



March 4, 2014

Secretary Tom Vilsack, United States Department of Agriculture
Regulatory Analysis and Development, PPD
APHIS, Station 3A-03.8, 4700 River Road Unit 118
Riverdale, MD 20737-1238

Re: Docket No. APHIS-2013-0047

Dear Secretary Vilsack,

These comments are submitted on behalf of Center for Food Safety (CFS), a public interest membership organization that works to protect human health and the environment by curbing the proliferation of harmful food production technologies and by promoting organic and sustainable agriculture. Our membership has rapidly grown to include over four hundred thousand people across the country that support organic food and farming, grow organic food, and regularly purchase organic products. They are gravely concerned about the irreversible impacts of genetically engineered (GE) crops on other forms of agriculture, particularly organic agriculture.

Introduction

The US Department of Agriculture's (USDA) Federal Register Notice entitled "Enhancing Agricultural Coexistence" requests public comment to aid the Agency in "identify[ing] ways to foster communication and collaboration" to "further agricultural coexistence." Center for Food Safety respectfully challenges the efficacy of this approach to combat the critical problem of GE contamination. In our view, this public input request side-steps the real issues farmers face with respect to the approval of GE crops in the absence of any ongoing regulation — namely transgenic contamination of their non-GE crops and seeds, wild relatives, and feral plants. Despite repeated requests from the public to prioritize the development and implementation of contamination prevention measures, USDA has chosen to confine public comment to identifying ways to "foster communication and collaboration." This decision reflects the government's clear bias towards the advancement of GE agriculture above all else, and it flies in the face of the Agency's self-proclaimed mission as "enhanc[er of] economic opportunities for US farmers and ranchers."¹ On behalf of Center for Food Safety's over 400,000 supporters nationwide, our remarks challenge USDA to live up to its mission of promoting fair farming for everyone.² Now is the time for USDA to take concrete action to prevent GE contamination, once and for all.

¹ USDA. 2008. "2008 Performance and Accountability Report." 1. Available at: <http://www.ocfo.usda.gov/usdarpt/par2008/pdf/par2008.pdf>.

² USDA. 2008.

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Coexistence Or Concurrent Cultivation Is Not GE Contamination Prevention

USDA's notion of "coexistence" or "concurrent cultivation" assumes that all forms of agriculture can be grown across the country, side-by-side, without any of them adversely affecting the others. That simply cannot be the case when it comes to GE agriculture. Organic and other non-GE farmers know all too well that their crops can become contaminated by GE crops as pollen and seed drifts miles away from their original planting location. The recent case of an Australian organic farmer who sued his neighbor after he found GE canola growing on his field demonstrates the seriousness of the contamination problem, and it is the tip of the iceberg.³ Without mandatory GE contamination prevention measures in place, organic and other non-GE farmers face real economic risks but have little recourse to protect their businesses.⁴ Prospects of contamination threaten livelihoods, trading partnerships, and the ability of farmers and food producers to confidently supply non-GE markets. Even USDA admits that is the case.⁵ These real-life challenges cannot be solved through "farmer education and collaboration." What is needed most of all is mandatory regulations to prevent GE contamination.

USDA's current laissez-faire "coexistence" policy, which completely deregulates GE crops, allows GE seeds, pollen, and plants to contaminate our nation's farms without restraint or recourse. A public policy based upon furthering the spread of GE organisms into our food supply without public knowledge or consent unfairly forces farmers and consumers to accept GE contamination. This is neither a fair nor prudent public policy, and it must be changed. It is incumbent upon USDA to develop and ensure the implementation of GE contamination measures nationwide, and live up to its mission as the purveyor of fair farming for all and not just the biotechnology industry.

Voluntary, Non-Binding Neighbor Agreements Will Not Prevent GE Contamination

USDA's proposed solution of getting GE and non-GE farmer neighbors to voluntarily negotiate non-binding "coexistence agreements" as a way to preemptively resolve inevitable GE contamination disputes is misguided and unlikely to be successful. Expecting farmers to "work-out among themselves" thorny contamination issues without the backing of strong regulations pits farmer-against-farmer, which is neither a viable nor a long-lasting solution to conflicts in farm communities. Clear losers under this option are organic, identity preserved (IP), and other non-GE farmers because threats of contamination preclude them from growing the crops of their choice. If negotiation is the only option offered by USDA, non-GE farmers will be forced to unfairly opt out of growing certain crops altogether as the only sure way to avoid the risk of contamination and subsequent market rejection.⁶

³ Coopes, A. 2014. "Closely-watched GM farm case begins in Australia." *Phys.org*. February 11. Available at: <http://phys.org/news/2014-02-closely-watched-gm-farm-case-australia.html>.

⁴ Food & Water Watch. 2014. Organic Farmers Pay the Price for GMO Contamination. Issue Brief. March. Available at: http://documents.foodandwaterwatch.org/doc/GMO_contamination.pdf

⁵ USDA. 2007. "Report of Liberty Link Rice Incidents 1." Available at:

www.aphis.usda.gov/newsroom/content/2007/10/content/printable/RiceReport10-2007.pdf;

USDA Advisory Committee on Biotechnology and 21st Century Agriculture. 2012. "Enhancing Coexistence: A Report of the AC21 to the Secretary of Agriculture". November 19. Available at: http://www.usda.gov/documents/ac21_report-enhancing-coexistence.pdf.

