



VIA CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

February 7, 2011

Cindy Smith, Administrator  
Animal and Plant Health Inspection Serv.  
4700 River Road  
Riverdale, MD 20737

Ken Salazar, Secretary of the Interior  
U.S. Dept. of the Interior  
1849 C Street, N.W.  
Washington, D.C. 20240

**Sixty-Day Notice of Intent to Sue APHIS Pursuant to the Endangered Species Act  
Re: Deregulation of Genetically Engineered, Roundup Ready Alfalfa**

Dear Administrator Smith and Secretary Salazar,

The Animal and Plant Health Inspection Service ("APHIS") is hereby notified that the Center for Food Safety, Beyond Pesticides, Sierra Club and Cornucopia Institute (collectively "the Center") intend to file suit, pursuant to the citizen suit provision of the Endangered Species Act ("ESA"), 16 U.S.C. § 1540(g), concerning APHIS' unrestricted deregulation of genetically engineered, "Roundup Ready" alfalfa ("RRA"). *See* 76 Fed. Reg. 5780–81 (February 2, 2011). APHIS has violated and remains in violation of Section 7 of the ESA by failing to insure, through consultation with the U.S. Fish and Wildlife Service ("FWS"), that the deregulation of RRA is not likely to jeopardize the continued existence of any threatened or endangered species and/or result in the destruction or adverse modification of the critical habitat of any listed species. The Center hereby notifies APHIS that it has also violated and remains in violation of Section 7(a)(1) of the ESA, 16 U.S.C. § 1536(a)(1).

**I. Identity of the Organizations Giving Notice:** The name, address, and phone number of the organizations giving notice of intent to sue under the ESA are:

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San Francisco, CA 94110  
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## **II. Counsel for the party giving notice:**

George A. Kimbrell, Attorney  
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## **III. Requirements of the ESA**

Section 7 of the ESA requires APHIS, in consultation with FWS, to insure that any action authorized, funded, or carried out by the agency is not likely to jeopardize the continued existence of any threatened or endangered ("T&E") species, or result in the destruction or adverse modification of the critical habitat of such species. 16 U.S.C. § 1536(a)(2). "Action" is broadly defined to include all activities or programs of any kind authorized, funded, or carried out by federal agencies, including actions directly or indirectly causing modifications to the land, water, or air. 50 C.F.R. § 402.02.

For each federal action, APHIS must request from FWS whether any listed or proposed species may be present in the area of the agency action. 16 U.S.C. § 1536(c)(1); 50 C.F.R. § 402.12. If listed or proposed species may be present, APHIS must prepare a "biological assessment" to determine whether the listed species may be affected by the proposed action. *Id.* The biological assessment generally must be completed within 180 days. 16 U.S.C. § 1536(c)(1); 50 C.F.R. § 402.12(i).

If APHIS determines that its proposed action may affect any listed species or critical habitat, the agency must engage in formal consultation with FWS. 50 C.F.R. § 402.14. To complete formal consultation, FWS must provide APHIS with a "biological opinion" explaining how the proposed action will affect the listed species or habitat. 16 U.S.C. § 1536(b); 50 C.F.R. § 402.14. Consultation generally must be completed within 90 days from the date on



## THE CENTER FOR FOOD SAFETY

which consultation is initiated. 16 U.S.C. § 1536(b)(1)(A); 50 C.F.R. § 402.14(e).

If FWS concludes that the proposed action “will jeopardize the continued existence” of a listed species, the biological opinion must outline “reasonable and prudent alternatives.” 16 U.S.C. § 1536(b)(3)(A). If the biological opinion concludes that the action is not likely to jeopardize the continued existence of a listed species, and will not result in the destruction or adverse modification of critical habitat, FWS must provide an “incidental take statement,” specifying the amount or extent of such incidental taking on the listed species, any “reasonable and prudent measures” that FWS considers necessary or appropriate to minimize such impact, and setting forth the “terms and conditions” that must be complied with by APHIS to implement those measures. 16 U.S.C. § 1536(b)(4); 50 C.F.R. § 402.14(i).

In order to monitor the impacts of incidental take, APHIS must monitor and report the impact of its action on the listed species to FWS as specified in the incidental take statement. 16 U.S.C. § 1536(b)(4); 50 C.F.R. §§ 402.14(i)(1)(iv), 402.14(i)(3). If during the course of the action the amount or extent of incidental taking is exceeded, APHIS must reinitiate consultation with FWS immediately. 50 C.F.R. § 402.14(i)(4).

