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Fact Sheet

Genetically Engineered Alfalfa

Alfalfa is the fourth most widely grown crop in the U.S. and a fundamental source of livestock forage. It is a primary protein source for animals raised by livestock farmers.

- ❖ A group of farmers and their advocates, including The Cornucopia Institute, successfully sued the USDA, taking the case all the way to the Supreme Court of the United States, forcing the USDA to assess the environmental impacts of approving the nation's first perennial genetically engineered crop.
- ❖ The USDA's [Final Environmental Impact Statement](#) on Monsanto's controversial Roundup Ready Alfalfa was released on December 16, 2010. In the document, the USDA proposes three potential outcomes, but only two appear acceptable to the agency. USDA officials made clear to a select group of stakeholders on December 20 that they have rejected the first option – continuing regulation of Monsanto's genetically engineered product (designed to be resistant to the herbicide Roundup—a toxic poison which would normally kill plants like alfalfa).
- ❖ Instead, officials indicated they will approve full deregulation or some hybrid scheme with limited geographic restrictions on the planting of GE alfalfa in seed growing regions of the country (the greatest concerns are that the seed stock itself will be permanently contaminated). A final decision will be announced around January 24.
- ❖ Alfalfa is open-pollinated by bees and other insects. With bees traveling 4-6 miles, they can potentially spread Monsanto's patented, foreign DNA to distant conventional and organic crops. The potential for biological contamination from a neighbor's field, even miles away, threatens the livelihood of farmers, dairies and other livestock producers. This is of particular concern in seed growing regions of the country and will almost certainly lead to the loss of certifiably clean (non-GE) seed in the U.S. and probably Canada. And the seeds from genetically engineered alfalfa can be transported great distances when bales of hay are sold from farmer to farmer.
- ❖ As a perennial, it is very likely that genetically engineered "volunteers" will escape from farm fields and/or be scattered along roadsides from harvest and transport equipment. Escaped or feral plants will live on for multiple years producing GE pollen to contaminate non-GE alfalfa. This factor makes the buffer zones proposed grossly inadequate. Farmers who are unable to cut GE alfalfa before it blooms, and goes to seed, due to weather or

other factors also open the door to the accidental release of GE pollen into the environment.

- ❖ U.S. organic standards prohibit genetic engineering. Buffer strips and other devices required with annual GE crops are essentially useless for perennial GE alfalfa. Organic farmers will almost certainly be confronted with significantly contaminated domestically grown alfalfa seed, leaving unattractive choices. One choice is to cheat which will materially harm organic integrity and probably drive customers away from US certified, ruminant related products like milk, beef, lamb, etc. Another choice is to obtain all alfalfa seed from sources outside North America, probably at significantly higher costs if they are even available in sufficient quantity. A final option is to substitute other crops. Alfalfa is the queen of legume forages, especially for dairy. Alternatives such as clover and birdsfoot trifolium are not as productive and their use is no longer as well understood.
- ❖ Ninety percent of all the alfalfa seed sold in the US comes from 5-6 compact geographic areas ideal for growing the seed in the Pacific Northwest and Canada. Even with planting restrictions in these regions that may be placed on GE alfalfa, it is uncertain that this approach will prevent contamination in perpetuity.
- ❖ Export markets for conventional and organic alfalfa will likely be lost to those countries that don't want GE alfalfa forage or seeds. 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, potentially causing significant harm to the export industry. Many export buyers have opposed the approval of GE alfalfa and some say they will buy from other countries once alfalfa is widely grown here.
- ❖ The vitality of the \$25 billion organic industry is at risk. Consumers support organics because they want healthy foods, sustainability and economic opportunity for family farmers. How will they react to contamination of the organic dairy and beef sector, and honey, by genetically modified crops? Genetic engineering is prohibited in organics and organic consumers, as well as organic farmers, don't want it.
- ❖ The Cornucopia Institute joined the lawsuit, led by the Center for Food Safety, along with the Sierra Club and a broad coalition of farm and environmental groups and conventional seed farmers in suing the U.S. Dept of Agriculture for its earlier approval of GE Alfalfa despite the scientific and economic concerns noted above. The lawsuit forced the USDA to conduct an Environmental Impact Statement (EIS). The parties to the lawsuit have reserved the right to return to federal court and pursue additional legal remedies should the Final EIS be deemed inadequate.
- ❖ Monsanto's new product is designed to tolerate direct application of glyphosate, the active ingredient in Monsanto's Roundup herbicide. Eighty-three percent of U.S. alfalfa currently is grown with no herbicides at all. This will mean more chemical pollution and will increase farmers' dependency on chemical companies. Widespread planting of other Roundup Ready crop varieties has led to ever increasing herbicide use with weeds developing resistance as glyphosate is overused.

- ❖ Monsanto has aggressively pursued and successfully sued farmers raising crops containing residues of their company's proprietary genetic material alleging patent infringement. Many of these farmers have claimed that patented Monsanto genetics "trespassed" onto their farms and that they were unfairly persecuted, denying the giant corporations suggestions that they were illegally pirating their patented intellectual property (genetically engineered seed).