⁶ Food and Water Watch. 2014.

The Agency's "negotiated agreements" proposal further ignores real-life issues on the farm, such as short planting windows that make it difficult to stagger GE and non-GE crop plantings, absentee landlords, and scenarios where contamination originates from farms located well beyond the next door neighbor's field. The planting of promiscuous crops such as sugar beets, alfalfa, canola, and others make it impossible for farmers to negotiate neighbor agreements when the resultant GE contamination could be miles away from where the GE crop was planted. Since approved GE crops remain completely unregulated, USDA's so called "coexistence" policy gives the biotechnology industry a virtual free pass to escape liability for compensating victims of contamination. It puts exclusive responsibility to protect against contamination, to the extent possible, solely on the backs of non-GE farmers. Moreover, "collaboration" is simply not possible when one farmer's method of agricultural production has the potential to dominate all others and ruin market opportunities for those whose businesses depend upon their ability to supply non-GE markets.

AC21 Was Given The Wrong Charge

In August 2011, USDA Secretary Vilsack directed his newly appointed Advisory Committee on Biotechnology and 21st Century Agriculture (AC21) to address the problem of GE contamination by identifying ways to compensate farmers after-the-fact, rather than protect them from contamination from the start. Clearly, this Committee's charge was misguided from the onset. The underlying assumption was that GE contamination was an inevitable and acceptable cost of growing GE crops, as long as the affected farmers were compensated for contamination. This is what "coexistence" in action looks like to USDA. But, GE contamination is completely unacceptable to those farmers who reject the use of GE technology and who sell their crops to organic and non-GE markets. Like the AC21 Report, USDA's Federal Register notice glosses over critically important issues related to contamination and only solicits comment on farmer education and collaboration. Meanwhile, many GE foods continue to seep into our food supply until there may be no turning back.

Despite claims of a "consensus report," several stakeholders on the AC21 submitted strongly worded critiques of both the Committee's charge and the Report. AC21 Member Melissa Hughes⁷ acknowledged in her comments appended to the end of the report that: "The dialogue I think many of us in the non-GMO side of the Committee hoped for was narrowed by the Secretary's charge to only seek a compensation scheme for the economic damages suffered through the loss of a market from the unintended presence of biotechnology."⁸ Similarly, AC21 member Laura Batcha⁹ expressed frustration with how the Secretary's narrow charge prevented meaningful discussion of the primary issue, namely "the movement of genetically engineered crop traits to farms and food where they are unwanted."¹⁰ And, Chuck Benbrook¹¹ also observed that "despite an understandable desire to characterize the Committee's report as a carefully balanced combination of compromises, on the core element of its charge, the report does not embody significant compromise and it dodges key issues."¹²

⁷ Representing the dairy cooperative, Organic Valley.

⁸ USDA Advisory Committee on Biotechnology and 21st Century Agriculture. 2012. 44.

⁹ Representing the Organic Trade Association.

¹⁰ USDA Advisory Committee on Biotechnology & 21st Century Agriculture. 2012. 27.

¹¹ Representing The Organic Center.

¹² USDA Advisory Committee on Biotechnology & 21st Century Agriculture. 2012. 29.

Clearly, AC21 deliberations were intended to steer discussions towards reaching a pre-determined conclusion—one that embraces GE technologies at the expense of all others. USDA’s current request for public input on “fostering communication and collaboration” is more of the same. The Agency has asked the public to accept GE contamination as an inevitable cost of growing GE crops and to overlook the fact that the unregulated and unmonitored technology use threatens the livelihoods of organic, IP, and non-GE farmers. To move forward without question on a flawed underlying principle is to accept GE agriculture as the dominant form of agriculture and risk losing tried and true forms of agriculture that have fed the world for centuries.

Questions 1, 2 & 3 Response: USDA Fails To Address The Root Of The Problem—GE Contamination

USDA’s Federal Register notice asks the public to comment on how to “better foster communication and collaboration among stakeholders.” Yet, there can be no collaboration when one agricultural technology has the propensity to trump all of the rest. Existing unregulated and unmonitored use of GE technology precludes access to non-GE markets and limits the success of organic, IP, and non-GE farmers once contamination occurs or is suspected. Under this current scenario, transgenic polluters escape liability for contamination and restitution costs, and they are allowed to continue to pollute without restrictions. It is a win-win situation for GE growers and a lose-lose situation for everyone else. As one organic grower lamented in a recent organic farmer survey: “We cannot...grow organic canola as we are surrounded by hundreds of acres of GM [GE] canola – pollinated by insects – no buffer is big enough to contain cross-pollination.”¹³ What is equally troubling is that this situation has forced increasing numbers of farmers to suffer in silence for fear of losing their organic certification, markets, or being forced to sell their organic crops to the conventional market, forgoing their organic price premium.

GE contamination is a cognizable injury that can be traced back to the source of contamination – the GE patent holder. Therefore, it is the duty of the government to require the GE patent holder to prevent contamination. When those efforts fail, it is the further duty of the government to require the restitution of organic crops, seeds, and soil, and the full range of other social and livelihood damages are paid by the GE patent holder and technology user.

