

Dear Andrew:

Re: Lindane

As you know I have no special expertise re: pesticides let alone any special knowledge of lindane. However, I consider myself a reasonably well-informed observer of the pesticide scene. As such I am continuously struck by the technical ironies and political blind-spots that plague the regulation of these chemicals. To my argument:

The CEC's notice remarked that -

"Lindane has been shown to be transported from temperate regions where it is used, to colder northern environments such as the Arctic. It bio-accumulates in wildlife and humans and a wide variety of toxicological effects have been recorded, such as, reproductive and endocrine impairments, and it can be neurotoxic, immunotoxic, mutagenic, genotoxic and carcinogenic."

If a person deliberately released any other chemical that had these qualities into the environment, or a lindane-like compound were the waste by-product of some manufacturing process and was being released even in modest quantities into the air or water and was found out, society would be in an uproar, injunctions would be filed, and - even in Canada - fines would be levied. However, put the label 'pesticide' (read 'biocide') on the same compound, and suddenly it becomes legitimate purposefully to spread millions of kilograms of the substance over the global landscape, whence it leaches into watercourses and wafts high into the atmosphere (reaching even the Arctic, as noted in the CEC notice).

I am convinced that should civilization survive the next few decades people will look back in astonishment that the same society that shuts down pulp mills for releasing minute quantities of dioxin-like wastes into the environment and insists on hundreds of millions of dollars in plant upgrades to eliminate the problem would, at the same time, allow unsupervised and sometimes illiterate farm workers to poison our food and our productive soils (and the water and air) with vastly larger quantities of similarly toxic substances on a routine, even daily, basis. (By the way, thousands farm-workers are treated each year in NA for pesticide poisoning, probably millions world-wide.)

Pesticides are part of what I like to call 'brute-force' high-input agriculture. While we like to pretend that production agriculture is one of the great technical miracles of the modern era, it is really simple-minded applied reductionist science at its worst. And it doesn't work for long. Even in the US, dozens of agricultural pests have acquired immunity to several pesticides, and more crop and stored food losses are attributable to pests today than before the pesticide era got underway. Different and more toxic biocides then need to be developed. We are thus caught on a treadmill that breeds super-pests, subtly poisons our food, contaminates the wider environment (a killer whale that washed up on the shore here recently was heavily laden with pesticides and industrial toxics, the penalty of being [like North American humans] high in the food web), and is now threatening both human reproduction and foetal development.

On this last point, I was at a meeting in Washington a year or so ago in which Dr Theo Colborn (sp?) (leader of the 'Our Stolen Future' study) reported that her recent work has revealed that up to 1% of human male births in the eastern US are showing signs of feminization, characterized by deformation of the male genitalia. Apparently physicians are under-reporting these cases for insurance reasons (to protect the parents from bankruptcy) - congenital problems don't qualify for insured treatment, but if the defect 'emerges' later in life treatment of at least some of the physical deformities is covered. Such endocrine mimicry may turn out to be one of the great 'sleeper' issues of the 21st Century because of the large quantities of suspect, long-lived compounds accumulating in the environment and about which we can do nothing.

The bottom line is that Lindane and similar agricultural chemicals should be phased out and ultimately banned. We should long ago have been weaned of the chemical feast. (Didn't Rachel Carson start this ball rolling in the early 1960s?) Society must move toward a more sophisticated, ecologically-based mode of food production. Working with nature to produce healthy food, conserve the soils, and not contaminate the ecosphere requires a much higher degree of scientific knowledge and a much more finely tuned sense of systems dynamics than does so-called modern production (i.e., 'brute force') agriculture.

Fortunately, long-term experiments sponsored by the USDA in several settings in the US, show that farmers can produce higher quality food at lower prices (lower input costs, higher labour costs) and in similar quantities using organic or near organic practices after just 4 or 5 years of practice. (As an aside, organic growers in Manitoba and Saskatchewan seem to be about the only farmers to be making an economic go of it these days.) Governments and regulatory agencies, however, remain in the thrall of the petrochemical industry giants that produce the biocides, and society has been conned into believing there is no other way to maintain food production (and isn't doing enough research on ecologically sound agriculture as a consequence).

Enough said: By all means, phase out lindane. Indeed, anything the CEC process can do to move us toward a more ecologically sophisticated approach to food production and to protect the rest of the ecosphere at the same time is most welcome. (Watch out for the industry backlash, however).

p.s. Pesticide costs may be about to rise steeply as a result of possible feed-stock shortages (see attached article, also published in slightly edited form as 'There's no fuel like an old fuel' in the Globe and Mail, 29 March, 2000). This would provide an additional incentive to reduce use.

Best regards,

Bill Rees