



Farming for More Than Yield and Money

by Rob Faux, Communications Manager at PAN, owner/operator & steward at Genuine Faux Farm

One of the stories that is frequently told to, and sometimes by, farmers is that growing food or crops is all about yield and the bottom line. Farmers of all specialties are told to measure their success on these two things: 1. Did the farm produce as much as it could have? 2. Did the farm bring in as much income as it can?

Unfortunately, when a person views farming that way, they fail to consider so many other measurements of success that are just as important. This limited set of measures also fails to recognize that there is a difference between “enough” and “as much as is possible.”

I like to broaden my farm’s balance sheet to include measurements that go beyond yield and profit. In my opinion, there is much more to being a successful farmer and land steward than money and yield.

Considering investment in natural assets

When a farmer considers only how much they can produce and how much money they can make, they close their mind to investments that can bring stability to future production and success. This short-term thinking makes it easy to pretend that pesticides, synthetic fertilizers, and tilling are not only good ideas, but the **best ideas**.

Instead, land stewards recognize that the health of the soil we grow our crops in needs to be maintained with an eye towards future success. For example, a cover crop will represent an expense on the regular balance sheet, but it is also an asset for soil health.

On our farm, we consider the health of our pollinators to be a line on our balance sheet that needs attention. Many of our crops are pollinator-dependent. So, we invest in pollinator health by intercropping plants that attract these organisms and we maintain wild spaces so they have a refuge nearby from season to season and year to year.

Considering a broader farm balance sheet

We also find ourselves thinking about a balance sheet that goes beyond our farm. Rather than focusing only on this season’s production and income, we consider how what we do impacts our neighbors, our communities, and our environment.

Many farms, like ours, produce a wide range of foods and strive to sell those foods locally or regionally. Having a direct relationship

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Persistent Problems Come with “Forever” Chemicals

by Emily Marquez, Senior Scientist

You’ve probably been hearing a lot about PFAS (per- and polyfluoroalkyl substances). While this uptick in media coverage may make PFAS feel like a new topic, these controversial “forever” chemicals have been around since the 1930s, and they are used for dozens of purposes. Perhaps one of their most well-known uses is through making products resistant to grease, water, or stains. For example, paper takeout boxes are often lined with PFAS-containing grease-proofers to keep them from leaking.

Here are a few of the most important things you should know about PFAS chemicals and how they may impact your health:

There are thousands of types of PFAS — nearly 15,000 known in a U.S. EPA database — and with thousands of them, it’s safe to say that the majority are not well studied. PFAS are persistent — meaning, once they get released, PFAS stick around and have the potential to affect human health for many years.

How can PFAS harm human health? To name just a few of the health issues PFAS have been linked to: liver damage, immune suppression, higher cholesterol (a major contributor to heart disease), and kidney and testicular cancers.

PFAS chemicals have many, many applications. They have been used in Teflon, coatings in food packaging, dental floss, water repellent coatings in clothing, firefighting foams...and there are PFAS in pesticides.

A story about one pesticide...out of thousands of PFAS

Of the thousands of PFAS in existence, some have been listed as persistent organic pollutants under the Stockholm Convention, a global ban on chemicals, including PFOS

Defining PFAS

There are several different definitions for PFAS.

In the U.S., the definition affects which ones get regulated. The Organisation for Economic Co-operation and Development (OECD) defines PFAS more broadly than the EPA does. Through a multistakeholder process, the OECD updated its PFAS definition in 2021 to include any molecule that has at least one fully fluorinated carbon, covering over 20,000 molecules.

The U.S. EPA regulatory definition of PFAS, however, only covers about 7,000 molecules. That doesn’t mean that the 13,000 other molecules as defined by OECD are any less dangerous or environmentally persistent.



Did you know your takeout probably comes with a side of PFAS?

