Results of the 2023 Pacific Northwest Canola Trials

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Winter Canola Trial, Genesee, ID

Summary

Canola and rapeseed (*Brassica napus*, L.) have been accepted as alternative crops for rotation in the Pacific Northwest's small grain cropping system. Comprehensive, multi-location variety trials are needed to evaluate the performance of newly available crop cultivars for a region. Therefore, researchers at the University of Idaho established and have been coordinating the "Pacific Northwest Canola Variety Trials" since 1994 to test spring and winter canola and rapeseed cultivars across the Inland Pacific Northwest.

In 2023, the trial included 20 winter canola and four rapeseed cultivars and 34 spring canola and two rapeseed cultivars. Winter cultivars had a mean yield of 3,335 lbs. per acre (range: 2,503 to 3,998 lbs. per acre), while spring cultivars had a mean yield of 2,718 lbs. per acre (range: 1,602 to 3,146 lbs. per acre). Mean yields for each site ranged from 2,036 to 4,574 lbs. per acre for the winter trials and from 1,496 to 2,982 lbs. per acre for the spring trials, underscoring the need to test cultivar suitability across diverse regions in the Pacific Northwest.

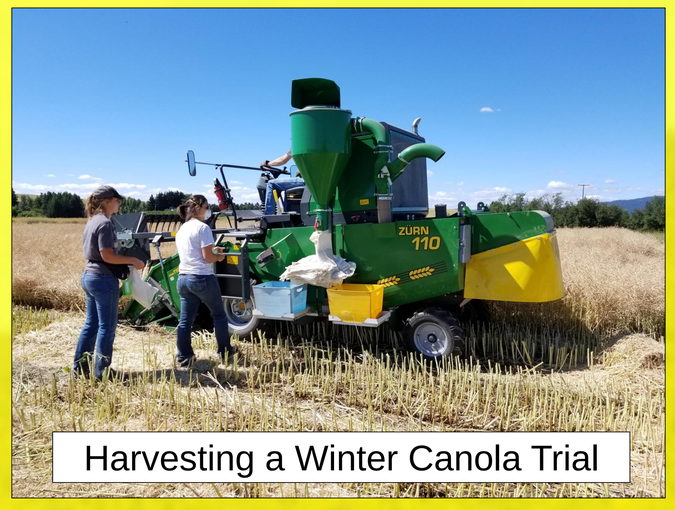
Spring Canola Trial, Moscow, ID

Winter Canola Trial (PNW-WVT)

For the 2022-2023 crop year, 21 canola (*Brassica napus*) cultivars and breeding lines plus three industrial rapeseed cultivars were tested. Trials were planted at four sites in late August 2022; Moscow, Genesee, and Nezperce, ID; and Davenport, WA. The site at Genesee failed to establish due to dry seedbed conditions. The Nezperce and Davenport sites were direct seeded into chem fallow, and the other sites were seeded in conventionally tilled fallow. each site was fertilized according to local practice.

The trial design was a randomized, complete block with four replications. Plot size was approximately 4 ft by 15 ft.

Varieties were a mix of hybrids and open-pollinated types. Several herbicide resistant varieties were included in the trials. Codes used in the data summaries are "RR" for Roundup Ready®, "SURT" for sufonylurea residue tolerance, "CL" for Clearfield®, and "G2" for resistance to imidazolinones and other Group 2 herbicides.



Harvesting a Winter Canola Trial

Spring Canola Trial (PNW-CVT)

The 2023 trial had 36 entries, and all were *Brassica napus* types except 'Goldrush' which is a *B. rapa* type. All entries were canola quality except for two industrial rapeseed entries from the University of Idaho.

The 2023 trials were grown at seven locations; Bonner Ferry, ID (tilled), Moscow, ID (tilled), Genesee, ID (tilled) and Craigmont, ID (no-till); Davenport, WA (no-till), Dayton, WA (no-till), Hermiston, OR (tilled and irrigated).

At each location, the trial design used was a randomized, complete block with four replications. Plot size was approximately 4 feet by 16 feet. All trials were grown on recrop ground and were fertilized according to local practice.

Herbicide resistant was denoted using the same codes as in the winter trial with the addition of "LL" to indicate Liberty Link® varieties.

PNW-WVT 2023. Minimum, maximum, and mean yields (lbs. per acre) of 24 winter canola or rapeseed cultivars at three locations in the Inland Pacific Northwest.

	Three-Year Mean Yield	One-Year Mean Yield	Yield by Location Moscow ID	Nezperce ID	Davenport WA	Winter Survival Score
	lbs per acre					*- 1 to 9 -*
Minimum	2,932	2,503	1,312	3,816	1,653	3.2
Maximum	4,196	3,998	4,598	5,401	2,627	7.3
Mean	3,413	3,335	3,019	6,092	2,036	4.6
LSD (*p = 0.05*)		153	901	539	715	0.9
C.V.		15.0	21.1	8.3	19.9	23.3

PNW-CVT 2023. Minimum, maximum, and mean yields (lbs. per acre) of 36 spring canola or rapeseed cultivars at seven locations in the Inland Pacific Northwest.

		Yield by location						
	Mean Yield	Bonners Ferry ID	Moscow ID	Genesee ID	Craigmont ID	Davenport WA	Dayton WA	Hermiston OR
	lbs per acre							
Minimum	1,832	1,602	1,513	1,794	1,612	2,193	1,651	893
Maximum	3,146	3,791	2,881	3,642	2,671	3,523	3,521	2,085
Mean	2,718	2,982	2,392	2,937	2,192	2,952	2,856	1,496
LSD (p = 0.05)	65	504	369	402	221	461	346	418
C.V.	10.4	12.1	10.7	9.7	7.1	11.6	8.6	17.3

Data summaries showing individual cultivars are available on the handouts. Please take one for each trial that interests you. The data is also available on our website at *https://www.uidaho.edu/cals/brassica.*

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