

# Letter to Secretary Vilsack from Dr. Huber – Roundup May Be Causing Animal Miscarriages and Infertility

*In January 2011, one of the nation's senior scientists alerted the federal government to a newly discovered organism that may have the potential to cause infertility and spontaneous abortion in farm animals, raising significant concerns about human health. Dr. Don Huber, professor emeritus at Purdue University, believes the appearance and prevalence of the unnamed organism may be related to the nation's over reliance on the weed killer known as Roundup and/or to something about the genetically engineered Roundup Ready crops. In a letter to Secretary of Agriculture Tom Vilsack, the professor called on the federal government to immediately stop deregulation of roundup ready crops, particularly roundup ready alfalfa.*

January 17, 2011

Dear Secretary Vilsack:

A team of senior plant and animal scientists have recently brought to my attention the discovery of an electron microscopic pathogen that appears to significantly impact the health of plants, animals, and probably human beings. Based on a review of the data, it is widespread, very serious, and is in much higher concentrations in Roundup Ready (RR) soybeans and corn—suggesting a link with the RR gene or more likely the presence of Roundup. This organism appears NEW to science! This is highly sensitive information that could result in a collapse of U.S. soy and corn export markets and significant disruption of domestic food and feed supplies. On the other hand, this new organism may already be responsible for significant harm (see below). My colleagues and I are therefore moving our investigation forward with speed and discretion, and seek assistance from the USDA and other entities to identify the pathogen's source, prevalence, implications, and remedies. We are informing the USDA of our findings at this early stage, specifically due to your pending decision regarding approval of RR alfalfa. Naturally, if either the RR gene or Roundup itself is a promoter or co-factor of this pathogen, then such approval could be a calamity. Based on the current evidence, the only reasonable action at this time would be to delay deregulation at least until sufficient data has exonerated the RR system, if it does.

For the past 40 years, I have been a scientist in the professional and military agencies that evaluate and prepare for natural and manmade biological threats, including germ warfare and disease outbreaks. Based on this experience, I believe the threat we are facing from this pathogen is unique and of a high risk status. In layman's terms, it should be treated as an emergency.

A diverse set of researchers working on this problem have contributed various pieces of the puzzle, which together presents the following disturbing scenario:

## **Unique Physical Properties**

This previously unknown organism is only visible under an electron microscope (36,000X), with an approximate size range equal to a medium size virus. It is able to reproduce and appears to be a micro-fungal-like organism. If so, it would be the first such micro-fungus ever identified. There is strong evidence that this infectious agent promotes diseases of both plants and mammals, which is very rare.

## **Pathogen Location and Concentration**

It is found in high concentrations in Roundup Ready soybean meal and corn, distillers meal, fermentation feed products, pig stomach contents, and pig and cattle placentas.

## **Linked with Outbreaks of Plant Disease**

The organism is prolific in plants infected with two pervasive diseases that are driving down yields and farmer income—sudden death syndrome (SDS) in soy, and Goss' wilt in corn. The pathogen is also found in the fungal causative agent of SDS (*Fusarium solani* fsp *glycines*).

## **Implicated in Animal Reproductive Failure**

Laboratory tests have confirmed the presence of this organism in a wide variety of livestock that have experienced spontaneous abortions and infertility. Preliminary results from ongoing research have also been able to reproduce abortions in a clinical setting.

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%. For example, 450 of 1,000 pregnant heifers fed wheatlege experienced spontaneous abortions. Over the same period, another 1,000 heifers from the same herd that were raised on hay had no abortions. High concentrations of the pathogen were confirmed on the wheatlege, which likely had been under weed management using glyphosate.

### **Recommendations**

In summary, because of the high titer of this new animal pathogen in Roundup Ready crops, and its association with plant and animal diseases that are reaching epidemic proportions, we request USDA's participation in a multi-agency investigation, and an immediate moratorium on the deregulation of RR crops until the causal/predisposing relationship with glyphosate and/or RR plants can be ruled out as a threat to crop and animal production and human health.

It is urgent to examine whether the side-effects of glyphosate use may have facilitated the growth of this pathogen, or allowed it to cause greater harm to weakened plant and animal hosts. It is well-documented that glyphosate promotes soil pathogens and is already implicated with the increase of more than 40 plant diseases; it dismantles plant defenses by chelating vital nutrients; and it reduces the bioavailability of nutrients in feed, which in turn can cause animal disorders. To properly evaluate these factors, we request access to the relevant USDA data.

I have studied plant pathogens for more than 50 years. We are now seeing an unprecedented trend of increasing plant and animal diseases and disorders. This pathogen may be instrumental to understanding and solving this problem. It deserves immediate attention with significant resources to avoid a general collapse of our critical agricultural infrastructure.

Sincerely,

COL (Ret.) Don M. Huber

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January 17, 2011