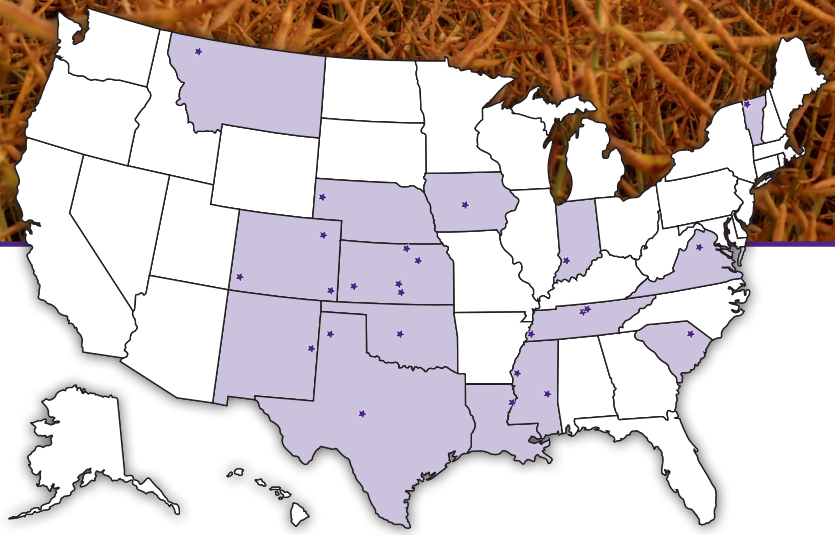
2024

National Winter Canola Variety Trial



Report of Progress 1192

K-STATE Research and Extension

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

2024 National Winter Canola Variety Trial and Roundup Ready Variety Trials

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Contribution no. 25-210-S from the Kansas Agricultural Experiment Station

2024 National Winter Canola Variety Trial

Objectives

The objectives of the National Winter Canola Variety Trial (NWCVT) are to evaluate the performance of released and experimental varieties, determine where these varieties are best adapted, and increase the visibility of winter canola across the United States. Breeders, marketers, and producers use data collected from the trials to make informed variety selections. The NWCVT is planted at locations in the Great Plains, Northern Plains, Midwest, and Southeast.

Procedures

Seed for the NWCVT was distributed to 26 test sites in 16 states for the 2023–2024 growing season. The locations receiving seed are illustrated on the map on the front cover. See the back cover for a listing of participating cooperators. Of the 60 entries, 15 are open pollinated and 45 are hybrid. These entries were provided by eight seed suppliers. All entries in the trial were treated with insecticide and fungicide seed treatments to control insects and seedling diseases through the late fall and early winter months.

Open-pollinated and hybrid cultivars were planted in separate, side-by-side trials at sites where all entries were planted. Results for each trial were analyzed individually and are presented in separate tables for each test site.

Management guidelines were provided to cooperators, but previous growing experience influenced final management decisions. All trials were planted in small research plots (approximately 100 ft^2) with three or four replications. Cultural practices, site descriptions, growing conditions, and performance data are provided for each harvested location. Results are presented alphabetically by seed supplier. Yield results for some locations include 2-year summaries.

Near infrared spectroscopy was used for total oil and protein analyses. The Kansas State University canola breeding program provided these analyses for all test sites.

The NWCVT continues in the 2024–2025 growing season and includes 48 entries. Eight seed suppliers contributed to the trial, and it was distributed to 30 locations in 17 states.

2023–2024 Growing Conditions

Temperature and precipitation data are shown at the top of the page for each test site. Thick black lines on the temperature graphs represent long-term average high and low temperatures (°F) for the test site. The upper thin line represents actual daily high temperatures, and the lower thin line represents actual daily low temperatures. On the precipitation graph, the line labeled “normal” represents long-term average precipitation, and the line labeled “23-24” represents actual precipitation. If weather information was not provided, data were taken from a nearby town.

In general, the 2023–2024 growing season was markedly improved over the previous growing season. Establishment conditions were adequate, and winterkill was mostly observed where establishment was poor. Poor stands were especially common in the arid High Plains. As a whole, trials in the Central Plains fared better as timely rains fell. In the Southeast, excessive rainfall close to harvest negatively impacted yields. High oil contents at harvested locations indicate conditions improved near the end of grain filling

Test Sites and Results

Seventeen harvested test sites in 11 states are included in this report: Vincennes, IN; Garden City, Hutchinson, Manhattan, and Norwich, KS; St. Joseph, LA; Newton and Stoneville, MS (2); Creston, MT; Clovis, NM; Perkins, OK; Florence, SC; Ashland City and Springfield, TN; Orange, VA; and Alburgh, VT. As a whole, the trials yielded slightly less than average. Trial means ranged from 249 to 3,148 lb per acre.

Nine locations were not harvested or had poor data quality because of inadequate stand establishment, winterkill, herbicide carryover, or lack of vernalization.

The “percentage of test average” yield calculation is included in the results. This relative yield calculation allows for some comparison of performance across environments. Entries yielding greater than

100% of the test average across multiple test sites merit some consideration.

Caution should be used when evaluating data from test sites with coefficient of variation (CV) values greater than 20. Lower values suggest less error was observed at the test site. Inestimable differences in soil type, weather, and environmental conditions play a part in increasing experimental error and CV values. Numerous test sites have CV values of greater than 20. Even if yield data are unreliable, other data collected by the cooperator may be useful.

Variety Selection

Winter hardiness is an important trait to consider when selecting a winter canola variety. This trait has been improved, but variability still exists where differential winterkill occurs. Winter canola varieties should show consistent survival across multiple years and sites. Other traits to consider include herbicide resistance, tolerance to carryover from sulfonylurea herbicides, maturity, disease tolerance, yield potential, and oil content. More than one year of data should be used to make an informed variety selection decision. Canola weighs 50 lb/bushel, so a 2,000 lb/acre yield is 40 bushels/acre.

View Table 29 for seed sources, contact information, brand names, and traits of the winter canola varieties, and hybrids grown in the NWCVT.

Acknowledgments

This work was funded in part by the fees paid by seed suppliers, the USDA-NIFA awards 2021-38624-35736 and 2021-67013-33782, and the Kansas Agricultural Experiment Station. Assistant scientist Allison Aubert assisted with organizing, packaging, planting, harvesting, data collection, and publication writing. Sincere appreciation is expressed to all participating researchers and seed suppliers who have a vested interest in expanding winter canola acres and increasing production in the United States. Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned.

Special Dedication

This annual report of progress is dedicated to the memory of Bob and Lori Schrock of Kiowa, KS. Bob and Lori tragically lost their lives in the American Airlines Flight 5342 mid-air collision. They were pioneering farmers, beloved community members, and former NWCVT site hosts. Their contributions to the testing, research, and promotion of winter canola in the Great Plains region and nationally will be dearly missed.

St. Joseph, Louisiana

Dennis Burns
Louisiana State University AgCenter

Planted: 10/17/2023 in 8-in. rows
Seeding Rate OP: 500,000 seeds/a
Seeding Rate Hybrid: 300,000 seeds/a
Desiccant: 5/21/2024 Paraquat 25 lb ai/a
Harvested: 6/7/2024
Herbicides: None
Insecticides: None
Fungicide: None
Previous crop: Soybean
Soil test: P= 22ppm, K= 83.5ppm, pH= 6.1
Fertilizer: Spring: 120-60-60 lb/a N-P-K split application

Soil type: Commerce silt loam Lattitude: 32.945278
Elevation: 74 ft. Longitude: -91.228333
Comments: Excessive rain for two weeks at harvest time caused severe yield losses.

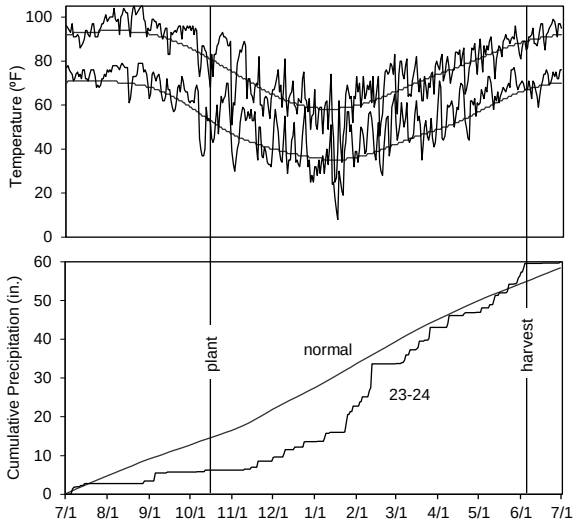


Table 1. Results for the 2024 National Winter Canola Variety Trial, open-pollinated cultivars, at St. Joseph, LA

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN														
CP225WRR	**279**	---	---	112	---	---	---	---	78	57	7.5	---	23.2	38.0
CP320WRR	189	---	---	76	---	---	---	---	76	52	8.1	---	23.5	37.8
CP1022WC	98	---	---	39	---	---	---	---	80	55	7.5	---	23.2	37.5
CP1066WC	**291**	---	---	117	---	---	---	---	78	62	8.8	---	21.9	38.8
Kansas State University														
KS4662	**277**	---	---	111	---	---	---	---	78	60	8.4	---	22.2	38.6
KS4737	**367**	---	---	147	---	---	---	---	82	60	6.9	---	22.3	38.9
KSR4767	**328**	---	---	132	---	---	---	---	78	59	7.3	---	23.2	38.5
KSR4839S	177	---	---	71	---	---	---	---	79	60	7.4	---	22.3	39.5
KSR4848	**250**	---	---	100	---	---	---	---	79	55	7.9	---	22.9	38.6
KSR4854S	156	---	---	63	---	---	---	---	79	59	7.9	---	22.9	38.1
KSUR1212	**248**	---	---	100	---	---	---	---	79	60	7.6	---	22.3	38.9
Surefire	204	---	---	82	---	---	---	---	82	55	8.3	---	24.0	37.6
Wichita	**314**	---	---	126	---	---	---	---	78	63	8.4	---	23.5	38.0
Ohlde Seed Farms														
Torrington	**318**	---	---	128	---	---	---	---	80	56	6.8	---	22.9	38.2
Star Specialty Seed														
Star 930W	**241**	---	---	97	---	---	---	---	79	55	7.3	---	22.5	38.3
Grand Mean	249	---	---	---	---	---	---	---	79	58	7.7	---	22.9	38.3
CV	33	---	---	---	---	---	---	---	2	6	9.5	---	1.6	1.5
LSD (0.05)	139	---	---	---	---	---	---	---	3	ns	ns	---	0.8	ns
P-value	0.029	---	---	---	---	---	---	---	0.038	0.066	0.078	---	0.002	0.141

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data.

