



Who Owns Our Food System?

Through market manipulation and a powerful lobby, the “Big 6” biotech seed and pesticide corporations—Monsanto, Dow, DuPont, Bayer, BASF and Syngenta—have been pushing the pesticide treadmill faster and faster to sell more and more of their products. Imagine if they acquire even more control of food and farming.



Two recent examples demonstrate the current extent of corporate influence.

Example 1: From Roundup-Ready to Xtend, farmers are getting burned

Monsanto's latest genetically engineered (GE) soybean seeds, “Xtend,” caused havoc this summer. Xtend is engineered to tolerate the herbicide dicamba. Xtend soy was approved in 2015, and now soybean farmers who did not adopt it are reporting damage to their crops from dicamba drift.

An estimated 200,000 acres of soybeans have been lost so far in Arkansas, Tennessee and Missouri. Growers of other broad-leaf crops, such as peaches, are suffering significant losses as well. How did this happen?

Dicamba, a 45-year-old herbicide, is known to be extremely toxic to a wide range of plants, including fruits, vegetables and non-GE soybeans. Monsanto says its dicamba-resistant crops should only be sprayed with a new formulation of dicamba, which it claims is less likely to drift onto nearby fields.

The hitch is that while the USDA approved Monsanto's new soybean seeds, EPA has still not approved the new formulation of dicamba. So farmers who plant the new seed are using the old, drift-prone version of the herbicide.

Even if Monsanto's allegedly less-volatile dicamba formulation had been on market this season, it's quite likely that farmers would (and will) still use the old, much cheaper, drift-prone generic product.

Once again, the agencies responsible for approving GE crops have failed to protect us. As PAN senior scientist Marcia Ishii-Eiteman explains:

No agency is looking out for farmers, or at the bigger picture. No agency is considering—and making decisions based upon—the broader impacts of these pesticide-promoting GE crops on farmers' livelihoods, and on the social and economic well-being and health of rural communities.

Example 2: Undermining GMO labeling

Polls consistently show that 90 percent of Americans want to know when their food includes genetically engineered or modified ingredients. Grass-roots campaigns in states like California, Washington and Vermont have shown tremendous public support for GMO labeling. Some companies, like Campbell's and General Mills, saw the writing on the wall and have begun to label their packages.

The Big 6 have spent record-setting millions to block state initiatives. Still, the state-by-state approach has been gaining momentum. So the industry successfully lobbied Congress hard to pass national policy to undermine all state initiatives.

After several tries, Monsanto's latest dream bill, dubbed by public interest groups the Deny Americans the Right to Know (DARK) Act, passed and was signed into law this summer. It is full of loopholes, has no teeth, and

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relies on shoppers using smartphones to scan QR codes linked to websites where ingredients are listed. And it only cost Monsanto and friends about \$101 million for lobbying.

What you're seeing is not just a consolidation of seed companies, it's a consolidation of the entire food chain.

— Monsanto executive Robert Fraley, 1996

You thought the Big 6 were too big?

Monsanto's behavior is emblematic of the market control that comes with unprecedented consolidation. In the 20 years since GE corn and soy became widespread, the Big 6 have collectively acquired at least 200 other seed or pesticide companies.

Among the results of consolidation, farmers face limited access to non-GE seeds, rising prices, increased dependence on costly pesticides (some resulting in serious health and environmental harms), and patent infringement lawsuits. By the end of 2012, according to the Center for Food Safety, Monsanto had received over \$23.7 million from patent infringement lawsuits against farmers and farm businesses. Many other cases are settled confidentially out-of-court.

The Big 6 currently hold 75% of the world's business in GE seed and agrichemicals. Mergers in the works could lead to the "Big 4" or even the "Titanic Three."

Last month, shareholders approved the proposed Dow/DuPont mega-merger. Syngenta, the world's largest agrichemical corporation, accepted a \$43 billion bid from ChemChina earlier this year. Bayer keeps sweetening an offer to buy out Monsanto, and a Monsanto/BASF merger is not out of the question. If either succeeds, the name "Monsanto" may disappear but the playbook would remain.



PAN senior scientist Marcia Ishii-Eiteman testifying before Department of Justice antitrust hearings in Washington, D.C.

The Science

for your conversations about pesticides

Dicamba is responsible for the third highest number of drift-related crop damage incidents in the United States. It is extremely toxic to virtually all broadleaf plants, including fruits, nuts and vegetables, non-GE cotton and soybeans, and field-edge plants that provide critical habitat for pollinators.

Dicamba is not likely to be effective for long. We know from watching weeds grow resistant to glyphosate (the main ingredient in Monsanto's RoundUp) that herbicide resistance develops quickly.

Scientists recently tested how quickly pigweed—the main concern in soybean fields—becomes resistant to dicamba. They found that pigweed plants began to survive heavy doses of the herbicide in just three generations. With increased use of dicamba, a new generation of superweeds is just around the corner.

What can we do?

With allies around the world, PAN is working to reclaim control of food and farming from the Big 6—or Big 4. It's time for our food system to support farmer livelihoods, healthy communities, clean water and soil, and quality food for all.

The Department of Justice held hearings to address growing antitrust concerns back in 2010, with only a report and "ongoing investigation" to show for it. Now even Sen. Chuck Grassley (R, Iowa) is calling on DoJ and the Federal Trade Commission to block these latest mega-mergers. —

Take Action: If you haven't already, tell President Obama to block further corporate control of food and farming at www.panna.org/big6.

Sign PAN's petition urging USDA and EPA to prioritize protection of farmer livelihoods and community health over Monsanto's market share by fixing broken GE seed and pesticide rules at www.panna.org/ge-rules.

A Big Thank You to All Who Voted For PAN!

