Part III: The Tactics

Even in his wildest dreams, the father of modernday public relations, Edward Bernays, could likely never have imagined the vast potential of the Internet - of online media outlets, blogs, Twitter and Facebook - to shape what we believe. But he might not have been surprised to see how the chemical, biotech and food industries have tapped these platforms to advance their agenda. Bernays understood the importance of constant PR innovation: If the public "becomes weary of the old methods used to persuade it to accept a given idea or commodity," he wrote in his 1928 book, Propaganda, then corporations must simply "present their appeals more intelligently. Propaganda will never die."112 Indeed, the food industry is developing new ways to shape public consciousness - through mainstream media, Twitter feeds, mommy blogs and more - all of which make it difficult for consumers to discern fact from propaganda.

As increasing evidence shows connections between the growth in chemical-intensive food production and the rise of adverse health impacts including immune-related illnesses, neurodevelopmental harms and hormone disruption, mothers in particular are increasingly concerned with the safety of food.

Tactic 1: Wooing Women

"Cracking the Code on Food Issues: Insights from Moms, Millennials and Foodies," is a Center for Food Integrity webinar aimed at helping food brands communicate with women. *SafeFruitsand-Veggies.com* declares that, "Moms deserve the truth" and describes itself as a "science-based resource about produce." In reality, *SafeFruitsand-Veggies.com* is funded by the Alliance for Food and Farming, a chemical agriculture front group that downplays the risks of agricultural pesticides. These are just two examples of how food industry messaging targets women. It does so with good reason.

Women in the United States account for over 70 percent of consumer spending and are respon-



Source: screenshot from SafeFruitsandVeggies.com produced by front group Alliance for Food and Farming (March 2015)

sible for most food purchasing decisions.¹¹³ Women are often the primary caregivers for children, the current generation of whom is facing rising rates of diabetes, allergies and other diet-related illnesses. As increasing evidence shows connections between the growth in chemical-intensive food production and the rise of adverse health impacts including immune-related illnesses, neurodevelopmental harms and hormone disruption, mothers in particular are increasingly concerned with the safety of food.¹¹⁴ This is one reason industry groups are targeting their message to moms so directly. The messaging tactics include coopting the voices of women who most powerfully reach other women - bloggers - while at the same time trying to undermine the influence of women food change advocates through cynical messaging to ostracize "organic moms" as elitist bullies.

Co-opting "Mommy Bloggers"

When Bettina Siegel, a school nutrition blogger at *TheLunchTray.com*, released a petition in March 2012 calling on the USDA to stop the national school food program from using "pink slime" slaughterhouse scraps treated with ammonia or citric acid to kill bacteria and turned into "lean, finely textured beef," or LFTB — the reaction was explosive.¹¹⁵ In just two weeks the petition garnered a quarter of a million signatures. In one day alone, it gathered 100,000 names. Describing how her petition went viral, Siegel wrote, "Within days, several members of Congress rallied behind my cause and sent their own letters to the USDA. On the ninth day of the petition, USDA relented and made a change to its school food policy, offering school districts the option of buying ground beef with or without LFTB for the first time."¹¹⁶

The reach of women like Siegel, to whom the industry refers as as "mommy bloggers," is striking. The number of blogs run by and for women, especially those talking about food, has skyrocketed in the past decade. Today, *Yahoo! Small Business* estimates there are 4.2 million mom blogs, many of which focus on food, some specifically taking on questions of safety and sustainability.¹¹⁷

Aware of the power of these influencers, the food industry works to shape bloggers' attitudes about key food issues - and to decrease the chances of another success like Siegel's. Food industry giants, for instance, advertise on the BlogHer Network, the biggest women blogger network in the country, and sponsor the network's conferences. At the June 2013 BlogHer Food conference, bloggers could visit the women farmers staffing the Common Ground booth and take home brochures that promised to "sort through the myths" and help them "gather third-party facts" about food.¹¹⁸ Most bloggers would be unaware that this was not an objective third party, but the marketing arm of the federally funded commodity soybean and corn growers - known as check-offs. No wonder, then, that the brochures touted the benefits of industrial agriculture and dismissed concerns about synthetic fertilizers, genetic engineering and antibiotic use in livestock production.¹¹⁹

The food industry also influences what appears on these blogs by trying to influence the tone of content, even paying for posts directly. While bloggers are supposed to disclose such payments, with a hashtag on Twitter or sponsored post language for example, this is not always practiced and rarely enforced. Plus, receiving gifts or payments from companies doesn't necessarily require disclosure, anyway.