Table 2. Results for the 2024 National Winter Canola Variety Trial, hybrid cultivars, at St. Joseph, LA

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Bayer Crop Science														
DK SEQUEL	630	---	---	71	---	---	---	---	78	54	6.9	---	22.7	37.1
DK SEVERNYI	**921**	---	---	104	---	---	---	---	80	60	6.6	---	21.4	38.6
DK SEPHOR	876	---	---	99	---	---	---	---	80	57	7.4	---	21.7	38.1
DK EXPOWER	890	---	---	100	---	---	---	---	78	61	7.4	---	21.1	39.2
DK EXSTORM	**1161**	---	---	131	---	---	---	---	80	58	7.4	---	21.3	39.0
DK EXTERRIER	**933**	---	---	105	---	---	---	---	77	60	7.0	---	20.7	37.9
DK EXENTIEL	**1052**	---	---	119	---	---	---	---	78	62	7.2	---	19.9	40.0
DK EXCEPTION	**1068**	---	---	120	---	---	---	---	79	62	7.6	---	21.2	38.1
DK EXCLAIM	724	---	---	82	---	---	---	---	81	62	7.0	---	20.8	38.7
DK EXSTAR	**911**	---	---	103	---	---	---	---	79	61	6.9	---	20.4	39.7
DK EXTREMUS	**1143**	---	---	129	---	---	---	---	78	62	7.1	---	20.7	39.8
DK EXSTEEL	815	---	---	92	---	---	---	---	79	61	8.0	---	19.9	39.7
DK EXPAT	**977**	---	---	110	---	---	---	---	78	63	7.0	---	21.6	37.8
DK EXLEVEL	**1099**	---	---	124	---	---	---	---	78	59	7.3	---	20.3	38.4
DK EXCITY	**972**	---	---	110	---	---	---	---	77	64	7.5	---	21.9	39.1
DK EXOTTER	**1041**	---	---	117	---	---	---	---	78	56	7.1	---	20.9	38.0
DK EXSUN	**986**	---	---	111	---	---	---	---	78	65	7.0	---	20.1	39.3
DK EXTRACT	902	---	---	102	---	---	---	---	79	62	6.0	---	22.9	37.6
DK EXIMA	**987**	---	---	111	---	---	---	---	78	59	7.3	---	20.4	39.2
DK EXPORTER	**1145**	---	---	129	---	---	---	---	78	57	6.9	---	20.8	39.2
DK EXPACITO	**971**	---	---	109	---	---	---	---	79	62	6.9	---	21.6	38.9
Corteva Agriscience														
PT264	525	---	---	59	---	---	---	---	79	66	6.5	---	21.7	40.2
PT299	561	---	---	63	---	---	---	---	76	63	6.7	---	19.7	41.3
PT302	739	---	---	83	---	---	---	---	81	61	6.9	---	20.9	40.3
PT303	627	---	---	71	---	---	---	---	78	65	7.0	---	20.9	40.1
PT312	395	---	---	45	---	---	---	---	80	62	7.0	---	21.6	38.8
PT314	**1228**	---	---	138	---	---	---	---	79	62	6.3	---	20.6	40.4
PT319	**1192**	---	---	134	---	---	---	---	78	61	7.2	---	23.1	36.8
PT320	850	---	---	96	---	---	---	---	82	62	7.5	---	22.3	37.8
PT321	673	---	---	76	---	---	---	---	77	65	6.8	---	21.0	39.9
PT323	627	---	---	71	---	---	---	---	78	61	7.2	---	20.5	40.9
CROPLAN														
CP1055WC	537	---	---	61	---	---	---	---	76	63	7.5	---	21.2	38.8
CP1077WC	830	---	---	94	---	---	---	---	82	64	7.2	---	21.6	38.6
Photosyntech														
PST23YWT930	874	---	---	99	---	---	---	---	79	65	7.0	---	21.9	38.2
PST23BACL09	816	---	---	92	---	---	---	---	79	62	7.5	---	21.4	38.7
PST23EX37D	**1162**	---	---	131	---	---	---	---	77	65	7.2	---	19.8	41.0
PST23YW1721	**909**	---	---	102	---	---	---	---	81	64	7.6	---	22.7	38.4
Rubisco Seeds														
Triathlon	784	---	---	88	---	---	---	---	79	64	7.1	---	21.5	38.4
Janosh	379	---	---	43	---	---	---	---	77	54	7.0	---	21.3	37.8
Drifter	**1240**	---	---	140	---	---	---	---	79	55	6.5	---	22.0	38.5
Manhattan	784	---	---	88	---	---	---	---	77	63	7.2	---	21.1	38.6
Beatrix CL	**1317**	---	---	148	---	---	---	---	78	62	6.8	---	21.9	39.3
Grand Mean	887	---	---	---	---	---	---	---	79	61	7.1	---	21.2	39.0
CV	29	---	---	---	---	---	---	---	3	6	10.0	---	4.5	2.8
LSD (0.05)	411	---	---	---	---	---	---	---	ns	6	ns	---	ns	2.2
P-value	<.0005	---	---	---	---	---	---	---	0.291	0.004	0.710	---	0.130	0.040

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data.

Newton, Mississippi

Brett Rushing
Mississippi State University

Planted:	10/16/2023 in 7-in. rows	
Seeding Rate OP:	500,000 seeds/a	
Seeding Rate Hybrid:	300,000 seeds/a	
Desiccant:	None	
Harvested:	6/3/2024	
Herbicides:	1 pt/a Treflan	
Insecticides:	None	Latitude:32.333952778
Fungicide:	None	Longitude: -89.0852805556
Previous crop:	Soybean	
Soil test:	P=163 lb/a, K=272 lb/a, pH=6.9	
Fertilizer:	2 t/a poultry litter	
Soil type:	Prentiss fine sandy loam	
Elevation:	351 ft.	
Comments:	High fertility from poultry litter may have led to greater rates of lodging in the plots.	

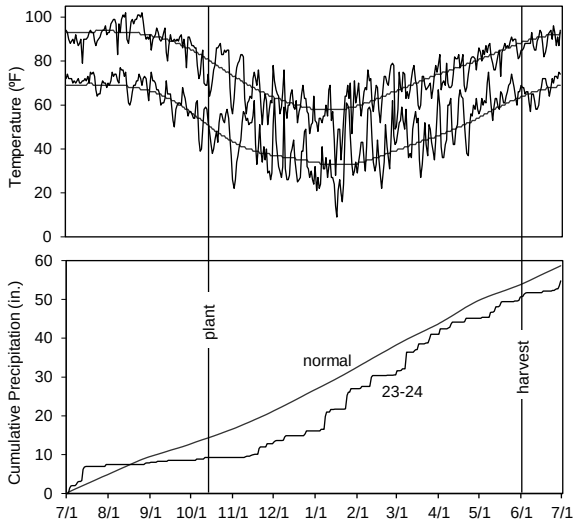


Table 3. Results for the 2024 National Winter Canola Variety Trial, open-pollinated cultivars, at Newton, MS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Lodging	Moisture	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(%)	(%)	(%)
CROPLAN															
CP225WRR	1017	---	---	176	---	---	---	---	---	83	49	53.3	16.2	21.1	40.3
CP320WRR	618	---	---	107	---	---	---	---	---	80	46	38.3	19.6	21.6	40.7
CP1022WC	320	---	---	55	---	---	---	---	---	90	50	63.3	5.4	21.1	41.5
CP1066WC	392	---	---	68	---	---	---	---	---	85	58	16.7	17.0	20.2	41.5
Kansas State University															
KS4662	470	---	---	81	---	---	---	---	---	83	55	13.3	10.0	20.1	41.9
KS4737	520	---	---	90	---	---	---	---	---	83	50	60.0	14.8	20.3	42.2
KSR4767	383	---	---	66	---	---	---	---	---	85	53	46.7	8.9	22.0	39.9
KSR4839S	467	---	---	81	---	---	---	---	---	83	48	26.7	10.6	21.5	40.6
KSR4848	610	---	---	106	---	---	---	---	---	85	54	23.3	20.4	21.1	40.7
KSR4854S	608	---	---	105	---	---	---	---	---	85	53	23.3	17.9	22.0	39.9
KSUR1212	578	---	---	100	---	---	---	---	---	87	50	60.0	17.5	20.7	42.0
Surefire	635	---	---	110	---	---	---	---	---	88	50	33.3	22.3	22.0	40.6
Wichita	702	---	---	122	---	---	---	---	---	87	57	13.3	23.1	20.8	42.2
Ohlde Seed Farms															
Torrington	698	---	---	121	---	---	---	---	---	82	54	50.0	22.0	20.8	41.9
Star Specialty Seed															
Star 930W	637	---	---	110	---	---	---	---	---	82	50	63.3	18.6	20.6	42.1
Grand Mean	577	---	---	---	---	---	---	---	---	85	52	39.0	16.3	21.0	41.2
CV	48	---	---	---	---	---	---	---	---	3	8	57.5	61.3	3.6	2.1
LSD (0.05)	ns	---	---	---	---	---	---	---	---	4	ns	37.5	ns	ns	ns
P-value	0.387	---	---	---	---	---	---	---	---	<.0005	0.055	0.046	0.600	0.240	0.131

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data. Yields adjusted to 9% moisture content.

