

Greenlist Bulletin

From the Toxics Use Reduction Institute
at the University of Massachusetts Lowell

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This is the weekly bulletin of the TURI Library at the University of Massachusetts Lowell. Greenlist Bulletin provides previews of recent publications and websites relevant to reducing the use of toxic chemicals by industries, businesses, communities, individuals and government. You are welcome to send a message to mary@turi.org if you would like more information on any of the articles listed here, or if this email is not displaying properly.



Scientist, Candidate and Planet Earth's Lifeguard

[Source: The New York Times, October 1, 2012](#)

Author: Daniel Lewis

Barry Commoner, a founder of modern ecology and one of its most provocative thinkers and mobilizers in making environmentalism a people's political cause, died on Sunday in Manhattan. He was 95 and lived in Brooklyn Heights. . . .

Dr. Commoner was a leader among a generation of scientist-activists who recognized the toxic consequences of America's post-World War II technology boom, and one of the first to stir the national debate over the public's right to comprehend the risks and make decisions about them.

Raised in Brooklyn during the Depression and trained as a biologist at Columbia and Harvard, he came armed with a combination of scientific expertise and leftist zeal. His work on the global effects of radioactive fallout, which included documenting concentrations of strontium 90 in the baby teeth of thousands of children, contributed materially to the adoption of the Nuclear Test Ban Treaty of 1963.

[Read more...](#)

Watch interview with Dr. Commoner [here](#).

Read a summary of Dr. Commoner's views on reducing the use of toxics, published in 1988 in [Rachel's Hazardous Waste News #107](#).

Louisiana Cleaner Pleads Guilty to Perc Dumping

[Source: American Drycleaner, August 9, 2012](#)

LAFAYETTE, La. -- A Louisiana dry cleaner pleaded guilty last week to negligently causing and allowing the discharge of hazardous waste--perchloroethylene, also known as perc--into a publicly owned treatment works or sewer system, according to U.S. Attorney Stephanie A. Finley. . . .

Investigations by the U.S. Environmental Protection Agency, Criminal Investigation Division and Louisiana Department of Environmental Quality (LDEQ) revealed that from December 2007 through May 2009, perc was improperly stored on-site at OLPC and that employees routinely poured perc wastewater down the toilet inside the store.

During emergency response to the site on May 27-28, 2009, citizens and employees of adjacent businesses were evacuated, and some were medically treated due to reported symptoms from exposure to perc fumes.

[Read more...](#)

Exposure Science in the 21st Century: A Vision and a Strategy (2012)

[Source: National Academy of Sciences, 2012](#)

From the use of personal products to our consumption of food, water, and air, people are exposed to a wide array of agents each day—many with the potential to affect health. Exposure science investigates the contact of humans or other organisms with those agents (that is, chemical, physical, and biologic stressors) and their fate in living systems. Exposure science has been instrumental in helping us understand how stressors affect human and ecosystem health, and in efforts to prevent or reduce contact with harmful stressors. In this way exposure science has played an integral role in many areas of environmental health, and can help meet growing needs in environmental regulation, urban and ecosystem planning, and disaster management. There are increasing demands for exposure science information, for example to meet needs for data on the thousands of chemicals introduced into the market each year, and to better understand the health effects of prolonged low-level exposure to stressors. Recent advances in tools and technologies—including sensor systems, analytic methods, molecular technologies, computational tools, and bioinformatics—have provided the potential for more accurate and comprehensive exposure science data than ever before. This report provides a roadmap to take advantage of the technological innovations and strategic collaborations to move exposure science into the future.

[Read more...](#)

U.S. needs arsenic limits in rice - Consumer Reports

[Source: Reuters, September 19, 2012](#)

Authors: Lisa Baertlein and Caroline Humer

LOS ANGELES/NEW YORK, Sept 19 (Reuters) -- Consumer Reports is urging U.S. limits for arsenic in rice after tests of more than 60 popular products - from Kellogg's Rice Krispies to Gerber infant cereal - showed most contained some level of inorganic arsenic, a known human carcinogen.

The watchdog group said some varieties of brown rice - including brands sold by Whole Foods Markets Inc and Wal-Mart Stores Inc - contained particularly significant levels of inorganic arsenic.

It recommended ways for children and adults to limit their intake of rice products each week and said U.S. regulators should ban arsenic-containing drugs and pesticides used in crop and animal production.

[Read more...](#)

Read "[Rice Consumption and Urinary Arsenic Concentration in U.S. Children](#)" in *Environmental Health Perspectives*.

Another recent study from *EHP*: "[Mortality in Young Adults Following in Utero and Childhood Exposure to Arsenic in Drinking Water.](#)"

BPA's Real Threat May Be After It Has Metabolized

[Source: University of California, San Diego, October 4, 2012](#)

Author: Scott LaFee

Bisphenol A or BPA is a synthetic chemical widely used in the making of plastic products ranging from bottles and food can linings to toys and water supply lines. When these plastics degrade, BPA is released into the environment and routinely ingested. . . .

