Subject: Testimony in Support of HB 2882-2

Honorable Chair Holvey and Members of the Rules Committee:

My name is Dr. Ray Seidler and I live in Ashland, Oregon. I am writing to support HB 2882 and its 2 amendments. It is important to me that the specialty seed industry in Oregon and all other farmers are protected from genetically engineered (GE) contamination, ideally in a manner that does not pit farmer against farmer. The proposed legislation is designed to involve patent holders not farmers responsible for seed and plant parts mixing, and cross pollination events. Oversight involvement from the Oregon Department of Agriculture is a potential plus as long as they realize that pollen flow is measured in miles and not in acres, or feet.

I was honored as an Oregonian to have had the responsibility to head the first ever biosafety risk assessment program overseeing genetically engineered microbes and plants (GMOs) when I was a senior research scientist with the United States Environmental Protection Agency.

In 1992 the US EPA funded, at my request, an international conference to identify “hot” issue biosafety topics associated with the then new and emerging products called GMO crops. Nine of the 15 papers published from this conference in a journal called *Molecular Ecology* identified and warned of the need to study long range cross pollination events between GE and non-GE (conventional crops). The authors expressed fears of “long-range” cross pollination with indigenous weeds, impacts on the course of evolution of important food crops, and other considerations such as ownership responsibilities, and hybrid vigor weediness resulting from cross pollination. It is so sad that a quarter century later we are still living with these realities. The Oregon legislature can help fix some of the problems with the passage of HB2882.

I would like to put some things into perspective surrounding the issues associated with mixing or contamination between patented GE seeds and plants and traditional seeds and plants.

Undoubtedly you have heard, “the mixing of pollen, genes, and plant parts happens all the time because this is how plants typically reproduce and how farmers harvest and transport their crops.” It is a part of the “normal” processes of plant and human intervention with the accidental mixing of pollen and plant parts through transport, during equipment handling like balers, trucks, silo storage, wind and pollinator events, etc. Since so many farmers know this is the “normal” process, they don’t worry about it. All true. But they should worry.

When a crop contains patented genetic material, the pollen, the genes, and plant reproductive parts are owned by industry, the seeds cannot be saved and replanted the following year and farmer contracts for GMO free or organic seeds may not be honored. These new GMO hybrid plants are considered legally protected by U.S. patent law. Many customers will reject such GMO contamination and the farmer's crop often loses value. These issues usually don't involve any thought of the consumers or businesses who may be buying these seeds or plant products and who may want to avoid patented genetically engineered products in their seeds and plant products. Typically, these folks may be willing to offer more money to a farmer that is successful in producing GMO-free seeds.

There is currently no mechanism for farmers to collect compensation for molecular testing costs to detect GMO contamination, no prevention measures for protection, and no compensation mechanism for loss of costs, nor for costs associated with cleaning up contaminated seeds. Passage of HB2882 would provide incentives to reduce the needs of farmers to conduct such testing, reduce the needs for compensation, and bolster the confidence of buyers that they are indeed purchasing GMO-free seeds if they so require them.

One of the saddest problems associated with a lack of Oregon laws to protect traditional non-GMO crops from cross contamination from patented GMO pollen, seeds, and plant parts is the loss of reputation of the farmer, a loss of reputation of a contaminated region and for the State as a whole. Oregon has already experienced several serious GMO contamination events that are known throughout the world. These include the "mysterious" appearance of GMO wheat in Eastern Oregon, the massive interstate spread of bent grass from experimental test plots in Central Oregon and Western Idaho, (2 separate events!) and the poor protection afforded to specialty seed farmers in the Willamette Valley who seek protection of their traditional brassica seeds from GMO canola pollen spread.

As Oregon State University weed specialist Carol Mallory-Smith said many years ago, "you cannot contain genes because that's not how biology works." It's all about the need for crop separation and making sure how far the crops are separated. The scientific literature is full of evidence that documents important crop pollen movement events often exceed 1 mile, sometimes extending to 5 miles.

Evidence has shown that simple pinning of maps to locate specific crops just has not worked. Handshakes between farmers also doesn't work. It's all human nature. There needs to be knowledge and incentives given to farmers to make it possible for everyone to be able grow the crop they want. It would be reassuring if ODA was to have independent advisors to help them establish proper crop separation distances to protect traditional farmers. We already know in the Rogue Valley, because of its narrow geographic nature and frequent windy conditions, that common crop separation distances just do not work.

Encouraging your consideration on Julia Seidler's book, "Living with the Enemy". All about endocrine disruptors in our home environs.

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