Negative Brief: Atrazine Ban

By “Coach Vance” Trefethen

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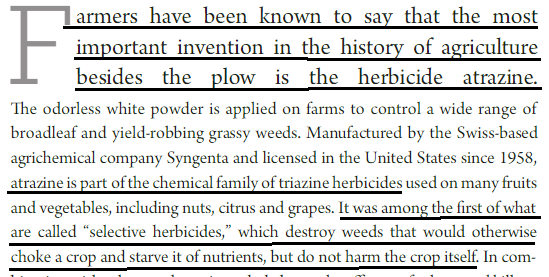
Works Cited: Atrazine (NEG) 13

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NEGATIVE PHILOSOPHY / OPENING QUOTES

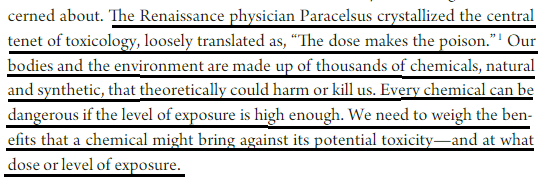
Atrazine is the most important farm tool besides the plow

Jon Entine 2011 ( senior research fellow at the Institute for Food and Agricultural Literacy at the University of California ) SCARED TO DEATH – How Chemophobia Threatens Public Health <https://www.scribd.com/document/48504531/Scared-to-Death-How-Chemophobia-Threatens-Public-Health>



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SOURCE INDICTMENTS

EPA 2016 report: Even the EPA says the science behind that report was flawed

Jim Zimmerman 2016 (farmer, board member of the National Corn Growers Association) testimony before the Senate Committee on Homeland Security and Governmental Affairs, 17 Aug 2016 <http://www.hsgac.senate.gov/download/zimmerman-statement>

EPA’s conclusions rest on serious scientific errors and flawed interpretations, and are inconsistent with many of the Agency’s previous conclusions and assessments by other regulatory agencies around the world. Several rigorous, high-quality scientific studies were discounted by the draft ecological risk assessment in favor of studies found flawed by EPA’s own 2012 Scientific Advisory Panel (SAP).

EPA 2016 report: Relied on data that EPA itself said was flawed and set the concentration risk levels way too high

Rick Robinson 2016 (with the Iowa Farm Bureau; the Triazine Network is  a national coalition of farm organizations representing 30 agricultural crops in 40 states) 23 June 2016 EPA Accepting Comments on Atrazine Risk Assessment Until October 4 <https://www.iowafarmbureau.com/Article/EPA-Accepting-Comments-on-Atrazine-Risk-Assessment-Until-October-4> …but if that web page is down you can access it here: <http://agsense.org/articles/epa-rejects-science-latest-atrazine-report/>

The Triazine Network asserts the federal agency discounted several high-quality studies and instead used studies that the EPA's own 2012 Scientific Advisory Panel (SAP) deemed flawed. The draft report erroneously and improperly estimated atrazine’s levels of concern for birds, fish, mammals and aquatic communities that are not supported by science. According to the latest report, EPA is recommending an aquatic life level of concern (LOC) to be set at 3.4 parts per billion (ppb) on a 60-day average. The EPA's current LOC for atrazine is 10 ppb. However, [a diverse universe of scientific evidence](http://agsense.org/atrazine-safety-information/) points to a safe aquatic life LOC at 25 ppb or greater.

EPA 2016 report: Contradicts 7000 other studies and instead relies on highly questionable studies

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Atrazine has been used in this country for more than 50 years. During that time, more than 7,000 scientific studies have been conducted on the safety of this herbicide to both - 2 - the environment and to humans. The evidence overwhelmingly confirms atrazine is safe. The World Health Organization and regulatory agencies in Australia, Canada, and the European Union have all come to the same conclusion. That is why NCGA was shocked to learn of EPA’s findings in the preliminary ecological risk assessment that was released this past June as part of the standard 15 year rolling re-evaluation. Through the use of highly questionable studies, EPA arrived at an aquatic Level of Concern of 3.4 parts per billion, a two thirds reduction from the current level of 10. Scientific evidence points to a safe aquatic life Level of Concern at 25 parts per billion or greater.

