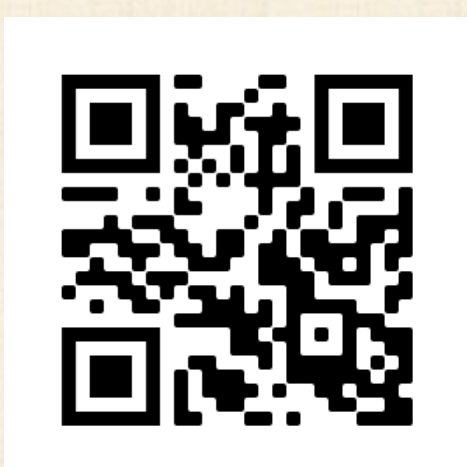


The Real Value of Large-Scale Canola Variety Trials

Karen Sowers - Pacific Northwest Canola Association



www.pnwcanola.org

Background

Canola acreage in the northwest United States, specifically Idaho, Montana, Oregon, and Washington, has nearly doubled in the last six years, from 214,000 acres in 2018 to 408,000 acres this year (2023). With the rapid growth in acreage, the need for providing quality, unbiased canola production information is critical. The Pacific Northwest Canola Association (PNWCA) partnered with canola growers and seed companies the last three years to conduct large scale spring canola variety trials to reflect what happens ‘in real life’ on the farm.



Design

The large-scale, on-farm trials were initiated in 2021 with a focus on glyphosate-tolerant cultivars commonly used in eastern Washington to tackle herbicide-resistant Italian rye.
2021: 5 cultivars, 180’x2640’ strips, one location (Pullman, data not shown).
2022: 10 cultivars, 60’x650’ plots, 3 replications, one location (Pullman)
2023: 11 cultivars, 50x500’ plots, 3 replications (Walla Walla)
13 cultivars, 56x550’ plots, 3 replications (Moscow-Pullman)



2023 Results - Yield

2023 TruFlex Spring Canola Variety Trial Yield Results				
Cultivar	Walla Walla ¹		Pullman ²	
	--- lbs/acre ---			
BrettYoung BY6211TF	----		2,041	ab
Canterra CS2600CR	----		2,327	a
Canterra CS3000TF	----		2,027	ab
Croplan CP930RR	2,429	c	----	
Croplan CP9221TF	2,677	a	1,986	abc
Croplan CP9978TF	2,623	ab	2,231	ab
DeKalb DK900TF	2,601	ab	2,150	ab
DeKalb DKTFL21SC	2,492	ab	1,823	bc
DynaGro DG761TF	2,209	d	1,918	abc
DynaGro DG781TF	2,486	bc	2,190	ab
InVigor LR354PC	2,419	c	1,837	bc
Nuseed NC471TF	2,350	cd	1,510	c
Nuseed NC527CRTF	2,611	ab	1,769	bc
StarFlex	2,467	bc	1,837	bc
Average	2,488		1,973	
LSD (p=0.05)	162		478	
Std Deviation	78		232	

¹ Planted April 14, harvested August 1

² Planted May 2, harvested August 29

2023 Results – Oil & Protein

2023 TruFlex Spring Canola Variety Trial Oil and Protein Results				
Cultivar	Walla Walla		Moscow-Pullman	
	Oil content	Protein ¹	Oil Content	Protein ¹
	--- % ---		--- % ---	
BY6211TF	---	---	46.4	bc
CS2600CR	---	---	49.6	a
CS3000TF	---	---	48.2	abc
CP930RR	48.6	a	---	---
CP9221TF	43.1	e	46.0	c
CP9978TF	44.9	cd	47.4	abc
DK900TF	44.3	de	47.4	abc
DKTFL21SC	45.9	bc	47.7	abc
DG761TF	46.2	b	46.2	bc
DG781TF	45.8	bc	48.3	ab
LR354PC	43.4	e	46.4	bc
NC471TF	45.7	bc	46.7	bc
NC527CRTF	44.9	cd	46.3	bc
StarFlex	46.4	b	48.5	ab
Average	45.4	22.4	47.3	21.6
LSD (p=0.05)	1.14	---	2.27	---
Std Deviation	0.54	---	1.10	---

¹ There were no significant differences of protein results

2022 Results

2022 TruFlex Spring Canola Variety Trial Results, Pullman			
Cultivar	Yield	Oil Content	Protein
	lbs/acre	%	%
DKTFL21SC	2,852	a	48.4
DKTF91SC	2,787	a	47.8
CP9221TF	2,776	a	45.3
Integra7361RC	2,743	a	46.6
LR344PC	2,732	a	---
DKTF99SC	2,710	a	46.4
BY6211TF	2,689	a	45.1
CP9978TF	2,623	ab	46.8
CP930RR	2,623	ab	48.9
NC155TF	2,415	b	44.8
Average	2,695		46.7
LSD P=0.05	175		---
Std Deviation	102		---

Planted April 29, 2022, harvested September 13, 2022



The Real Value

- Reaching >200 first-time and experienced canola growers and crop advisors at 7 tours of the trial locations.
- Evaluating crop performance from seeding to harvest across a range of topography, soil types, soil pH, tillage, and precipitation.
- Comparing large scale trial results to university and industry small plot research results.
- Educating about the importance of basing variety selection on multi-year results from several locations.
- Creating opportunities for networking and collaboration between growers, industry, university faculty, and agency representatives.
- *** Many growers are now citing the large-scale trials as the source of their variety selection and other production strategy decisions.
- *** Several growers have initiated their own large-scale trials on their farms based on these trials.
- *** Canola acreage in the northwest U.S. continues to increase!



Acknowledgments: The PNWCA thanks cooperators Keith & Heidi Kopf, and Ryan & Nathan Rea and their crews; and the canola seed companies who donated seed for the trials.