The re-initiation of formal consultation is required and must be requested by APHIS or FWS if (1) the amount or extent of taking specified in the incidental take statement is exceeded; (2) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) the action is modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or (4) a new species is listed or critical habitat designated that may be affected by the identified action. 50 C.F.R. § 402.16.

During consultation with FWS, APHIS is prohibited from making any irreversible or irretrievable commitment of resources with respect to the agency action which may foreclose the formulation or implementation of any reasonable and prudent alternative measures. 16 U.S.C. § 1536(d).

Section 7(a)(1) of the ESA requires APHIS, in consultation with and with the assistance of FWS, to utilize their authorities in furtherance of the purposes of the ESA by carrying out programs for the conservation of endangered and threatened species. 16 U.S.C. § 1536(a)(1).

Section 9 of the ESA and its implementing regulations prohibit the unauthorized “take” of listed species. 16 U.S.C. § 1538(a)(1); 16 U.S.C. § 1533(d); 50 C.F.R. § 17.31. “Take” is defined broadly to include harming, harassing, trapping, capturing, wounding or killing a protected species either directly or by degrading its habitat. *See* 16 U.S.C. § 1532(19). Taking that is in compliance with the terms and conditions specified in a biological opinion is not considered a prohibited taking under Section 9 of the ESA. 16 U.S.C. § 1536(o)(2).



# THE CENTER FOR FOOD SAFETY

## IV. APHIS Deregulation of RRA

APHIS has again approved RRA for nationwide commercial use and planting without any limitations or restrictions. 76 Fed. Reg. 5780–81 (February 2, 2011).

At over twenty millions acres, alfalfa is the fourth most widely grown crop in the United States, behind corn, soybeans and wheat. Genetically engineered glyphosate-resistant alfalfa is specifically designed to allow the broad application of the herbicide glyphosate over any acreage planted with the crop. The purpose of planting Roundup Ready alfalfa is to be able to apply glyphosate-containing herbicides to the crop throughout the growing season. RRA is the first perennial genetically engineered cropping system APHIS has approved.

The introduction of previous Roundup Ready cropping systems over the last decade has led to a 382 million pound overall increase in herbicides.<sup>1</sup> Currently, conventional alfalfa uses little or no pesticides at all; only 7% of all alfalfa acreage uses pesticides.<sup>2</sup> Adoption of Roundup Ready crops has also led to the spread of herbicide resistant weeds on millions of acres throughout the United States and other countries where such crops are grown, as well as transgenic contamination of natural plants.

There is no evidence that APHIS consulted with FWS prior to approving RRA.<sup>3</sup> APHIS unilaterally considered the potential for adverse effects on threatened and endangered species as a result of RRA deregulation and determined that there would be “no effect” on listed species or designated critical habitat. *See* Glyphosate-Tolerant Alfalfa Events J101 and J163: Request for Nonregulated Status: Record of Decision (“ROD”) at 11. As a result, APHIS’ actions will allow the commercial use of RRA and its accompanying increase in glyphosate use to be applied over vast acreage and in a myriad of climates and habitats throughout the United States.

Glyphosate is a broad-spectrum herbicide, able to injure or kill most plants and many microorganisms. More glyphosate applications, longer during the season and over more acres, means a greater potential for negative impacts on all plants in the area near alfalfa: trees, shrubs and wildflowers in borders and fencerows; meadow and prairie plants; aquatic and semi-aquatic plants in streams, ditches and ponds; and non-Roundup Ready crops in neighboring fields. Exposure of wild plants to glyphosate occurs via: 1) direct application to the crop itself, exposing any wild plants that are intermingled, 2) drift during applications to crops, 3) movement of glyphosate-laden soil particles and contaminated water from the application site, and 4)

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<sup>1</sup> Benbrook, C., 2009. Impacts of Genetically Engineered Crops on Pesticide Use: The First Thirteen Years. The Organic Center, available at [http://www.organic-center.org/reportfiles/13Years20091126\\_FullReport.pdf](http://www.organic-center.org/reportfiles/13Years20091126_FullReport.pdf)

<sup>2</sup> NASS, 1999. “Agricultural Chemical Usage, 1998 Field Crops Summary”, National Agricultural Statistics Service, Economic Research Service, USDA, Report Ag Ch 1(99), May 1999, p.9.

<sup>3</sup> CFS sent a Freedom of Information Act (“FOIA”) request to FWS asking for documents relating to Endangered Species Act issues and GT alfalfa. FWS was “unable to locate any records responsive to [CFS] request.” *See* FOIA Request # 2010-00030 and Response to FOIA Request # 2010-00030 on file with FWS and CFS.



