Dr. Ray Seidler

Submitted as testimony in support of HB 2739 for hearing on March 16, 2017 in front of the House Judiciary Committee

SUPPORT

I support HB 2739, a bill to hold patent holders responsible for Genetically Engineered (GE) pollen and seed comingling events.

I studied the biosafety risks of GE microbes and plants as a Senior Research Scientist with the U.S. EPA and worked, studied, and educated on this topic for over 30 years.

In 1992 I wrote a comprehensive plan that identified U.S. Federal biosafety research needs on GE plants and, at my request, EPA sponsored an international conference of scientists to help identify and verify "hot" topic safety research areas.

The conference results were published in this new journal called Molecular Ecology. The contents of this special edition devoted to safety issues of GE plants was thought to be extremely important for decision makers around the world.

Of the 15 papers written as a result of the conference, 9 identified the need for intensive research to study cross pollination events between GE and non-GE plants. **Scientists were concerned that "long-range transport of pollen could not be ruled out." The 6 remaining papers dealt with concerns over GE crop impacts on ecological effects on soil ecosystems including changes in soil fertility and function.**

In those days "long range cross pollination" was meant to be measured in 10's of yards, or football field sizes; unfortunately that was not reality. Also, in those days no one anticipated the explosive economic and legal repercussions of long distance cross pollination events between GE and non-GE plants (see Appendix). The incorrect conservative estimates of pollen spread and unforeseen economic and legal issues influenced the USDA's development of the faulty concept of co-existence.

In 2004 EPA research revealed that GE Bentgrass seed and pollen dispersed 12 miles out of a USDA approved test site in Central Oregon. It contaminated the Crooked River Natural Grasslands reserve, and left lasting environmental contamination in the region.

A second and I believe under reported GE Bentgrass seed/pollen dispersal event occurred in Western Idaho in a 2005 test. That pollen crossed and deposited in the Snake River, contaminated Oregon irrigation ditches, and lord knows how many parks and lawns. (1,2)

How long before the GE Bentgrass pollen arrives in the Willamette Valley, putting at risk an industry that accounts for more than $1 billion in annual economic activity in Oregon is anyone's guess.

There have now been hundreds of other documented cross pollinated and seed comingling events reported worldwide. Overall, the costs to farmers and taxpayers associated with these events involving patented pollen and comingled seeds has been in the billions of dollars. (see Appendix)

How can one identify the exact company source(s) of cross hybrid seeds resulting from a pollen contamination event or from seed comingling? It's easy. Molecular techniques are available to identify the commercial origin of such contamination events. Identification of the exact DNA sequences is readily detectable through common techniques known as PCR. Such analyses are widely available through commercially certified private test laboratories. There is even one in Portland, Oregon (3,4,5)

The passage of HB 2739 is a major step in the right direction in protecting farmers, irrigation districts, and others affected by unwanted GE contamination that may have severe economic consequences.

Please support HB2739.

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Appendix

1. http://www.capitalpress.com/content/ml-coba-letter-021111
2. http://www.capitalpress.com/content/ml-scotts-061711
3. https://en.wikipedia.org/wiki/Detection_of_genetically_modified_organism
4. http://gmo-crl.jrc.ec.europa.eu/gmomethods/, the European Commission Database of reference methods for GMO analysis.
5. http://www.gmotesting.com/Testing-Options

• Interstate spread of RR bentgrass between Idaho and Oregon coming from approved test sites have contaminated irrigation ditches, the Snake River, the Crooked River National Grassland, lawns and parks in two states. Now Oregon taxpayers are left to pay for further monitoring, and destruction of future outbreaks of the patented GE grass.

• In 2013 the appearance of GE wheat in a small area of an eastern Oregon wheat farm caused a cessation in the wheat export into Japan and Korea, and the harvest and grain storage processes in non-GE wheat in the Pacific Northwest, including in western Oregon where no GE wheat is grown. This several month delay in harvest caused damage to wheat left exposed in the field and many farmers located far away from eastern Oregon suffered economic consequences of a small contamination event.

• In 2001, Bayer Crop Sciences was fined $750 million in damages by U.S. rice growers as a result of contamination from its GE rice coming from a test plot in Louisiana.

• China impounded and restricted importation of Pacific Northwest alfalfa due to trace amounts of GE alfalfa plant components

• The Oregon legislature and Oregon State University recognized the serious threat that Roundup resistant (RR) canola cross-pollination poses to specialty seed producers in the Willamette Valley that produce seeds of Swiss chard, Brussels sprouts, mustard, etc., all of which can be cross pollinated by the RR canola. HB 2427 was passed by the Oregon Legislature to provide funding for OSU to study the spread of RR canola pollen throughout the Willamette Valley and its impact on the $50 million Willamette Valley specialty seed market.

• The Chinese imposed a ban on the importation shipments of a variety of GE corn from the U.S. that had not been approved for human consumption within China. This caused an estimated $6 billion of damages from reduced corn prices for American farmers.