In just one example of how the food industry works to influence bloggers, Monsanto paid bloggers \$150 to attend a brunch hosted by the company, following the 2014 BlogHer conference.¹²⁰ The pitch: "An intimate and interactive panel" with "two female farmers and a team from Monsanto,"



A message posted on Keep Food Affordable's facebook page on May 16, 2014

the invite-only, three-hour brunch promised bloggers a chance to learn about "where your food comes from" and to hear about the impact "growing food has on the environment, and how farmers are using fewer resources to feed a growing population."¹²¹ Another invite-only event later that same year brought bloggers to a Monsanto facility in Northern California for a tour of its fields and research labs. Though the invitation said "No blog posts or social media posts expected," the event was designed to influence the opinions and the writing of key influencers on the topic of GMOs and push a key industry message: that we need GMOs to feed the world.¹²²

Attacking Organic Moms

While the food industry tries to shape the perspective of these influencers, it also actively works to undermine the sway of women who are organic food advocates, precisely because evidence shows just how much impact these voices can have. For example, a 2014 *New York Post* story, "The Tyranny of Organic Mommy Mafia," describes the "arrogance and class snobbery" of moms who feed their kids organic.¹²³ The piece quotes Julie Gunlock of the Culture of Alarmism Project who says these moms are "so crazed" and "worried" they need to be in control of everything when it comes to their kids, even the way food is grown and treated.¹²⁴

What is the Culture of Alarmism Project? It is housed at The Independent Women's Forum, which receives funding from right-wing foundations and the Koch Brothers and got its start as a defense group for Clarence Thomas, according to Karl Grossman, professor of journalism at the State University of New York.¹²⁵ The group actively opposes climate science education in schools and



has claimed that the evidence on man-made global warming is "junk science."¹²⁶ Other sources in the story include the front group Alliance for Food and Farming and Academics Review, billed as a "nonprofit group of independent scientists" but which is really another industry-linked front

group.¹²⁷ (See discussion of Academics Review in Tactic 5).

Companies are hiring PR firms to develop social media campaigns, staffing up internally with online engagement positions and recruiting third-party bloggers and individuals on Twitter and Facebook to share industry-friendly messages and online resources designed to look like informational websites but built and run by industry front groups and trade associations.

Examples abound of this demonization of concerned parents, especially women, and the moms-as-bullies meme. At the Pork Network website, you can find this headline: "Stop letting 'crunchy mommas' tell your story," which states that, "The voices of America's farmers and ranchers are being drowned out by a small minority of consumers called 'crunchy mommas,' and it's time for producers to fight back."128 At the Similac website, you can find the Sisterhood of Motherhood campaign, which features a video called "The Mother 'Hood" with nearly 8 million views. It depicts breastfeeding mothers as bullies and calls them "the breast police"¹²⁹ – a message that clearly benefits Similac, the leading infant formula producer in the country.

Notably, despite this emphasis on reaching women, an analysis of the gender breakdown of the boards of key food industry front groups reveals where the real power lies: In a review of 17 food industry trade and front groups, men made up 85.8 percent of board members.¹³⁰ (See Groups' Board members listed in Annex 1).

Tactic 2: Infiltrating Social Media

In the past decade, social media platforms like Facebook, Twitter, Instagram and Pinterest have become central to how millions of Americans consume news and information and come to understand the world. The Pew Research Center for People and the Press found that by 2014, 30 percent of Americans received their news from Facebook.¹³¹ As these platforms have grown, the food industry has innovated new ways to engage and infiltrate social media.

Companies are hiring PR firms to develop social media campaigns, staffing up internally with online engagement positions and recruiting thirdparty bloggers and individuals on Twitter and Facebook to share industry-friendly messages and online resources designed to look like informational websites but built and run by industry front groups and trade associations. CropLife America created *DebugtheMyths.com*, for example, launched with companion Facebook and Twitter accounts to push its message that chemical pesticides are necessary, beneficial and pose few risks.¹³²