Costs Of GE Contamination

Like other types of pollution, transgenic contamination cannot be recalled.¹⁴ GE plants continue to reproduce in farm fields where GE seeds are sown or blown and where plants are pollinated, miles away from their original planting field. Their traits can be passed on to subsequent generations of crops. They reproduce in nature where GE varieties can forever alter wild relatives, native plants, and ecosystems. One British study revealed that GE canola (rapeseed oil) can contaminate non-GE canola plants more than 16 miles away.¹⁵ Another study found that pollen from GE bentgrass traveled at least

¹³ Food and Water Watch. 2014. p. 6

¹⁴ Marvier, M. & R.C. Van Acker. 2005. Can crop transgenes be kept on a leash? *Frontiers in Ecology and the Environment*, 3(2): 99-106.

¹⁵ Squire, G., G. Begg, & M. Askew. 2003. The potential for oilseed rape feral (volunteer) weeds to cause impurities in later oilseed rape crops. *Final Report of the DEFRA Project: Consequences for Agriculture of the Introduction of Genetically Modified Crops, RG0114*. Available at: http://www.scri.ac.uk/scri/file/EPI/Agroecology/Volunteer_impurities_in_oilseed_rape_rg0114.pdf.

13 miles from the field where it was planted, posing a serious threat to native grasses.¹⁶ As these and other studies suggest, GE contamination prevention may not be possible when certain crops are grown, such as sugar beets, alfalfa, canola, and corn, due to their promiscuity in the environment. Deregulating such crops without restrictions, as per USDA's existing policy, directly compromises the ability of farmers to grow non-GE varieties of those crops.

This is troubling news for organic and other non-GE farmers. Without USDA-imposed restrictions and limitations on GE technology, organic and conventional growers remain largely unprotected from contamination by GE crops that have been deregulated and commercially grown. This lack of protection ensues even despite the good faith efforts, time, and money organic and other non-GE farmers expend to prevent contamination, which include creating buffer strips, wind breaks, hedgerows, temporal and spatial isolation of their crops, identity preservation programs, and expensive tests to identify and eliminate sources of GE contamination. A recent survey of organic grain producers estimated that the median cost for contamination prevention measures was in the range of \$6,532 to \$8,500 annually.¹⁷ Non-GE conventional and especially organic growers already bear a substantial financial burden to protect their crops from transgenic contamination, with questionable results.¹⁸

Many markets around the world today demand food grown without the use of GE technology. GE contaminated seed and crops cannot be sold in countries that do not permit their use, regardless of how they are grown. Even if farmers strictly adhere to crop management protocols such as those required in the organic standards, GE contaminated crops still cannot be sold in countries that prohibit GE food. Thus, despite USDA's responsibility to enhance U.S. agriculture markets at home and abroad,¹⁹ its policy and practice of permitting the unrestricted growing of GE crops, once they are deregulated threatens to increasingly cut off valuable export markets.

It is also important to emphasize that transgenic contamination does not solely result in economic or market harm that, to some degree, may be remedied by monetary compensation. For many organic growers, their production systems are forged over time and linked by personal bonds of trust throughout the supply chain, from growers to brokers to food companies and retailers. This is something infinitely valuable and challenging to quantify. Once the trust is broken between business associates, it is difficult if not impossible to restore. Other social harms that can accrue to non-GE farmers include loss of chosen livelihood, reputation, and community standing. Contamination can severely curtail or eliminate the rights of farmers to sow the crop of their choice and to practice their preferred method of farming. It may also limit their ability to collect and preserve non-GE, identity preserved, and organic seeds. Contamination can cause inestimable environmental harm as well, as transgenes pollute native ecosystems and curtail biodiversity in the vicinity of farms, all of which are irreparable. These losses are personally devastating to farmers and largely unquantifiable. For organic

¹⁶ Watrud, L.S., E.H. Lee, A. Fairbrother, C. Burdick, J.R. Reichman, M. Bollman, M. Storm, G. King, & P.K. Van de Water. 2004. Evidence for landscape-level, pollen-mediated gene flow from genetically modified creeping bentgrass with CP4 EPSPS as a marker. *Proceedings of the National Academy of Scientists of the USA*, 101(40): 14533-14538.

¹⁷ Median costs associated with buffer strips, delayed planting, testing, and other measures; Food and Water Watch. 2014.

¹⁸ Food and Water Watch. 2014.

¹⁹ 7 U.S.C. § 7701(1), (3), (6).

farmers, GE contamination could result in reduced consumer confidence in the integrity of that organic crop, organic food in general, and in the USDA organic seal.

Contamination Episodes Abound

Approximately 400 transgenic contamination episodes have been documented over the past decade, many of which have triggered the rejection of shipments by grain elevators, food companies, and other countries, according to a worldwide registry of reported contamination events.²⁰ Crops that have been found to be GE-contaminated in the US include corn, rice, cotton, canola, tomato, soy, papaya, wheat, and grass. In 2005, USDA's Office of Inspector General reported that poor government monitoring and oversight of experimental GE field trials resulted in the failure of GE crops to be destroyed in a timely manner, creating the potential for animals, birds, and even people to carry unapproved seeds and food crops away from the trial fields.²¹ A 2008 Government Accountability Office report acknowledged that multiple, unauthorized releases of GE crops into food, animal feed, and the environment have occurred. Its authors further warned that "it is likely that such incidents will occur again."²² Even so, USDA still refuses to: 1. monitor the impacts of GE contamination, 2. deny petitions to deregulate promiscuous crops, and 3. take meaningful steps to prevent contamination, which has resulted in hundreds of millions of dollars worth of damage to non-GE market exports from the US, as described in the examples below.

