Written Testimony Related to HB 4059

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My name is Carol Mallory-Smith. I am a Professor Emeritus at Oregon State University. My testimony does not represent an Oregon State University position on this bill. I am not here to support or oppose HB 4059 or its amendments but do support scientific based outcomes.

I was the project leader for research conducted in response to HB 2427 passed in 2013 and HB 3382 passed in 2015. Funding was provided for research in response to HB 2427 but not for research directed in 2015. A final report on this research was submitted to the legislature on November 1, 2017. The final report was peer reviewed by experts on Brassicaceae genetics, diseases, insect pests, and production practices. Those reviewers included Drs. James Myers, Oregon State University; Drs. Lindsey du Toit and Beverly Gerdeman, Washington State University; Dr. Glenn Murray, University of Idaho; Dr. Fay Ritchie, United Kingdom. In addition, the protocols for the mapping and the use of GIS to calculate crop acres were evaluated by Dr. Jamon Van Den Hoek, Oregon State University. Experts with knowledge of isolation rules on the coexistence of canola with other crops were contacted personally to gather information from multiple sources and locations. Those experts were located in the Pacific Northwest, France, New Zealand and the UK.

I served on the Work Group assembled after the last legislation session to work toward finding a path for co-existence for brassica production in the Willamette Valley protected district.

My testimony today will summarize the findings of the OSU legislated research and address some of the points that are now part of HB 4059 or came out of the Work Group. My comments are related to the science around co-existence of canola with other brassica crops.

The 500-acre limit on canola production was a compromise so the research that was funded by the legislature could be conducted on a scale that would provide meaningful results. The 500-acre limit is now being interpreted as a level that was set to protect the Brassicaceae seed industry, which was not the intent behind the limit.

The major findings of the OSU research project conducted from 2013 through 2017 were:

1. The results of the research provide no reasons, agronomic or biological, that canola production should be prohibited in the Willamette Valley when there are no restrictions on the production of other Brassicaceae crops. Although, there were some differences among crops monitored, there were no pest issues, insects or diseases, unique to canola compared to the other Brassicaceae crops monitored.

2. Weed species were found infected with black leg and light leaf spot along the I5 corridor and along roadsides throughout the Willamette Valley. Canola was not weedier or more persistent than turnip, daikon radish or forage rape, nor did it have more disease incident or severity compared to turnip or forage rape. When canola emerged in the following crop, it was easily controlled.

3. In Oregon, isolation of canola is mandatory while isolation of Brassicaceae crops is voluntary. Isolation distances for canola at present are arbitrary and not supported by science. Using a pinning system where all brassica fields are identified by species and isolation distances are based on sexual compatibility would be effective for maintaining a high level of seed purity. There are different pinning systems including private, public, and combinations of the two.

Canola fields could be isolated to avoid cross-pollination with sexually compatible species just as other brassica crops are. Canola is not sexually compatible with all other Brassicacea species so isolation would not be required for example with radish, cabbage, kale, etc.

Although the Willamette Valley Specialty Seed Association maintains and controls the isolation pinning maps for the specialty seed industry, it has no legal authority to do so nor are growers required to pin fields.

4. Brassica vegetable seed production in the Willamette Valley ranged from 2,000 to 3,400 acres from 2012 through 2017. These crops for the most part require irrigation.

   There are approximately 900,000 acres in production in the Willamette Valley without irrigation. More than half of those acres are planted to wheat and grass seed each year.

   From 2012 to 2017, there was an average of around 50,000 acres that would have been available for canola production with in the wheat and grass seed production acres. This number of acres does not include other rotational crops such as the 35,000 acres of legumes or 10, 000 acres of meadowfoam that could also be planted to canola. Within this nearly 100,000 acres there is certainly room for the number of canola acres to significantly increase.

To my knowledge there have been no new data generated or new studies undertaken that would change the recommendations put forth in the 2017 Oregon State University Report.

Comments related to the work group and HB4059 and its amendments.

1. There were concerns that canola would be grown on all available acres every year; however, those concerns do not take into consideration that 1) all brassica fields should

be pinned and maintain required isolation distances and 2) the ODA administration on blackleg prevents brassica crops from being planted more than two out of five years. Both of these considerations limit the number of acres where canola could be grown each year.

2. The need for a rotational crop, especially for grass seed, was raised several times. One of the basic concepts of weed management is to include rotational crops in a system so that there are options for more weed management tactics. Grass seed growers struggle to control weeds in their fields because they do not have an economically viable rotational crop.

3. Members of the work group agreed for the need of a pinning system that would maintain isolation between brassica species that have the potential to hybridize. However, the proposed 3-mile isolation distance for all nonGE brassica crops and the 6-mile isolation distance for GE canola are not based on scientific data or the likelihood of cross-pollination. These distances are arbitrary and capricious. The bill is silent on isolation distance from other GE brassica crops.

4. Concerns were raised over the production of genetically engineered (GE) canola and the harm that would occur if it were planted. There is no scientific evidence that gene flow from GE canola or any other GE brassica, for example GE cabbage with insect resistance, would be different than from nonGE brassica crops. The decision to limit GE crop production is not based on scientific evidence and is regressive.

   Putting restrictions on GE production into law will almost certainly have negative consequences on future production of GE crops, including brassicas, with traits that could have health or environmental advantages. At the present time, there are ongoing debates about the definition of GE and how whether they will be regulated because of the changes in how GE plants are generated.

I would restate that there are no biological or agronomic reasons that canola should be treated differently from other Brassicaceae crops or prohibited in the Willamette Valley. There are enough available acres to increase canola production as long as it is grown in a manner that is compatible with Brassicaceae seed production and isolation distances are maintained based on sexual compatibility.