Table 4. Results for the 2024 National Winter Canola Variety Trial, hybrid cultivars, at Newton, MS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Lodging	Moisture	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(%)	(%)	(%)
Bayer Crop Science															
DK SEQUEL	843	---	---	94	---	---	---	8.0	4.3	83	46	30.0	12.7	20.8	39.4
DK SEVERNYI	568	---	---	63	---	---	---	8.0	4.3	90	45	33.3	9.8	19.5	41.8
DK SEPHOR	767	---	---	85	---	---	---	8.0	4.3	90	50	30.0	12.8	18.4	43.0
DK EXPOWER	**1072**	---	---	119	---	---	---	8.0	4.3	83	50	33.3	10.8	17.0	44.5
DK EXSTORM	995	---	---	110	---	---	---	8.0	4.3	87	49	43.3	16.0	17.9	43.4
DK EXTERRIER	853	---	---	95	---	---	---	8.0	4.3	88	37	36.7	14.6	19.0	41.0
DK EXENTIEL	867	---	---	96	---	---	---	8.0	4.3	87	38	40.0	12.8	18.9	41.7
DK EXCEPTION	733	---	---	81	---	---	---	8.7	4.3	90	38	40.0	14.0	18.8	41.2
DK EXCLAIM	732	---	---	81	---	---	---	8.7	4.3	90	40	33.3	16.8	18.7	43.1
DK EXSTAR	732	---	---	81	---	---	---	8.7	4.3	88	42	33.3	12.1	17.4	44.8
DK EXTREMUS	**1073**	---	---	119	---	---	---	8.7	4.3	85	49	13.3	12.6	17.2	44.2
DK EXSTEEL	538	---	---	60	---	---	---	8.7	4.3	88	28	66.7	13.6	18.0	42.9
DK EXPAT	843	---	---	94	---	---	---	8.7	4.3	87	48	33.3	14.7	17.7	42.8
DK EXLEVEL	932	---	---	103	---	---	---	8.7	4.3	83	48	36.7	16.3	18.9	41.1
DK EXCITY	500	---	---	55	---	---	---	10.0	5.0	88	54	6.7	11.3	18.1	43.9
DK EXOTTER	**1060**	---	---	118	---	---	---	10.0	5.0	85	46	23.3	12.8	18.4	42.5
DK EXSUN	633	---	---	70	---	---	---	10.0	5.0	87	44	3.3	9.1	18.2	42.2
DK EXTRACT	838	---	---	93	---	---	---	10.0	5.0	88	45	43.3	16.2	19.3	41.1
DK EXIMA	545	---	---	60	---	---	---	8.7	4.3	83	49	43.3	11.2	18.1	42.6
DK EXPORTER	737	---	---	82	---	---	---	8.7	4.3	82	46	40.0	13.3	17.3	43.9
DK EXPACITO	618	---	---	69	---	---	---	8.7	4.3	88	46	36.7	12.8	18.2	44.1
Corteva Agriscience															
PT264	533	---	---	59	---	---	---	8.7	4.3	90	34	33.3	9.0	17.3	45.2
PT299	**1257**	---	---	139	---	---	---	8.7	4.3	87	46	28.3	23.2	20.8	40.1
PT302	528	---	---	59	---	---	---	10.0	5.0	88	46	50.0	9.2	18.9	42.6
PT303	803	---	---	89	---	---	---	10.0	5.0	87	57	0.0	11.4	19.4	40.8
PT312	**1282**	---	---	142	---	---	---	10.0	5.0	88	57	23.3	13.4	18.2	43.4
PT314	**1097**	---	---	122	---	---	---	10.0	5.0	83	62	13.3	13.2	18.2	44.6
PT319	**1237**	---	---	137	---	---	---	10.0	5.0	87	53	20.0	15.5	18.9	42.5
PT320	**1110**	---	---	123	---	---	---	10.0	5.0	90	60	23.3	18.6	20.5	40.7
PT321	993	---	---	110	---	---	---	10.0	5.0	85	54	13.3	13.9	19.3	42.4
PT323	740	---	---	82	---	---	---	10.0	5.0	88	48	60.0	12.9	18.5	44.6
CROPLAN															
CP1055WC	602	---	---	67	---	---	---	8.0	4.3	85	54	26.7	9.6	19.3	40.6
CP1077WC	820	---	---	91	---	---	---	8.0	4.3	88	50	33.3	13.4	19.2	41.4
Photosyntech															
PST23YWT930	**1330**	---	---	147	---	---	---	10.0	5.0	90	65	0.0	22.0	19.9	42.1
PST23BACL09	843	---	---	94	---	---	---	10.0	5.0	85	58	36.7	17.9	19.8	42.1
PST23EX37D	**1432**	---	---	159	---	---	---	10.0	5.0	80	65	3.3	15.9	18.7	42.5
PST23YW1721	**1267**	---	---	140	---	---	---	10.0	5.0	85	62	0.0	20.9	18.7	41.5
Rubisco Seeds															
Triathlon	1023	---	---	113	---	---	---	10.0	5.0	90	56	30.0	14.2	19.9	42.3
Janosh	**1065**	---	---	118	---	---	---	10.0	5.0	83	50	0.0	15.5	20.0	41.4
Drifter	952	---	---	106	---	---	---	10.0	5.0	82	44	10.0	15.5	20.1	40.6
Manhattan	938	---	---	104	---	---	---	10.0	5.0	85	54	26.7	22.9	19.6	41.3
Beatrix CL	**1545**	---	---	171	---	---	---	10.0	5.0	85	57	6.7	20.0	19.5	41.6
Grand Mean	902	---	---	---	---	---	---	9.2	4.7	87	49	27.1	14.4	18.8	42.3
CV	42	---	---	---	---	---	---	16.1	12.5	3	24	107.1	35.4	6.7	4.8
LSD (0.05)	513	---	---	---	---	---	---	ns	ns	4	ns	ns	ns	ns	ns
P-value	0.071	---	---	---	---	---	---	0.488	0.488	<.0001	0.103	0.557	0.061	0.344	0.597

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data. Yields adjusted to 9% moisture content.

Stoneville, Mississippi

Andrew Hopkins
Corteva Agriscience

Planted: 10/17/2023 in 7-in. rows

Seeding Rate Hybrid: 300,000 seeds/a
Desiccant: None
Harvested: 6/7/2024
Herbicides: None
Insecticides: None
Fungicide: None
Previous crop: N/A
Fertilizer: N/A

Soil type: N/A Latitude: N/A
Elevation: N/A Longitude: N/A
Comments: Excessive rainfall and standing water caused severe lodging in the open-pollinated trial, which was not harvested.