StarLink Corn Contamination Episode

One of the most poignant examples of GE contamination is the StarLink corn case. First commercialized in the US in 1998, StarLink corn was not initially approved for human consumption, due to concerns about its potential allergenicity. Instead, it was intended to be limited for use only in animal feed and for industrial purposes with planting, seed storage, post-harvest, and handling segregation restrictions required by the US Environmental Protection Agency.²³ Nonetheless, StarLink corn cross-pollinated with other types of corn, causing millions of people to eat unapproved GE food in the form of popcorn, sweet corn, and white corn. Subsequently, many US and foreign food manufacturers stopped using US corn in their products and US corn prices dramatically declined. The extent of the StarLink contamination was so vast that by 2000, half of Iowa's cornfields showed at least a trace of contamination, despite the fact that StarLink had been planted on only 1% of the state's fields.²⁴ Contamination of the nation's food supply caused the recall of tens of millions of supermarket

²⁰ Greenpeace and GeneWatch UK, 2013. "GM Contamination Register."

Available at: <http://www.gmcontaminationregister.org/>

²¹ USDA Office of Inspector General Southwest Region. 2005. "Audit Report: Animal and Plant Health Inspection Service Controls Over Issuance of Genetically Engineered Organism Release Permits." Audit 50601-8-TE, December. Available at: <http://www.usda.gov/oig/webdocs/50601-08-TE.pdf>

²² GAO. 2008. "Genetically Engineered Crops: Agencies are Proposing Changes to Improve Oversight, but Could Take Additional Steps to Enhance Coordination and Monitoring." Report to the Committee on Agriculture, Nutrition, and Forestry, US Senate, November. Page 1.

²³ Beebe, L. 2004. "In re StarLink Corn: The Link Between Genetically Damaged Crops and an Inadequate Regulatory Framework for Biotechnology." 28 *William & Mary Environmental Law & Policy Review* 511. Available at: <http://scholarship.law.wm.edu/wmelpr/vol28/iss2/9>.

²⁴ CropChoice. 2001. "Organic crop certifiers decry transgenic contamination." May 1. Available at: <http://www.cropchoice.com/leadstrya16a.html?recid=310>.

items. Due to the loss of foreign markets from the contamination event, in 2003 a group of farmers were awarded a \$110 million settlement.²⁵

LibertyLink Rice Contamination Episode

In 2006, Bayer CropScience's unapproved and experimental GE LibertyLink Rice 601 and 604 contaminated US long grain rice supplies, causing economic damages of over \$1 billion and putting the US rice export market in jeopardy.²⁶ Contamination affected over 40% of US rice supplies and resulted in multiple federal lawsuits. Following the announcement of contamination, Japan banned all long-grain rice imports from the US. Trade with the EU and other countries ground to a halt. In 2011, Bayer and its global affiliates agreed to pay US rice farmers \$750 million in damages to settle legal actions over the contamination of the nation's rice crop by their GE LibertyLink rice. Eventually, USDA quietly approved the GE rice as a way to sweep the contamination of rice by an unregulated transgene under the rug.²⁷ In USDA's "Report of LibertyLink Rice Incidents 1" the Agency admits that, "even with proper procedures it may be impossible to prevent contamination in conventional seeds and grains."²⁸

Roundup Ready Alfalfa Contamination Episode

In 2013, a Washington State farmer reported that his non-GE alfalfa hay was rejected for export when it tested positive for contamination from Monsanto's line of GE herbicide-resistant alfalfa.²⁹ Roundup Ready alfalfa is the first genetically engineered perennial crop, meaning it has the potential to spread GE pollen from the same crop for multiple years. Because it is pollinated by bees, genes from engineered alfalfa can be carried miles from its source, making it likely to contaminate wild and non-GE alfalfa varieties.³⁰ Alfalfa is the fourth-most widely grown field crop in the US and a key feedstock for dairy cattle.³¹ USDA's own analysis concluded that unless restricted, GE alfalfa "would contaminate natural alfalfa, causing the loss of US [export] markets, as well as dramatically increase pesticide use and drive the rise of Roundup-resistant superweeds."³² Despite this conclusion and the government's recommendation to limit planting to restricted zones, the agency approved the crop without protections in 2011.³³ Just two years later, contamination of non-GE crops in Washington has

²⁵ Elias, P. 2003. "Biotech Firms Settle Starlink Lawsuit." *Associated Press*. February 6. Available at: http://www.theintelligencer.com/archives/article_de221432-0a53-5046-93d9-a0275280372c.html

²⁶ GAO. 2008.