From CropLife America's Debugthemyths.com

In recent years, there's been a rise in farmerlinked bloggers have been pushing positive messages about GMOs, pesticides and antibiotics on platforms like *NurseLovesFarmer.com*, *The-FarmersDaughterUSA.com* and *AskTheFarmers.com*, founded in 2014.¹³³ On Twitter, they affiliate as "agvocates," a term coined by AgChat Foundation, an industry funded communications initiative launched in 2010, whose main backers include industrial meat producers such as Tyson and Smithfield, animal pharmaceutical companies such as Elanco and agrochemical companies such as Bayer CropScience.¹³⁴

Companies like Monsanto are expanding the teams that develop social media channels and creating new positions to monitor and engage with the public across social media platforms. In 2013, Monsanto hired PR firm Fleishman-Hillard to "develop a more cohesive communications approach, in the face of sustained NGO criticism," according to The Holmes Report.¹³⁵ This included expanding its social media team. That year, Monsanto created its first Online Engagement Director, responsible for helping to ensure that "accurate information about the company is considered in social media discussions."136 On the LinkedIn profile for this position, responsibilities include providing information to bloggers, hosting blogger events and participating in public events on behalf of Monsanto.137 Often this engagement includes only oblique references to the company: On the Twitter account of the Online Engagement Director, for example, her more than 75,000 Tweets include occasional references to Monsanto by name, but include links to its sponsored websites like GMOAnswers.com.138

In 2013, the Council on Biotechnology — funded by Monsanto, BASF, Bayer, Dow, DuPont and Syngenta — launched *GMOAnswers.com* to "help clear up confusion and dispel mistrust" about genetic engineering.¹³⁹ The platform was designed to promote the appearance of transparency and honesty by offering an opportunity for anyone to post questions about GMOs and get answers from experts.¹⁴⁰ But the experts on the site are not disinterested parties; they're defenders of genetic engineering and some are even paid employees of biotech companies like Monsanto.¹⁴¹

GMOAnswers.com was developed by PR firm Ketchum, which has a long history of working with corporate clients to undermine environmental advocacy. The firm has a roster of clients with vested interested in industrial agriculture, from energy giants BP and Exxon to chemical companies Dow and Novartis. And an exposé by *Mother Jones* revealed that the company systemically spied on Greenpeace and other environmental organizations from the late 1990s to — at least early 2000.¹⁴²



GMOAnswers.com was developed to shift the story about GMOs, especially on social media. To do so, Ketchum staff tracked negative Tweets about GMOs and responded with Tweets encouraging people to visit GMOAnswers.com to learn more. Ketchum boasted that this engagement on Twitter resulted in an "80 percent reduction in negative Twitter traffic as it relates to GMOs" and a doubling of positive media about GMOs.¹⁴³ The GMO Answers campaign was so successful the firm was short-listed for a prestigious CLIO Award for Public Relations: Crisis and Issue Management. In Ketchum's promo video about the campaign, the firm "brags about how it spun the media on GMO issues, and how it snoops on the social media accounts of people concerned about GMOs," writes Gary Ruskin from U.S. Right to Know.¹⁴⁴ The video was taken offline after the U.S. Right to Know called attention to it.145 (The group was co-founded by a co-author of this report, Stacy Malkan).

Tactic 3: Discrediting and Attacking Journalists and Scientists

When Carey Gillam, a veteran Reuters agriculture reporter, began covering the debates about agricultural biotechnology, she found herself at the receiving end of attacks by individuals with industry ties — all for offering a balanced view. In an article that particularly riled her critics, Gillam characterized concerns with GMOs this way:

[S]ome scientific studies warn of potential human and animal health problems, and GMO crops have been tied to environmental problems, including rising weed resistance. Millions of acres of U.S. farmland have developed weed resistance due to heavy use of crops that have been genetically altered to withstand dousings of Monsanto's Roundup herbicide.¹⁴⁶



This and other articles by Gillam have made her a target for biotech defenders. Val Giddings, a former executive vice president of the Biotechnology Industry Organization, wrote that Gillam's reporting is "false, and flagrantly so."¹⁴⁷ The website Academics Review (described in Tactic 5 below) gave Gillam a "failing grade" for her coverage of GMO issues.¹⁴⁸ Jon Entine, executive director of the Genetic Literacy Project (also described in Tactic 5) accused Gillam of "sloppy and biased writing."¹⁴⁹ Giddings wrote, "Perhaps it's time for her editors to move her to a beat that would give her less opportunity to exercise the prejudices she is obviously unwilling to check."¹⁵⁰

Scientists who have raised concerns with GMOs specifically, or chemical agriculture more generally, have experienced very directed attacks meant to undermine their credibility and reputations.

