

Spring and Winter Canola Large-Scale Variety Trials

ISAAC J. MADSEN
DEPT. OF CROP AND SOIL SCIENCES, WSU

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, stand counts, and pod counts. During the 2019-2020 growing season two large scale winter variety trials were established at Cloverland and Ralston. The Cloverland trial was sprayed out in the spring of 2020 due to severe winter kill which had reduced the stand by greater than 95%. The Ralston location was taken to harvest and the results are presented here. Mercedes was the highest yielding variety followed by Surefire, Phoenix, Claremore, and Griffin. Falstaff had the lowest yield. Two spring canola trials were established near Davenport and Cloverland. Liberty Link (InVigor L233P), Roundup ready (BY6080, HC930, HC9919), Clearfield (BY5545), and non-resistant



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

(NCC101s) varieties were entered into the trial. At the Davenport location, herbicide drift between the plots resulted in convoluted yield data with no significant differences between varieties. However, at Cloverland there were significant differences between yield with NCC101s and InVigor L233P having significantly higher yields than the BY5455 and HC9919. HC930 was not significantly lower than InVigor L233P and NCC101s, but was not significantly higher than BY5545. When selecting varieties, it is important to consider the herbicide history, weed pressure, and economics as well as the yield. Non-GMO varieties offer a premium while the GMO varieties offer more in crop weed control options.

	Spring Canola		Winter Canola	
	Davenport	Cloverland		Ralston
BY5545 CL	1547.75 a	2647.75 b	Mercedes	2478.16 a
BY6080	1392.5 ab	-	Surefire	1978.58 b
HC930	1558 a	2805.25 ab	Phoenix	1879.89 b
HC9919	1629 a	2429.75 c	Claremore	1726.07 bc
InVigor L233 P	1280.5 b	2893.75 a	Griffin	1650.52 bc
NCC 101 s	1401.25 ab	2940 a	Falstaff	1461.98 c
Mean	1468	2743	Mean	1862
CV (%)	11.8	5.22	CV(%)	14.6
LSD	257	216	LSD	404