²⁷ Center for Food Safety. nd. USDA to Rubber-Stamp Contamination of Food with Illegal, Genetically Engineered Rice Banned in Japan and Europe. Available at: <http://www.centerforfoodsafety.org/issues/680/ge-animals/press-releases/886/usda-to-rubber-stamp-contamination-of-food-with-illegal-genetically-engineered-rice-banned-in-japan-and-europe>.

²⁸ USDA. 2007. "Report of Liberty Link Rice Incidents 1." Available at: www.aphis.usda.gov/newsroom/content/2007/10/content/printable/RiceReport10-2007.pdf

²⁹ Gillam, C. 2013. "Exclusive: Washington state testing alfalfa for GMO contamination." *Reuters*. September 11. Available at: <http://www.reuters.com/article/2013/09/11/us-usa-alfalfa-gmo-idUSBRE98A16H20130911>; Beans, L. 2013. "GE Contamination Found in Washington Alfalfa." *EconNews*. September 12, Available at: <http://ecowatch.com/2013/09/12/ge-contamination-found-in-alfalfa/>.

³⁰ Beans, L. 2013.

³¹ Gillam, C. 2013. "Exclusive: Washington state testing alfalfa for GMO contamination."

³² Larsen, L. 2013. "GE Alfalfa Contamination Reported in Washington State." *Food Poisoning Bulletin*. September 13. Available at: <http://foodpoisoningbulletin.com/2013/ge-alfalfa-contamination-reported-in-washington-state/>

³³ Biron, C.L. 2013. "U.S. Report of GE Alfalfa Contamination Was 'Inevitable'." *Inter Press Service*. September 13. Available at: <http://www.ipsnews.net/2013/09/u-s-report-of-ge-alfalfa-contamination-was-inevitable/>

highlighted the threats GE contamination of alfalfa crops poses for US export markets, valued at nearly \$1.3 billion.³⁴ Due to the recent nature of the event, the extent of contamination of Washington farms and its effects on non-GE markets remains unknown. However, USDA's 2010 impact assessment acknowledged that the presence of glyphosate-tolerant alfalfa could result in substantial costs and burdens for non-GE producers exporting to major markets.³⁵

US alfalfa is primarily shipped to countries like Japan, Korea, China, and Saudi Arabia all of which prohibit and/or require labeling of GE foods.³⁶ Washington State is one of the largest producers of alfalfa for export, and major export companies in the region, such as ACX Pacific, will not accept any GE crops because of opposition from foreign buyers.³⁷ In a surprising response, the USDA inappropriately announced that the contaminated alfalfa was a "commercial issue" that should be addressed by the marketplace and not the government.³⁸

Roundup Ready Wheat Contamination Episode

Between 1998 and 2005, Monsanto tested its strain of herbicide-tolerant wheat in fields across 16 states. Following massive opposition, Monsanto withdrew its application for approval and the wheat was never commercialized. Eight years later, in 2013, US authorities confirmed contamination from Monsanto's GE wheat in Oregon.³⁹ An eastern Oregon farmer had sprayed glyphosate in preparation for planting and to his surprise he found clumps of wheat leftover from the previous year's crop. Tests conducted by Oregon State University scientists confirmed that the grain was glyphosate-resistant, GE wheat, which had not been approved by USDA.⁴⁰ This caused wheat export futures to sink, severely impacting trade and other US wheat farmers.⁴¹ Oregon exports 90 percent of its wheat crop, and while it has not been shown that GE wheat entered commerce, extensive testing has been required.⁴² Wheat growers were impacted immediately by temporary holds on exports,⁴³ and major markets such as Japan, Korea, and Taiwan postponed imports of US white wheat until tests could conclude GE export

³⁴ Beans, L. September 12, 2013. "GE Contamination Found in Washington Alfalfa." *EconNews*.
<http://ecowatch.com/2013/09/12/ge-contamination-found-in-alfalfa/>

³⁵ United States Department of Agriculture. December 2010. "Glyphosate-Tolerant Alfalfa Events J101 and J163: Request for Nonregulated Status." *Final Environmental Impact Statement*. R-10.
http://www.aphis.usda.gov/biotechnology/downloads/alfalfa/gt_alfalfa%20_feis.pdf

³⁶ Beans, L. 2013.

³⁷ Gillam, C. 2013. "Exclusive: Washington state testing alfalfa for GMO contamination."

³⁸ Gillam, C. 2013. "USDA will not take action in case of GMO alfalfa contamination." *Reuters*. September 17. Available at:
<http://www.reuters.com/article/2013/09/17/usa-alfalfa-gmo-idUSL2N0HD1SQ20130917>.

³⁹ Cotter, J. & E. Darier. 2013. "GE Wheat Controversy: Further Proof GE Crops are Uncontrollable." *EcoNews*. May 31. Available at: <http://ecowatch.com/2013/05/31/ge-wheat-controversy-proof-ge-crops-uncontrollable/>.

⁴⁰ Charles, D. 2013. "In Oregon, The GMO Wheat Mystery Deepens." *NPR*. July 17. Available at:
<http://www.npr.org/blogs/thesalt/2013/07/17/202684064/in-oregon-the-gmo-wheat-mystery-deepens>.

⁴¹ Baum, J. 2013. "USDA GE Wheat Investigation Continues." *Farm Futures*. June 17. Available at:
<http://farmfutures.com/story-usda-ge-wheat-investigation-continues-0-99346>.