## THE CENTER FOR FOOD SAFETY

intentional application to areas adjacent to crop fields (hedgerows, ditches, roadways, fence lines).

APHIS itself acknowledges that “increased glyphosate use, due to the adoption of GT alfalfa, could affect non-target plants” and that “glyphosate exposure could occur through aerial drift, runoff of surface waters containing glyphosate, or leaching of glyphosate into drainage systems.” ROD at 11. APHIS also acknowledges that glyphosate is toxic to amphibians and that amphibians exhibit even “greater sensitivity” to Roundup formulations than other forms of glyphosate, likely due to the surfactant polyethoxylated tallowamine. *Id.*

The court-ordered Environmental Impact Statement (“FEIS”) on RRA found that there are counties in at least 31 states where protected species may be in proximity to RRA use. FEIS at 148. The FEIS further found, *inter alia*, that terrestrial and semi-aquatic protected plants may be at risk of direct effects from exposure to glyphosate used in RRA production. *Id.* The FEIS further found that at least “78 plant species have been observed to be proximate to relevant land use,” and that

Under the Deregulation Alternative, there is the possibility that some of these relevant lands will be cultivated with GT alfalfa. If so, individual plants of the 78 T&E plant species are at risk for adverse impacts such as the inability to photosynthesize, the inability to complete respiration, the inability to synthesize nucleic acids and amino acids, and plant death if the individuals in these species are exposed to glyphosate [at certain levels].

*Id.* at 149.

Despite these findings, APHIS concluded that no consultation was required because “APHIS does not regulate herbicide use associated with GT plants that are granted nonregulated status” and that glyphosate is regulated by EPA. ROD at 12. Further the ROD concluded that “EPA has determined that there is no unreasonable environmental risk if the user adheres to the labeled directions.” *Id.* See also FEIS at 150: “EPA has considered potential impacts on T&E species as part of their registration and labeling process for glyphosate, and adherence to EPA label use restrictions by the pesticide applicator will ensure that the use of glyphosate will not adversely affect T&E species or critical habitat.”

However, EPA’s comments on the FEIS expressly noted that this was an “erroneous assumption” by APHIS:

The final EIS makes an erroneous assumption in several places regarding EPA’s safety finding about glyphosate products. Specifically, the document states that since EPA has granted registration to glyphosate products, EPA has determined, according to its statute (FIFRA) that these glyphosate products pose no unreasonable environmental risk to federally listed threatened and endangered



## THE CENTER FOR FOOD SAFETY

species if the user adheres to the labeled directions. This is an erroneous assumption because EPA has not completed an assessment of the effect of glyphosate on threatened and endangered species.

EPA comments on RRA FEIS, January 25, 2011 at 6 (Attachment A). In fact, EPA is currently undertaking a re-registration review for glyphosate, begun in 2009 and not anticipated to finish until 2015. *Id.*

The risks of glyphosate herbicides to endangered plant and some animal species are documented in numerous studies. In 1996, FWS identified 74 endangered plant species believed to be at risk as a result of glyphosate use. Endangered species known to be harmed or put at further risk by glyphosate specifically include the California red-legged frog<sup>4</sup>, the Houston toad<sup>5</sup>, Monarch butterflies and the plant they rely solely upon, Milkweed,<sup>6</sup> and the Valley Elderberry Longhorn beetle.<sup>7</sup> Glyphosate has been found harmful to a predatory beetle (Bembidion) and slightly harmful to a parasitic wasp (Trichogramma), a predatory mite (Typhlodromus pyn), a ladybird (Semiadalia) and a lacewing (Chrysoperla carnea)<sup>8</sup>, and Lepidoptera butterflies and moths,<sup>9</sup> the African amphibian species *X laevis*.<sup>10</sup> Studies have shown glyphosate to be toxic to fish, particularly rainbow trout, sockeye salmon and coho salmon.<sup>11</sup>

A 1986 EPA Guidance for the Reregistration of Pesticide Products Containing Glyphosate (EPA Case No. 0178), identifies three listed species that, according to EPA's consultation with the USFWS Office of Endangered Species, may be jeopardized by use of the compound (jeopardy being the highest level of effect under the Sec. 7 regulations). In particular, for use of glyphosate in a "crop cluster" in that document, the then-listed species jeopardized were *Solano grass*, the *Valley elderberry longhorn beetle*, and the *Houston toad*. (Each of those species is still listed.) EPA also stated that many endangered plants may be at risk from glyphosate. The EPA's 1993 Re-registration Eligibility Decision (RED) for Glyphosate, the most current registration for the compound, confirmed and expanded on this 1986 jeopardy opinion, stating:

*The Agency does have concerns regarding exposure of endangered plant species to glyphosate. In the June 1986 Registration Standard, the Agency discussed consultations with the US Fish and Wildlife Service (FWS) on hazards to crops,*

<sup>4</sup> <http://www.epa.gov/espp/litstatus/effects/redleg-frog/glyphosate/transmittal-ltr.pdf>

<sup>5</sup> <http://www.epa.gov/oppsrrd1/REDs/factsheets/0178fact.pdf>

<sup>6</sup> Nottingham, Stephen. "Genescapes." 2002

<sup>7</sup> [http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/folsom/ea.Par.91728.File.dat/Amador\\_spurge.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/folsom/ea.Par.91728.File.dat/Amador_spurge.pdf)

<sup>8</sup> Nottingham, Stephen referencing Hassan et al 1988.

<sup>9</sup> Nottingham, Stephen. "Genescapes." 2002

<sup>10</sup> <http://www.earthjustice.org/library/references/AIDASprayingCritique122106.pdf>

<sup>11</sup> Nottingham, Stephen. "Genescapes." 2002. Referencing the studies Folmar et al. 1979 Holtby and Baillie, 1987; Liong et. al 1988, Mitchell et al. 1987; Servizi et al. 1987, Wan et al 1989.





## THE CENTER FOR FOOD SAFETY

*rangeland, silvicultural sites, and the Houston toad which may result from the use of glyphosate. Because a jeopardy opinion resulted from these consultations, the agency imposed endangered species labeling requirements in the Registration Standard to mitigate the risk to endangered species. Since that time, additional plant species have been added to the list of endangered species.<sup>12</sup>*

The FEIS acknowledges that EPA is currently conducting a new registration review for glyphosate and that EPA estimates that it will not be completed until 2015. FEIS at 145.

### V. Violations of the ESA

Prior to deregulating RRA, APHIS failed to insure, in consultation with FWS, that the deregulation and commercialization of RRA is not likely to jeopardize the continued existence of any threatened or endangered species or result in the destruction or adverse modification of the critical habitat of such species. 16 U.S.C. § 1536(a)(2).

Prior to deregulating RRA, APHIS failed to request from FWS whether any threatened or endangered species, or designated critical habitat, may be present within or near the areas of the proposed actions. 16 U.S.C. § 1536(c)(1); 50 C.F.R. § 402.12.

Prior deregulating RRA, APHIS failed to prepare a “biological assessment” to determine whether any threatened and endangered species that may be present within or near the areas of the proposed actions may be affected. 16 U.S.C. § 1536(c)(1); 50 C.F.R. § 402.12.

Prior to deregulating RRA, APHIS failed to engage in consultation with FWS regarding the potential adverse affects of RRA on threatened and endangered species, and critical habitat. 16 U.S.C. § 1536(a); 50 C.F.R. §§ 402.13–14.

APHIS has failed to insure that the agency or deregulation petitioner will not make any irreversible or irretrievable commitment of resources with respect to RRA deregulation prior to initiating and completing consultation with FWS. 16 U.S.C. § 1536(d).

APHIS has failed, in consultation with FWS, to utilize its authorities in furtherance of the purposes of the ESA by carrying out programs for the conservation of endangered and threatened species, in violation of the ESA. 16 U.S.C. § 1536(a)(1). More specifically, APHIS has failed to utilize its authorities to carry out programs for the conservation of the threatened and endangered species located in areas where RRA will be foreseeably planted, in violation of the ESA. 16 U.S.C. § 1536(a)(1).

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<sup>12</sup> Online at [www.epa.gov/oppsrrd1/REDs/old\\_reds/glyphosate.pdf](http://www.epa.gov/oppsrrd1/REDs/old_reds/glyphosate.pdf), at p. 70.



## THE CENTER FOR FOOD SAFETY

### VI. Conclusion

For the above stated reasons, APHIS has violated and remains in ongoing violation of Sections 7 of the ESA. If these violations of law are not cured within sixty days, the Center intends to file suit for declaratory and injunctive relief, as well as attorney and expert witness fees and costs. 16 U.S.C. § 1540(g)(4). This notice letter was prepared based on good faith information and belief after reasonably diligent investigation. If you believe that any of the foregoing is factually erroneous or inaccurate, please notify us promptly.

Sincerely,

2/7/11

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cc: Tom Vilsack, Secretary of Agriculture, USDA  
Eric H. Holder, Jr., U.S. Attorney General