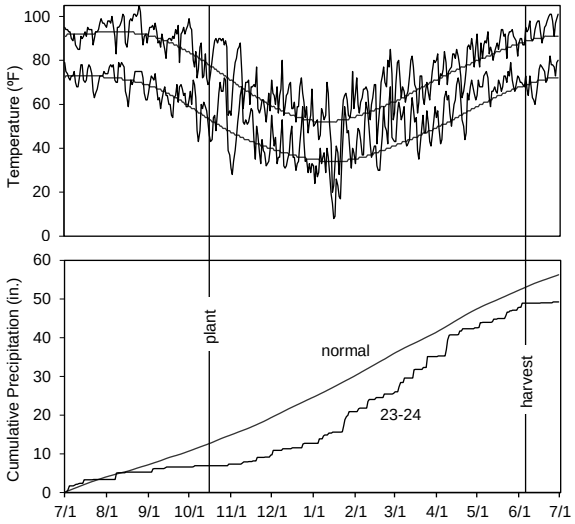


Table 5. Results for the 2024 National Winter Canola Variety Trial, hybrid cultivars, at Stoneville, MS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	First Bloom	Plant height	Moisture	Test weight	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Bayer Crop Science														
DK SEQUEL	**1796**	---	---	121	---	---	---	---	93	---	9.2	48.6	26.7	33.4
DK SEVERNYI	**1750**	---	---	118	---	---	---	---	95	---	8.5	49.8	26.9	32.7
DK SEPHOR	953	---	---	64	---	---	---	---	100	---	8.4	42.0	22.6	39.5
DK EXPOWER	1207	---	---	81	---	---	---	---	95	---	7.1	47.8	25.7	34.5
DK EXSTORM	**2073**	---	---	140	---	---	---	---	95	---	7.7	47.5	24.7	35.0
DK EXTERRIER	**1546**	---	---	104	---	---	---	---	100	---	8.3	46.7	26.2	33.6
DK EXENTIEL	**1559**	---	---	105	---	---	---	---	93	---	8.3	46.2	26.3	34.1
DK EXCEPTION	**1490**	---	---	101	---	---	---	---	96	---	9.2	44.5	26.2	33.3
DK EXCLAIM	927	---	---	63	---	---	---	---	98	---	9.3	42.2	27.1	32.7
DK EXSTAR	**1882**	---	---	127	---	---	---	---	94	---	8.7	47.4	25.4	34.8
DK EXTREMUS	**1833**	---	---	124	---	---	---	---	93	---	8.1	50.1	26.5	34.2
DK EXSTEEL	**1422**	---	---	96	---	---	---	---	97	---	9.8	42.7	25.9	34.4
DK EXPAT	**1501**	---	---	101	---	---	---	---	97	---	8.3	47.7	24.9	35.0
DK EXLEVEL	**1353**	---	---	91	---	---	---	---	93	---	7.9	43.8	26.2	34.0
DK EXCITY	**1790**	---	---	121	---	---	---	---	94	---	7.6	49.8	26.6	33.3
DK EXOTTER	1071	---	---	72	---	---	---	---	96	---	6.9	41.1	25.0	34.5
DK EXSUN	**1824**	---	---	123	---	---	---	---	93	---	8.6	48.7	25.6	34.5
DK EXTRACT	**1712**	---	---	116	---	---	---	---	94	---	7.3	48.3	26.2	33.9
DK EXIMA	**1783**	---	---	120	---	---	---	---	91	---	9.1	49.8	25.7	34.7
DK EXPORTER	**1375**	---	---	93	---	---	---	---	92	---	7.3	47.0	25.3	34.6
DK EXPACITO	1338	---	---	90	---	---	---	---	96	---	8.4	44.1	26.7	34.1
Corteva Agriscience														
PT264	995	---	---	67	---	---	---	---	101	---	7.0	44.5	26.2	34.6
PT299	**1538**	---	---	104	---	---	---	---	94	---	6.6	47.8	26.4	34.1
PT302	**1592**	---	---	107	---	---	---	---	102	---	7.2	47.4	26.0	35.1
PT303	1004	---	---	68	---	---	---	---	100	---	7.3	43.3	25.6	35.1
PT312	1037	---	---	70	---	---	---	---	102	---	9.9	43.0	25.7	35.7
PT314	**1345**	---	---	91	---	---	---	---	95	---	7.1	47.4	26.8	35.2
PT319	**1597**	---	---	108	---	---	---	---	95	---	9.2	49.5	26.6	33.9
PT320	**1468**	---	---	99	---	---	---	---	103	---	7.8	46.0	26.3	34.5
PT321	**1341**	---	---	91	---	---	---	---	96	---	7.3	47.4	26.2	34.3
PT323	**1817**	---	---	123	---	---	---	---	97	---	8.5	47.8	27.0	33.7

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	First Bloom	Plant height	Moisture	Test weight	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN														
CP1055WC	**1473**	---	---	99	---	---	---	---	94	---	8.1	46.9	24.7	36.0
CP1077WC	1253	---	---	85	---	---	---	---	101	---	8.7	45.2	27.0	33.4
Grand Mean	1481	---	---	---	---	---	---	---	96	---	8.1	46.4	26.0	34.4
CV	23	---	---	---	---	---	---	---	2	---	7.9	5.1	4.8	4.2
LSD (0.05)	733	---	---	---	---	---	---	---	4	---	1.4	5.0	ns	ns
P-value	0.139	---	---	---	---	---	---	---	<.0001	---	0.001	0.016	0.440	0.206

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data.

Stoneville, Mississippi

Andrew Hopkins
Corteva Agriscience

Planted: 9/20/2023 in 7-in. rows

Seeding Rate Hybrid: 300,000 seeds/a
Desiccant: None
Harvested: 5/30/2024
Herbicides: None
Insecticides: None
Fungicide: None
Previous crop: Soybean
Fertilizer: N/A

Soil type: Bosket very-fine sandy loam
Elevation: 121 ft.
Comments: Excessive rainfall and standing water caused severe lodging in the open-pollinated trial, which was not harvested.

Latitude: 33.4209
Longitude: -90.8917

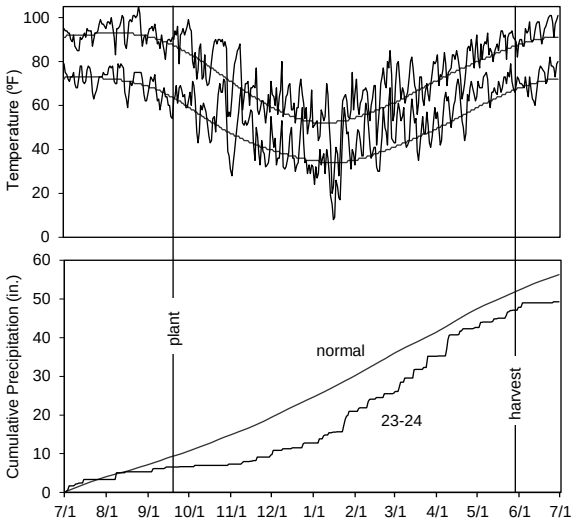


Table 6. Results for the 2024 National Winter Canola Variety Trial, hybrid cultivars, at Stoneville, MS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	First Bloom	Plant height	Moisture	Test weight	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Bayer Crop Science														
DK SEQUEL	1545	---	---	102	---	---	---	---	---	---	10.9	44.5	20.8	39.8
DK SEVERNYI	1546	---	---	102	---	---	---	---	---	---	10.0	44.5	20.0	42.0
DK SEPHOR	**2340**	---	---	154	---	---	---	---	---	---	8.6	49.7	21.8	40.8
DK EXPOWER	1557	---	---	103	---	---	---	---	---	---	9.3	43.1	19.1	43.2
DK EXSTORM	1678	---	---	111	---	---	---	---	---	---	10.3	46.1	20.5	40.9
DK EXTERRIER	1622	---	---	107	---	---	---	---	---	---	13.2	41.5	21.5	39.9
DK EXENTIEL	1504	---	---	99	---	---	---	---	---	---	11.6	40.3	18.8	43.2
DK EXCEPTION	1307	---	---	86	---	---	---	---	---	---	10.6	41.8	20.2	41.3
DK EXCLAIM	1678	---	---	111	---	---	---	---	---	---	14.0	42.3	20.5	41.9
DK EXSTAR	1377	---	---	91	---	---	---	---	---	---	10.2	41.4	19.7	41.7
DK EXTREMUS	1459	---	---	96	---	---	---	---	---	---	9.3	44.1	18.6	43.1
DK EXSTEEL	1383	---	---	91	---	---	---	---	---	---	10.7	42.9	19.7	43.2
DK EXPAT	1719	---	---	113	---	---	---	---	---	---	10.9	42.5	21.0	40.1
DK EXLEVEL	1213	---	---	80	---	---	---	---	---	---	9.5	46.8	20.8	40.4
DK EXCITY	1565	---	---	103	---	---	---	---	---	---	10.1	43.7	19.3	41.8
DK EXOTTER	1356	---	---	89	---	---	---	---	---	---	10.9	44.3	20.5	41.2
DK EXSUN	1527	---	---	101	---	---	---	---	---	---	9.6	43.2	20.8	39.9
DK EXTRACT	1728	---	---	114	---	---	---	---	---	---	9.0	46.5	17.9	43.4
DK EXIMA	**1795**	---	---	118	---	---	---	---	---	---	9.8	43.3	22.1	41.0
DK EXPORTER	1267	---	---	84	---	---	---	---	---	---	9.2	40.3	19.8	42.1
DK EXPACITO	1213	---	---	80	---	---	---	---	---	---	9.2	41.3	---	---
Corteva Agriscience														
PT264	1614	---	---	106	---	---	---	---	---	---	12.8	40.9	---	---
PT299	1303	---	---	86	---	---	---	---	---	---	9.6	44.2	18.8	44.0
PT302	1249	---	---	82	---	---	---	---	---	---	7.9	47.3	20.7	42.0
PT303	1358	---	---	90	---	---	---	---	---	---	8.7	46.2	19.5	43.5
PT312	1456	---	---	96	---	---	---	---	---	---	12.5	42.2	19.2	44.2
PT314	987	---	---	65	---	---	---	---	---	---	9.0	40.7	18.6	44.0
PT319	**1801**	---	---	119	---	---	---	---	---	---	11.6	44.0	22.6	39.9
PT320	1463	---	---	97	---	---	---	---	---	---	11.0	46.5	22.0	42.0
PT321	1159	---	---	76	---	---	---	---	---	---	9.3	43.0	20.0	43.7
PT323	1299	---	---	86	---	---	---	---	---	---	8.2	44.7	19.7	44.5

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	First Bloom	Plant height	Moisture	Test weight	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN														
CP1055WC	1691	---	---	112	---	---	---	---	---	---	10.1	42.6	19.4	42.2
CP1077WC	**1919**	---	---	127	---	---	---	---	---	---	15.1	40.6	21.0	41.1
Grand Mean	1516	---	---	---	---	---	---	---	---	---	10.4	43.6	20.2	41.9
CV	21	---	---	---	---	---	---	---	---	---	17.4	7.2	4.4	2.1
LSD (0.05)	567	---	---	---	---	---	---	---	---	---	3.3	ns	2.0	2.0
P-value	0.020	---	---	---	---	---	---	---	---	---	0.007	0.127	0.005	<.0001

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data. Yields adjusted to 9% moisture content.

Florence, South Carolina

W. John Park
Clemson University

Planted:	10/5/2023 in 7.5-in. rows
Seeding Rate OP:	500,000 seeds/a
Seeding Rate Hybrid:	300,000 seeds/a
Desiccant:	None
Harvested:	6/4/2024
Herbicides:	2 pt/a Prowl H2O
Insecticides:	None
Fungicide:	None
Previous crop:	Corn
Soil test:	P= 106 lb/a, K= 132 lb/a, pH= 5.8
Fertilizer:	Fall: 80-0-60-40 lb/a N-P-K-S 1900 lb/a lime Spring: 80-0-0-0-1 lb/a N-P-K-S-B
Soil type:	Noboco loamy sand Latitude: 34.292778
Elevation:	138 ft. Longitude: -79.733889
Comments:	The hybrids significantly outyielded the open-pollinated entries at this site.

