Written Testimony Related to HB 3382 and HB 2427
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Written testimony of Dr. Carol Mallory-Smith. I apology that I cannot attend today's hearing in person but am submitting written testimony. I would be happy to meet with the committee or individual members of the committee to discuss my testimony or any questions that you may have. Oregon State University neither supports nor opposes this bill.

I am providing an update of Oregon State University's research in response to HB 2427 as relevant to HB 3382.

One of the objectives of the research related to HB2427 is to monitor insect pests and diseases in the 500 acres of canola that were allowed to be planted each year for 3 years (total 1500 acres) and track volunteer plants in subsequent crops. In addition to the canola fields, approximately 500 acres each of radish and turnip are also monitored each year. These two crops were included because they are widely grown in the Willamette Valley and are related to canola, so radish and turnip could be expected to have similar insect pests, diseases and volunteer issues as canola.

2013 -2014.
Canola and turnip fields were planted in the fall of 2013 and one canola field and radish fields were planted in the spring of 2014. Canola seed that was planted in the research fields was tested to be free of the fungus that causes black leg, a disease of *Brassica* crops, and seed was treated with fungicides before planting. None of the fields were planted with genetically engineered canola. Monitoring of insects and diseases began at crop emergence and continued through harvest in 2014.

No differences were noted in insect pests among canola, turnip, and radish.

In the spring of 2014, black leg was identified in canola, turnip, forage rape, and *Brassica* vegetable seed fields including both conventional and organic production and on weed species across 6 Oregon counties. The disease was found on both fall and spring planted crops. Of 61 sites monitored, black leg was found at 43 locations. There is no evidence that the planting of 500 acres of canola was related to the disease outbreak. The disease incidence is not unique to canola but rather is an industry-wide problem in the Willamette Valley. Although black leg has been present in the Willamette Valley for many years and has been detected previously by the Oregon Department of Agriculture during field inspections, the outbreak in the spring of 2014 was greater than any in recent years.

Additionally, other diseases of importance were identified in multiple different Brassicacea species. Light leaf spot was found on fall-planted Brassicas grown for seed including canola,

turnip, forage Brassica, kale, and on weeds and volunteer crop plants. It also was found on spring-planted radish.

2014 -2015.
Canola and turnip fields were planted in the fall of 2014 and one canola field and radish fields were planted in the spring of 2015. The canola seed was certified black leg free and fungicide treated. Monitoring began at crop emergence and will continue through harvest. We are monitoring the fields planted in 2013 for volunteers.

Black leg has been identified in canola, turnip, and Brassicacea vegetable seed fields both conventional and organic and Brassica crops being grown for fresh market. It has also been found on weeds and volunteer plants. Other diseases have also been identified this year including light leaf spot and white leaf spot. Thus far, we have not detected differences in insect pests.

Volunteer plants of all crop species were observed in the fields in the fall of 2014 and spring of 2015. We recommend that growers be diligent in controlling all volunteer Brassicacea species to reduce the level of disease inoculum in the Willamette Valley.

The increased monitoring that resulted from this state funded research likely identified the problems earlier than otherwise would have occurred. We strongly believe that the work that we have conducted to date has been beneficial to all *Brassica* crop growers, including the specialty crucifer seed growers. We have conducted multiple meetings and field days to inform growers of findings as well as to make recommendations for control of the diseases and volunteers. We are providing input to the Oregon Department of Agriculture on the findings of the disease surveys along with management recommendations and training in disease identification.

To date, the research has not identified any characteristics of canola that make it uniquely different than other Brassicacea species in regards to disease or pests.