(perfluorooctane sulfonic acid). PFOS is used in firefighting foams, and it is listed in the Stockholm Convention under Annex B (Restriction), meaning certain “acceptable uses” still exist. The pesticide sulfluramid can be used to control leaf cutting ants, but when sulfluramid is used, 10% of it degrades into PFOS.

The chemical alternatives to sulfluramid aren’t good — one of them is chlorpyrifos, which has a whole host of its own well-documented issues. Another is an insecticide called fipronil, which also happens to be a widely used fluorinated pesticide.

Nonchemical alternatives to sulfluramid mainly include biological control agents (an example of an integrated pest management tactic).

There’s more to the PFAS and pesticides story — including plastic pesticide containers. EPA tested certain pesticides after a researcher found PFAS contamination. They then followed up by testing a number of plastic containers, both fluorinated and non-fluorinated. EPA did not find PFAS in the pesticide formulations it tested, but the plastic testing results were interesting: PFAS leaches from fluorinated plastic containers into pesticides like mosquito control products, which get sprayed in communities across the U.S.

Pandora’s PFAS

As noted earlier, there are thousands of PFAS chemicals. EPA in 2022 banned just 12 PFAS that they knew to be used as inert ingredients in pesticides. Unsurprisingly, there’s solid evidence that the two biggest PFAS manufacturers (DuPont and 3M) knew about PFAS toxicity decades before that information became public, and used established industry strategies to delay regulation.

Persistent organic pollutants are a problem that lasts forever. Let’s not use them. —🌱

TAKE ACTION Urge the House of Representatives to support the Relief for Farmers Hit by PFAS Act at www.panna.org/pfas-act

Mobilizing Community and Justice for Bhopal Survivors

The chemical leak at the Union Carbide Corporation's (UCC) factory in Bhopal, India, on Dec. 3, 1984, remains the worst industrial chemical disaster in history. Twenty thousand people died from the immediate impacts of exposure to methyl isocyanate, a chemical used for pesticide production, and over 150,000 remain severely disabled by the long term effects of the gas. More than 200,000 people living near the factory have had their groundwater contaminated with persistent organic pollutants and other chemicals due to toxic waste that leached from the factory site.

Ever since this disaster, PAN has had an active alliance with the International Campaign for Justice in Bhopal (ICJB), a coalition of survivors and advocates, international volunteers, and environmental, social justice and human rights groups working to achieve justice and lives of dignity for the survivors and their families.

Ongoing damages and reparations

UCC's chemical wastes have contaminated a vast swath of Bhopal with dangerous toxics and chemical compounds. Abandoned vats of pesticides stain the factory grounds and acres of previously fertile land have been left sterile and desertlike by chemical seepage. Most victims of the disaster only received \$500 of compensation from a settlement with the Indian government, for what are now three generations of devastation.

In 2001, UCC was acquired by Dow Chemical, one of the worst industrial polluters and largest producers of single-use plastics in the world. While Dow has been forcibly held responsible for acquired Superfund sites, industrial pollution, and toxic exposure in the U.S., it refuses to allow survivors in Bhopal to fight for restitution in Indian courts. This December will mark the 40th anniversary of the disaster, and not a single criminal fine or penalty has been paid for this gross injustice. Using education, grassroots organizing, and non-violent direct action, ICJB works to hold Dow Chemical and the Indian government accountable for the ongoing chemical disaster in Bhopal.

Last year, twelve U.S. members of Congress submitted a letter to the Department of Justice urging them to honor India's request to summon Dow Chemical to court. The company did appear in Indian courts, but they maintain that India has no jurisdiction over a U.S. company. This marked the first time a foreign company has appeared in Indian courts in over three decades. Despite this progress, there is still much work to be done to ensure Dow is held accountable for clean-up and survivor compensation in Bhopal.



The fight for justice continues

As the 40th anniversary approaches, ICJB will mobilize across the U.S., where Dow continues to evade accountability. Bhopali survivors will embark on a tour in the fall where they will meet with frontline communities across the country who have been waging a long-standing struggle for environmental justice against the fossil fuel and petrochemical industry including Dow Chemical.