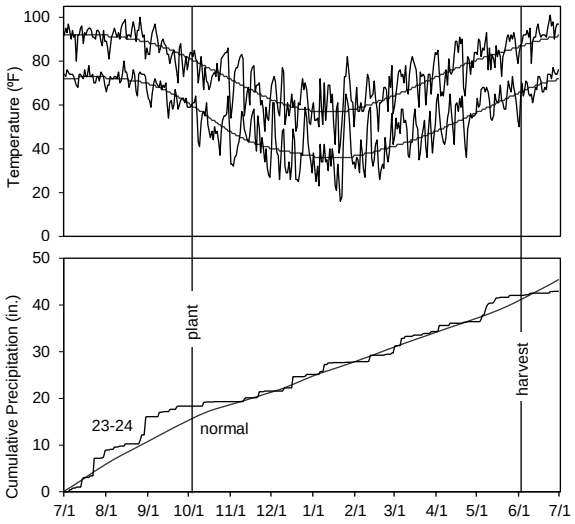


Table 7. Results for the 2024 National Winter Canola Variety Trial, open-pollinated cultivars, at Florence, SC

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Test weight	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0 to 10)	(1-5)	(d)	(in.)	(lb/bu)	(%)	(%)
CROPLAN														
CP225WRR	**1229**	---	---	116	90	---	---	7.3	3.0	83	49	---	18.1	44.4
CP320WRR	**1437**	---	---	135	88	---	---	6.5	2.8	81	44	---	18.2	44.3
CP1022WC	592	---	---	56	85	---	---	6.0	2.8	91	51	---	20.9	41.8
CP1066WC	1045	---	---	98	88	---	---	6.3	2.8	85	52	---	18.5	43.7
Kansas State University														
KS4662	**1232**	---	---	116	88	---	---	6.5	3.0	84	50	---	18.9	43.5
KS4737	**1109**	---	---	104	85	---	---	5.8	3.0	84	51	---	19.0	44.0
KSR4767	992	---	---	93	85	---	---	6.5	2.8	84	50	---	18.4	44.5
KSR4839S	880	---	---	83	83	---	---	5.5	2.3	85	52	---	17.7	45.1
KSR4848	1007	---	---	95	90	---	---	6.8	3.0	86	51	---	18.4	43.6
KSR4854S	876	---	---	82	88	---	---	7.0	3.0	88	54	---	18.0	44.6
KSUR1212	**1115**	---	---	105	83	---	---	6.5	2.5	84	50	---	18.4	44.1
Surefire	970	---	---	91	83	---	---	6.3	2.5	90	50	---	20.5	42.4
Wichita	**1284**	---	---	121	90	---	---	6.8	3.0	84	50	---	19.3	43.4
Ohlde Seed Farms														
Torrington	1024	---	---	96	85	---	---	6.5	3.0	82	53	---	18.4	44.9
Star Specialty Seed														
Star 930W	**1133**	---	---	107	85	---	---	6.8	3.0	83	46	---	18.0	45.0
Grand Mean	1062	---	---	---	86	---	---	6.5	2.8	85	50	---	18.7	44.0
CV	24	---	---	---	5	---	---	12.1	12.6	2	6	---	4.2	2.0
LSD	363	---	---	---	ns	---	---	ns	0	3	4	---	1.7	1.6
P-value	0.012	---	---	---	0.275	---	---	0.216	0.066	<.0001	0.013	---	0.039	0.085

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data.

Table 8. Results for the 2024 National Winter Canola Variety Trial, hybrid cultivars, at Florence, SC

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Test weight	Protein	Oil
	2024	2023	2-yr.	2023	2024	2023	2-yr.	(0-10)	(1-5)	(d)	(in.)	(lb/bu)	(%)	(%)
Bayer Crop Science														
DK SEQUEL	2429	---	---	92	90	---	---	8.0	4.0	81	49	---	16.9	42.8
DK SEVERNYI	1946	---	---	73	87	---	---	8.3	4.0	83	53	---	17.8	43.3
DK SEPHOR	2779	---	---	105	87	---	---	8.3	4.0	85	48	---	17.3	43.9
DK EXPOWER	2598	---	---	98	87	---	---	7.3	4.0	78	55	---	16.8	45.5
DK EXSTORM	2924	---	---	110	90	---	---	8.7	5.7	83	59	---	16.9	44.7
DK EXTERRIER	2400	---	---	91	90	---	---	8.7	4.0	85	55	---	17.0	43.9
DK EXENTIEL	2489	---	---	94	87	---	---	7.3	4.0	80	56	---	16.4	45.0
DK EXCEPTION	2512	---	---	95	90	---	---	8.0	5.0	82	54	---	16.2	44.0
DK EXCLAIM	2679	---	---	101	90	---	---	8.0	4.7	86	56	---	17.7	44.5
DK EXSTAR	3191	---	---	121	90	---	---	8.3	4.0	82	54	---	17.4	44.7
DK EXTREMUS	2659	---	---	100	90	---	---	8.0	5.0	81	55	---	17.1	45.3
DK EXSTEEL	2220	---	---	84	90	---	---	7.7	4.0	83	56	---	16.4	45.3
DK EXPAT	3196	---	---	121	87	---	---	7.7	4.0	81	55	---	17.3	43.6
DK EXLEVEL	2968	---	---	112	90	---	---	8.0	4.0	79	62	---	15.9	45.5
DK EXCITY	2669	---	---	101	90	---	---	8.3	4.0	82	55	---	17.8	44.9
DK EXOTTER	3037	---	---	115	90	---	---	8.7	5.7	78	52	---	16.1	44.0
DK EXSUN	2707	---	---	102	90	---	---	8.3	4.0	81	57	---	17.7	43.7
DK EXTRACT	2802	---	---	106	87	---	---	8.3	3.7	81	58	---	17.2	43.9
DK EXIMA	3200	---	---	121	90	---	---	7.7	5.0	80	54	---	16.6	45.2
DK EXPORTER	3412	---	---	129	90	---	---	8.3	4.0	77	55	---	16.0	45.6
DK EXPACITO	3065	---	---	116	90	---	---	8.0	4.0	84	61	---	17.8	43.3
Corteva Agriscience														
PT264	2763	---	---	104	90	---	---	8.7	4.0	85	60	---	18.0	44.3
PT299	2316	---	---	87	87	---	---	8.3	4.3	81	55	---	16.9	46.8
PT302	2297	---	---	87	87	---	---	8.0	3.7	87	54	---	16.7	45.5
PT303	2499	---	---	94	90	---	---	9.0	4.3	85	56	---	16.7	46.8
PT312	2280	---	---	86	90	---	---	8.7	4.0	87	62	---	17.7	45.3
PT314	2476	---	---	94	90	---	---	7.7	4.0	82	61	---	16.9	47.6
PT319	2824	---	---	107	90	---	---	8.7	4.0	85	54	---	20.2	41.1
PT320	2508	---	---	95	90	---	---	8.7	4.3	89	63	---	17.4	45.7
PT321	2117	---	---	80	90	---	---	9.3	4.3	79	60	---	16.9	47.2
PT323	1939	---	---	73	90	---	---	8.7	4.3	84	60	---	17.2	47.1
CROPLAN														
CP1055WC	2869	---	---	108	90	---	---	8.3	4.7	79	59	---	16.9	44.5
CP1077WC	2778	---	---	105	90	---	---	8.3	3.7	85	56	---	17.4	44.0
Grand Mean	2648	---	---	---	89	---	---	8.3	4.3	82	56	---	17.1	44.9
CV	23	---	---	---	3	---	---	11.8	20.6	3	7	---	4.5	1.7
LSD	ns	---	---	---	ns	---	---	ns	ns	4	7	---	1.5	1.8
P-value	0.476	---	---	---	0.756	---	---	0.898	0.480	<.0001	0.001	---	0.060	<.0001

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data.

Orange, Virginia

Greg Lillard
Virginia Tech University

Planted:	9/18/2024 in 7.5-in. rows	
Seeding Rate OP:	500,000 seeds/a	
Seeding Rate Hybrid:	300,000 seeds/a	
Desiccant:	None	
Harvested:	6/17/2024	
Herbicides:	Trifluralin 1.5 pt/a	
Insecticides:	None	
Fungicide:	None	
Previous crop:	Sudan	
Soil test:	P=17 ppm, K=269 ppm, pH=5.8	
Fertilizer:	Fall: 30-50-70-0 lb N-P-K-S	
	Spring: 100-0-0-0 lb N-P-K-S	
Soil type:	Fauquier clay	Latitude: 38.216667
Elevation:	510 ft.	Longitude: -78.116667
Comments:	A very-dry fall and below-average precipitation in the spring reduced yields.	

