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Supreme Court, U.S.  
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IN THE  
**Supreme Court of the United States**

MONSANTO COMPANY, *et al.*,

*Petitioners,*

*v.*

GEERTSON SEED FARMS, *et al.*,

*Respondents.*

ON PETITION FOR A WRIT OF CERTIORARI TO THE  
UNITED STATES COURT OF APPEALS  
FOR THE NINTH CIRCUIT

**BRIEF OF *AMICUS CURIAE* PHYTAGRO, LLC  
IN SUPPORT OF PETITIONERS**

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## I. INTEREST OF AMICUS CURIAE<sup>1</sup>

San Diego based *Amicus Curiae* PhytaGro, LLC (“PhytaGro”) is an early stage agbiotech company developing novel technologies that improve the productivity and quality of alfalfa.

With the growth of bio-fuels and the demand for protein from emerging nations, in recent years grain prices have reached unprecedented levels, creating pressure on the meat and dairy industry. In the United States, the increased conversion of farms into pasture based systems is evident and requires improved varieties of forage based feeds. PhytaGro sees this as a significant opportunity for its first two product lines: (i) a glyphosate resistant alfalfa and (ii) a high metabolisable energy (ME) alfalfa. These products will improve the productivity and nutritional value of alfalfa beyond that of conventional varieties.

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1. Pursuant to this Court’s Rule 37.6, *amicus curiae* PhytaGro affirms that no counsel for any party has authored this brief in whole or in part, that no such counsel or party made a monetary contribution to fund the preparation or submission of this brief, and that no person other than *amicus curiae* and its counsel made such a monetary contribution. Pursuant to this Court’s Rule 37.2, counsel of record for both Petitioners and Respondent were notified of the intent to file this brief at least ten days prior to the filing of this brief, and the parties’ letters consenting to the filing of this brief have been filed with the Clerk’s office.

PhytaGro is a competitor of Petitioner Monsanto Co. (“Monsanto”). Like Monsanto, one of PhytaGro’s products under development will also render alfalfa plants resistant to glyphosate, or Roundup, as it is commonly known. Although the underlying technology is different from Monsanto’s, plants from both companies will contain genes which perform the same essential function, detoxifying Roundup.

Accordingly, PhytaGro has a keen interest in this case; the lower court’s injunction is a significant negative impediment for PhytaGro, a small emerging technology company seeking to bring further innovation to a major agricultural crop with significant implications for the animal feed business.<sup>2</sup> Notwithstanding the established safety and efficacy record of genetically modified (“GM”) corn, canola, cotton, sugar beets and soybeans (which are all sold in the United States and elsewhere with glyphosate resistance), the release of GM alfalfa has been unreasonably delayed to the detriment of the United States farmer and those who have invested in the development of the technology to make the alfalfa industry more productive and sustaining. For this and the reasons discussed below, PhytaGro supports Monsanto Co., et al.’s Petition for Certiorari.

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2. PhytaGro’s underlying technology is not sourced from Monsanto yet it will also confer Roundup resistance on alfalfa plants by detoxifying glyphosate.

## II. SUMMARY OF ARGUMENT

### A. Background of RR Alfalfa

This case involves a variety of alfalfa created to address the problems caused by weeds in alfalfa fields. Pet.App.126a-127a, 133a-134a. The alfalfa variety at issue has been genetically engineered to be resistant to Roundup, a broad-spectrum agricultural herbicide that controls nearly every type of weed in alfalfa crops. Pet.App.127a.<sup>3</sup> This alfalfa variety is known as Roundup Ready alfalfa (“RR alfalfa”). Because RR alfalfa is not harmed by Roundup, a farmer can use Roundup or a similar composition herbicide and eliminate weeds in their fields without harming the alfalfa. Pet.App.127a, 133a-134a.

