



# THE CENTER FOR FOOD SAFETY

In 2006, the Center for Food Safety (CFS) sued the Department of Agriculture (USDA) for its illegal approval of Monsanto's genetically engineered (GE) Roundup Ready alfalfa. USDA failed to conduct an environmental impact statement (EIS) before deregulating the crop, as required by law. An EIS is a rigorous analysis of the potential significant impacts of a federal decision on the environment, farmers, and the public. The federal courts sided with CFS and banned the planting of GE alfalfa until the USDA fully analyzed these impacts.

**USDA released its draft EIS on December 14, 2009. A 60-day comment period is now open until February 16, 2010.** CFS has begun analyzing the EIS and it is clear that the USDA has not taken the concerns of non-GE alfalfa farmers, dairies, exporters, retailers or consumers seriously. USDA's preliminary determination is to once again deregulate GE alfalfa without any limitations or protections for farmers, GE-sensitive markets, and farmers' right to sow the crop of their choice.

**Review the draft EIS here:** [http://www.aphis.usda.gov/biotechnology/downloads/alfalfa/gealfalfa\\_deis.pdf](http://www.aphis.usda.gov/biotechnology/downloads/alfalfa/gealfalfa_deis.pdf)

**Review Supplemental documents here:** [http://www.aphis.usda.gov/biotechnology/alfalfa\\_documents.shtml](http://www.aphis.usda.gov/biotechnology/alfalfa_documents.shtml)

CFS is spearheading a campaign to ensure that all affected parties have an opportunity to submit public comments. This is the first time the USDA has done this analysis for any GE crop. Therefore, the final USDA decision on the planting of GE alfalfa will have broad implications for all GE crops and far-reaching negative consequences for American agriculture.

The judge who ordered this EIS clearly stated that USDA needed to analyze "real-world" alfalfa farming, and not base its analysis on "ideal-world" conditions where alfalfa hay is always cut before it goes to flower, RR alfalfa farmers always follow Monsanto-FGI guidelines, feral RR alfalfa is always controlled, etc. In short, the judge ordered USDA to take account of the waywardness of Mother Nature and human nature, which the USDA failed to do in the EIS.

Instead, USDA relied heavily on Monsanto and a handful of pro-Roundup Ready alfalfa farmers and academics in writing this EIS, which is strongly biased in their favor and against conventional and organic growers. Consequently, the EIS shows little on-the-ground understanding of alfalfa farming or alfalfa markets. We urge you to write to the USDA and explain the realities of the situation, describing all the ways in which the deregulation of RR alfalfa will impact you, and drawing upon your concrete knowledge of alfalfa farming, seed production, and markets. **Be specific.** Below, we give some suggested talking points to help you prepare your comments.

**1. USDA's basic mission is "protecting American agriculture" and they say they support the "coexistence" of all types of agriculture, yet will not consider any future for alfalfa that would include protections from contamination for organic and conventional farmers and exporters.**

**In the EIS, USDA *refused to even consider any options that might protect organic and conventional agriculture from contamination* and the resulting loss of markets and farmers' ability to sow the crop of their choice. USDA has the authority to approve (deregulate) GE crops in whole or in part. Partial approval could include use restrictions, geographic limitations or planting isolation distances. Yet, in the EIS, USDA analyzed only two options: 1) Full approval, allowing GE alfalfa to be grown and sold without restriction like any other crop; and 2) No action, meaning GE alfalfa could only be grown under USDA permit, as is the case at present. This "all or nothing" approach leaves un-analyzed any potential options to protect farmers.**

***\*\*Tell USDA to protect all farmers, not just Monsanto's contracted farmers who plant its patented crops.***

**USDA says contamination of hay fields is not an issue, because alfalfa is "typically" harvested before 10% of plants reach full flower (EIS, p. 100).**

***\*\*Tell USDA about the practices and realities of alfalfa hay harvesting in your area.*** How often do alfalfa hay fields go to flower? What about in "non-typical" situations, like bad weather delaying the harvest, where even more plants flower? How much GE contamination will occur if even 10% of an RR alfalfa field flowered?

**USDA maintains that avoiding GE contamination is *your* responsibility and assumes that it is easy.** They say that all you have to do is change *your* planting and harvest schedules to "avoid simultaneous flowering" with RR alfalfa in your neighbor's field, and "disallow or remove commercial beekeepers' hives anywhere near your alfalfa field." (EIS p. 102) Is this feasible? Will such measures prevent contamination?

***\*\*Tell USDA that protecting ALL farmers is its job, and so is protecting farmers who choose to grow non-GE crops.***

**2. USDA claims that buffer zones are unnecessary for RR alfalfa, seed or hay. They say that Monsanto's seed contracts require measures sufficient to prevent GE contamination, and that there is no evidence to the contrary.**

**Even if growers do follow the guidelines, will this prevent contamination of seed?** In the lawsuit requiring the EIS, the Court found that GE contamination *had already occurred* in the fields of several Western states with these same business-as-usual practices in place!