⁴² USDA. 2013. "Questions and Answers: USDA Investigating Detection of Positive Genetically Engineered (GE) Glyphosate-Resistant Wheat in Oregon." *Animal and Plant Health Inspection Service (APHIS) Biotechnology Regulatory Services Factsheet*. May. Available at: <http://www.agri-pulse.com/uploaded/Q-A-USDA-Wheat.pdf>.

⁴³ Rural Advancement Foundation International USA. 2013. "More than 150 Businesses, Groups Call for Improved Oversight of GE Field Trials, Meet with USDA Sec. Vilsack." *RAFI USA Blog*. August 21. Available at: <http://rafiusa.org/blog/groups-call-for-oversight-of-ge-field-trials/>.

crops had not been contaminated.⁴⁴ Customers demanded guarantees that products were free of GE materials, and farmers footed the bill for testing in order to relieve this concern and repair their credibility.⁴⁵

Roundup Ready Canola Contamination Episode (Australia)

In Australia, Monsanto's Roundup Ready canola has been fully approved for commercial cultivation in the state of Western Australia since January 2010. That state had allowed limited field trials only two years earlier. Before then, it had imposed a strict moratorium on GE canola.⁴⁶ In 2010, an organic farmer lost his organic certification on 70 percent of his land after GE canola seeds blew on his farm from his neighbor's field.⁴⁷ Australian Certified Organic has a zero tolerance policy for the presence of GE materials, stating: "Residues or cross-contamination of GMOs into certified crops or produce is prohibited. Such residues shall deem crops or produce uncertifiable."⁴⁸ The contaminated farmer estimates his financial losses from GE contamination at about US \$76,000. He has sued his neighbor for liability and the judge is expected to announce the decision in April.⁴⁹

Monsanto's glyphosate-resistant canola was approved at the national level for commercial cultivation in 2002, with the understanding that "industry initiatives have also been developed to facilitate segregation of GM [GE] from non-GM [GE] canola."⁵⁰ However, the license and stewardship agreement for GE canola requires maintaining only a 5-meter separation between GE and non-GE canola (a 400 meter buffer is required if the non-GE canola is to be saved for seed).⁵¹ While the GE canola farmer did not challenge the claim that his GE seed blew onto his neighbor's organic farm, he stated that he took all measures required of him for cultivating GE technology.⁵²

Pesticide Drift And Herbicide Resistant Weeds Enhance The GE Contamination Problem

GE agriculture creates injuries to organic and conventional growers that extend well beyond transgenic contamination. Increasing and widespread planting of GE glyphosate-resistant crops has resulted in a massive rise in mid-season use of glyphosate and serious damage from pesticide drift to neighboring

⁴⁴ USDA. 2013. "Statement on the Detection of Genetically Engineered Wheat in Oregon." *USDA Press Release No. 0127.13*. June 14. Available at:

<http://www.usda.gov/wps/portal/usda/usdahome?contentidonly=true&contentid=2013/06/0127.xml>.

⁴⁵ Rural Advancement Foundation International USA. 2013.

⁴⁶ Office of the Gene Technology Regulator. 2010. "Fact Sheet – GMOs approved for commercial release in Australia: GM Canola." *Australian Department of Health*. April. Available at:

<http://ogtr.gov.au/internet/ogtr/publishing.nsf/Content/factcanolaApr10-htm>.

⁴⁷ Coopes, A. 2014.

⁴⁸ Australian Certified Organic is an Australian organic certification organization; see: Australian Certified Organic. 2013. "Australian Certified Organic Standard 2013." 37.

⁴⁹ Australian Associated Press. 2014. "World-first GM case: Judge to take time on organic farm verdict." February 28.

<http://www.perthnow.com.au/news/western-australia/worldfirst-gm-case-judge-to-take-time-on-organic-farm-verdict/story-fnhocxo3-1226841218160>; Russia Today. 2014. "'World's first' farmer trial over GM crop contamination begins in Australia." *Russia Today*. February 10. Available at: <http://rt.com/news/gm-crop-contamination-australia-371/>.

⁵⁰ Office of the Gene Technology Regulator. 2003. "Joint Regulatory Decision On Monsanto GM Canola." *Media Release*. December 19. Available at: [http://ogtr.gov.au/internet/ogtr/publishing.nsf/Content/2003-1/\\$FILE/monsantocanola.pdf](http://ogtr.gov.au/internet/ogtr/publishing.nsf/Content/2003-1/$FILE/monsantocanola.pdf).

⁵¹ Western Australia Department of Agriculture and Food. 2012. "GM Canola: A Weed Management Option." Available at: http://www.pgaofwa.org.au/system/press_release/file/0000/0314/DAFWA_Factsheet_GM_Canola.pdf

⁵² Coopes, A. 2014.

growers. A 2012 assessment of USDA's pesticide use data found that an additional 404 million pounds of pesticides were sprayed on crops across the US as a result of the adoption of GE crops during the first 16 years of their use.⁵³ USDA's pending approval of Dow's 2,4-D-resistant corn raises additional farmer concerns about crop losses due to pesticide drift. 2,4-D tends to volatilize in the sun and drift onto neighboring fields, damaging crops, impacting livelihoods of non-GE farmers, and exposing communities to toxic pesticides. Some scientists estimate that the approval and widespread planting of the pending 2,4-D-resistant corn variety, alone, could trigger as much as a 30-fold increase in 2,4-D use on corn by the end of the decade.⁵⁴ Organic crops would be compromised by this approval because even a slight amount of drift can weaken and cripple organic plants, reducing their resiliency to such an extent that an entire crop would be wiped out. Some organic farmers are even considering moving away from areas where these crops would be grown because of the risk to their livelihood and health. (See link to video in footnote).⁵⁵ This is a far cry from the original promise and stated purpose of the biotechnology industry – to notably reduce pesticide use and to create a more environmentally friendly agricultural environment. In reality, the exact opposite is true.

