



## Memo

**To:** Oregon State Legislature Testimony  
**From:** Travis Greenwalt, Highland Economics  
**Date:** May 11, 2023  
**Re:** SB 789

Hello, thank you for the opportunity to speak with you today. My name is Travis Greenwalt, I am a Principal and Senior Economist with Highland Economics, which is a small natural resource economic consulting firm. In 2022 we were retained by Organic Seed Alliance and Oregon Organic Coalition to conduct an independent evaluation of the potential economic impacts associated with lifting the ban on canola in the Willamette Valley. We came to this study without any pre-conceived notion of the potential effects of canola on brassica seed production.

My comments today will highlight some of the findings from our analysis, including a brief profile of the brassica seed production in the Willamette Valley, and potential economic impacts of lifting the canola restrictions. As part of our analysis the Highland Economics team relied on interviews with 15 seed experts / representatives, surveys completed by 65 brassica seed producers, as well as relevant literature and data.

The climate of the Willamette Valley offers ideal conditions for seed production. This has allowed the Willamette Valley to become a leader in grass and vegetable seed production. There is no publicly available data specific to brassica seed production, but previous studies indicate that between 2,000 and 3,400 acres of brassica seed are produced annually in the Willamette Valley. While this is a modest acreage relative to other crops grown in the valley, this level of production represents the majority of the world's brassica seed. This includes over 90 percent of the European cabbage, Brussels sprout, rutabaga, and turnip seed worldwide; and 20 to 30 percent of the world's radish and Chinese cabbage seed worldwide.

Canola poses a number of risks to the production of these brassica seed crops, including cross-pollination. The majority of canola grown for oil is genetically engineered (GE) for herbicide resistance. Brassica seed that has inherited GE traits cannot be sold in organic markets, and many buyers of Brassica seed, especially those countries that ban GE plants like Japan, Europe, and New Zealand, would likely cease purchases from Willamette Valley growers (and associated processors) if the Brassica seed was believed to have cross-pollinated with canola. Evidence of this market sentiment has been provided in testimony in both 2013 and 2023 by Tohoku Seed Company. Other major risks posed by canola include diseases and pests such as cabbage maggot, white rot, and blackleg to name a few. Feral canola along roadways is an issue in many canola producing regions. As part of the outreach we conducted for this

study, our team was provided photos of feral canola on roadways in the Willamette Valley that were taken in the spring of 2022. While the risk of these issues are common to both oilseed and vegetable seed production, the effects and incentives for controlling those effects are disproportionate to seed producers due to the stringent quality control measures in the vegetable seed market, as well as the financial profit potential in vegetable seed compared to oilseed production.

The question of how brassica seed growers would respond to an increase in canola production will likely depend on the extent of the increase in canola, and the degree to which it exacerbates pest and disease pressure. In our survey of producers, 45 percent of respondents in the Willamette Valley stated that they did not plan to change their practices regarding Brassica seed production in response to the canola ban being lifted, while 20 percent indicated that they planned to make some changes to cropping. Half of respondents indicated they had a “wait and see” approach, while many suggested their actions would depend on how closely canola came to their fields. Some acknowledged that if conditions worsened, they would have to abandon brassica seed production altogether. Our analysis considered the viability of potential mitigation measures brassica seed producers may consider to alleviate the additional risks posed by canola. The available mitigation measures would make most brassica seed production uneconomical. Cost estimates on netting and hot water treatments are documented in our report titled “Potential Economic Impacts of Lifting the Canola Ban in the Willamette Valley on Brassica Seed Producers.”

As part of our stakeholder outreach, we interviewed several brassica seed experts, some of whom anticipated demand for Willamette Valley brassica seed would fall by 90 percent if canola were widely grown in the Valley. What would this mean to the regional economy? We estimate that around \$15.2 million in gross revenue was generated by brassica seed production in the Willamette Valley in 2022. This supports roughly 190 jobs directly and indirectly, as well as \$9.3 million in direct and indirect labor income. Further, this economic activity corresponds to roughly \$6.5 million in profit annually.

Our analysis then considered the question of what level of canola production would be necessary to replace this economic activity. Our study found that more than 37,000 acres of canola would have to be grown across the Willamette Valley to replace the profits generated from around 3,000 acres of brassica seed production. Similarly, we found that 26,000 to 36,000 acres of canola would be required to replace the labor income and jobs associated with brassica seed in the Willamette Valley. While this level of production would be possible to achieve, it represents 2 to 3 times the highest level of harvested canola acreage for the entire state of Oregon.

Our study received critique from Kathy Hadley, a canola producer in the Willamette Valley, regarding the enterprise budget assumptions we employed for canola production. We had estimated an average profit level of \$190 per acre on average which we still feel is reasonable as an average long-term profit potential across the entire valley. However, even if we were to use the estimates provided in the aforementioned comment, there would need to be over 12,000 acres of canola produced to replace the profits provided by Brassica seed production. While this is possible to achieve it is also unlikely. As evidence for that we point to a study from Oregon State University (OSU) which indicated there would be up to 53,000 acres available for oilseed crops in the Willamette Valley after accounting for isolation distances and crop rotation limits. The study, authored by Jaeger and Siegel, indicated it would be ‘unrealistic’ to expect processing capacity of this scale (~5 million gallons annually) in the Willamette

Valley, and a more reasonable expectation of 0.5 million gallons annually was provided (which is equivalent to around 5,000 acres of production) for canola (Jaeger & Siegel, 2008).

In addition to the economic activity supported by production, Brassica seed supports downstream industries in the region, such as processing and wholesaling. The Willamette Valley hosts several seed processors and wholesalers, including Territorial Seed Company, Universal Seed Company, Adaptive Seed, Lakeside Ag-Ventures, Grasslands Oregon, Restoration Seeds, and Wild West Seed. Of the respondents to our survey that answered the question, 73 percent of producers reported selling their seed to at least one of these companies in the Willamette Valley. These downstream activities were not included in the estimates of economic activity supported by brassica seed production, mentioned above.

The key takeaways from this exercise are: the economies of scale in oilseed processing make it likely that little to no additional processing would be developed in the region through lifting the ban on canola, and it is likely that future canola production levels would not replace profit generated from brassica seed production in the Willamette Valley, even at the yields claimed by canola proponents.

There is a great deal of uncertainty regarding the extent to which canola production will expand in the Willamette Valley if the ban is lifted, and the degree to which a canola expansion will increase the production issues of cross-pollination, pests, and disease in other Brassica species. However, what is at risk is more certain. The Willamette Valley is a unique environment that allows for immense diversity in agricultural production. The Valley's climatic qualities support Brassica seed production in a way that is only found in a few other places on Earth. In contrast, canola can be grown and is grown in many other parts of the region and world as a cheap, commodity crop.