Illinois Lawsuit Threatens U.S. Food Supply, Says Hydrologist

Editor's Note: *Turfgrass is not far behind. Atrazine is a key herbicide for weeds in St. Augustinegrass. Already several local governments have banned pesticides for aesthetic use. This advisory is being presented as a classic example of the use or misuse of junk science to challenge in courts the overwhelming peer-reviewed studies on the lack of environmental impact caused by properly applied EPA-approved products. The danger is real but it comes from those who have an agenda whether it's greed or environmental elitism.*

A lawsuit pending in Madison County, Ill. could seriously threaten the domestic food supply in the U.S. According to Jay Lehr Ph.D., senior fellow and science director for The Heartland Institute, "This may sound alarmist, but it is true."

Lehr is an authority on groundwater hydrology. After graduating from Princeton at the age of 20 with a degree in geological engineering, he went on to receive the nation's first Ph.D. in groundwater hydrology, from the University of Arizona. He later became executive director of the National Water Well Association and the Association of Groundwater Scientists and Engineers. In late 2005, Wiley-Interscience released Lehr's six-volume Water Encyclopedia: Surface and Agricultural Water.

In the essay below, Lehr explains how the lawsuit in Madison County is based on a small number of highly suspect studies alleging that the popular herbicide atrazine is a carcinogen and "endocrine disrupter."

Since 1959, farmers in the U.S. have used atrazine to allow corn, grain sorghum, sugar cane, and other crops to reach maturity without the competition of a wide range of broadleaf, energy-sapping weeds and grasses that rob the plants of water and nutrients. Atrazine is presently used on two-thirds of U.S. corn and grain sorghum and as much as 90 percent of all sugar cane. In Illinois, atrazine is used on 75 percent of the state's corn.

Unlike most other herbicides, atrazine can be applied effectively before, during, or after planting — and even after crop emergence, as it does not harm the food crops themselves. Because of this unique trait, atrazine is extremely popular for use in conservation tillage programs, where crop residues are left on the ground and the next crop's seeds are planted below the residue. This new concept in tillage virtually eliminates soil erosion and rainfall runoff while improving plant growth and carbon absorption. It also reduces fuel use, exhaust emissions, and equipment wear, all of which lower production costs for the crops.

Atrazine results in significant increases in crop yields. But what about the health effects of its residues on edible food?

EPA has established a drinking-water standard for atrazine of 3 parts per billion. To arrive at this standard, EPA extrapolated from laboratory experiments with rodents to a dose having no unsafe effects on a hypothetical 150-pound adult likely to drink 21,000 gallons of water during a 70-year lifetime. It then divided this "safe" lifetime ingestion amount by 10 to account for infants who might drink the water, then divided that number by 10 to account for the elderly who might have reduced immune systems, and finally divided it by 10 once again to account for the possible vulnerability of unhealthy people within society. The result is a standard 1,000 times lower than the "safe" dose for a typical adult.

Many experts believe the atrazine standard is overly restrictive. For one reason, tests conducted on laboratory rodents are generally unreliable guides to potential threats to human health, since the natural defenses of rats and mice against chemicals differ from those of humans (and even between rats and mice). Laboratory tests involve exposure to massive doses of a chemical over a short period of time, with the results then extrapolated to dramatically lower doses. To set a standard 1,000 lower than what even those biased studies suggest is, well, draconian at best.

Junk Science

A lawsuit against atrazine use has been filed by Holiday Shores, a small water district that serves a subdivision in Madison County, Ill. — identified as "a judicial hellhole" by the American Tort Reform Association because of its tendency to favor plaintiffs. The plaintiff contends levels of atrazine in surface water are unsafe, even though they meet current standards set by the U.S. Environmental Protection Agency, and even though Holiday Shores is selling only water that meets the EPA standard to its customers.

The suit was filed by a lawyer who made millions of dollars suing tobacco companies, and he is seeking to have the atrazine suit certified as a class action on behalf of some 1,800 water districts in Illinois.

The suit relies on claims based on a small number of highly suspect studies alleging that atrazine at any concentration is a carcinogen and "endocrine disrupter" capable of causing biological mutations. This is a standard tactic of alarmists — to search a huge literature to find a small number of studies that, due to small sample sizes, poor methodology, or just random chance arrive at findings contradicting the rest of the literature.

In preparation for a recertification decision EPA must make later this year, the agency recently completed a 10-year evaluation of thousands of studies of the health effects of atrazine.

It studied and rejected all of the claims of atrazine's critics. Atrazine, in fact, is arguably the most benign and effective herbicide known to U.S. agriculture.

And yet the "junk science" used by atrazine's foes is finding its way into litigation in Madison County, where it could indirectly determine national farm policy. If the lawsuit succeeds, all of the crop protection chemicals essential to agriculture in the U.S. will be in danger of elimination.

Effect on Agriculture

If atrazine were removed from the market out of fear of baseless litigation, our nation would have to return to the farming practices of yesteryear, when yields were less than a third of today's production and diseased crops were the order of the day. Nearly every type of food would be in shorter supply and their prices would increase. The poor and elderly on fixed incomes would be hit hardest by this result. Farmers, who increasingly compete with imported food products from Mexico and other developing countries, would also be hard hit.

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I dislike the fearmongers I have described here, but I am truly frightened by what their latest campaign could cause. (Fear, by the way, is not a common emotion for me. One of my hobbies is jumping out of airplanes ... with a parachute, of course!). Like most people, I like to eat nutritious food at a fair price, but lawyers are threatening to put that simple request out of reach.

U.S. citizens pay about 10 percent of their family budgets on food. Only two other countries, Finland and France, pay less than 20 percent of their income on food. We've got it very good here, and we've come to take it for granted.

The lawsuits against atrazine in Madison County are the latest proof that we cannot stop defending the technological progress that has made us the world's most prosperous country. Let us hope sanity and sound science prevail in this lawsuit.

Jay Lehr, Ph.D. is science director of The Heartland Institute, a nonprofit research organization based in Chicago. He is the editor of many leading scientific reference books, most recently the six-volume Water Encyclopedia. *He can be reached at lehr@heartland.org.*

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