The unregulated cultivation of GE crops, most of which are intended to be glyphosate-resistant, has also triggered an epidemic of glyphosate-resistant weeds. A three-year survey of glyphosate-resistant weeds in 31 states shows that 49% of farmers surveyed had glyphosate-resistant weeds on their farm in 2012, up from 34% in 2011.⁵⁶ Glyphosate-resistant weeds are rapidly expanding across the Midwest and Great Plains states where most corn and soybeans are grown, now infesting over 61 million acres of cropland.⁵⁷ More than ever before, farmers are reporting two or more resistant species on their farms.⁵⁸ These glyphosate-resistant weeds are stimulating an increase in the use of other and even more toxic herbicides in two ways. First, farmers are spraying highly toxic herbicide "cocktails" in an attempt to control extensive weed problems that are no longer responsive to glyphosate. Second, biotechnology companies have attempted to mitigate this problem by producing stacked varieties of GE seed that combine previously deregulated herbicide-resistant plant varieties with newly formulated varieties, all of which are designed to withstand multiple sprays of even more toxic chemicals such as 2,4-D and dicamba.

This is an extremely ineffective and inappropriate solution, especially since scientists early-on anticipated weed resistance problems associated with GE herbicide-tolerant crops that could have been avoided. But, in their rush to conquer worldwide seed markets, GE technology developers and regulators ignored weed resistance warnings. Now, the problem has become a reality as farmers face

⁵³ Benbrook, C. 2012. "Impacts of genetically engineered crops on pesticide use in the U.S. - the first sixteen years." *Environmental Sciences Europe*, 24:24. Available at: <http://www.enveurope.com/content/pdf/2190-4715-24-24.pdf>.

⁵⁴ Benbrook, C. 2012. "2,4-D Use on Corn: Historical Trends and Likely Upper End Reliance in 2019 With and Without Herbicide-Tolerant (HT) 2,4-D Corn." from presentation entitled: *The Good, the Bad, and the Ugly: Impacts of GE Crops in the United States*, presented at the conference Pesticides: Domestic and International Perspectives from Science, Law, and Governance, National Academy of Sciences Beckman Center, Irvine, California. April 12.

⁵⁵ Podell, T. & D. Podell. 2014. Presentation at *Midwest Organic & Sustainable Education Services Organic Farming Conference*. February 28. Available at: <https://www.youtube.com/watch?v=JKh4KLbwSqM&feature=share>.

⁵⁶ Stratus Ag Research. 2013. "Glyphosate Resistant Weeds – Intensifying." January 25. Available at: <http://www.stratusresearch.com/blog/glyphosate-resistant-weeds-intensifying/>.

⁵⁷ Stratus Ag Research. 2013.

⁵⁸ Stratus Ag Research. 2013.

an elevation in herbicide-resistant weeds in many regions. The current trend of sharply increasing herbicide use, due to an epidemic in emergence of glyphosate-resistant weeds, will continue its upward spiral in concert with the introduction of new GE crops designed to be resistant to an ever-increasing list of more toxic and persistent herbicides. In less than a decade, GE crops have created intractable weed resistance problems that require conventional agricultural systems to use more and more pesticides, most of which are toxic to human and environmental health. The costs of herbicide-resistant weeds could be avoided or greatly lessened, however, with the use of sustainable integrated weed management techniques that emphasize non-herbicidal tactics, such as those used by organic farmers, making the continued viability of organic all the more important.

Conclusion: Coexistence Is Not GE Contamination Prevention

USDA's "coexistence through education and collaboration" policy makes no sense in the real world. It neglects to address the contamination risks that organic and other non-GE farmers face when GE crops are approved in the absence of any ongoing regulation. Center for Food Safety strongly opposes this policy, which allows GE crops and seed to seep into our food supply, without our knowledge or consent, under the guise of "coexistence," and despite widespread public opposition to this practice.⁵⁹

Developing mandatory, nationwide GE contamination prevention measures is critical not only to stopping GE gene flow and protecting markets and livelihoods, but also to preserving the future success of all types of US agriculture (see Appendix). Failing this, our nation risks the demise of crop biodiversity and food security by increasing the concentration of our nation's food resources in the hands of a few biotechnology seed and agrichemical companies. Since private corporations are neither accountable to the public nor mandated to operate in the public's best interest, as their control over our nation's food supply rises, farm system diversity and agricultural opportunities decline. This certainly is not our hope for the future of agriculture or for future generations.

