

# Atrazine Monitoring Results



## 2010–2011

### Over 60% of Midwest drinking water samples test positive for common weed killer

Results from water sampling across four Midwestern states – Illinois, Nebraska, Iowa and Minnesota – indicate that the endocrine disrupting pesticide atrazine is still being found in drinking water at levels linked to birth defects and low birth weight.

Atrazine is the second most widely used pesticide in the U.S. with more than 76 million pounds used last year, mostly on Midwestern corn fields. The weedkiller is applied most heavily in Illinois, where applications exceed 85 pounds per square mile.

Concerned about levels of atrazine in their drinking water, Midwest residents sent samples to PAN for analysis. The results, on average, demonstrate that levels frequently found in drinking water are five times the legal limit of Europe (0.1 ppb), and five times the level associated with adverse health effects.

The legal limit for atrazine in U.S. drinking water is 3 ppb, well beyond the levels linked to health impacts and 30 times the legal limit in Europe.

### Sampling Overview

A total of 53 samples were collected: 28 from Illinois, 2 from Iowa, 19 from

Minnesota, and 4 from Nebraska. At least 22 samples were taken from municipal drinking water, and 29 samples taken from well drinking water. The source is unclear for two remaining samples of drinking water. Atrazine was in 64% of samples (34 of 53).

Samples were collected between May and July and tested for atrazine as well as two atrazine breakdown products (desethyl atrazine and desisopropyl atrazine).

The term “total atrazine” refers to the sum of atrazine and atrazine breakdown products. Results are given in average parts per billion (ppb) of atrazine.

### Average Levels

The average total atrazine level found in the 53 drinking water samples was 0.42 ppb. By state, total atrazine levels were highest in the samples from Illinois, with an average of 0.56 ppb. Samples from Minnesota had the lowest total atrazine levels, with an average of 0.24 ppb.

Combining the data from all four states, samples from municipal sources had an average total atrazine level of 0.74 ppb, compared to samples from wells which had an



*An estimated 7 million Americans were exposed to atrazine in their drinking water between 1998 and 2003.*

average total atrazine level of 0.18 ppb. This difference is likely because municipal water supplies have an ultimate source of surface water (i.e. a river or reservoir).

Atrazine was found in all but one of the municipal drinking water samples collected. Twenty-nine samples were collected from wells; no atrazine was detected in 14 of these samples, and an average total atrazine level of 0.18 ppb was detected in the remaining 12.



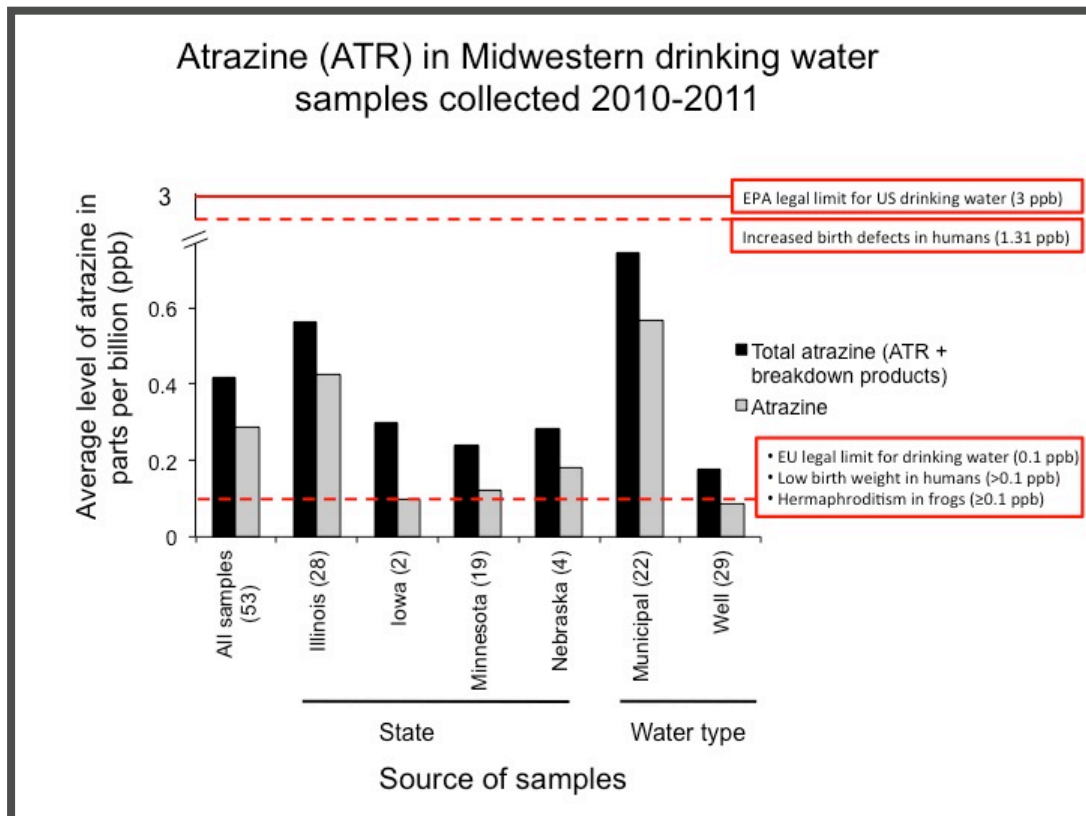
## Health Impacts

The average atrazine levels measured in drinking water are nearly all at or above the dose that significantly increases the risk of giving birth to an underweight or smaller than average baby (Ochoa-Acuna et al. 2009). This level is also the dose that causes hermaphroditism (development of both male and female gonads in the same individual) in frogs (Hayes et al. 2002).

Additionally, a panel of independent scientists recently found “suggestive evidence” linking the chemical to certain types of cancer, including breast and prostate.

The highest level of atrazine sampled in our study (3.2 ppb; municipal water supply in Illinois) is above the EPA limit for atrazine in drinking water, and is well above the level that was associated with a significantly increased risk of birth defects in a study of seasonal atrazine levels (Winchester et al. 2009).

Atrazine is found in U.S. water supplies more often than any other pesticide, and even micro-doses can have large, irreversible effects that scientists are just beginning to understand.



## What you can do

- \***Filter drinking water:** Limit the atrazine in the water you and your family drink by using activated charcoal filters at home.
- \***Get atrazine out of everybody's water:** EPA is re-evaluating atrazine's safety now. Urge the Agency to follow the science.



Learn more about atrazine at [www.panna.org/atrazine](http://www.panna.org/atrazine)

Contact Linda Wells at [Linda@panna.org](mailto:Linda@panna.org) or (612) 284-5023 for more information.

Pesticide Action Network North America :: 49 Powell Street, Suite 500 :: San Francisco, CA 94102

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