When asked by a reporter about the pressure from GMO proponents, a Reuters spokesperson responded, "We stand by our coverage." At one point, Gillam tweeted: "A bit astonished at the level of fear out there over truthful reporting..."¹⁵¹

Going after the credibility of reporters is a common communications tactic of the food industry. And journalists are not the only ones under fire: Scientists who have raised concerns with GMOs specifically, or chemical agriculture more generally, have experienced very directed attacks meant to undermine their credibility and reputations. In the definitive article on how industry uses personal attacks to undermine the scientific evidence, Rachel Aviv in The New Yorker describes the coordinated campaign against UC Berkeley scientist Tyrone Hayes by chemical giant Syngenta. When Hayes' research revealed the harms of the company's chemical herbicide atrazine, Syngenta responded with a coordinated public relations smear campaign to discredit Hayes and his findings, described in detail and reported from internal memos and emails.¹⁵² In addition to personal and even racist attacks on Hayes, Aviv reported that Syngenta's tactics included ghost writing "editorials about the benefits of atrazine and about the flimsy science of its critics," which were then sent to "'third-party allies,' who agreed to 'byline' articles that appeared in the Washington Times, the Rochester Post-Bulletin, the Des Moines Register, and the St. Cloud Times. When a few articles in the 'op-ed pipeline' sounded too aggressive, a Syngenta consultant warned that 'some of the language of these pieces is suggestive of their source, which suggestion should be avoided at all costs."153 According to company emails, Syngenta had also developed a roster of over one hundred "supportive third party stakeholders," as the emails described them, including 25 professors who could be used to defend atrazine.154

This tactic plays out on social media, too, in the comment sections of news stories or in the Twitter feeds of scientists or journalists. It's become a well-known tactic of PR firms to try to influence social media by posting disparaging comments on news articles or using inflammatory language to attack critics on social media. For example, a Twitter attack on Dr. Mehmet Oz (a vocal proponent of GMO labeling) prompted a Washington Post story with the headline, "Dr. Oz solicits health questions on Twitter, gets attacked by trolls instead." The story describes critics "hammering Oz with a stream of sarcastic questions and attacks on his credibility as a physician."¹⁵⁵ Several Twitter users mentioned in the story happen to be among the most prolific online defenders of GMOs and other food industry talking points.¹⁵⁶

Using charged language and character attacks, this tactic is meant to distract from the content of the messages by maligning the people – the reporters or scientists – instead. It's a tactic used to against advocates, too. A March 2015 op-ed in *The Guardian,* for instance, compared the non-profit advocacy group U.S. Right to Know with climate deniers, claiming that it was engaging in an "attack on science" when it filed a Freedom of Information Act request to investigate any industry ties among *GMOAnswers.com* experts.¹⁵⁷

The bio of the op-ed authors—Nina Fedoroff, Peter Raven and Philip Sharp—included no mention of their connections to the biotechnology industry: Fedoroff is a science adviser to OFW Law whose clients include the Council for Biotechnology Information, a trade group for agricultural biotechnology.¹⁵⁸ Raven is director emeritus of the Missouri Botanical Garden, a beneficiary of the biotech industry, including a \$10 million donation from Monsanto.¹⁵⁹ Sharp is a professor at MIT and a cofounder of Biogen Idec, a biotechnology company.¹⁶⁰ Without disclosure of these ties, readers are left in the dark about these conflicts of interests.

Tactic 4: Producing Native Advertising and Entertainment Partnerships

As recently as a few years ago, native advertising was not a significant part of any brand, or industry, marketing portfolio. Today, it is one of the fastest growing segments of the marketing economy. By matching the look and feel of editorial content, native advertising can feel like real news, though it is really meant to sell you a product or a point of view. Native advertising works because it is a way to get your brand — or a broader marketing message — in front of consumers who might otherwise tune out an advertisement or clearly branded message.