Dr. Tyrone Hayes and his frog studies: Independent assessment occurred and found his data flawed

**[Hayes advocates banning atrazine because he believes it damages frogs]**

Center for Regulatory Effectiveness 2005 (nationally recognized clearinghouse for methods to improve the federal regulatory process; conducts analyses of the activities of the [Office of Management & B](http://www.thecre.com/ombpapers/OMB_Officials.htm)udget Office of Information and Regulatory Affairs and serves as a [regulatory watchdog](http://www.thecre.com/wdw/home.html) over Executive Branch agencies) “FACA Committee Finds Flaws in Hayes Frog Tests and Data” Dec 2005 <http://thecre.com/pdf/20051222_hayes_white.pdf>

“A truly independent assessment “ of Dr. Hayes’ tests and data has already occurred. In 2003, EPA convened a Science Advisory Panel (“SAP”) to review all data regarding atrazine’s frog effects, including Dr. Hayes’ data. The SAP is a Federal Advisory Committee Act (“FACA”) committee of scientists established under the Federal Insecticide, Fungicide and Rodenticide Act (“FIFRA”). The SAP found flaws in all the tests and data on atrazine frog effects, including those of Dr. Hayes and those financed by Syngenta ( a manufacturer of atrazine). Contrary to Dr. Hayes’ claims and publicity campaign, EPA did not rely on Syngenta-financed tests when the Agency decided not to use Dr. Hayes’ tests and data to regulate atrazine. Instead, EPA relied on the SAP’s conclusion that all the available tests and data were flawed, including Dr. Hayes’. It is this FACA committee’s conclusion that Dr. Hayes challenges and refuses to accept.

Specific details on what went wrong with the Hayes frog study

Center for Regulatory Effectiveness 2005 (nationally recognized clearinghouse for methods to improve the federal regulatory process; conducts analyses of the activities of the [Office of Management & B](http://www.thecre.com/ombpapers/OMB_Officials.htm)udget Office of Information and Regulatory Affairs and serves as a [regulatory watchdog](http://www.thecre.com/wdw/home.html) over Executive Branch agencies) “FACA Committee Finds Flaws in Hayes Frog Tests and Data” Dec 2005 <http://thecre.com/pdf/20051222_hayes_white.pdf>

After reviewing all the relevant field studies, including Dr. Hayes’, the SAP concluded that there were flaws and deficiencies in all the field studies, and that the flaws and deficiencies precluded acceptance of Dr. Hayes’ claim that the studies showed atrazine effects on frog gonads. Given the current data, including the data from Dr. Hayes’ field studies, the Panel concluded that atrazine effects on frogs were only an untested “hypothesis.” Relevant passages from the SAP Report are set forth below:   
The Panel concluded that the absence of an established causal relationship derived from laboratory studies was not critical in limiting the interpretation of the field studies. Ecological field studies are routinely, and successfully, conducted in the absence of such information. However, the Panel believed strongly that all of the field studies reviewed had serious design or methodological flaws that limit their usefulness in evaluating hypotheses related to the effects of atrazine exposure on anuran developmental responses. Common, important problems in the field studies considered included inappropriate site selection practices (e.g., designation of control sites with concentrations of atrazine that exceeded some exposure sites) and failure to identify a sampling frame and to choose sampling sites randomly from within it, as well as insufficient statistical power associated with too few sampling sites to evaluate study hypotheses. These problems render interpretation of results problematic, if not impossible.

