



# THE FARM BILL: AN ANTIDOTE FOR ATRAZINE?

**Action by Congress is needed if Farm Bill conservation programs are to help farmers, fish and millions of consumers with the challenge of atrazine contamination.**

**New water quality monitoring data obtained by NRDC confirms that atrazine is a pervasive water quality contaminant throughout the Midwest. Unfortunately, existing Farm Bill conservation programs have typically missed the opportunity to promote Integrated Pest Management. Worse, a last minute provision added to the House 2007 Farm Bill, sponsored by pesticide manufacturers, would bar USDA from encouraging alternatives to “specific” pesticides like atrazine.**

## Atrazine in drinking water supplies

**New EPA study finds frequent atrazine spikes in drinking water supplies.** EPA conducted a special monitoring program of selected drinking water supplies in ten states from 2003 to 2005. The study found that 94 of the 136 public water systems tested had atrazine concentrations above the 3 ppb drinking water standard in their raw (untreated) water for at least one 90-day period. Concentrations in the finished water served to customers were not reported by EPA.<sup>1</sup>

**Drinking water providers report millions are exposed.** Data obtained from public water systems across the country by the Environmental Working Group (EWG) show that between 1998 and 2003 seven million people were exposed to atrazine in their finished drinking water above state or federal health-based limits.\* The Safe Drinking Water Act requires water systems to test their water for atrazine.<sup>2</sup>

**Exposure to atrazine poses health risk.** The International Agency for Research on Cancer, part of the World Health Organization, reviewed evidence from both laboratory and epidemiology studies that human exposures to atrazine may be associated with the following cancers: lung, bladder, non-Hodgkin lymphoma, leukemia, multiple myeloma, ovarian, and colon cancer.<sup>3</sup> In addition to cancer risks, published scientific studies have reported that atrazine caused delayed reproductive development in lab rodents,<sup>4, 5, 6</sup> reduced sperm quality in rodents<sup>7</sup> and humans,<sup>8</sup> male hermaphroditism in amphibians,<sup>9, 10</sup> and impaired immune system function leading to increased susceptibility to infection in amphibians<sup>11</sup> and juvenile rodents<sup>12</sup>

## Atrazine in the environment

**New EPA study confirms high levels of atrazine in the Midwest watersheds.** An EPA-mandated Ecological Watershed Monitoring Program monitored forty watersheds in ten states during the spring and summer from 2004 through 2006. Results show that 35 watersheds had maximum atrazine concentrations above the EPA 10 ppb aquatic-community effect level. Thirty-nine of the 40 watersheds also had monthly averages above the 1 ppb level that has been found in scientific studies to cause reproductive abnormalities in fish and amphibians.<sup>13, 14</sup>

**Atrazine in streams and groundwater.** Studies by the U.S. Geological Survey (USGS) have shown that atrazine contamination is widespread. The USGS National Water Quality Assessment Program (NAWQA) analyzed water samples from over 180 stream sites and 5,000 monitoring wells and found that atrazine was present in streams in agricultural areas about 80 percent of the time, and in groundwater in agricultural areas in about 40 percent of the samples.<sup>15</sup>

**Detected levels exceed benchmarks for protecting fish and habitat.** Atrazine concentrations as low as 2 ppb can change the composition of algal communities, while 12 ppb can reduce algal photosynthesis by 25 percent.<sup>16, 17</sup> Similar effects have been observed in other plants.<sup>18, 19</sup> These changes can decrease reproduction and increase mortality in animal species due to decreased food availability and habitat change.