This kind of advertising is rapidly expanding across a wide range of platforms, including mainstream news websites.¹⁶¹ In 2014, brands of all types spent \$3.2 billion on native advertising, up 47 percent from 2013, according to Ad Age, which expects that number to jump to \$4.2 billion in 2015.¹⁶² Today, most online platforms, including Facebook, YouTube, Twitter, Tumblr and Word-Press, have formats that allow for native advertising, as these sites move away from banners or more clear advertising displays.¹⁶³ Even *The New* York Times now runs native ads on its website; and in November 2014, it promoted the first-ever native print ad, an eight-page section about the urbanization of the world's population, funded by Shell.¹⁶⁴ Though The New York Times labels its native advertising, the labels identifying the content



Example of native advertising on BuzzFeed. Source: www.inma.org (2015)

as promotional have shrunk since the first native ads ran in January 2014, reported *Ad Age.*¹⁶⁵

Brands are finding that native advertising works. For Kraft, it generated 1.1 billion ad impressions in one year, "a four-times-better return on investment through content marketing than through even targeted advertising."¹⁶⁶

Like native advertisement, entertainment partnerships are another way that companies and trade groups are covertly shaping the story about food and farming in the media. In 2013, the U.S. Farmers and Ranchers Alliance helped produce two segments of Anderson Live that featured farmers, hand-picked by USFRA, delivering the messages of the trade group. Those segments received a total of 5.7 million impressions, according to the US-FRA's annual report.¹⁶⁷ That same year, the USFRA spent at least \$1.5 million to produce a featurelength documentary film, Farmland, which was presented as a balanced exploration of the lives of farmers and ranchers – but whose message, critics pointed out, glorified industrialized farming operations.¹⁶⁸

In another example, Monsanto contracted with the Condé Nast Media Group to develop a series of web-based videos about questions such as: "Are food labels too complicated?" and "GMOs: Good or bad?" Called "A Seat at the Table," the episodes would feature experts weighing in on these questions and be launched across Condé Nast platforms, including *Self, Epicurious, Bon Appetit, GQ, Details,* and a custom YouTube channel. Producers reaching out to potential experts described the project as an exciting video series centered on "food, food chains and sustainability" and featuring "an eclectic mix of industry and non-



industry notables with diverse viewpoints." Producers did not reveal it was funded by Monsanto, the largest producer of GMOs in the country and a major opponent of GMO labeling. Several prominent food experts reported receiving similar casting requests without the Monsanto funding made clear. After articles about the series and its lack of transparency about its funders appeared on *Gawker, Mother Jones,* and *AI Jazeera America,* "A Seat at the Table" was shelved.¹⁶⁹ (Condé Nast producers have not responded to several emails about whether this project was canceled as a result of the controversy.)

Tactic 5: Using Third-Party Allies

In 2011, a lawsuit against the chemical and biotech giant Syngenta disclosed internal documents showing company strategies to undermine the science about its most profitable herbicide, atrazine, and its impact on ecosystems and reproductive health. Among other strategies the documents revealed, the pesticide manufacturer "routinely paid 'third-party allies' to appear to be independent supporters, and kept a list of 130 people and groups it could recruit as experts without disclosing ties to the company," reported investigative journalist Clare Howard.¹⁷⁰

Using third-party allies – as Syngenta has been doing in its fight against atrazine regulation — is a tactic employed by companies across the industrial food sector. These third-party allies include groups and individuals who work directly for industry or are paid by industry-funded foundations as well as those whose careers depend on the acceptance of industrial agriculture, including the use of toxic pesticides, GMOs and routine antibiotics in livestock production. These third-party allies are quoted in mainstream media, given platforms for opinion pieces or produce their own websites - all without revealing industry ties. As a result, third-party allies and their messages are often perceived as independent and are, therefore, an effective means for industry to influence public opinion, mainstream media and policymakers.

Genetic Literacy Project

In 2013, American Enterprise Institute visiting fellow Jon Entine launched the Genetic Literacy

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Project, a non-profit organization whose website was receiving an estimated 360,000 visitors per month in May 2015.¹⁷¹ The Project claims to provide a platform for "anyone with a thoughtful opinion grounded in science... to share their thoughts and reach a wide audience."172 But our review of dozens of the blogs on the site reveals an echo chamber of industry talking points on anti-GMO labeling, attacks on organic agriculture and a defense of agrochemicals.¹⁷³ The Project is housed at George Mason University, whose funders include the Templeton Foundation and the Searle Freedom Trust, funders of conservative and free-market think tanks including the Heartland Institute, described by The Economist as "the world's most prominent think tank promoting skepticism about man-made climate change."¹⁷⁴