This summer, PAN was awarded more than \$61,000 by CREDO—America's only progressive phone company. CREDO selected PAN as one of three nonprofits in its May donor pool; how much each would receive depended on votes from CREDO subscribers and activists. You came through, voting for PAN's work for a just, thriving food system. Thank you!

Please continue to support PAN at www.panna.org/donate.



When You See Something, Say Something

by Dr. Kamyar Enshayan

Recently I heard an FBI Special Agent tell a regional gathering of health professionals in Waterloo, Iowa, what they ought to know about terrorism's potential impact on communities. It was a powerful and somewhat overwhelming message. His main takeaway advice: "When you see something, say something."

At that same gathering I presented a workshop on pesticides. I focused on the public health problems caused by heavy pesticide use in Iowa—and the need to shift to safer alternatives. And I highlighted the urgency of supporting solutions, specifically the importance of PAN's work with Iowa farmer groups to put policies in place that protect farmers and rural families from pesticide exposures.

So I took the FBI agent's message into my workshop, making the case that we're seeing serious pesticide-linked health problems. It's time for us in the Midwest to speak up.

An unnecessary public health threat

As Iowa's agriculture has become less diverse with miles of corn and soybeans, maintaining these very simple monoculture cropping systems has required increasing quantities of pesticides.

In 2014, an estimated 30 million pounds of herbicides were applied to Iowa's corn fields, and another 16 million pounds to soybeans. Where do all these pesticides go? They drift into neighboring farms and households, and they seep into rivers and streams and often they end up in private wells and public drinking water. Published literature on health impacts of pesticides commonly used in Iowa (including the herbicides atrazine and glyphosate) provide plenty of evidence showing that health professionals need to be much more involved.

While the audience appreciated being reminded of the extent of the problem, some noted that the political climate so heavily influenced by corn, soybean and ethanol commodity interests limits their funds to do the basic work needed on pesticide exposure and impacts.

Viable solutions are within reach

Doctors and public health professionals also need to know that it is absolutely possible and practical to have productive agriculture without such heavy reliance on pesticides. Agronomist Matt Liebman and his colleagues at Iowa State University, for example, have demonstrated that more diverse cropping systems would dramatically reduce the need for hazardous pesticides, with no loss of productivity.

We must reduce pesticide exposure off the farm, too. I'm engaged with a statewide campaign to spotlight leading examples of successful pesticide-use reduction in public spaces, starting in Dubuque and Iowa City, and at several businesses and school districts. Teams of faculty and students at University of Northern Iowa's Conservation Corps are incorporating art and theater in addressing the cultural obsession with lawn pesticides and re-enforcing the image of diverse, pesticide-free lawn and native prairie plantings. The campaign shows how to implement what science already tells us about sound alternatives.



Dr. Kamyar Enshayan with Buffy, his family's backyard hen, is Director of the Center for Energy & Environmental Education at the University of Northern Iowa. In 2008, he received the Practical Farmers of Iowa's Sustainable Agriculture Achievement Award.

Clearly, we need policies that document the pesticide problem and support adoption of alternatives possible for more farmers and the rest of us. That's why I'm so grateful for PAN's work with farm groups here in Iowa to press for pesticide-use reporting and related policies—and why I'm more than willing to call on other environmental and public health professionals to say something about pesticides. —

Online: For more information about Dr. Enshayan's initiative, and ways Iowans can become a part of it, contact kamyar.enshayan@uni.edu. See what PAN is doing in Iowa at www.panna.org/iowadrift.

ABOUT PAN PAN works to create a just, thriving food system, working with those on the frontlines to tackle the pesticide problem—and reclaim the future of food and farming. One of five regional centers worldwide, PAN North America links local and international consumer, labor, health, environment and agriculture groups into an international citizens' action network. Together, we challenge the global proliferation of pesticides, defend basic rights to health and environmental quality, and work to ensure the transition to a just and viable food system.

Californians for Pesticide Reform 20 Years Strong



More than 170 activists from farming communities and cities across the state rallied in Sacramento on July 12 to protect children from pesticide exposure.

After a press conference on the Capitol steps, they marched to California's Department of Pesticide Regulation to deliver a letter from over 107 organizations and a petition signed by more than 27,000 people. CPR is calling for one-mile pesticide-free buffer zones around schools, pesticide-use notification, more frequent and improved air monitoring, and support for farmers to transition to safer, more sustainable techniques.

Following the rally, coalition members gathered together to applaud local and state victories. From reducing pesticide use at schools and daycares, to better poisoning reporting and tougher regulations, to blocking use of the carcinogenic fumigant methyl iodide, CPR had much to celebrate.

An Organizational Leadership Award was presented jointly to the California Teachers Association and



California Federation of Teachers. Both unions stepped up because their members see the impact of exposure to pesticides on kids' health and potential every day in their classrooms.

For his game-changing work to ensure that communities are able to hold local authorities accountable for harmful pesticide drift, former State Senator Dean Florez received the Legislative Champion Award.

"I left feeling inspired and motivated to continue this collaborative work for many more years," commented Paul Towers, PAN's Organizing Director and Policy Advocate. Paul represents PAN on CPR's steering committee.

As they returned back to their communities, coalition members took with them the strength of two decades of coordinated campaigns and a renewed commitment to fight for the well-being of all Californians. 🌱

Online: see more about Californians for Pesticide Reform at www.PesticideReform.org.



The Teresa DeAnda Community Leader Award went to Domitila Lemus for her tireless efforts to help her Tulare County neighbors. Teresa was CPR's first field organizer; Teresa's daughter, CPR's Kern County Organizer Valerie Gorospe, made the presentation. Val honored Domitila for embodying her mother's life, spirit and tenacity.

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