



Fact Sheet: Atrazine

Everyday Exposures

What is atrazine used for today?

Atrazine is a manmade herbicide, which is a white, odorless powder in its pure form. It is the second most used pesticide by volume globally.¹ It is popularly used in the United States² to control broad-leaf weeds and annual grasses on golf courses, lawns, and crops, especially corn.³ Oftentimes, it is applied along the edges of highways and railroad right-of-ways.⁴ Yet, the wisdom of this widespread use has increasingly come under fire. For instance, atrazine has been banned by the European Union.⁵

How can you be exposed?

Risk of exposure to atrazine is especially high for those who work directly with the herbicide, including many farm workers, field sprayers, or people working in factories that produce the herbicide.⁶ Because atrazine usually breaks down in soil in a period of days to months, people can be exposed by digging in atrazine-contaminated soil.

A May 2010 review of US Geological Survey study results found that 75% of stream water and 40% of groundwater in agricultural areas of the US contain atrazine.⁷ Atrazine can be introduced into our waterways in runoff from sprayed fields, in groundwater it has seeped into, or as a result of poor applicator techniques. From these pathways, atrazine can then make its way into drinking wells and municipal water sources. The same review included testing of 153 public water systems. 80% of the samples collected in this testing contained atrazine.⁸ Testing of drinking water supplies has shown that 33 million Americans have been exposed to atrazine in their tap water.⁹

Effects on Human Health and the Environment

Atrazine is an endocrine disruptor, meaning even very small amounts of atrazine introduced at certain times during development can have adverse, long term effects on fetuses.¹⁰ Atrazine's effects on reproductive systems include intersex features in frogs, and may include lower sperm counts and infertility in humans.¹¹

In total, the effects of atrazine are likely wide-ranging. Atrazine may cause birth complications in humans, including slow fetal growth and premature births.¹² Research has also linked atrazine with some cancers, such as non-Hodgkin's lymphoma, breast cancer, and prostate cancer in people.¹³ Additionally, atrazine has been linked to liver, kidney, and heart damage in animals.¹⁴

The EPA's drinking water limit for atrazine is 0.003 milligrams of atrazine per liter of drinking water (0.003 mg/L).¹⁵

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Syngenta, based in Switzerland, is one of the world's largest agribusinesses and the largest producer of atrazine. In 2009, Syngenta made nearly \$11 billion in sales with a net profit of \$1.4 billion (Syngenta 2009 Financial Report). During the EPA's 2003 review of atrazine, Syngenta held 50 closed door, private meetings with regulators.

Syngenta's atrazine products (according to Beyond Pesticides): Aatrex, Bicep II Magnum, Brawn, Lumax, Newconcept

¹ European Union Bans Atrazine, While United States Negotiates Continued Use. Jennifer Beth Sass, PhD, Aaron Colangelo, JD. International Journal of Occupational and Environmental Health 2006;12:260–267.

² Atrazine. Chemical Watch Fact Sheet. <http://www.beyondpesticides.org/pesticides/factsheets/Atrazine.pdf>

³ Hawthorne, Michael. "Growing Concern in the Water." Chicago Tribune. April 18, 2010. http://articles.chicagotribune.com/2010-04-18/news/ct-met-atrazine-water-20100417_1_atrazine-water-utilities-safe-drinking-water-act/2

⁴ ATRAZINE. Toxicology FAQs. <http://www.atsdr.cdc.gov/tfacts153.pdf>

⁵ "A farm, a school, a chemical." Judy Bernstein. Hill Country Observer. July 2009. <http://www.vce.org/Afarmaschoolchemical.html>

⁶ ATRAZINE. Toxicology FAQs. <http://www.atsdr.cdc.gov/tfacts153.pdf>

⁷ Atrazine: Poisoning the Well. Natural Resources Defense Council. <http://www.nrdc.org/health/atrazine/>

⁸ Atrazine: Poisoning the Well. Natural Resources Defense Council. <http://www.nrdc.org/health/atrazine/>

⁹ Debating How Much Weed Killer is Safe in Your Water Glass. Toxic Waters series. Aug 22, 2009. New York Times.

http://www.nytimes.com/2009/08/23/us/23water.html?_r=1&adxnnl=1&pagewanted=2&adxnnlx=1280502104-MFHEM90/8jE8WLP0INFXUQ

¹⁰ The Syngenta Corporation & Atrazine: The Cost to the Land, People & Democracy. A report by the Land Stewardship Project and Pesticide Action North America. January 2010. <http://www.landstewardshipproject.org/pdf/AtrazineReportJan2010.pdf>

¹¹ The Syngenta Corporation & Atrazine: The Cost to the Land, People & Democracy. A report by the Land Stewardship Project and Pesticide Action North America. January 2010. <http://www.landstewardshipproject.org/pdf/AtrazineReportJan2010.pdf>

¹² Atrazine. Chemical Watch Fact Sheet. <http://www.beyondpesticides.org/pesticides/factsheets/Atrazine.pdf>

¹³ The Syngenta Corporation & Atrazine: The Cost to the Land, People & Democracy. A report by the Land Stewardship Project and Pesticide Action North America. January 2010. <http://www.landstewardshipproject.org/pdf/AtrazineReportJan2010.pdf>

¹⁴ ATRAZINE. Toxicology FAQs. <http://www.atsdr.cdc.gov/tfacts153.pdf>

¹⁵ ATRAZINE. Toxicology FAQs. <http://www.atsdr.cdc.gov/tfacts153.pdf>