Scientist's Letter Raises Roundup Concerns

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A veteran soil scientist wrote a letter to U.S. Agriculture Secretary Tom Vilsack warning of what he says is a newly identified pathogen linked to the herbicide Roundup that might be implicated in livestock fertility problems, as well as diseased corn and soybean crops.

Don Huber, plant pathologist and a professor emeritus from Purdue University, sent his letter (posted last Friday on the Farm and Ranch Freedom Alliance's website) a week before Vilsack deregulated genetically modified alfalfa. The letter's public release has generated renewed calls for the government to reverse course on the unrestricted cultivation of GM crops.

Huber coordinates the Emergent Diseases and Pathogens Committee of the American Phytopathological Society as part of the USDA National Plant Disease Recovery System. He has researched glyphosate, the active chemical in Roundup, for two decades and is a longtime critic of Monsanto's Roundup Ready crops that are genetically modified to make them resistant to the herbicide.

In his letter, Huber said the research findings were at an "early stage," but wrote that this "electron microscopic pathogen appears to significantly impact the health of plants, animals, and probably human beings" and likely is connected to glyphosate.

Huber described the pathogen as appearing to be a micro-fungal organism found in high concentrations in Roundup Ready soybean meal and corn, distiller's meal, fermentation feed products, pig stomach contents, and pig and cattle placentas.

He said laboratory tests have confirmed the presence of the organism in a wide variety of livestock that have experienced spontaneous abortions and infertility.

He did not provide details about the tests or who is pursuing the research.

"The pathogen may explain the escalating frequency of infertility and spontaneous abortions over the past few years in US cattle, dairy, swine, and horse operations. These include recent reports of infertility rates in dairy heifers of over 20%, and spontaneous abortions in cattle as high as 45%," Huber wrote. He did not cite the source of the statistics.

Monsanto says it has addressed Huber's concerns in the past. The company's website references research that found no negative consequences to soil and plant health connected with glyphosate; the research refutes information Huber published on the website of The Institute for Responsible Technology, an advocacy group opposed to GMOs.

"Monsanto is not aware of any reliable studies that demonstrate Roundup Ready crops are more susceptible to certain diseases or that the application of glyphosate to Roundup Ready crops increases a plant's susceptibility to diseases," the company said in response to the Huber letter.

In a phone interview, Huber said the purpose of his letter was to get the resources and scientific base behind it to research the pathogen, "to really sort everything out, because it's becoming a crisis for us." He added, "We have veterinarians very concerned about enough animals, just replacement animals, for our beef and dairy herds."

The USDA, contacted for this article, confirmed that the Huber letter had been received and is being reviewed, but a spokesperson said the department will respond to Huber directly, not through the media.

Although Roundup has been identified as one of the less dangerous pesticides in agricultural use, Huber provided this reporter with a list of over 100 references to research that linked glyphosate to various adverse effects, but none related to the newly discovered pathogen he wants researched.

Last year, researchers in Argentina published data claiming glyphosate contributed to problems with chicken and frog embryos. Their research was inspired by clinical data on birth defects in the children of agricultural workers in fields that use Roundup.

Huber and Jeffrey Smith, executive director of the Institute for Responsible Technology, said glyphosate inhibits the uptake of nutrients in plants, and has been linked to reduced nutrient efficiency. They said animals that eat GM soy and corn have exhibited mineral deficiencies, which can lead to problems with everything from the immune system to reproduction. Huber says glyphosate is also implicated in more than 30 plant diseases.

Agronomic issues have been at the center of some objections raised last year during the comment period on GM alfalfa, although most of the objections to the proposed deregulation focused on the potential contamination of organic crops and products through cross-pollination. With Huber's letter, GM opponents are also resurfacing the debate around health issues.

The battle amounts to a question of whose research is factual. In a Feb. 13 op-ed piece published in the Los Angeles Times, Doug Gurian-Sherman, of the Union of Concerned Scientists, points to the challenges scientists have in accessing seeds for research purposes, because Monsanto and other companies own and patent the seeds, and restrict research on them. "To ensure that agricultural science serves the public, Congress should change patent law and create a clear exemption for agricultural research," Gurian-Sherman wrote.

In his letter, Huber warned that if Roundup does facilitate a pathogen linked to plant disease and health problems for farm animals, "this is highly sensitive information that could result in a collapse of US soy and corn export markets and significant disruption of domestic food and feed supplies."

The Institute of Responsible Technology's Smith said, "Dr. Huber is qualified to state that this is an emergency. The USDA, FDA, and EPA have thus far ignored serious risks of GMOs. This is a big test to see if even in an emergency they will acknowledge the risks and deploy appropriate resources. It's too early to determine causation, but the risks are so high, they must delay deployment of Roundup Ready alfalfa and put a substantial team of experts onto this right away."