March 9, 2023

Chair Senator Golden, Vice Chair Girod, and Members of the Senate Committee on Natural Resources,

My name is Professor Ray Seidler. I am writing to support SB 789, which maintains current protections for the Willamette Valley's valuable brassica vegetable seed industry.

I am a rural Oregonian, living on 5 acres in Southern Oregon. I am a co-owner of Pompadour Lavender Farm and a former rancher when I raised registered Polled Hereford cattle when I lived in Benton County, Oregon. During my tenure with the U.S. Environmental Protection Agency as a Senior Research Scientist, , I led the first national program for genetically engineered crop risk assessments. One of our major concerns was the movement of genetically engineered DNA segments between plants.

The specialty seed industry in Oregon is a $15-$20 M industry that is worth protecting. The Willamette Valley is one of the vegetable seed capitals of the world, a very special place for growing high-value vegetable seeds, and an economic powerhouse in Oregon for many other crops. The specialty seed industry in the Willamette Valley has customers stretching from Japan to Europe because of seed purity and often organically produced seeds not available from other parts of the world!

(Some of my materials below are taken in part from my support testimony from a prior expert legal deposition of 2015).

EXPERT DECLARATION (UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON MEDFORD DIVISION , 3-25-2015) OF DR. RAMON J. SEIDLER, Ph.D. IN SUPPORT OF DEFENDANT-INTERVENORS on behalf of Jackson County, CHRISTOPHER HARDY, individual; OSHALA FARM, LLC, an Oregon limited liability company; OUR FAMILY FARMS COALITION, an Oregon non-profit corporation; and CENTER FOR FOOD SAFETY, a national non-profit corporation.

Transgenic contamination: What is it and how does it happen?

It is obvious that once the door is open to growing canola on vast areas in the Willamette Valley, it will be primarily (if not entirely) genetically engineered verities, like those found in other commercial regions in the United States where canola is planted without nearby specialty seed crops.

Transgenic contamination (of GE traits) occurs when unwanted GE crop genes (like resistance to the toxic weed killer glyphosate) are introduced into non-GE crops via movement of GE pollen, seed, or other plant parts. It can happen in many ways, including:

a. Cross-pollination of non-GE crops by GE plants of the same species (like many brassica species); the primarily non-GE harvest becomes contaminated with GE crop material. The contaminating GE plants can be from, a GE crop field that can be up to several miles away, depending on the crop;
b. Feral (wild) GE plants that have become established in unmanaged areas near non-GE crop fields;
c. GE “volunteers” within a non-GE field that was previously used;
d. Unintended introduction of GE seeds or other GE plant material into non-GE supplies, for instance from: GE seed contaminating a farmer’s non-GE planting stock; GE “volunteer” plants harvested together with the non-GE crop; Inadvertent harvest of feral GE plants at the edge of non-GE fields;
e. Movement of GE seeds themselves into non-GE fields by animals, high winds, or weather events;
f. Residues and seeds of GE plant parts left in farm equipment such as harvesters, at grain storage facilities, truck transport vehicles, shipping containers, etc., that are used for both GE and non-GE crops. (stopping material from expert declaration here).

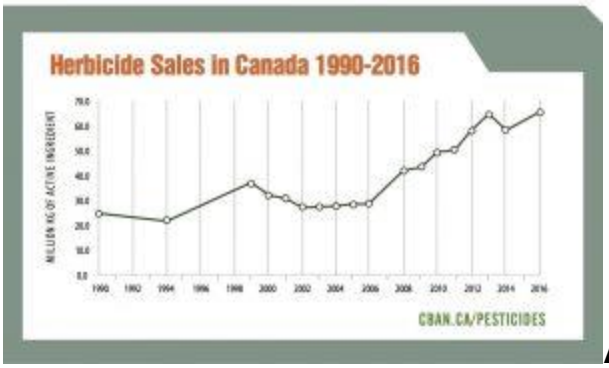
Customers of highly prized GMO free seeds as well as certified organic vegetable seeds are primarily located in Asian and European countries where GE crops are not the preferred commodity for purchase. Indeed at least 17 European countries still ban the propagation of GMO crops, including canola because, in part, it is very difficult to stop the spread of GE crops because seeds are small and pollen on bees can be spread for miles into areas where related crops are growing. Also GE free seeds are more valuable because they are the vegetable

seed of choice in many parts of the world. https://ec.europa.eu/environment/europeangreencapital/countriesruleoutgmos/

Rapeseed growers have all of Oregon to grow this low-value crop. Specialty seed growers do not, and should not be asked to shoulder an unreasonable level of risk just to expand a few politically connected farmers' ambitions for a marginally profitable crop that can be grown almost anywhere.

Genetically Modified Canola 'Escapes' Farm Fields A research group covering some 3,000 miles of highway for wamplings, has clear evidence that genetically modified, feral canola is growing across much of North Dakota. Of the 406 samples collected, 86 percent were genetically altered versions of the plant. https://www.npr.org/templates/story/story.php?storyId=129010499

Widespread contamination from GE canola has eliminated the growing of organic canola in most areas of Canada (some non-GE canola is grown on Prince Edward Island for export to Japan). Most organic grain farmers in Canada have long stopped growing canola altogether because contamination was so prevalent (**organic farming prohibits the use of GM seeds**). GM canola contamination meant that many farmers lost the use of an entire crop. https://cban.ca/gmos/products/on-the-market/canola/ This is a likely future for the brassica crops grown in the Willamette Valley if this legislation (SB789) does not pass.



Almost 100% of the GM crops grown in Canada (and the U.S.)– corn, soy, canola and sugar beet – are engineered to be tolerant to a specific herbicides like Roundup (active ingredient glyphosate, a human carcinogen. Glyphosate is the top pesticide ingredient sold in Canada, and its use tripled between 2005 and 2011. Pesticide use in general has INCREASED on common GE crops like canola, not decreased as often claimed by the seed industry. Glyphosae use in the US. Has increased some 10-fold dur to the massive planting of GE crops in the mid-west.

Between 1994 and 2020, herbicide sales in Canada have increased by 234%. See CBAN's factsheet, November 2020: Genetically Modified Crops and Herbicides.

https://cban.ca/gmos/issues/environmental-impacts/#:~:text=Contamination%3A%20Contamination%20from%20GM%20plants,and%20foods%2C%20and%20organic%20farming. Similar results have been documented within the U.S. as well.

Extra use of cancer causing herbicides and havoc with numerous avenues of seed contamination await farmers in the specialty seed growing areas of the Willamette Valley. Is this is what is wanted? If not, please pass SB789.

Ray Seidler
Ashland, Oregon