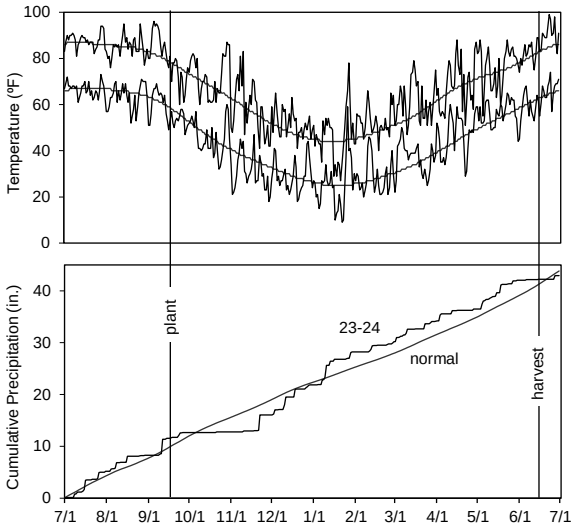


Table 9. Results for the 2024 National Winter Canola Variety Trial, open-pollinated cultivars, at Orange, VA

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(%)	(%)
CROPLAN														
CP225WRR	927	3430	2179	87	---	---	---	9.3	5.0	93	---	9.1	25.2	36.0
CP320WRR	**1148**	3613	2380	107	---	---	---	9.7	5.0	92	---	8.9	25.0	36.5
CP1022WC	**1057**	3045	2051	99	---	---	---	10.0	5.0	96	---	10.6	26.7	34.8
CP1066WC	**1238**	3295	2267	116	---	---	---	9.7	5.0	96	---	11.6	25.0	36.6
Kansas State University														
KS4662	**1153**	3197	2175	108	---	---	---	8.7	5.0	93	---	10.1	24.9	37.6
KS4737	**1045**	3725	2385	98	---	---	---	9.7	5.0	93	---	10.1	24.8	38.6
KSR4767	**1245**	3707	2476	117	---	---	---	10.0	5.0	92	---	9.9	26.1	35.3
KSR4839S	996	3367	2181	93	---	---	---	10.0	5.0	96	---	10.0	25.0	38.4
KSR4848	**1121**	3379	2250	105	---	---	---	10.0	4.7	96	---	10.7	24.8	37.1
KSR4854S	**1283**	2997	2140	120	---	---	---	10.0	4.7	93	---	10.4	24.7	37.4
KSUR1212	**1083**	3813	2448	101	---	---	---	10.0	5.0	93	---	10.5	25.4	36.2
Surefire	919	3353	2136	86	---	---	---	9.3	5.0	96	---	10.9	25.5	36.6
Wichita	**1086**	3322	2204	102	---	---	---	9.0	4.3	93	---	9.9	26.3	35.7
Ohlde Seed Farms														
Torrington	939	3276	2108	88	---	---	---	10.0	5.0	93	---	9.8	24.9	36.8
Star Specialty Seed														
Star 930W	783	3330	2056	73	---	---	---	9.0	4.7	93	---	9.4	25.9	35.6
Grand Mean	1068	3343	---	---	---	---	---	9.6	4.9	94	---	10.1	25.3	36.6
CV	14	19	---	---	---	---	---	6.4	8.1	0	---	10.3	1.5	1.3
LSD	243	ns	---	---	---	---	---	ns	ns	1	---	ns	0.8	1.1
P-value	0.011	0.897	---	---	---	---	---	0.130	0.647	<.0001	---	0.243	0.001	<.0001

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Yields adjusted to 8% moisture content.

Table 10. Results for the 2024 National Winter Canola Variety Trial, hybrid cultivars, at Orange, VA

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(%)	(%)
Bayer Crop Science														
DK SEQUEL	**1096**	**6485**	3791	147	---	---	---	9.7	5.0	---	---	8.5	25.0	36.9
DK SEVERNYI	716	2683	1699	96	---	---	---	8.0	4.7	---	---	8.7	25.4	37.0
DK SEPHOR	682	3780	2231	92	---	---	---	9.7	4.3	---	---	8.5	23.9	39.0
DK EXPOWER	659	3906	2282	89	---	---	---	9.0	4.7	---	---	8.1	25.2	37.8
DK EXSTORM	853	3273	2063	115	---	---	---	9.7	4.7	---	---	8.1	25.1	38.7
DK EXTERRIER	769	3190	1980	103	---	---	---	8.3	5.0	---	---	8.7	23.8	40.2
DK EXENTIEL	801	3480	2141	108	---	---	---	7.0	4.3	---	---	8.2	23.8	40.3
DK EXCEPTION	781	4460	2620	105	---	---	---	8.3	4.3	---	---	8.4	24.2	38.7
DK EXCLAIM	330	3555	1942	44	---	---	---	8.7	3.7	---	---	8.7	24.2	40.1
DK EXSTAR	504	4182	2343	68	---	---	---	7.7	4.3	---	---	9.0	24.0	38.7
DK EXTREMUS	**974**	---	---	131	---	---	---	7.7	5.0	---	---	9.0	25.5	38.0
DK EXSTEEL	850	---	---	114	---	---	---	9.3	4.3	---	---	9.0	23.0	40.8
DK EXPAT	865	---	---	116	---	---	---	9.7	4.3	---	---	8.2	24.0	39.1
DK EXLEVEL	635	---	---	85	---	---	---	9.3	4.3	---	---	8.6	25.4	38.0
DK EXCITY	**1407**	---	---	189	---	---	---	10.0	5.0	---	---	8.8	24.0	38.7
DK EXOTTER	**1199**	---	---	161	---	---	---	9.0	4.7	---	---	8.4	23.8	39.0
DK EXSUN	**972**	---	---	131	---	---	---	9.0	4.3	---	---	8.3	22.9	40.6
DK EXTRACT	556	---	---	75	---	---	---	7.7	4.3	---	---	8.3	24.4	38.0
DK EXIMA	699	---	---	94	---	---	---	9.3	4.0	---	---	8.0	24.2	38.7
DK EXPORTER	**1134**	---	---	152	---	---	---	9.0	5.0	---	---	9.6	23.3	38.4
DK EXPACITO	862	---	---	116	---	---	---	9.0	5.0	---	---	9.1	25.0	37.8
Corteva Agriscience														
PT264	494	2389	1442	66	---	---	---	8.7	4.3	---	---	8.3	24.3	40.1
PT299	**959**	1546	1253	129	---	---	---	9.7	4.7	---	---	10.0	23.1	40.2
PT302	584	1700	1142	79	---	---	---	10.0	4.0	---	---	8.4	23.2	41.0
PT303	478	2155	1316	64	---	---	---	8.0	4.3	---	---	10.6	25.8	36.6
PT312	346	1914	1130	46	---	---	---	9.0	4.3	---	---	8.5	23.8	39.9
PT314	837	1602	1220	113	---	---	---	9.3	4.3	---	---	8.7	23.7	40.5
PT319	610	---	---	82	---	---	---	7.0	4.0	---	---	8.4	27.2	35.3
PT320	559	---	---	75	---	---	---	8.0	4.3	---	---	8.5	24.6	39.2
PT321	827	---	---	111	---	---	---	9.3	4.3	---	---	9.0	23.3	41.0
PT323	895	---	---	120	---	---	---	9.7	4.7	---	---	8.3	22.9	41.4
CROPLAN														
CP1055WC	866	1933	1400	116	---	---	---	8.3	5.0	---	---	8.1	23.4	40.9
CP1077WC	583	3610	2096	78	---	---	---	9.0	4.7	---	---	8.9	24.0	39.2
Photosyntech														
PST23YWT930	436	---	---	59	---	---	---	7.3	4.3	---	---	8.6	25.9	37.8
PST23BACL09	309	---	---	42	---	---	---	6.7	3.7	---	---	9.6	25.7	36.2
PST23EX37D	**1204**	---	---	162	---	---	---	10.0	5.0	---	---	8.5	22.8	39.8
PST23YW1721	392	---	---	53	---	---	---	8.3	5.0	---	---	9.6	24.2	38.7
Rubisco Seeds														
Triathlon	**943**	---	---	127	---	---	---	9.7	5.0	---	---	9.0	24.2	39.0
Janosh	543	---	---	73	---	---	---	7.3	3.7	---	---	9.0	23.6	40.3
Drifter	818	---	---	110	---	---	---	8.7	5.0	---	---	7.9	24.1	39.8
Manhattan	657	---	---	88	---	---	---	7.0	4.0	---	---	9.0	23.8	39.4
Beatrix CL	557	---	---	75	---	---	---	8.7	4.0	---	---	8.5	25.4	38.1
Grand Mean	744	2956	---	---	---	---	---	8.7	4.5	---	---	8.7	24.3	39.0
CV	48	36	---	---	---	---	---	17.3	15.4	---	---	9.5	2.7	2.7
LSD	485	1729	---	---	---	---	---	ns	ns	---	---	ns	1.3	2.1
P-value	0.060	<.0001	---	---	---	---	---	0.280	0.433	---	---	0.148	<.0001	<.0001

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data. Yields adjusted to 8% moisture content.

Vincennes, Indiana

Kenneth Eck
Purdue University

Planted: 9/20/2023 in 6-in. rows

Seeding Rate Hybrid: 300,000 seeds/a
Desiccant: 6/3/2024 Reglone 1.5 pt/a
Harvested: 6/11/2024
Herbicides: 12 oz/a Dual Magnum, 4 oz/a Command 3ME
Insecticides: None
Fungicide: 12 oz/a Quadris Top, 5.7 oz/a Proline 480C
Previous crop: Soybean
Soil test: P= 21ppm, K= 91ppm, pH= 6.4
Fertilizer: Fall: 21-0-0-24 lb/a N-P-K-S
Spring: 159-0-0-24-1 lb/a N-P-K-S-B split application
Soil type: Lomax loam Latitude: 38.742236
Elevation: 430 ft. Longitude: -87.483865
Comments: Comparable yields to previous seasons. Maturities ran about one week ahead of normal.