Alfalfa stands are particularly prone to weed infestation. The ability to control weeds in alfalfa stands increases alfalfa productivity exponentially by removing weeds which typically compete with emerging alfalfa plants (thus also removing the need to overseed), increasing production and keeping stands clean over longer periods. Moreover, with RR alfalfa, the stand is more drought tolerant, farmers use fewer herbicides and generally lower their input costs of production. *See* Pet.App.121a-122a, 135a-136a, 239a.<sup>4</sup> The following chart shows the marked increase in alfalfa productivity for stands of RR Alfalfa as compared to stands of conventional alfalfa.

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3. Roundup’s active ingredient is glyphosate, which the Environmental Protection Agency (“EPA”) has found to be one of the most environmentally responsible herbicides available commercially. Pet.App.195a-205a. The gene for glyphosate resistance occurs naturally, but not in alfalfa. Pet.App.43a.

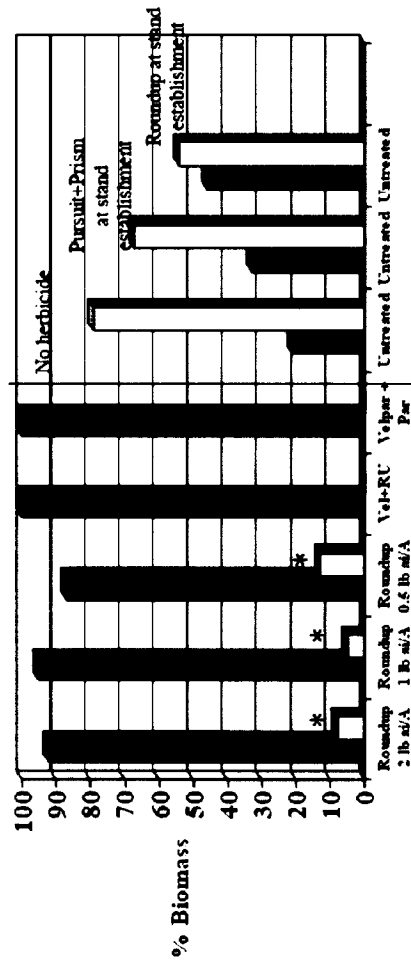
4. Monsanto charges a technology fee that equates to \$20/acre/annum. In the industry, farmers typically realize 2/3 of the value while paying 1/3 in fees. Therefore, the benefits of having RR alfalfa is estimated to be above \$40/acre/annum.

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# **Roundup Ready Alfalfa Trial** **Dormant Herbicide Treatments Harvest** **San Joaquin County 2003**

Mick Canevari UCCE Advisor

■ % Alfalfa □ % Weeds



\*Weeds in Roundup Treatments:  
 Burning nettle only

Weeds Unreated plots - Sowthistle, Canarygrass,  
 Chickweed, Burning nettle, Malva, Wild Radish



This case is not about an insignificant crop used for just “hay.” On the contrary, alfalfa is the fourth largest crop in the United States. *See* Sara Brown, *Alfalfa Takes a Stand*, *The Farm Journal*, December 11, 2007. Alfalfa is known as the “Queen of Forages” because it plays a critical role in feeding important livestock industries, particularly dairy and beef production. Globally, the world is experiencing a surge in demand for protein, driven by emerging third world economies which demand more protein as part of their diet instead of traditional carbohydrate-based diets. Increased United States exports of poultry, beef, pork and dairy are a consequence of this demand.

The alfalfa farmer also plays a role by providing a higher value feed for United States dairy and beef production, as well as for similar industries in countries which buy United States exports of alfalfa; for example, Canada, Mexico, Japan, Korea and Japan.<sup>5</sup> Notably, these markets have approved the importation of RR alfalfa from the United States. Access to high quality alfalfa is critical if these industries are to meet this demand and remain competitive. Increasing productivity in alfalfa production through technologies like Roundup resistance is a critical element of this effort.<sup>6</sup> In sum, RR alfalfa is a key

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5. Truth About Trade & Technology, *RR Alfalfa No Threat to Organic, Export Markets* (visited Nov. 22, 2009) <<http://www.truthabouttrade.org/news/latest-news/9773-rr-alfalfa-no-threat-to-organic-export-markets>>.