INHERENCY

Everything’s under control: EPA will take action the moment any urgent Atrazine risk is discovered

US Environmental Protection Agency 2016 “Atrazine - Background and Updates” <https://www.epa.gov/ingredients-used-pesticide-products/atrazine-background-and-updates>

Atrazine is undergoing registration review, our periodic re-evaluation program for existing pesticides. [All documents related to the registration review of atrazine can be found in the registration review docket: EPA-HQ-OPP-2013-0266](https://www.regulations.gov/#%21docketDetail;D=EPA-HQ-OPP-2013-0266). In particular:  
[The Preliminary Work Plan (June 2013) described our process for reevaluating atrazine, recent actions, planned human health and ecological risk assessments, and the expected review timeline](https://www.regulations.gov/#%21documentDetail;D=EPA-HQ-OPP-2013-0266-0008).   
[The Final Work Plan (December 2013) addressed public comments received on the Preliminary Work Plan and finalized our anticipated schedule for registration review](https://www.regulations.gov/#%21documentDetail;D=EPA-HQ-OPP-2013-0266-0308).  
Draft Atrazine Ecological Risk Assessment (June 2016) evaluates risks to animals and plants.  
If at any time EPA determines there are urgent human or environmental risks from atrazine exposure that require prompt attention, we will take appropriate regulatory action, regardless of the status of the registration review process.

HARMS / SIGNIFICANCE

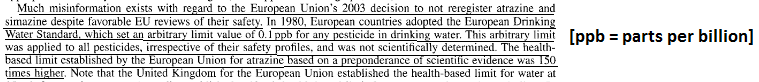
Atrazine scare is a scam perpetrated by the Natural Resources Defense Council (NRDC), just like the Alar scam of 1989

Dennis T. Avery and Alex Avery 2009 (Dennis - environmental economist and senior fellow for the Hudson Institute in Washington, DC. Alex - is director of research and education at the Hudson Institute’s Center for Global Food Issues) 9 Nov 2009 EXTREME ACTIVISTS TAKE THE REINS AT EPA <http://www.cgfi.org/2009/11/extreme-activists-take-reins-epa-alex-avery-dennis-t-avery/>

Nearly twenty years ago, the NRDC perpetrated one of the biggest scams ever on the American public, claiming that a product called alar, used in growing apples, was the “most potent cancer-causing agent in our food supply.” NRDC ranted that alar was a “cancer-causing agent used on food that the EPA knows is going to cause cancer for thousands of children.” Alar, it turns out, was far less a cancer risk than tap water or peanut butter, as the EPA’s own Scientific Advisory Panel finally ruled. Why did NRDC perpetrate the fraud? According to boasts from the NRDC’s public relations firm, it was all an elaborate (and highly successful) fundraising scheme. When their lies were exposed -- sadly too late to save mass parental anguish over supposedly poisonous apple juice or to save apple farmers tens of millions in market losses -- the NRDC equivocated. “We never said there was an immediate danger,” they said as they laid blame on journalists who “muddled” their report and the public who “overreacted.” The NRDC is now trying to do to atrazine what they did to alar. Make no mistake, the NRDC (and current political operators within the EPA) will continue to go back to the scientific wishing well until they “frighten” the EPA into banning atrazine.

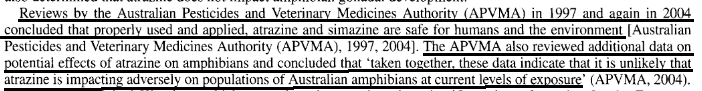
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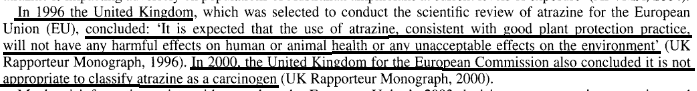
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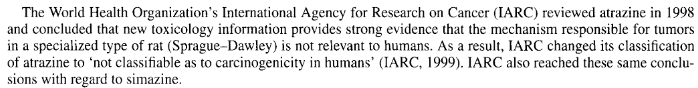
British Study: Atrazine doesn’t harm human or animal health, nor the environment, and doesn’t cause cancer (not carcinogenic)

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World Health Organization study: Atrazine doesn’t cause cancer

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DISADVANTAGES

1. Higher food costs and farm expenses

Atrazine = $2 billion economic impact on the US economy

Dennis T. Avery and Alex Avery 2009 (Dennis - environmental economist and senior fellow for the Hudson Institute in Washington, DC. Alex - is director of research and education at the Hudson Institute’s Center for Global Food Issues) 9 Nov 2009 EXTREME ACTIVISTS TAKE THE REINS AT EPA <http://www.cgfi.org/2009/11/extreme-activists-take-reins-epa-alex-avery-dennis-t-avery/>