Entine has a history of defending toxic chemicals and genetic engineering. His consulting firm, ESG MediaMetrics, provides "media strategy, writing, speechwriting, and engagement with critics" for clients, especially at times of "intense media or government scrutiny – or to head off unfair at-



tacks," according to its website.¹⁷⁵ Current and past clients include Monsanto, the Vinyl Institute trade group and the natural gas company NiSource.¹⁷⁶ He is also the editor of *Crop Chemophobia: Will Precaution Kill the Green Revolution?*, a book published in 2011 that dismisses concerns about toxic chemicals.¹⁷⁷ In the same year, he authored a lengthy "position paper" for the American Council on Science and Health, entitled *Scared to Death: How Chemophobia ("Irrational Fear of Chemicals") Threatens Public Health*.¹⁷⁸ The ACSH is a science front group whose corporate donors include a "who's-who of energy, agriculture, cosmetics, food, soda, chemical, pharmaceutical, and tobacco corporations," according to a Mother *Jones* exposé.¹⁷⁹ Specific donors include Coca-Cola, Bayer CropScience, agribusiness giant Syngenta and McDonald's.¹⁸⁰

The organization where Entine is a fellow, the American Enterprise Institute, is also tied to the fossil fuel, agribusiness, and pharmaceutical industries and known for its attacks on climate change science, including offering cash to scientists to refute the findings of the Nobel-Prize winning international climate consensus group known as the IPCC.¹⁸¹

Academics Review

Academics Review is another recent entrant into industry spin: Founded in April 2014, the organization claims to be an "association of academic professors and researchers" from around the world "committed to the unsurpassed value of the peer review in establishing sound science."¹⁸² Yet its primary backer has a self-interest in defending GMOs and criticizing organic food: co-founder Bruce Chassy, a retired professor, was also among eleven scientists named by the Center for Science in the Public Interest in a 2003 complaint to the journal Nature for failing to disclose "close ties to companies that directly profit from the promotion of agriculture biotechnology."183 As the letter notes, Chassy "has received research grants from major food companies, and has conducted seminars for Monsanto, Genencor, Amgen, Connaught Labs and Transgene," all companies with a stake in pesticides and genetic engineering in agriculture.¹⁸⁴ Chassy also serves on the advisory board of the front group, the American Council on Science and Health.¹⁸⁵

In 2014, Academics Review produced a report accusing the organic food industry, advocates and nonprofits of using "deceptive marketing" practices to instill "false and misleading consumer health and safety perceptions" of conventional foods.¹⁸⁶ In coverage of the report, *New York Post* ran an article titled "Report: Organic Industry Achieved 25 Years of Fast Growth Through Fear and Deception," and Food Safety News published "The Organic Industry Has Been Fibbing All Along." None of the coverage mentioned the conflicts of interest of Academics Review or the lack of evidence to back up the claims in the report, according to an analysis in *Fairness and Accuracy in Reporting* (penned by two authors of this report).¹⁸⁷

Individual Voices

In addition to platforms like Academics Review and the Genetic Literacy Project, there are many of other third-party allies who defend the chemical agriculture industry with frequent commentaries on blogs and in mainstream media outlets. Henry I. Miller is just one example: He regularly publishes anti-organic and pro-GMO opinion pieces in outlets such as *Forbes*¹⁸⁸ and *The Wall Street Journal*.¹⁸⁹

THE WALL STREET JOURNAL.

Organic Farming Is Not Sustainable

More labor with lower yields is a luxury only rich populations can afford.

Based at the Hoover Institution, Miller has long touted the benefits of industrial chemicals and downplayed their proven toxicity. As Gary Ruskin of U.S. Right to Know noted in the report, "Seedy Business,"190 Miller has written in The Wall Street Journal about a supposed lack of proven connection between neonicotinoid pesticides and colony collapse disorder, despite well-documented evidence that the pesticides are a key contributor to bee declines.¹⁹¹ For *Forbes*, Miller has penned opeds decrying Rachel Carson's "deadly fantasies" about DDT, despite solid science on the toxicity of the chemical,¹⁹² and he has claimed the concerns about the toxic chemical bisphenol-A are unfounded.¹⁹³ Despite the clear misinformation in his writings, Miller is still given a platform on legitimate news outlets.



The Echo Chamber Effect

Ultimately, what these third-party allies can achieve is an echo chamber: industry talking points reverberating across social media platforms, news outlets and blogs, moving up the ladder of credibility to ever more prominent media outlets. The result is that messages, often crafted by or benefiting industry, are reinforced by seemingly disparate and independent sources, and take on the semblance of veracity.