6. In time, other GM traits, being developed and implement in other crops will also become available in alfalfa production—for example, drought tolerance, salt tolerance, heat tolerance, nitrogen efficiency and so on. PhytaGro’s high energy trait is another example of this trend.

agricultural crop and an important cog in the effort to feed the world's growing population and demand for higher quality food.

## **B. The Error in This Case**

After regulating and monitoring the release of RR crops (corn, cotton, soybeans, canola, sugar beet) since the mid 1990s, the United States Department of Agriculture ("USDA") determined it was time to allow the production of RR alfalfa. Given the Government's considerable prior experience with other RR crops, the government determined an Environmental Impact Statement ("EIS") was not necessary in deciding to approve the sale of RR alfalfa. The government's documented experience with RR technology in other crops has established the safety and efficacy of the technology. (Moreover, if the rapid adoption of other RR crops by farmers is any gauge, alfalfa farmers would also embrace the technology.<sup>7</sup>)

Plaintiffs, however, brought suit and sought an injunction against the government's deregulation of RR alfalfa. Plaintiffs alleged irreparable harm from the chance that GM alfalfa would cross-pollinate with organic alfalfa in other fields. In response, the government proposed measures that would virtually

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7. ISAAA Briefs, Brief 36: *GM Crops: The First Ten Years - Global Socio-Economic and Environmental Impacts* (visited Nov. 21, 2009) <<http://www.isaaa.org/Resources/Publications/briefs/36/download/isaaa-brief-36-2006.pdf>>.



eliminate any chance for cross-pollination with non-GM alfalfa.<sup>8</sup>

In granting the Permanent Injunction Order below, the district court stated injunctive relief should issue “in the run of the mill NEPA [National Environmental Policy Act of 1969 (42 U.S.C. § 4332(C))] case” and that “more liberal standards for granting an injunction” apply in NEPA cases. Pet.App.55a, 65a-66a (citations omitted). Notably, the district court never made the requisite finding—nor did it even conduct a full evidentiary hearing—to determine that irreparable harm was likely, especially with the government’s proposed mitigation measures against cross-pollination in place. Pet.App.60a-79a.

The Ninth Circuit affirmed. The Ninth Circuit upheld the district court’s nationwide injunction against planting any genetically modified (“GM”) alfalfa until the time the government prepared an EIS. It affirmed the injunction despite the absence of a finding that the injunction was necessary to prevent the alleged irreparable harm of possible cross-pollination. Rather, the Ninth Circuit punted the issue and concluded those “disputed matters [were] issues more properly addressed by the agency in the preparation of an EIS.” Pet.App.95a-96a (citing *Idaho Watersheds Project v. Hahn*, 307 F.3d 815, 831 (9th Cir. 2002)).

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8. Experts below explained that, with the government’s proposed interim measures in place, the possibility of cross-pollination among hay crops—which account for 99 percent of alfalfa acreage—would be “negligible.” The risk was estimated at approximately 2.5 in one million (0.00025 percent). Pet.App.160a, 229a-235a, 280a-281a, 378-380a.

This Court then issued its decision in *Winter v. NRDC*, 129 S.Ct. 365 (2008). *Winter* confirmed a plaintiff bringing a NEPA action must establish they are likely to be irreparably harmed before a court can order injunctive relief. *Id.* at 374-375. Monsanto sought rehearing, based on the *Winter* decision and other grounds. The Ninth Circuit issued an amended opinion, but denied rehearing. Pet.App.107a. The amended opinion does not discuss the *Winter*'s rule that a finding of irreparable harm must exist before injunctive relief may be granted for a NEPA violation. The amended opinion merely adds citations to *Winter* in its unchanged decision.