Center for Food Safety strongly opposes any policy or government regulation that places an additional financial burden on organic, IP, and conventional growers who are the victims of GE contamination through no fault of their own. Currently, the entire burden for preventing and responding to GE contamination rests with those who neither use nor benefit from GE technologies. If contamination is suspected, farmers must undertake costly tests to identify the presence of a GE trait, to assess the extent and source of contamination, and to try and eliminate it. Once contamination occurs, no compensation mechanism exists for farmers to receive payments from liable parties for testing costs, to recover damages, to eliminate the source of contamination or to clean GE contamination from their fields and seeds.

Liability for damage compensation must rest with GE patent holders and not with the farmers who choose to avoid using GE technology and products. Patent holders must be held liable to pay for the full range of agronomic, economic, environmental, and social losses, including restitution costs that

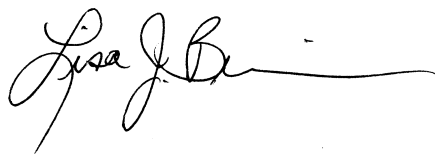
⁵⁹ The Mellman Group. 2012. "Support for Mandatory Labeling of Genetically Engineered Foods is Nearly Unanimous. Survey Results." Available at: <http://justlabelit.org/wp-content/uploads/2012/01/Mellman-Survey-Results.pdf>; Consumer Reports National Research Center. 2008. "Food-Labeling Poll 2008." Available at: <http://www.greenerchoices.org/pdf/foodpoll2008.pdf>.

result from contamination. The AC21 final report fails to address these issues of critical concern to farmers and so does the Federal Register notice that solicited these public comments.

We call upon USDA to immediately establish a moratorium on the deregulation of any new GE crops, unless and until an adequate body of scientific evidence is available and well-established to demonstrate that GE contamination can be prevented. This will help ensure that those who choose not to use GE technology can freely do so without the threat of contamination or suffering market and livelihood losses. For crops already in unrestricted commercial production, we call upon USDA to immediately determine and mandate best management practices to mitigate GE contamination and to establish liability mechanisms, assigned to the patent holder, to address associated harms to organic and other non-GE growers. This will assure farmers that USDA is true to its mission of supporting fair farming for all and organic consumers that the government is receptive to their desire to eat food free from GE contaminants.

Thank you for consideration of our comments.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Lisa J. Bunin", with a long horizontal flourish extending to the right.

Lisa J. Bunin, Ph.D.
Organic Policy Director

Appendix

Center for Food Safety's Recommendations for GE Contamination Prevention

CFS calls on USDA to implement the agency's full authority under the Plant Protection Act (PPA) rather than continue to use outdated regulations that pre-date the PPA of 2000. USDA has the authority to regulate transgenic contamination pursuant to its even outdated regulations on plant pest risks. However, the Plant Protection Act of 2000 provides APHIS with even broader regulatory authority. For example, the statute defines a noxious weed harm, over which USDA has authority under the PPA, as "any plant or plant product that can directly or *indirectly* injure or cause damage to crops, livestock, poultry, or *other interests of agriculture*, irrigation, navigation, the natural resources of the US, the public health, or the environment" (emphases added). Unquestionably, based upon this language, USDA has robust statutory authority to prevent the economic and environmental harm posed by GE crops.

CFS calls upon the USDA to institute an immediate moratorium on the approval and planting of new GE crops unless and until the contamination of organic and non-GE conventional crops can be scientifically proven to be preventable and until mandatory practices are put into place by all farmers who use GE seed, nationwide. In the meantime, CFS calls upon USDA to take the following actions in support of our country's diverse farming systems all across the US:

1. Require ongoing government oversight of GE crop plantings and the monitoring of gene flow, weed resistance, and seed contamination.
2. Monitor changes in pesticide use and toxicity from the planting of existing deregulated GE crops to provide a basis for ascertaining the health and environmental effects of increasing GE crop production across the US.
3. Establish a set of mandated best practices to prevent GE contamination by all farmers who use GE technologies and require GE farmers to institute concrete contamination prevention measures on their farms to supplement those already being used by organic growers.
4. Immediately create a GE contamination registry so that USDA can track and eliminate known sources of GE contamination across the supply chain and so that non-contaminated foundational seeds not only remain a source of our national heritage but also can also be used for public plant breeding in perpetuity.
5. Establish a mechanism for holding GE seed patent holders liable for GE contamination elimination, economic damages from lost markets, and restitution for adverse livelihood impacts.
6. Reject applications to grow promiscuous GE crops that cannot be contained as is already the case with alfalfa, sugar beets, canola, and corn.

7. Explore options and initiate immediate, mandatory action to prevent further GE contamination of our nation's seed supply.
8. Conduct or contract research on the extent of contamination in the commercial, non-GE seed supply, monitor gene flow, and create and implement a plan to maintain the purity of publicly held germplasm.
9. Work with and fund Land Grant Universities to help ensure an adequate supply of improved non-GE seed that meets the diverse and regional needs of farmers in the event of a GE crop failures and/or a contamination event.
10. Discard the proposal to issue crop insurance to those farmers and food companies penalized by GE contamination as the solution to GE contamination. Instead, establish a liability regime whereby the patent holder pays compensation for GE contamination, lost markets, reputation, partnerships and recertification of organic ground and products.