***\*\*Based on your experience, explain how likely it is that RR alfalfa seed growers will follow these guidelines.*** Describe past cases where they haven't. Describe any contamination incidents that you know of in your area.

**USDA dismisses the potential for RR alfalfa to cross-pollinate feral alfalfa, or RR alfalfa volunteers to escape and establish feral populations (EIS, p. 98-99).** In either case, this feral RR alfalfa can serve as a bridge for transferring the RR trait back to conventional alfalfa in later years. The EIS states that if such feral RR alfalfa does arise, it can be controlled with non-glyphosate herbicide. *USDA expects you to control this RR feral alfalfa.*

***\*\*Tell USDA about feral alfalfa in your area, how it arises, and describe all the problems feral RR alfalfa will cause for you.*** How much will it cost you, in time and money?

**The EIS itself acknowledges that GE contamination may happen** and includes studies that honey bees forage at distances over 6 miles, and Alkali bees at 4-5 miles from their hives.<sup>1</sup> This means that GE contamination can occur with isolation distances much greater than those recommended under Monsanto's "best practices."

**There is mounting evidence that biological contamination threatens the U.S. agricultural economy.**

A recent 2008 US Government Accountability Office (GAO) Report documents six events of GE crops contaminating the food and feed supply, including the:

- 2000 StarLink Corn incident, causing \$26 to \$288 million in economic damages;
- 2002 Prodigene Corn incident where a GE corn designed to create a pig vaccine protein contaminated non-GE corn;
- 2004 Syngenta Bt Corn never approved for commercial use was illegally sold for several years and planted on 37,000 acres;
- 2006 Event 32 Corn incident where 72,000 acres were planted with an unapproved GE pesticidal corn; and
- 2006 Liberty Link Rice 601 and 604 episodes where unapproved GE rice contaminated export rice stocks.

Such contamination events are not isolated incidents, as many biotechnology proponents argue. Rather, as the GAO explained, "the ease with which genetic material from crops can be spread makes future releases likely."<sup>2</sup>

***\*\*Tell USDA That Relying Solely on Monsanto's Business as Usual "Best Practices" Will Undoubtedly Cause Widespread GE Contamination.***

**3. USDA concludes that GE alfalfa will cause production to shift to larger farms but that these economic shifts are "not significant."**

Small, family farmers are the backbone and future of American agriculture and must be protected. Thousands of small, family farmers are under extreme economic pressure and are pushed off their land each year.<sup>3</sup> The very existence of the family farm is at risk and a shift in production from small farms to larger farms in the nation's fourth-largest crop substantially increases that risk.

Organic agriculture provides many benefits to society: healthy foods for consumers, economic opportunities for family farmers and urban and rural communities, and a farming system that improves the quality of the environment. However, the continued vitality of this sector is imperiled by the complete absence of measures to protect organic production systems from GE contamination and subsequent environmental, consumer, and economic losses.

***\*\*Tell USDA That Harm to Small Farmers and Organic Farmers IS Significant and Must be Protected Against***

**4. USDA predicts that export markets for alfalfa will be lost, yet again does not consider this impact significant nor offer any possible means to prevent it.**

The majority of alfalfa seed exports go to Saudi Arabia and the majority of alfalfa hay exports go to Japan and South Korea, all of which will reject GE-contaminated seed and hay, causing significant harm to the export industry. The Liberty Link rice incident resulted in *economic damages of over \$1 billion* and should be a lesson.<sup>4</sup> ***\*\*Tell USDA That Harm to Exports Is Significant and Must Be Protected Against.***

5. In the case that ordered the EIS, the judge criticized USDA for not considering the potential for RR alfalfa to worsen the glyphosate-resistant weed problem that we see in other RR crops like soybeans, cotton, and corn. He said that it was “unclear from the record whether any federal agency is considering the impact of the introduction of so many glyphosate resistant crops; one would expect that some federal agency is considering whether there is some risk to engineering all of America’s crops to include the gene that confers resistance to glyphosate.”

The great majority of GE crops grown today are Roundup Ready, and their widespread introduction has vastly increased Roundup use and fostered an epidemic of Roundup-resistant weeds. To kill Roundup-resistant weeds requires higher doses of Roundup, often in combination with other toxic herbicides. Over the past 13 years, Roundup Ready crops have *significantly* increased overall herbicide use on corn, soybeans and cotton - by 383 million pounds<sup>5</sup> - and Roundup Ready alfalfa will only make matters worse.