Atrazine is a critical tool in the no-plow revolution: it helps combat resistance to other weed killers, maintain high soil organic carbon levels in our fields (supposedly something the EPA promotes) and protects rivers and streams from sediment pollution (another environmental good). Economic studies show atrazine provides more than $2 billion in direct economic benefits to our nation, even beyond the benefits in soil sustainability and stream pollution prevention. So why should you care if farmers lose atrazine? Because it will mean higher food costs, more soil erosion, less sustainable farming, and more environmental degradation.

1. Soil erosion

Link: Abandoning atrazine will lead to soil erosion

Larry Buss 2016 (Director, **Iowa Corn Promotion Board for District 4 and president, Harrison/Crawford County Corn Growers Association) 28 Sept 2016** Your Views: Atrazine herbicide key to farmers success; In support of Clinton <http://www.nonpareilonline.com/opinion/your_view/your-views-atrazine-herbicide-key-to-farmers-success-in-support/article_2795fd9d-8e5b-5628-9d0b-0f55f85ff86b.html>

Atrazine remains one of the most important and dependable herbicides ever developed. Alone or in combination with other herbicides, atrazine has enabled American agriculture to move from growing crops using 100 percent tillage to combat weeds to no tillage. This has enabled farmers to meet the demand for increased production due to an increasing global population and, at the same time, with ever-decreasing amounts of soil erosion. Decreasing amounts of soil erosion equates to increasing improvements in water quality. In addition, atrazine is proving to be highly important in a new battle with weeds where weeds are becoming resistant to some herbicides. If this herbicide resistance battle is not won, the trend to no-tillage agriculture will likely have to be reversed with the use of more tillage to combat weeds – thus negating the huge gains made over the years in reduced soil erosion and improved water quality.

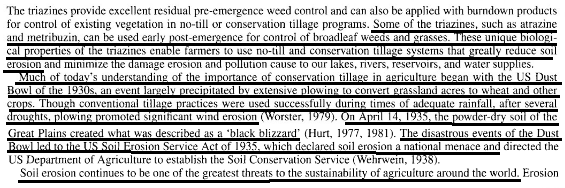
Backup / Quantification: Atrazine helps reduce soil erosion by up to 90%

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Applying atrazine to control weeds allows farmers to use conservation tillage, a farming method that leaves the stubble or residue from the previous crop to cover the soil’s surface after planting. According to United States Department of Agriculture, by leaving the crop residue and reducing or eliminating tillage trips, farmers are able to protect the soil from water and wind erosion, conserve moisture, reduce runoff, improve wildlife habitat and limit output of labor, fuel and machinery. In fact, conservation tillage reduces soil erosion by as much as 90 percent, compared to systems using intensive tillage.

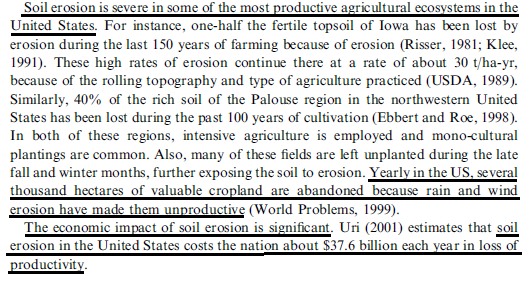
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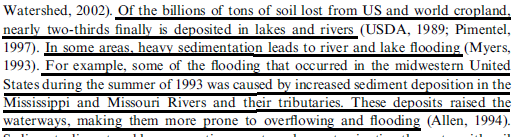


Impact : Economic losses and flooding

Prof. David Pimentel 2006 (College of Agriculture & Life Sciences, Cornell Univ.) Journal of Environment, Development & Sustainability, “SOIL EROSION: A FOOD AND ENVIRONMENTAL THREAT” <http://saveoursoils.com/userfiles/downloads/1368007451-Soil%20Erosion-David%20Pimentel.pdf>