Assault on Organics

To give one example, consider how the echo chamber effect has worked to attack organic agriculture on the basis that it uses toxic pesticides, too. In a 2012 Forbes article, Henry I. Miller claims, "organic pesticides pose the same health risks as non-organic ones" with the use of natural pesticides, such as rotenone.¹⁹⁴ He wrote: "there is a well-known association between rotenone exposure and Parkinson's Disease."¹⁹⁵ This was not the first time this accusation against organic farmers had been raised, and it certainly wouldn't be the last:¹⁹⁶ A 2014 *Slate* article disparaging the value of organic food (shared 48,000 times on Facebook) warned consumers about the threat of rotenone, claiming the pesticide is "allowed in organic farming" and is "far more toxic by weight than many synthetic pesticides."197 Since 2012, Consumer Affairs, The Wall Street Journal and other media outlets have all published pieces criticizing rotenone use in organic agriculture.¹⁹⁸ And you see this accusation appearing in the comments fields of online articles about organic agriculture, on blogs, in references in Twitter.¹⁹⁹ What all this coverage fails to mention is that rotenone has been disallowed by the national organic program since 2002, and was banned by the EPA for use on food in 2007.200

Assault on GMO Critics

National Geographic's "The War on Science" magazine cover listed these anti-science attacks: "Climate change does not exist; Vaccinations can lead to autism... Genetically modified food is evil."²⁰¹ Putting critics of biotechnology into the same anti-science camp as climate change de-

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niers and those opposed to vaccinations has been a communications tactic of the biotech industry for years.²⁰² By 2015 this messaging had made the leap into one of the country's most reputable publications.²⁰³

Over the past few years, opinion commentators in many media outlets have been echoing this frame that those opposed to GMOs are anti-science, and specifically pointing to the climate denialist comparison:

- "The biggest gap between public opinion and scientific consensus in the United States is not in the realm of vaccines, global warming or evolution but regarding the safety of genetically modified (GM) foods." (*The Washington Post*).²⁰⁴
- "There is an equivalent level of scientific consensus on both issues... climate change is real and genetically modified foods are safe." (*The New York Times*).²⁰⁵
- "Scientists, who have come to rely on liberals in political battles over stem-cell research, climate change and the teaching of evolution, have been dismayed to find themselves at odds with their traditional allies on this issue. Some compare the hostility to G.M.O.s to the rejection of climate-change science, except with liberal opponents instead of conservative ones."²⁰⁶

The truth is that there are legitimate and growing concerns about the risks of widespread adoption of the genetically engineered traits that have been commercialized to date, nearly all of which have been engineered to be resistant to herbicides or to express an insecticide. As a direct result of GMO planting in the United States, the use of glyphosate on farm fields has grown 16-fold since the 1990s, when herbicide-tolerant GMOs were introduced.²⁰⁷ This increase has had a number of consequences, from growing weed resistance (nearly half of all American farmers report herbicide-resistant weeds on their farms²⁰⁸) to the eradication of milkweed on farms decimating monarch populations. As for the safety concerns, the World Health Organization's International Agency for Research on Cancer recently designated glyphosate, that herbicide widely used on GMOs, a probable human carcinogen.²⁰⁹ Yet few media outlets report on these concerns or the statement endorsed by 300 scientists, academics and scholars published in a peer-reviewed journal that argues there is no consensus on the safety and benefits of GMOs.²¹⁰ Instead, we hear from

many media outlets, including Slate, that "there is a broad scientific consensus that genetically engineered crops currently on the market are safe."²¹¹



The National Geographic article itself actually barely discussed the science of genetic engineering, even though its cover played up the biotech industry's spin. As Timothy Wise of the Global Development and Environment Institute at Tufts University wrote, "What we're seeing is a concerted campaign to do

exactly what *National Geographic* has knowingly or unknowingly done: paint GMO critics as antiscience while offering no serious discussion of the scientific controversy that still rages."²¹²

Ultimately, the echo chamber creates the illusion that spin is fact, helping to mislead the media and cloud consumer perceptions, and potentially dampening demand for organic and non-GMO products. It also helps shore up industry positions in key policy battles, such as the fight for mandatory GMO labeling or restrictions on pesticides.



Planting of GMO crops has led to an increase in the use of herbicides, not less, as is often reported in the media. Chart Source: USDA-NASS Quickstats: Survey, Environmental, Corn, Cotton, Soybean, Application, Percent Area Planted (Average) (Glyphosate)