***\*\*Tell USDA about any difficulties you or your neighbors have controlling weeds with glyphosate in alfalfa or any other crop.*** Which weeds are resistant? How do you control them? With increased doses of glyphosate or more applications? Do you use other herbicides? Which ones? Are resistant weeds getting worse? Describe trends. Be specific, and use numbers and estimates whenever possible to underscore your point.

Rotating RR alfalfa with RR corn, soybeans or cotton will accelerate the development of glyphosate-resistant weeds through frequent, repeated use of glyphosate.

***\*\* Tell USDA That Roundup Resistant Super Weeds Will Develop, They Are Significant, and Farmers Must Be Protected Against Their Spread to Farmers’ Fields.*** Do you and other alfalfa growers in your area grow other crops? Which ones? Any RR crops? If RR alfalfa is introduced, will there be many RR alfalfa growers rotating to RR soybeans, corn, etc.?

**Throughout the EIS, USDA assumes that all conventional alfalfa growers regularly use large quantities of herbicides.** USDA argues that RR alfalfa is environmentally friendly because it will lead to Roundup replacing more toxic herbicides (EIS, pp. 120-21). If you’re like most alfalfa growers (especially hay), you use little or no herbicide. This means that RR alfalfa will increase Roundup use *without* significantly displacing other herbicides. USDA also admits that RR alfalfa will require 2,4-D, dicamba, clopyralid, or picloram for taking out old stands (EIS, App. N, p. N-109).

***\*\*Tell USDA That GE Alfalfa Would Significantly Increase Pesticide Use, Harming Human Health and the Environment.***

- Tell USDA how you grow healthy, vigorous stands without herbicides like Arrow, Firestorm, diuron, Velpar, Raptor, Pursuit, Poast or Treflan (EIS, p. 121).
- To what extent will RR alfalfa increase use of toxic non-Roundup herbicides? How will that impact you, your crop, your health, your environment?
- A lot of growers have experienced crop damage from spray drift (e.g. glyphosate, dicamba, 2,4-D). Does glyphosate use with RR alfalfa threaten you and your crop (especially applied by plane)? How much do you stand to lose?

**6. USDA claims that there are no regional or geographic specific risk differences as a result of Roundup Ready Alfalfa use and, thus, the agency need not even consider region-specific protections.**

**\*\*Tell USDA that There ARE Regional and Geographic-specific Risks from Roundup Ready Alfalfa:**

Describe in detail the region and/or market specific risks you face.

**7. USDA concludes that there will be an increased concentration and dominance of GE alfalfa in the market** (EIS, p.177). Commercialization of GE corn, soybeans and cotton varieties has diminished farmers' choices in seeds, has resulted in historic increases in seed prices and has led to the loss of more than 200 independent seed companies. These developments have significant implications for the alfalfa industry.

**\*\*Tell USDA That Seed Market Concentration Is Significant:**

- Marketing programs of major biotech seed companies have forced farmers to utilize seed varieties "stacked" with multiple traits while removing lower cost, conventional or single-trait GE varieties from the marketplace.
- Concentration in the seed industry has resulted in a 30% increase corn seed prices and a 25% increase in soybean seed prices between 2008 and 2009. Monsanto has announced a 42% increase in 2010 for its second generation (RR2Y) soybeans commercialized in 2009 and has plans to remove its first generation, lower cost soybean varieties from the marketplace.
- The cost of research and development of new seed varieties and the extensive use of restrictive licensing agreements in patented seeds and germplasm has limited researcher access to genetic material and made the costs of seed development prohibitive, leading to a significant loss of independent seed companies.

**Comments are due February 16, 2010.** For written, mailed comments please send two copies of your comment to Docket No. APHIS-2007-0044, Regulatory Analysis and Development, PPD, APHIS, Station 3A-03.8, 4700 River Road Unit 118, Riverdale, MD 20737-1238. Please state at the top of your comments that they refer to Docket No. APHIS-2007-0044.

**Comments can also be filed online at:**

<http://www.regulations.gov/search/Regs/home.html#submitComment?R=0900006480a6b7a1>

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<sup>1</sup> United States Department of Agriculture. Glyphosate-Tolerant Alfalfa Events J101 and J163: Request for Nonregulated Status. Draft Environmental Impact Statement—November 2009. P.95.

<sup>2</sup> Id.

<sup>3</sup> Farm Aid, Family Farmers, 2007 at [http://www.farmaid.org/site/c.qII5IhNVJsE/b.2750749/k.89E0/Family\\_Farmers.htm](http://www.farmaid.org/site/c.qII5IhNVJsE/b.2750749/k.89E0/Family_Farmers.htm)

<sup>4</sup> 2008 GAO (2008)Report at 3. 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, U.S. Senate - November, 2008.

<sup>5</sup> <http://truefoodnow.org/2009/11/17/new-report-reveals-dramatic-rise-in-pesticide-use-on-genetically-engineered-ge-crops-due-to-the-spread-of-resistant-weeds/>