Two and one-half years have passed since the initial injunction order. There is no EIS and the injunction continues.

As discussed more fully below, the Ninth Circuit erred in endorsing a rule that there is a presumption of harm in environmental cases. The Ninth Circuit effectively and wrongly relied on this presumption as an excuse not to require a finding of irreparable harm. This is an erroneous presumption which stems from a misunderstanding of GM agriculture, its governmental oversight, and the practical ramifications of an injunction that dramatically limits our nation's ability to produce an important food source. Moreover, its ruling gives no regard to the USDA's considerable positive prior experience with RR technology, now implemented in literally millions of acres of other GM crops grown annually in the United States and elsewhere.

### III. ARGUMENT

#### A. The Ninth Circuit Improperly Endorses a Presumption of Irreparable Harm For Injunctions in Environmental NEPCO Cases.

##### 1. The Presumption of Irreparable Harm Has Been Rejected By This Court.

The Ninth Circuit decision here effectively resurrects the presumption of irreparable harm in environmental cases that this Court repudiated explicitly in *Amoco Prod. Co. v. Vill. of Gambell*, 470 U.S. 531, 542-545 (1987) (reversing Ninth Circuit presumption of irreparable harm in environmental cases) and implicitly in *Winter, supra*, 129 S.Ct. at 376.

In *Winter v. NRDC*, this Court confirmed a plaintiff bringing a NEPA action must establish they are likely to be irreparably harmed before a court can order injunctive relief. *Id.* at 374-375. This Court stated the traditional four factor injunction test applies no differently to injunctions sought in the NEPA context pending the government's preparation of an EIS than in other situations. *Winter, supra*, 129 S.Ct. at 374-376. The Ninth Circuit decision here shows it persists in its view that NEPA plaintiffs are exempt from that requirement.

Here, the Ninth Circuit affirmed the district court's conclusion that a court need not decide the likelihood of irreparable harm because this would be done by the government in preparing an EIS. This is circular. There can be no injunction pending on EIS unless there is *first*

a finding of irreparable harm. The Ninth Circuit now excuses any court from finding irreparable harm before issuing an injunction pending an EIS in a NEPA case.<sup>9</sup> This is error as a matter of law and, as discussed below, such injunctions impose great costs on farmers, science and, ultimately, all consumers.

**2. The Presumption of Irreparable Harm Improperly Stems From an Erroneous Understanding of GM Alfalfa That Ignores the Well-Established Safety and Efficacy of RR Technology.**

**a. GM Plants Have Long Been Approved As Safe and Are Recognized As Crucial to Producing Adequate Food for All the World's People.**

Since the mid 1990s, GM crops have been approved for sale by the United States government and broadly adopted by farmers in the United States and in over 30 other countries.<sup>10</sup> In 2008, over 62.5 million hectares of

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9. Other recent Ninth Circuit decisions refuse to apply *Winter*'s holding. See, e.g., *Nelson v. NASA*, 568 F.3d 1028, 1050 (9th Cir. 2009) (Kleinfeld, J., dissenting) ("The panel's injunction failed to consider this public interest factor, contrary to the Supreme Court's recent admonition [in *Winter*]."); *Greater Yellowstone Coal. v. Timchak*, 323 Fed. Appx. 512-515 & n.1 (9th Cir. 2009) (despite *Winter*, granting temporary stay of activity because of "possibility that the district court may conclude on remand that irreparable harm *might* occur" (emphasis added)).

10. ISAAA Briefs, Brief 36: *GM Crops: The First Ten Years - Global Socio-Economic and Environmental Impacts* (visited Nov. 21, 2009) <<http://www.isaaa.org/Resources/Publications/briefs/36/download/isaaa-brief-36-2006.pdf>>.

