

The war that will not end

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Word Count: 671

Though few are aware of it, a toxic chemical used in the Vietnam War under the code name “Agent White” is being sprayed on our land, leaching into our ponds and rivers. Agent White, a mix of chemicals manufactured by Dow ArgoSciences; now sold under the name of Tordon 101, has the potential to destroy not only the effected water body's ecological system but also the health of humans and animals.

Soldiers who served in Vietnam were exposed to a number of herbicide chemical mixtures that may have damaged their health or reproductive ability. The most frequently used was Agent Orange, which has been extensively studied to identify its toxicity. The second most used herbicide mixture was Agent White, unlike Agent Orange; there have been very few studies to examine the toxic properties of Agent White.

So what links Agent White to Agent Orange? 2,4-dichlorophenoxyacetic acid. Chances are most people can't spell it, can't pronounce it and probably don't even know what it is. Abbreviated to 2,4-D, this synthetic chemical compound has a notorious history, being one of the two chemicals used to create Agent Orange. And despite its current use as a herbicide, even the manufacturer warns that it may be fatal if ingested, inhaled or absorbed through the skin.

A single gallon of Agent Orange contains a mixture of four pounds of 2,4-D and just over four and a half pounds of 2,4,5-T, Agent White is somewhat similar with two pounds of 2,4-D and just over half a pound of picloram per gallon. These two agents were aimed at broadleaf plants, with Agent White having the longer more persistent effect.

How does 2,4-D work? 2,4-D is comprised of Auxins, which works in a similar fashion to a plant's own growth hormones. The Auxins in 2,4-D retard the growth process of plants much like cancer by producing tumor-like growths that affect the cell division.

Just how long this chemical stays around in our air water and soil is unknown, but scientists say it persists for at least one year which gives it plenty of time to begin a chain reaction that can be virtually endless. Once plants absorb 2,4-D, a spiked increase occurs in the plant's level of nitrates. Insects that become contaminated by feeding off the treated plants are then eaten by fish or birds. Humans or other animals then eat the fish or birds. Toxic vapors may also be carried through the air for many miles and 2,4-D has been found resting in wells far from areas where the chemical was used. It is easy to realize that 2,4-D application cannot be controlled nor can anyone be assured that the chemical will kill only it's target.

2,4-D has the potential of becoming even deadlier during today's manufacturing process. It has been known to be contaminated by another chemical called Dioxin. Dioxin is one of the most dangerous chemicals known to man. It has been shown to cause Cancers

such as Non-Hodgkin's Lymphoma and Soft Tissue Carcinomas in people who have been exposed to it.

The International Agency for Cancer Research has found 2,4-D to cause mutations and reproductive problems in exposed test animals. Further testing showed that the ingestion of the chemical by these animals caused intestinal irritations, heart spasms, and depression of the central nervous system, loss of coordination, stomach ulcers and death.

The human cost of herbicidal poisoning has yet to be evaluated. There are a wide range of health problems associated with exposure to 2, 4-D, dioxin and the other components of herbicides. The health effects of these toxins are often delayed. After entering the body, these chemicals are stored in body fat only to be released at a later time.

Although the dangers of 2,4-D are abundantly clear, it remains on the market because the government seems to be shifting the burden of proof away from itself to the manufacturers of the herbicides who either minimize or deny the problem.

The only safeguard against the delayed response to toxic herbicides is to avoid exposure.

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Since 1999, Judie has been aggressively researching a wide range of subjects, particularly those pertaining to human health and environmental issues. Judie has written for local, regional and national publications and is especially interested in issues surrounding chemicals in consumer products and the harmful effects of pesticides.