Of particular concern is that BPA exposure is correlated with disruption of estrogen signaling. The chemical's molecular structure is similar to that of estradiol, one of the human body's three main estrogens, suggesting that BPA binds to estrogen receptors. The estrogen receptor is designed to grab and hold estradiol and related estrogens. Disparate chemicals, however, can share some structures found in estrogens, enabling them to bind to the estrogen receptor. When that happens, problems can occur.

In binding to the estrogen receptor, BPA can disrupt the body's endocrine or hormone system, with consequences especially worrisome for fetuses, infants and young children. Earlier this year, the U.S. Food and Drug Administration banned BPA in baby bottles and sippy cups. Its use is more broadly banned elsewhere in the world.

In new research published in the October 4 online issue of the journal *PLOS ONE*, two scientists at UC San Diego School of Medicine say three-dimensional modeling suggests a metabolite of BPA - a molecule produced when BPA is metabolized or broken down by the body - actually binds to the estrogen receptor much more strongly than BPA itself. The finding could point the way to development of a new class of drugs designed to specifically inhibit excessive estrogen activity linked to disease.

[Read more...](#)

Read original article: ["3D Models of MBP, a Biologically Active Metabolite of Bisphenol A, in Human Estrogen Receptor alpha and Estrogen Receptor beta."](#)

Agent Orange chemical in GM war on resistant weeds

[Source: BBC World Service, September 18, 2012](#)

Author: Matt McGrath

A US biotechnology company is set to introduce a controversial new genetically modified corn to help farmers fight resistant weeds.

Dow Agrosciences says its new GM product is based on a chemical that was once a component of the Vietnam war defoliant, Agent Orange.

It is needed they say because so called "superweeds" are now affecting up to 15 million acres of American crops.

Dow argues the new approach is safe and sustainable.

[Read more...](#)

iPhone 5 ranks higher than Galaxy S III in new study on toxic chemicals in phones

[Source: The Ecology Center, October 3, 2012](#)

Tests of 36 different cell phones, including the recently released iPhone 5 and Samsung's Galaxy S III, found that each of them contained at least one of these hazardous chemicals: lead, bromine, chlorine, mercury and cadmium.

The Ann Arbor-based Ecology Center teamed up with technology gurus at ifixit.com for the testing; the results were released today at [www.HealthyStuff.org](#) and [www.ifixit.com](#).

The Motorola Citrus ranked "least toxic phone," followed by the iPhone 4S and the LG Remarq. The new iPhone 5 ranked 5th, better than its primary competitor, Samsung's Galaxy S III, which ranked 9th. The most toxic phone tested was the iPhone 2G. The full list of rankings can be found at [HealthyStuff.org](#).

[Read more...](#)

TURI's Note: Read about the Lowell Center for Sustainable Production's work on mobile phones [here](#). Specifically read about their Sustainable Mobile Phone Design Charrette [here](#).

GXT Green ECOgrade Bag Wins Consumer Product of the Year

[Source: GXTGreen, Billerica, MA, September 14, 2012](#)

Billerica, MA, September 14, 2012 – GXT Green's breakthrough product, ECOgrade Photodegradable bags, won the "Consumer Product of the Year" award at the 2012 Massachusetts Technology Leadership Council (MassTLC) Gala. . . .

ECOgrade Photodegradable bags are a product of GXT Green. Compared to plastic grocery bags, they use less energy to manufacture, have a smaller carbon footprint, are recyclable, and if littered or lost, photodegrade to a non-toxic residue within 240 days of exposure to sunlight.

[Read more...](#)

Sunscreen's unintended consequence: skin-harming oxidants

[Source: Environmental Health News, October 5, 2012](#)

Authors: Craig Butt & Wendy Hessler

Chlorine in swimming pools can strip the coating off titanium dioxide nanoparticles in sunscreens that protect against UV radiation, leaving them able to react with water and form compounds that can contribute to skin damage and cancer. The nanoparticles, which protect against harmful UV rays, are coated so they remain stable in sunlight. But a new study for the first time shows that the protective coating can degrade to form free radicals. Free radicals are known to damage DNA, causing aging and potentially leading to cancer. Whether there is a human health effect from exposure to these compounds is unknown. But the study raises the question of whether sunscreens meant to protect people from sunlight are creating another risk that also can harm skin.

[Read more...](#)

Read original article, "[Depletion of the protective aluminum hydroxide coating in TiO₂-based sunscreens by swimming pool water ingredients.](#)"

Farms in Western Massachusetts win state grants for environmental improvements


[Source: www.masslive.com, October 4, 2012](#)

Author: Dan Ring

Leesa Crocker uses no fertilizers - only natural practices on her farm in Leverett.

It's the type of sustainable farming the state Department of Agricultural Resources is seeking to encourage with some green of its own. Crocker, owner of the 35-acre EIEIO farm, received a big boost when she was awarded a \$25,000 state grant for fencing and irrigation for her grass-fed pigs, goats, beef cattle and planned sheep.

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