**END QUOTE. Professor Pimentel goes on to say later in the same context, QUOTE:**

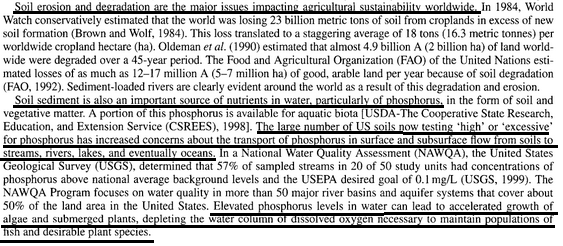


1. Nutrient runoff

Link: Plan increases soil erosion. See DA #2 above.

Link: Soil erosion dumps nutrients into rivers and oceans, promoting algae growth and reducing water oxygen levels

John F. Hebblethwaite and Carol N. Somody 2008 (Hebblethwaite – formerly with the Conservation Technology Information Center, West Lafayette, Indiana. Somody – Syngenta Crop Protection Inc., Greensboro NC) THE TRIAZINE HERBICIDES <https://books.google.com/books?id=ZD2_PRR_f1IC&pg=PA480&lpg=PA480&dq=atrazine+exaggerated&source=bl&ots=zesJO0QOQ7&sig=O3HqD1vJQ4xf4IveWJx_s1kRiuI&hl=en&sa=X&ved=0ahUKEwjfv4W94rXPAhUM4yYKHTbPDCsQ6AEISDAI#v=onepage&q=atrazine%20exaggerated&f=false>



Impact 1: Sickness and death in humans and animals from nutrient runoff and the resulting hypoxia (oxygen removal)

Mississippi River/Gulf of Mexico Hypoxia Task Force 2015 (federal task force under the Environmental Protection Agency that is studying and remedying hypoxia in the Gulf of Mexico) HTF 2015 Report to Congress <https://www.epa.gov/ms-htf/htf-2015-report-congress>

In addition to hypoxia, nutrient pollution has other impacts. High levels of nutrients in drinking water—nitrate in particular—and elevated levels of by-products from the reaction of disinfection agents with organic material (e.g., algae from nutrient excess) have been linked with increased disease risks, illnesses, and even death (State-EPA Nutrient Innovations Task Group 2009). The economic costs of treating nutrient-enriched drinking water are considerable; one USDA study estimates that the cost to all public and private sources of removing nitrate from U.S. drinking water supplies—not just drinking water supplies in HTF states—is over $4.8 billion per year (Ribaudo et al. 2011). Efforts to control Gulf Hypoxia can have the corollary benefit of reducing drinking water concerns and other more localized impacts of nutrient excess in communities located in the MARB. In Ohio, Grand Lake St. Marys, which feeds the Wabash River and flows to the Ohio River before joining the Mississippi River, is a striking example of the environmental and economic impacts of nitrogen and phosphorus pollution. Grand Lake St. Marys covers more than 13,000 acres and is Ohio’s largest inland waterbody. In 2009, nutrient loading from farm runoff, failing septic systems, and lawn fertilizers triggered unprecedented blooms of toxic algae, leading to the death of fish, birds, and dogs, as well as illnesses in at least seven people (State-EPA Nutrient Innovations Task Group 2009).

Impact 2: Algae and low oxygen levels create a Dead Zone with impacts as bad as the BP oil spill

Carolyn Lochhead 2010 (journalist) 6 July 2010 “Dead zone in gulf linked to ethanol production” SAN FRANCISCO CHRONICLE <http://www.sfgate.com/politics/article/Dead-zone-in-gulf-linked-to-ethanol-production-3183032.php>

As the algae dies, it settles to the ocean floor and decays, consuming oxygen and suffocating marine life. Known as hypoxia, the oxygen depletion kills shrimp, crabs, worms and anything else that cannot escape. The dead zone has doubled since the 1980s and is expected this year to grow as large as 8,500 square miles and hug the Gulf Coast from Alabama to Texas. As to which is worse, the oil spill or the hypoxia, "it's a really tough call," said [Nathaniel Ostrom](http://www.sfgate.com/search/?action=search&channel=politics&inlineLink=1&searchindex=gsa&query=%22Nathaniel+Ostrom%22), a zoologist at Michigan State [University](http://www.sfgate.com/education-guide/). "There's no real answer to that question."