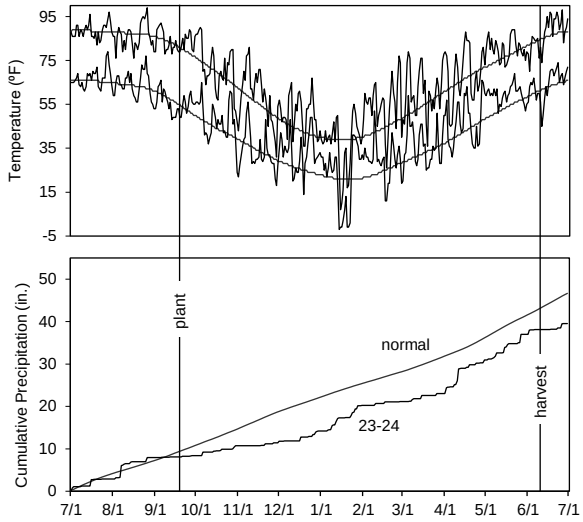


Table 11. Results for the 2024 National Winter Canola Variety Trial, hybrid cultivars, at Vincennes, IN

Name	Yield (lb/a)			Yield (% of test avg.)	Winter survival (%)			Fall stand	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(plants/a)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Bayer Crop Science														
DK SEQUEL	2764	**3202**	2983	93	---	---	---	236,027	91	48	8.0	51.0	---	---
DK SEVERNYI	2490	2829	2659	84	---	---	---	192,907	95	47	8.1	50.5	---	---
DK SEPHOR	3010	**3074**	3042	102	---	---	---	224,679	94	48	7.9	50.8	---	---
DK EXPOWER	2615	**3073**	2844	88	---	---	---	154,325	90	50	8.0	49.6	---	---
DK EXSTORM	2871	**3291**	3081	97	---	---	---	211,062	93	50	8.2	50.4	---	---
DK EXTERRIER	2888	**3281**	3084	98	---	---	---	249,644	92	53	8.9	49.5	---	---
DK EXENTIEL	2926	3006	2966	99	---	---	---	249,644	93	51	8.0	50.3	---	---
DK EXCEPTION	3255	**3248**	3252	110	---	---	---	249,644	92	51	8.1	50.0	---	---
DK EXCLAIM	2650	**3084**	2867	90	---	---	---	238,296	95	50	8.4	49.9	---	---
DK EXSTAR	2353	**3237**	2795	80	---	---	---	229,218	90	51	7.8	50.0	---	---
DK EXTREMUS	3027	---	---	102	---	---	---	279,147	92	51	7.8	50.8	---	---
DK EXSTEEL	3213	---	---	109	---	---	---	279,147	92	53	8.0	50.3	---	---
DK EXPAT	3068	---	---	104	---	---	---	240,566	92	50	8.0	51.1	---	---
DK EXLEVEL	2844	---	---	96	---	---	---	188,368	92	54	8.5	51.0	---	---
DK EXCITY	2819	---	---	95	---	---	---	258,722	91	49	8.5	51.0	---	---
DK EXOTTER	3191	---	---	108	---	---	---	229,218	91	51	8.2	50.2	---	---
DK EXSUN	3020	---	---	102	---	---	---	260,991	91	53	8.0	50.5	---	---
DK EXTRACT	3067	---	---	104	---	---	---	247,374	91	51	8.2	50.1	---	---
DK EXIMA	3203	---	---	108	---	---	---	211,062	90	50	8.1	50.9	---	---
DK EXPORTER	3113	---	---	105	---	---	---	254,183	90	52	8.2	50.9	---	---
DK EXPACITO	2820	---	---	95	---	---	---	229,218	93	50	8.3	50.3	---	---
Corteva Agriscience														
PT264	2770	**3246**	3008	94	---	---	---	233,757	97	53	7.5	50.5	---	---
PT299	2870	**3262**	3066	97	---	---	---	260,991	89	49	7.9	49.7	---	---
PT302	3352	**3056**	3204	113	---	---	---	233,757	91	52	7.8	50.8	---	---
PT303	3255	**3296**	3276	110	---	---	---	242,835	97	52	7.6	50.3	---	---
PT312	2865	**3378**	3122	97	---	---	---	233,757	94	51	7.7	50.5	---	---
PT314	2781	**3282**	3031	94	---	---	---	229,218	90	52	7.8	50.2	---	---
PT319	3266	---	---	110	---	---	---	238,296	91	53	7.7	50.8	---	---
PT320	2805	---	---	95	---	---	---	256,452	96	53	8.2	49.8	---	---
PT321	3110	---	---	105	---	---	---	242,835	90	53	8.0	49.6	---	---
PT323	2352	---	---	79	---	---	---	260,991	92	51	8.4	51.1	---	---
CROPLAN														
CP1055WC	2449	**3425**	2937	83	---	---	---	260,991	91	50	8.3	50.2	---	---
CP1077WC	3179	2828	3003	107	---	---	---	270,069	92	53	7.9	50.3	---	---

Name	Yield (lb/a)			Yield (% of test avg.)	Winter survival (%)			Fall stand	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(plants/a)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Photosyntech														
PST23YWT930	3228	---	---	109	---	---	---	224,679	95	53	8.2	50.0	---	---
PST23BACL09	3056	---	---	103	---	---	---	236,027	91	54	7.7	50.1	---	---
PST23EX37D	3034	---	---	103	---	---	---	236,027	90	52	8.3	50.0	---	---
PST23YW1721	3117	---	---	105	---	---	---	192,907	95	53	8.1	49.3	---	---
Rubisco Seeds														
Triathlon	3114	---	---	105	---	---	---	195,176	97	53	8.4	50.1	---	---
Janosh	3189	---	---	108	---	---	---	231,488	91	52	7.9	51.6	---	---
Drifter	3188	---	---	108	---	---	---	238,296	89	49	8.1	51.5	---	---
Manhattan	3032	---	---	102	---	---	---	224,679	90	52	7.9	50.1	---	---
Beatrix CL	3083	---	---	104	---	---	---	215,601	91	53	7.7	50.0	---	---
Grand Mean	2960	3129	---	---	---	---	---	235,054	92	51	8.0	50.4	---	---
CV	16	9	---	---	---	---	---	18	1	4	5.5	1.0	---	---
LSD	ns	439	---	---	---	---	---	ns	2	2	ns	0.8	---	---
P-value	0.717	0.044	---	---	---	---	---	0.398	<.0001	0.001	0.200	<.0001	---	---

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

Ashland City, Tennessee

Jason de Koff
Tennessee State University

Planted: 9/14/2023 in 6-in. rows
Seeding Rate OP: 500,000 seeds/a
Seeding Rate Hybrid: 300,000 seeds/a
Desiccant: None
Harvested: 5/30/2024
Herbicides: Cornerstorne Plus, Trust
Insecticides: None
Fungicide: None
Previous crop: Summer fallow
Soil test: N/A
Fertilizer: Fall: 26-0-0-30 lb N-P-K-S
Spring: 74-0-40-0 lb N-P-K-S
Soil type: Silt loam Latitude: 36.23
Elevation: N/A Longitude: -87.03
Comments: Greater yields in the hybrids than the open-pollinated varieties.

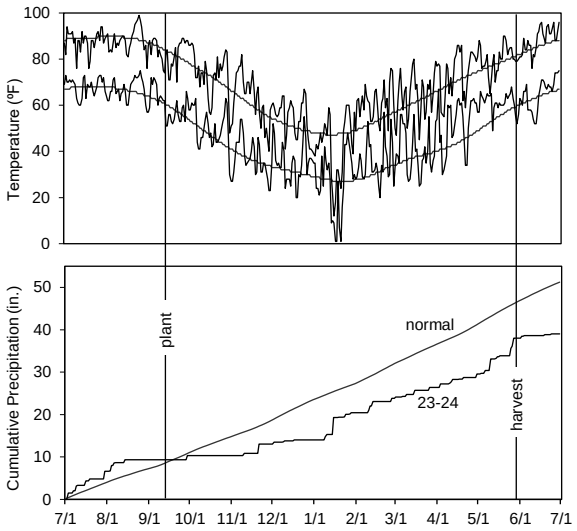


Table 12. Results for the 2024 National Winter Canola Variety Trial at Ashland City, TN

Name	Type[1]	Yield (lb/a)[2]			Yield (% of test avg.)	Winter survival (%)			Fall stand	50% bloom	Plant height	Test weight	Protein	Oil
		2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(d)	(in)	(lb/bu)	(%)	(%)
Bayer Crop Science														
DK SEQUEL	H	670	1403	1036	42	---	---	---	---	---	---	---	20.7	38.2
DK SEVERNYI	H	**2448**	93	1270	153	---	---	---	---	---	---	---	21.1	38.8
DK SEPHOR	H	**1554**	1501	1527	97	---	---	---	---	---	---	---	21.7	38.1
DK EXPOWER	H	**1835**	530	1182	114	---	---	---	---	---	---	---	20.3	41.3
DK EXSTORM	H	**1901**	634	1268	119	---	---	---	---	---	---	---	19.5	41.2
DK EXTERRIER	H	**1690**	1123	1407	105	---	---	---	---	---	---	---	21.8	37.1
DK EXENTIEL	H	**1970**	354	1162	123	---	---	---	---	---	---	---	21.5	39.2
DK EXCEPTION	H	1096	622	859	68	---	---	---	---	---	---	---	18.8	40.4
DK EXCLAIM	H	1514	436	975	94	---	---	---	---	---	---	---	19.6	40.4
DK EXSTAR	H	1385	773	1079	86	---	---	---	---	---	---	---	20.9	39.3
Corteva Agriscience														
PT264	H	**1735**	479	1107	108	---	---	---	---	---	---	---	20.6	41.4
PT299	H	**1888**	263	1076	118	---	---	---	---	---	---	---	19.6	43.1
PT302	H	**1833**	348	1091	114	---	---	---	---	---	---	---	20.5	40.4
PT303	H	**1996**	288	1142	125	---	---	---	---	---	---	---	20.9	41.1
PT312	H	**1418**	262	840	88	---	---	---	---	---	---	---	21.2	40.5
PT314	H	**1612**	409	1010	101	---	---	---	---	---	---	---	19.5	43.0
PT319	H	**1917**	---	---	120	---	---	---	---	---	---	---	23.3	37.0
PT320	H	864	---	---	54	---	---	---	---	---	---	---	20.2	40.4
CROPLAN														
CP1022WC	OP	1120	506	813	70	---	---	---	---	---	---	---	23.2	37.4
CP1066WC	OP	1363	703	1033	85	---	---	---	---	---	---	---	22.2	38.1
CP1055WC	H	**1644**	100	872	103	---	---	---	---	---	---	---	20.2	40.3
CP1077WC	H	**1559**	535	1047	97	---	---	---	---	---	---	---	20.0	39.5
Kansas State University														
KS4662	OP	1124	503	814	70	---	---	---	---	---	---	---	22.8	38.7
KS4737	OP	787	763	775	49	---	---	---	---	---	---	---	24.1	37.2
KSUR1212	OP	964	322	643	60	---	---	---	---	---	---	---	21.3	39.6
Surefire	OP	1279	493	886	80	---	---	---	---	---	---	---	22.6	38.5
Wichita	OP	1024	796	910	64	---	---	---	---	---	---	---	22.2	39.1
Ohlde Seed Farms														
Torrington	OP	1241	813	1027	77	---	---	---	---	---	---	---	23.9	37.4

