the active ingredient (which can be even more toxic than the inerts and active ingredients separately) remains unknown. The full formulation of a pesticide is only tested after it causes poisoning incidents, and by then it is too late to protect the public.

Therefore, what we end up with on the market are pesticides whose actual formula has not been tested. These products are then used around the chronically ill. They are used in homes and in yards where children (whose detoxification systems are still forming)

live and play. They are used in nursing homes where the elderly (whose bodies cannot withstand environmental toxins due to lowered detoxification capacities) live. Only after illnesses begin to develop in people who use (or are exposed to) the products are medical studies begun to identify and quantify the problems caused by these pesticides. Before that, they are presumed safe by the public because they are registered with the EPA.

However, the EPA is the first to say that no pesticide is "safe." In the EPA's registration process, they require a designation for each pesticide called the 'LD50.' LD50 stands for 'Lethal Dose 50,' or according to the EPA, "the dose at which 50% of the animals died." According to the EPA, the "lower the LD 50, the more toxic the compound." There are oral, inhalation, and dermal LD50 studies for pesticides. These studies are performed on laboratory rats, rabbits, and sometimes guinea pigs.

A better overview of what the term 'LD50' means can be found at *Alberta Agriculture Food and Rural Development*, <http://tinyurl.com/86sq7>

“LD50 values are used to rate the toxicity of the pesticides. The LD50 is an abbreviation for the dose (expressed in milligrams per kilogram of body weight of the test animal) that is lethal to 50 per cent of the group of test animals. For example, if a pesticide has an oral LD50 value of 10 mg/kg, and the test animals each weigh 1 kg, 50 per cent of the animals would die of poisoning if each ate 10 mg of the pesticide.”

The LD50 values for pesticides are developed using healthy adult animals. (There is still doubt about whether data from rats, rabbits, and guinea pigs can be reliably extrapolated to humans.) However, most toxicologists would agree that there are three groups of people who are more vulnerable to the effects of pesticide overexposure: children, the elderly, and chronically ill persons. Recent studies have also shown that a growing fetus is far more susceptible to pesticide damage than previously thought.

Using just the first three groups (children, chronically ill, and elderly) leads us to a startling discovery - a whopping 59.07% of Americans fall into the category of being more vulnerable to overexposure to pesticides. Since pesticides are now touted as a panacea for everything from fleas to weeds, they can be found everywhere. Schools spray on a weekly basis in cafeterias, and almost as frequently in other school areas. Public buildings usually have a maintenance contract with a pesticide contractor. Lawns are ChemLawned, TruGreened, and zapped with RoundUp everywhere from parks to golf courses to homes.

Therefore, the underlying message here is a very profound one. Persons with chronic illnesses, children and the elderly are disposable commodities insofar as our government and the chemical companies are concerned.

Recent research has also shown that women, because of their much higher estrogen production, are far more susceptible to the ravages of pesticides than men. Many pesticides have been found to be estrogenic, meaning that the pesticides link with estrogen receptors to disrupt many bodily functions. According to the U. S. Bureau of the Census' 1998 estimates, women comprise 51% of the American population. So, does that mean that women are disposable too?

What we are left with when we have removed the chronically ill of both sexes, healthy women, children and the elderly is that the only non-disposable category left is healthy males. Is this truly the message we want to offer the citizens of this country? Is it the way we want our nation represented to the world? Even more important, is this the message we want to give to the next generation?

The chart on the next page shows the numbers of persons estimated by the Center for Disease Control to have chronic illnesses that are widely accepted by the medical community. Census figures are from the US Census Bureau's estimated 1998 population figures.

Isn't it time we changed this message and stopped operating by Risk Factors? The Risk Factor method of doing business presumes that a certain number of persons will be harmed by a product. If the alleged positive benefit value to society from the product outweighs the possible law suits generated by persons harmed by the product, then the product is okayed for sale. In other words, the Risk Factor means **some people may be maimed or killed** by using the product in the manner suggested by the manufacturer. The people who are maimed or killed are the losers in the Risk Factor gamble. But, are we who are not maimed or killed truly the winners?

How can we continue to justify progress at all costs? We, as a nation, a culture, a world, need to recognize that without public demand for this type of product, *it would not be created or marketed*. So, the next time you reach for that bug *killer* or weed *killer*, please remember - you could end up being part of the Disposable Society yourself - the key word here is "killer." In the Risk Factor game of chance, it could well be your number that comes up.

DISPOSABLE AMERICANS? Persons with Chronic Illnesses, Children, & the Elderly		
	Number	% of population
Cardiovascular disease	57,000,000	21.04%
Diabetes	16,000,000	5.91%
CFIDS	54,187	.02%
Asthma	14,500,000	5.35%
HIV/AIDS	665,357	.25%
Lyme disease	99,000	.037%
Cancer	8,000,000	2.95%
TOTAL Americans with Chronic Illnesses		35.55%
Children under age 9	38,905,000	14.36%
Elderly (persons 70 and up)	24,820,000	9.16%
TOTAL Chronic Illness, Children & Elderly	160,043,544	59.07%
Population (1998 census estimate)	270,933,000	100%

Information for the above chart comes from the following CDC statements assessing the prevalence of the chronic illnesses represented, found at <http://www.cdc.gov>.

- CFS .2%
- HIV/AIDS **665,357**
- Arthritis and other rheumatic conditions are chronic and disabling, and affect an estimated 4 million Americans. Nearly 50% of persons 65 years of age have arthritis; younger people have a lower risk of having arthritis but still comprise half all people affected.
- Asthma affects 14-15 million Americans, including almost 5 million children.
- The American Cancer Society estimates that 8 million Americans have a history of cancer. In 1999, about 1.22 million new cancer cases will be diagnosed. This estimate does not include carcinoma in situ or the approximately 1 million cases of basal and squamous cell skin cancer to be diagnosed this year. Cancer costs this nation an estimated \$107 billion annually, including health care expenditures and lost productivity from illness and death.
- Cardiovascular disease includes heart disease and stroke. About 57 million Americans live with some form of cardiovascular disease, which causes more than 40% of all deaths in the United States; 950,000 Americans every year. Heart disease and stroke cost the nation almost \$260 billion annually.
- About 16 million Americans have diabetes, but only about 10 million have been diagnosed. Approximately 798,000 new cases of diabetes are diagnosed annually in the United States. The number of persons diagnosed with diabetes has increased sixfold, from 1.6 million in 1958 to 10 million in 1997. Diabetes is the nation's seventh leading killer and contributed to about 187,800 deaths in 1995.
- An estimated 47 million (24.7 percent) adults were smokers in the United States in 1995 --24.5 million men (27 percent) and 22.4 million women (22.6 percent).
- **How many cases of Lyme disease are reported each year?** More than 16,000 cases were reported by 45 states to CDC in 1996. Over 99,000 cases have been reported since 1982.

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