GM crops were cultivated in the United States and over 125 million were cultivated worldwide.<sup>11</sup> This exuberant adoption of GM crops has occurred because of the undeniable safety record of these crops and the tremendous increases in productivity they afford to farmers. The RR trait that Monsanto and PhytaGro seek to bring to the 22 million acre United States alfalfa market has been well tested, is demonstrably safe and efficacious, and has been demonstrated to be so by the United States government.

**b. Specifically, GM Alfalfa Is Safe and Boosts Food Production Exponentially.**

In the last 13 years, the United States and many international markets have seen the prevalent adoption of RR canola, corn, cotton, soybeans and now sugar beets (the so-called “major GM crops”). In fact, 85 percent of corn grown for animal feed in the United States is RR corn. Similarly, 68 percent of United States soybean production, mostly used for animal feed and bio-fuels production, is RR.<sup>12</sup> In addition, scientists all over the globe are adapting the RR technology to other

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11. ISAAA Brief 39-2008: Executive Summary: *Global Status of Commercialized Biotech/GM Crops: 2008, The First Thirteen Years, 1996 to 2008* (visited Nov. 20, 2009) <[http://www.isaaa.org/resources/publications/briefs/39/executive\\_summary/default.html](http://www.isaaa.org/resources/publications/briefs/39/executive_summary/default.html)>.

12. The Free Library by Farlex, *Biotech Soybeans Benefit Environment (Ag Earth Stewards)* (visited Nov. 22, 2009) <[http://www.thefreelibrary.com/Biotech+soybeans+benefit+environment.+\(Ag+Earth+Stewards\).-a084052888](http://www.thefreelibrary.com/Biotech+soybeans+benefit+environment.+(Ag+Earth+Stewards).-a084052888)>.

crops<sup>13</sup>—lupins/lupines,<sup>14</sup> wheat,<sup>15</sup> and more. Moreover, new GM traits are being developed; for example, papayas that are resistant to devastating viruses.<sup>16</sup> New traits in sugar cane, a major source of bio-fuels, is another crop that is undergoing major GM development.<sup>17</sup> To deal with climate change, GM traits like nitrogen efficiency, drought tolerance, heat tolerance and salt tolerance are under development.<sup>18</sup> There are many other examples.<sup>19</sup>

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13. Wikipedia, *Genetically Modified Food* (visited Nov. 22, 2009) <[http://en.wikipedia.org/wiki/Genetically\\_modified\\_food#Development](http://en.wikipedia.org/wiki/Genetically_modified_food#Development)>.

14. Evergreen Farm Weekly, *New Herbicide-Resistant Lupin on the Way* (visited Nov. 22, 2009) <<http://www.evergreen.asn.au/files/documents/EvergreenFarmWeeklyPage12Mar09page20condensed.pdf>>.

15. Food Navigator.com, *Syngenta Moves Closer to Launching GM Wheat* (visited Nov. 22, 2009) <<http://www.foodnavigator.com/Financial-Industry/Syngenta-moves-closer-to-launching-GM-wheat>>.

16. GMO Compass, *Papayas* (visited Nov. 22, 2009) <[http://www.gmo-compass.org/eng/grocery\\_shopping/fruit\\_vegetables/14.genetically\\_modified\\_papayas\\_virus\\_resistance.html](http://www.gmo-compass.org/eng/grocery_shopping/fruit_vegetables/14.genetically_modified_papayas_virus_resistance.html)>.

17. Checkbiotech, *GM sugarcane trials in Brazil, Australia* (visited Nov. 22, 2009) <[http://greenbio.checkbiotech.org/news/gm\\_sugarcane\\_trials\\_brazil\\_australia](http://greenbio.checkbiotech.org/news/gm_sugarcane_trials_brazil_australia)>.

18. ISAAA Brief 39-2008: Executive Summary, *Global Status of Commercialized Biotech/GM Crops: 2008, The First Thirteen Years, 1996 to 2008* (visited Nov. 20, 2009) <[http://www.isaaa.org/resources/publications/briefs/39/executive\\_summary/default.html](http://www.isaaa.org/resources/publications/briefs/39/executive_summary/default.html)>.