Survivors will also travel to universities to speak with students and faculty on the significant research regarding lasting groundwater contamination, body burden, and generational problems in the communities that were exposed to methyl isocyanate in 1984. This tour seeks to mobilize solidarity during the week of action beginning December 3 across colleges, chemically-impacted communities, and other sites around the world. 🌱

TAKE ACTION ICJB welcomes volunteers who are interested in helping the 40th anniversary campaign succeed, and is also open to invitations to speak with communities, students, and organizations that are interested in hosting an event for the Bhopal survivors tour. Please direct all inquiries to coordinator@bhopal.net.

Donations are also much appreciated and can be made at www.panna.org/bhopal.

Sustain PAN's Work Give Monthly

When you join PAN as a Sustainer, you become part of a vital group that donates each month to fund grassroots science, collaboration with frontline communities, and policy change. We rely on consistent support from Sustainers to work towards a healthy, fair and resilient system of food and farming.

Become a Sustainer today by going to www.panna.org/give-monthly.



ABOUT PAN Pesticide Action Network's mission is to end reliance on hazardous pesticides and achieve health, resilience and justice in food and farming. PAN uses grassroots science, strategic communications and coalition organizing to build power with communities across the U.S. and around the world to confront the harms of industrial agriculture and to build solutions. We are one of five regional centers who cooperate to transform systems of food and farming across the globe.

Farming, continued from front page

with the market encourages investment into the communities where that market resides. Sometimes that investment comes in the form of money, such as when our farm pays an accountant in town to help us with our taxes. But, it is just as likely that farmers will be found at local events supporting their community.

It should be no surprise that the connection to the community lands on both sides of the balance sheet.

A broader focus leads to better farming

I fully recognize that all of this might sound idealistic and impractical. But, I would like to suggest that our current focus on the two outcomes, yield and profit, are far less practical. Each time we have challenged ourselves to think more broadly about how our farm performs, we've been able to identify options that ended up providing more benefits to more people, and to the environment. Often, these choices include better long-term yield or profitability for our farm along the way.

So, why don't more farmers think this way? The system we have in place for food and farming is a big part of the problem. It's in the interest of Big Ag to encourage a focus on profit, yield and short-term risk/gain, because it drives up their profit. In effect, farmers can find themselves feeling trapped with few alternatives to pesticides and large, industrial farms.

The good news is this: There are farms, like ours, that still manage to be successful when they look at a broad-view balance sheet, despite the systems that are in place. Imagine what we could do if we changed our policies, stopped catering to industry, and supported successful farming beyond yield and profit. —🌱



The Latest on Pesticide Regulation in the U.S. and Internationally

Highly Hazardous Pesticides

This spring in Nairobi, PAN International secured a commitment by member states of the United Nations Environment Programme (UNEP) to phase out Highly Hazardous Pesticides (HHPs). This has been a priority of PAN for decades, and after many long days of negotiations, the UN Environment Assembly made the historic move by passing a resolution on HHPs that calls for phasing out the use of the world's most toxic pesticides by 2035.

Now, PAN is following the next steps for getting the Global Alliance off the ground and ensuring the transition to agroecology. It's a big win in the global effort to create more just, sustainable food systems.



Dicamba, an especially drift-prone pesticide, is commonly sprayed on genetically modified soybeans and cotton which are modified to be resistant to the chemical after they have emerged from the ground.

Dicamba

In a good-news-bad-news update, PAN is thrilled to report that EPA has ended the use of over-the-top spraying on soybeans and cotton. Unfortunately, EPA will allow the use of existing stock for the 2024 season and will consider a new registration of the pesticide which would have a new label for future use.

Progress is progress, and we applaud EPA for taking this first step. However, we must continue to push for a full ban of this dangerous, drift-prone pesticide. —🌱

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