

## Spring Canola Large-Scale Variety Trials

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Small plot variety trials serve to assess the relative yields and traits of varieties. However, small plots do not capture the effect of landscape on different varieties. In order to assess the effect of landscape on yield and other important agronomic variables it is important to test varieties on a larger scale (Fig. 1). The large-scale variety trials are planted with a production scale drill and range from 400-600 ft in length. Each variety was replicated four times to allow for statistical comparisons of yield, nutrient concentration, and stand counts. During the 2019 growing season, large-scale variety trials were conducted at three locations. The varieties at each location varied based on what is commonly grown in each region. The variety trial locations were at Almira, WA, Davenport, WA, and Pullman, WA. At the Almira location, all the varieties except InVigor L233P were non-GMO. At the Davenport location a mix of non-GMO and GMO varieties were planted. At the Pullman location only RoundUp Ready varieties were planted. At both Almira and Davenport there were significant differences based on variety (Table 1). However, at Pullman, there was no significant differences based on yield. At the Davenport location NCC101S had the highest yield, while at Almira InVigor L233P had the highest yield. In addition to yield plant count, pod count, and nutrient concentration data were collected. Each of these data was spatially referenced in order to assess the variability across the field.



Figure 1. Strip trials near Pullman, WA demonstrate the landscape variability which can be captured with large scale trials.

**Table 1**

	Almira	Davenport	Pullman
BY5545 CL	854 b	1117 d	-
DynaGrow			
DG200CL	854 b	1259 bcd	-
InVigor L233P	947 a	1217 cd	-
NCC101S	819 b	1678 a	-
Xceed DG			
X122 CL	781 b	-	-
BrettYoung			
6080 RR	-	1120 d	1741 a
DynaGrow			
DG540 RR	-	1200 cd	1697 a
HyClass 930			
RR	-	1445 b	1680 a
Star 402 RR	-	1369 bc	1730 a
Mean	851	1301	1712
CV (%)	7.0	11.9	26.2
LSD	90	227	692