19. Peggy G. Lemaux, *Biotechnology 101: Some of What You Need to Know in a Few Minutes* (visited Nov. 22, 2009) <[http://alfalfa.ucdavis.edu/+producing/files/20041215\\_Lemaux.pdf](http://alfalfa.ucdavis.edu/+producing/files/20041215_Lemaux.pdf)>.

The 13 year safety and efficacy track record with major GM crops is undeniable. A huge body of favorable scientific evidence supports its safety record, as well as the significant productivity gains enjoyed by farmers of the major GM crops. The important benefits of RR alfalfa and other GM crops are proved by their undisputed increased productivity, higher economic returns, higher quality products, and significant environmental benefits through lower input costs, i.e. lower costs of labor, chemicals, petroleum to run farm equipment *etc.* The simple truth of these benefits is proved by the adoption rates of GM crops in the United States and elsewhere. In 2008, the global acreage of biotech crops grew by 9.4 percent or 10.7 million hectares.<sup>20</sup> Farmers, being the ultimate stewards of the land and determinates of productivity, have adopted the major GM crops *en mass* wherever they are introduced.

The alfalfa industry simply seeks to utilize the same technology for RR crops that has been found safe and has brought huge benefits to other agricultural markets. It is undisputed that RR alfalfa is safe for food and animal feed. Pet.App.43a. RR alfalfa is otherwise identical to conventional alfalfa. *Id.* The evidence also shows a similar pattern of safety, productivity, and economic benefits resulting from RR alfalfa as from other GM plants. Alfalfa is particularly suited to the adoption of GM traits in general, and the RR trait in particular, because alfalfa stands are particularly

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20. ISAAA Brief 39-2008: Executive Summary, *Global Status of Commercialized Biotech/GM Crops: 2008, The First Thirteen Years, 1996 to 2008* (visited Nov. 20, 2009) <[http://www.isaaa.org/resources/publications/briefs/39/executive\\_summary/default.html](http://www.isaaa.org/resources/publications/briefs/39/executive_summary/default.html)>.

susceptible to weed infestation. If this can be addressed, farmers can expect significant increases in productivity.<sup>21</sup>

However, without a full evidentiary hearing on the issue of irreparable harm from alleged RR alfalfa cross-pollination, this body of evidence was not adequately considered. Without an actual fact-based hearing on potential harm, Plaintiffs below were able to conjure unfounded fear toward RR alfalfa that lead to an erroneous presumption of irreparable harm from deregulation. As discussed, *supra*, before granting an injunction, a court must assess the facts and determine the risk of irreparable harm. If this had been done, the record shows a long scientific track record of RR technology that is safe and extremely beneficial to society. Confirming the rule that an actual factual hearing must occur and there can be no presumption of harm is all the more important in GM cases where fear of science or the unknown can lead to injunctions based on that unfounded apprehension alone.

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21. Productivity in this context means getting greater production with fewer inputs or resources. The chart, *supra*, demonstrates the difference in production between RR and non RR stands of alfalfa. See also generally University of California Alfalfa & Forages, *Producing Alfalfa: Biotechnology and Roundup Ready Alfalfa* (visited Nov. 22, 2009) <[http://alfalfa.ucdavis.edu/+producing/index.aspx?cat=Biotechnology and Roundup Ready Alfalfa](http://alfalfa.ucdavis.edu/+producing/index.aspx?cat=Biotechnology+and+Roundup+Ready+Alfalfa)>.



**3. The Regulatory Structure for GM Products  
Makes the Presumption of Irreparable Harm  
Doubly Erroneous.**

The United States has been the leader in the development and adoption of GM crops. The USDA, through the Animal and Plant Health Inspection Service (“APHIS”), has been the United States agency charged with the evaluation and deregulation of GM crops for approximately 15 years in conjunction with other government agencies, including the United States Environmental Protection Agency (“EPA”) and the United States Food and Drug Administration (“FDA”).