1. World hunger

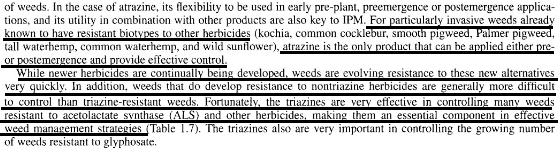
Link & Brink: Atrazine is key to keeping food production above the brink of rapid growth of world food demand

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So why should you care if farmers lose atrazine? Because it will mean higher food costs, more soil erosion, less sustainable farming, and more environmental degradation. It’ll mean putting more of our farming eggs in fewer baskets. As we’ve learned with the unwelcome but inevitable return of bed bugs to our major cities, needlessly eliminating pesticides from society’s toolbox leaves us more vulnerable to the scourges of nature. With world population still growing and overall food demand set to double over the next 40 years, we need all the farming tools we have (and more) just to keep our heads above the rising tide of farm product demand.

Link & Brink: Weeds. Atrazine is the only chemical effective on newly emerging resistant weeds

Dr. Homer LeBaron, Janis E. McFarland, Prof. Orvin C. Burnside 2008 (LeBaron – PhD from Cornell; plant physiologist at Virginia Tech, and from 1964 to 1991 Dr. LeBaron was employed by Geigy Chemical Corporation, in Westchester, New York, and CIBA-GEIGY (Novartis, Syngenta), in Greensboro, North Carolina McFarland – Syngenta Crop Protection, Inc., Greensboro NC. Burnside – College of Food, Agricultural and Natural Resource Sciences, Univ of Minnesota-Minneapolis) “The Triazine Herbicides: A Milestone in the Development of Weed Control Technology” <https://books.google.com/books?id=ZD2_PRR_f1IC&pg=PR12&lpg=PR12&dq=%22John+F.+Hebblethwaite%22&source=bl&ots=zesJO0RON7&sig=JukizN-pXjSByKXJO2b6jeedb8M&hl=en&sa=X&ved=0ahUKEwickLuL5rXPAhWBVSYKHewTAzEQ6AEINjAG#v=onepage&q=%22John%20F.%20Hebblethwaite%22&f=false>



Link & Brink: Long-term sustainability of US agriculture depends on atrazine

Jim Zimmerman 2016 (farmer, board member of the National Corn Growers Association) testimony before the Senate Committee on Homeland Security and Governmental Affairs, 17 Aug 2016 <http://www.hsgac.senate.gov/download/zimmerman-statement>

If atrazine, one of the most studied herbicides with a proven track-record of over 50 years of safe use, is experiencing such difficulty in re-registration the future does not bode well for other crop protection tools. The cornerstone of our regulatory process must continue to be the best science and data. Flawed risk assessments like the one at hand threaten the integrity of the review and regulatory process as well as farmers’ ability to maintain high crop yields and reduced soil runoff through the use of atrazine. NCGA and our farmer members are submitting comments to EPA on this document and we remain hopeful that EPA will return to a review process that is based on the best available science. The credibility of the Agency and the long-term sustainability of U.S. agriculture depends on it.