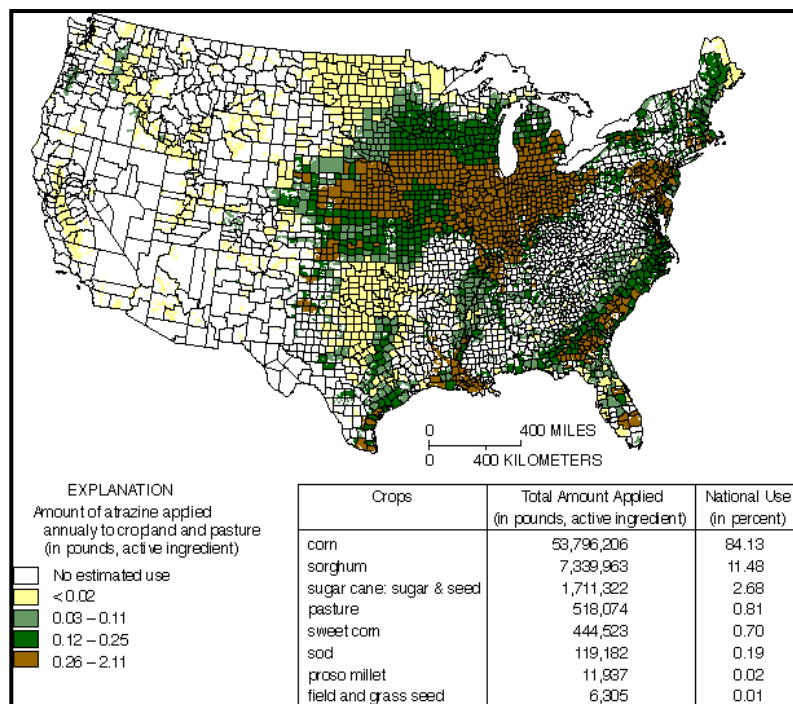
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\* The State of California has established a Public Health Goal for atrazine of 0.15 parts per billion (ppb), while the U.S. Environmental Protection Agency (EPA) has set a drinking water standard and a Maximum Contaminant Level Goal (MCLG) of 3 ppb.

Atrazine also interferes with hormonal activity in fish, reptiles and amphibians. Even atrazine concentrations below 1 ppb cause feminization and hermaphroditism in frogs.<sup>20</sup> Atrazine can affect the reproductive behavior of fish at levels of 1 ppb, and change in male/female hormone ratios in fish at concentrations as low as 3 ppb.<sup>21, 22</sup>

## Atrazine and the Farm Bill

**USDA misses opportunity to promote Integrated Pest Management (IPM):** By promoting Integrated Pest Management (IPM) through the Environmental Quality Incentives Program (EQIP), the U.S. Department of Agriculture could help protect the quality of our water resources while promoting effective pest control. In Ohio, for example, USDA helped farmers transition to safer herbicides and non-chemical practices, reducing atrazine levels in the City of Columbus' drinking water supply and saving the city millions of dollars in avoided treatment costs. But NRDC research shows that from 2003 through 2005, only 2% of EQIP funds were allocated to pest management projects.<sup>23</sup> Many EQIP programs lack necessary incentives and funding criteria to ensure a significant level of environmental performance (a few simply reimbursed farmers for buying pesticides). Little or no funding was allocated to IPM in several Midwest states where atrazine contamination is widespread.



U.S. atrazine use Source: U.S. Geological Survey

**House 2007 Farm Bill amendment will weaken USDA conservation programs:** A last minute amendment to the House 2007 Farm Bill, introduced by Rep. Goodlatte (R-VA) and sponsored by the pesticide industry, prevents USDA from encouraging alternatives to “specific” pesticides in implementing farm bill conservation programs – even if the pesticide is contaminating our waterways. This will effectively hamstring USDA efforts to use the farm bill to help producers find alternatives to atrazine, and other high-risk pesticides.

### NRDC urges Congress to:

- 1) Eliminate the pesticide industry-sponsored Amendment to HR 2419, which prohibits USDA from discouraging the use of specific pesticides.**
- 2) Require USDA to provide tools and funding incentives for producers to adopt advanced Integrated Pest Management practices in regions where pesticide impacts are a priority.**

## REFERENCES

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