APHIS, accordingly, has a huge reservoir of experience and knowledge of GM crops and, specifically, GM alfalfa. After years of monitoring and research—and with literally billions of meals safely consumed from GM crops—APHIS concluded RR alfalfa should be deregulated. On mere suppositions of harm and without a factual hearing, the court below ordered the USDA to “do over” its own process of determining RR alfalfa should be deregulated. It also enjoined (for what has now been several years) all use of RR alfalfa in the meantime. The lower court compounded this error by ignoring APHIS’ proposed stewardship conditions which would have readily addressed Plaintiffs’ concerns about “irreparable injury” from any alleged chance of cross-pollination.

The Ninth Circuit decision affirming the district court second guesses the government and will cost taxpayers millions of dollars in unnecessary and duplicative research and analysis. Moreover, this injunction—in place since early 2007—has led to millions of dollars in lost economic benefits to farmers and lost productivity of food, which, in turn, affects all Americans and even the world. The Ninth Circuit ignored the USDA and its considerable knowledge and experience with the safety and efficacy of RR crops it has already successfully deregulated and have been planted in millions of acres for years. The Ninth Circuit affirmed the misplaced apprehension of the district court that there would be irreparable harm from deregulating GM plants and refused to think further than that.

Judge Smith of the Ninth Circuit, in his dissent, explains it well: “[I]nstead of giving deference to the agency’s expertise, the majority gives deference to the district court, despite its wholesale rejection of the agency’s proposal for an injunction and its failure to hold an evidentiary hearing.” Pet.App.102a. In sum, the only entity with experience and historic factual knowledge of the issue was told to re-do its work—at much additional time and cost—to determine if RR alfalfa could be deregulated. The experience and knowledge of the United States government was thrown out and discounted without even an evidentiary hearing.

**B. Certiorari Should Be Granted Because This Erroneous Presumption and Resulting Injunction Chills Scientific Advancement in an Industry That Needs More Technology, Not Less, and Causes Significant Unjustified Economic Losses.**

The district court order, affirmed by the Ninth Circuit, enjoined *all* planting of RR alfalfa, for hay or seed, even in locations where there is no organic or conventional alfalfa for hundreds of miles. *See, e.g.*, Pet.App.221a. The effect of this injunction—in place since 2007—is a major step backwards in an industry which needs more technology, not less, to meet the challenges of feeding a world facing a booming population growth, a demand for bio-fuels, and the challenges brought by climate change. By clouding and confusing the regulatory pathway for the introduction of new biotech crops, innovation and increases in desperately needed agricultural productivity will be victims of pseudo-science rather than research and reason.

This is devastating to United States farmers, American consumers and the thousands who die each day from hunger and malnutrition. Norman E. Borlaug, *Farmers Can Feed the World* (visited November 21, 2009) <<http://online.wsj.com/article/SB10001424052970203517304574304562754043656.html>> (25,000 people die in the world per day from malnutrition). Indeed, in the United States and internationally, the call is for more GM crops not less. *See* New York Times, Opinion, May 24, 2004, *A Call for a Gene Revolution* (visited Nov. 22, 2009) <<http://www.nytimes.com/2004/05/24/>

opinion/24MON3.html?scp=1&sq=a%20Call%20for%20a%20gene%20revolution&st=cse>; see also Telegraph.co.uk, *GM Crops Must Be Grown in Britain, Royal Society Says* (visited Nov. 22, 2009) <http://www.telegraph.co.uk/earth/earthnews/6387540/GM-crops-must-be-grown-in-Britain-Royal-Society-says.html> (“The world needs genetically modified crops both to increase food yields and minimize the environmental impact of farming”). The United Kingdom’s leading scientists have said British farmers must cultivate a new generation of genetically modified (GM) “supercrops” to prevent a global food crisis. *Id.*; see also Jonathan Rauch, “Will Frankenfood Save the Planet?,” *The Atlantic Monthly*, October 2003, at 292 (“Over the next half century genetic engineering could feed humanity and save a raft of environmental ills—if only the environmentalists would let it”).