Link:  US agriculture is key to combating global hunger

Arlene Mitchell 2015 (Executive Director, Global Child Nutrition Foundation)  30 Nov 2015 Agriculture’s Role in Combating Global Hunger, Written testimony to the United States Senate Committee on Agriculture, Nutrition, and Forestry <http://www.agriculture.senate.gov/imo/media/doc/Testimony_Mitchell.pdf>

Agriculture—especially American agriculture—can play a major role in combating global hunger. Hunger is a scourge that has negative ramifications both for the hungry themselves and even for those far removed. The hungry suffer the direct anguish and debilitating effects (even death) for themselves and their families; those far removed from hunger also pay a price, through the costs associated with humanitarian assistance and health care as well as the toll of lost education and productivity.   The United Nations World Food Program cites six major causes of hunger: the poverty trap, lack of investment in agriculture, climate and weather, war and displacement, unstable markets, and food wastage. In fact five of those six causes (all but war and displacement) are directly linked to agriculture. It can therefore be argued that the primary solutions to hunger can also be found in agriculture.   There are moral arguments for dealing with hunger at home and abroad, but moral imperative aside, there is self‐interest to consider. American interests are at stake, too. The productivity and competitiveness of American agriculture is closely linked to the issues and changing landscape of agriculture internationally; our own agriculture and the U.S. economy can benefit from progress against global hunger.

Quantification: Globally, 870 million are hungry and billions more are coming. We need 70% increase in food production

Dr Tammy Beckham 2015 (DVM, Ph.D., Dean of the Kansas State University College of Veterinary Medicine) testimony before the House Committee on Agriculture 4 Nov 2015 <http://agriculture.house.gov/uploadedfiles/11.4.15_beckham_testimony.pdf>

In addition to understanding the importance of the agricultural industry in the U.S. and its role in supporting national security, it is also important and critical that we understand the role of global food security in securing the homeland. Currently, 870 million people around the world do not have access to safe and nutritious food in a sufficient supply. By the year 2050, the global population is expected to exceed 9 billion people. Nearly all of the growth is expected to occur in developing countries. Feeding 9 billion people will demand that food production is increased by 70% and more specifically, that food production in the developing world double.

Impact: Food shortages, political instability, social unrest, extremism, conflict, and threats to US national security.

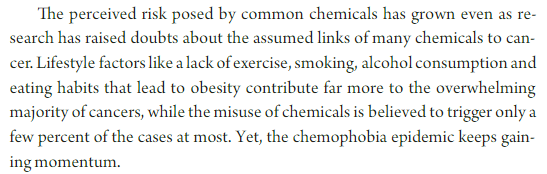
Dr Tammy Beckham 2015 (DVM, Ph.D., Dean of the Kansas State University College of Veterinary Medicine) testimony before the House Committee on Agriculture 4 Nov 2015 <http://agriculture.house.gov/uploadedfiles/11.4.15_beckham_testimony.pdf>

Meeting these growing demands will be critical if we hope to maintain political stability in increasingly volatile regions across the globe. Food insecurity and scarcity is well known to be one of the most potent drivers of political instability and social unrest. In fact, according to the Lugar Center, “global food security has both foreign policy and national security implications for the U.S. Diplomatic efforts to maintain peace and stability are much more difficult whenever there are food shortages contributing to extremism and conflict”. Perfect examples of this have been seen throughout the Middle East and North Africa, where countries import over half of their food.

1. Masking Disadvantage. Affirmative distracts us from real threats to public health

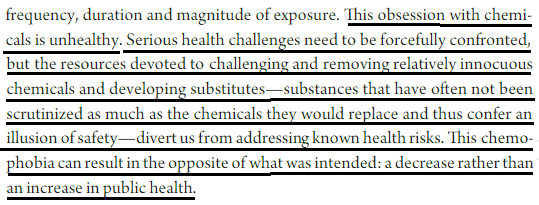
Link: We’re focused on small traces of chemicals and ignoring things that are really killing lots of people every year

Jon Entine 2011 ( senior research fellow at the Institute for Food and Agricultural Literacy at the University of California ) SCARED TO DEATH – How Chemophobia Threatens Public Health <https://www.scribd.com/document/48504531/Scared-to-Death-How-Chemophobia-Threatens-Public-Health>



Impact: Net reduction in public health

Jon Entine 2011 ( senior research fellow at the Institute for Food and Agricultural Literacy at the University of California ) SCARED TO DEATH – How Chemophobia Threatens Public Health <https://www.scribd.com/document/48504531/Scared-to-Death-How-Chemophobia-Threatens-Public-Health>



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