Petitioner Monsanto submitted sample declarations from 17 farmers explaining the substantial losses they would suffer from a ban on RR alfalfa planting. Pet.App.267a-269a. An agricultural economist below estimates those losses at more than \$200 million. Pet.App.267a-269a. PhytaGro believes this estimate of the adverse economic impact of the injunction is probably low—and for small companies like PhytaGro it can be devastating because the ban in the United States means that overseas alfalfa markets will not see GM alfalfa either, further limiting innovation. Counties like Argentina, for example, where as much as 4.5 million acres of alfalfa is grown,<sup>22</sup> have already adopted other

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22. María A. Marino and Angel Berardo, *Alfalfa Forage Production under Different Phosphorus Supply Strategies* (visited Nov. 22, 2009) <[http://www.ipni.net/ppiweb/bcrops.nsf/\\$webindex/6FA77B737A0682E7852570AE006C0056/\\$file/05-4p22.pdf](http://www.ipni.net/ppiweb/bcrops.nsf/$webindex/6FA77B737A0682E7852570AE006C0056/$file/05-4p22.pdf)>.

RR crops and yet will likely not see GM alfalfa until the United States ban is lifted. No doubt other major offshore alfalfa growing markets will also wait, causing problems with the world food supply and further economic losses to companies that seek to meet these needs.

The injunction has inflicted enormous injury to small companies like PhytaGro, as well as farmers who have made substantial investments in reliance on the government's regulatory approvals. *See also* Opening Brief of Federal Defendants-Appellants below at 41 ("RR alfalfa growers had made substantial investments in RR alfalfa by the time Geertson finally sought injunctive relief. . . .")

Monsanto is a major player in the development and marketing of GM crops in general, and the RR trait in particular. However, many other domestic and international companies have licensed and currently implement the Monsanto RR technology in their own germ plasm (seeds). Thus, the injunction—and its effective presumption of irreparable harm from the RR trait—has the affect of stalling the development and sale of similar products with all companies involved with GM alfalfa as well as the inevitable chilling effect on further GM development in the animal feed industry.

Indeed, the Ninth Circuit's decision has a chilling effect on all agricultural technology. The Ninth Circuit's decision makes broad injunctive relief essentially automatic whenever a district court finds a NEPA violation. The irreparable harm is deemed presumed and a full evidentiary hearing is deemed unnecessary.

Unjustified long-term nationwide injunctions against helpful GM agricultural products pose a significant threat to important government programs and will inflict enormous financial losses on private businesses and individuals that have reasonably relied on the government's regulatory approvals. *See* Federal Petition for Certiorari filed in *Amoco Prod. Co. v. Vill. of Gambell* (No. 85-1406), available at <<http://www.usdoj.gov/osg/briefs/1985/sg850057.txt>> (visited Nov. 22, 2009).

Within the next four decades, the world's famers will have to double production. Borlaug, *Farmers Feed the World*, *supra*. This increased need to grow food will occur on an ever-shrinking land base and in the face of environmental challenges caused by climate change. (Borlaug, *Farmers Feed the World*, *supra*, citing Oxfam study.) To accomplish this task of feeding so many, governments must support new science, such as genetically modified plants, and not block such necessary developments with political agendas. *Id.* The Ninth Circuit decision is dangerous precedent and should be reviewed so crucial agricultural science can develop and meet the challenge of feeding the world's hungry.

#### IV. CONCLUSION

Amicus curiae PhytaGro therefore strongly urges this Court to grant Petitioners' request for review. The petition for a writ of certiorari should be granted.

Respectfully submitted,

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