Name	Type[1]	Yield (lb/a)[2]			Yield (% of test avg.)	Winter survival (%)			Fall stand	50% bloom	Plant height	Test weight	Protein	Oil
		2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(d)	(in)	(lb/bu)	(%)	(%)
Photosyntech														
PST23YWT930	H	**1970**	---	---	123	---	---	---	---	---	---	---	20.4	40.0
PST23BACL09	H	**1903**	---	---	119	---	---	---	---	---	---	---	19.8	41.0
PST23EX37D	H	**2090**	---	---	130	---	---	---	---	---	---	---	20.2	40.6
PST23YW1721	H	**2404**	---	---	150	---	---	---	---	---	---	---	21.4	40.0
Rubisco Seeds														
Triathlon	H	1531	---	---	95	---	---	---	---	---	---	---	18.9	41.5
Janosh	H	**1923**	---	---	120	---	---	---	---	---	---	---	20.9	38.9
Drifter	H	**2467**	---	---	154	---	---	---	---	---	---	---	19.3	41.0
Manhattan	H	**1912**	---	---	119	---	---	---	---	---	---	---	21.2	38.3
Beatrix CL	H	**1681**	---	---	105	---	---	---	---	---	---	---	20.6	41.2
Mean		1603	---	---	---	---	---	---	---	---	---	---	21.0	39.7
CV		36	---	---	---	---	---	---	---	---	---	---	4.3	2.6
LSD		928	---	---	---	---	---	---	---	---	---	---	1.8	2.1
P-value		0.011	---	---	---	---	---	---	---	---	---	---	<.0001	<.0001

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Type: H=hybrid, OP=open-pollinated

[2]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data.

Springfield, Tennessee

Mitchell Richmond and Brad Fisher
University of Tennessee

Planted:	9/18/2023 in 7-in. rows	
Seeding Rate OP:	500,000 seeds/a	
Seeding Rate Hybrid:	300,000 seeds/a	
Desiccant:	None	
Harvested:	5/30/2024	
Herbicides:	2 pt/a Poast	
Fungicide:	7 fl oz/a Quadris, 4.3 fl oz/a Proline	
Previous crop:	Soybean	
Soil test:	P= 44 ppm, K= 116 ppm, S= 1 ppm, pH= 6.48	
Fertilizer:	Fall: 40-0-0-23-1 lb/a N-P-K-S-B Spring: 166-30-30-23-1.5 lb/a N-P-K-S-B split application	
Soil type:	Dickson silt loam	Latitude: 36.475142
Elevation:	706 ft.	Longitude: -86.822561
Comments:	Excellent yields and high oil contents at this trial site.	

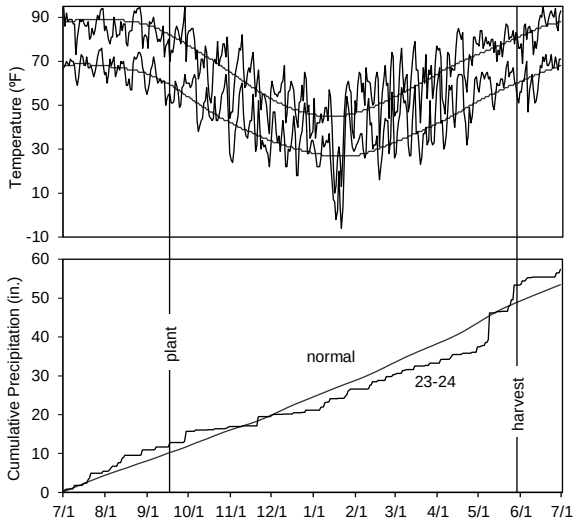


Table 13. Results for the 2024 National Winter Canola Variety Trial, open-pollinated cultivars, at Springfield, TN

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	50% bloom	Plant height	Moisture	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(d)	(in.)	(%)	(%)	(%)
CROPLAN													
CP1022WC	2001	1687	1844	79	---	100	---	8.7	88	52	15.4	20.7	42.0
CP1066WC	**3021**	**2481**	2751	119	---	100	---	9.0	85	52	8.6	20.3	41.2
Kansas State University													
KS4662	**2714**	**2154**	2434	107	---	98	---	7.3	84	52	7.7	20.1	42.4
KS4737	2557	**2203**	2380	101	---	100	---	8.3	84	52	10.5	20.0	43.4
KSUR1212	**2592**	**2052**	2322	102	---	100	---	8.3	84	52	7.4	21.1	41.4
Surefire	**2596**	1610	2103	102	---	100	---	7.7	85	52	7.3	20.0	42.0
Wichita	**2710**	**2340**	2525	107	---	100	---	8.7	84	51	6.6	21.1	41.3
Ohlde Seed Farms													
Torrington	2078	**2004**	2041	82	---	100	---	6.7	84	51	7.1	20.7	41.8
Grand Mean	2534	2066	---	---	---	100	---	8.1	85	52	8.8	20.5	41.9
CV	10	16	---	---	---	1	---	10.1	1	2	10.9	2.5	1.1
LSD	436	567	---	---	---	ns	---	1.4	1	ns	1.7	ns	1.0
P-value	0.003	0.089	---	---	---	0.476	---	0.047	<.0005	0.829	<.0001	0.273	0.021

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Yields adjusted to 9% moisture content.

Table 14. Results for the 2024 National Winter Canola Variety Trial, hybrid cultivars, at Springfield, TN

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	50% bloom	Plant height	Moisture	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(d)	(in.)	(%)	(%)	(%)
Bayer Crop Science													
DK SEQUEL	3002	**2993**	2998	95	---	98	---	9.0	80	47	6.3	21.2	39.2
DK SEVERNYI	2976	**2868**	2922	95	---	100	---	8.7	84	48	6.9	20.1	41.5
DK SEPHOR	2999	**3318**	3159	95	---	100	---	9.0	85	47	9.2	20.2	41.2
DK EXPOWER	2665	2617	2641	85	---	100	---	7.0	79	50	5.2	19.5	43.0
DK EXSTORM	3322	**2795**	3059	106	---	98	---	9.0	82	55	8.0	19.2	42.8
DK EXTERRIER	2984	**3076**	3030	95	---	100	---	9.0	84	54	5.9	19.5	42.1
DK EXENTIEL	**3476**	**2821**	3149	110	---	92	---	9.0	78	53	5.2	19.2	42.4
DK EXCEPTION	3258	**2941**	3099	103	---	100	---	9.0	81	54	7.8	18.2	42.6
DK EXCLAIM	3302	2452	2877	105	---	100	---	9.0	84	56	9.4	18.5	43.4
DK EXSTAR	3068	2425	2746	97	---	98	---	7.7	82	51	6.8	19.2	42.5
DK EXTREMUS	3111	---	---	99	---	---	---	8.7	77	55	6.6	20.8	41.8
DK EXSTEEL	3273	---	---	104	---	---	---	9.0	81	57	7.0	18.7	43.5
DK EXPAT	2962	---	---	94	---	---	---	8.7	81	54	6.8	19.6	41.1
DK EXLEVEL	**3721**	---	---	118	---	---	---	8.7	77	58	5.2	19.3	42.3
DK EXCITY	**3871**	---	---	123	---	---	---	8.7	79	56	4.7	20.4	42.2
DK EXOTTER	3198	---	---	102	---	---	---	9.0	77	50	5.4	18.9	42.7
DK EXSUN	**3442**	---	---	109	---	---	---	9.0	80	56	6.0	18.3	42.8
DK EXTRACT	3184	---	---	101	---	---	---	8.3	84	54	6.4	18.4	42.9
DK EXIMA	**3508**	---	---	111	---	---	---	9.0	77	51	6.9	19.2	42.2
DK EXPORTER	**3511**	---	---	112	---	---	---	8.7	78	53	4.4	18.0	43.7
DK EXPACITO	2977	---	---	95	---	---	---	8.7	84	54	8.1	18.6	43.3
Corteva Agriscience													
PT264	3144	**2929**	3037	100	---	100	---	8.0	85	53	7.8	20.0	43.7
PT299	3140	2569	2854	100	---	98	---	9.0	77	52	8.1	17.9	45.6
PT302	3073	2755	2914	98	---	100	---	9.0	83	52	8.1	18.2	44.0
PT303	3273	2415	2844	104	---	97	---	8.7	85	53	7.8	19.3	44.8
PT312	2759	2029	2394	88	---	98	---	8.3	84	53	9.6	18.9	44.5
PT314	**3525**	2522	3024	112	---	97	---	8.3	77	56	5.4	18.1	45.3
PT319	2923	---	---	93	---	---	---	8.7	83	53	8.5	20.4	41.9
PT320	2631	---	---	84	---	---	---	8.7	86	54	9.6	19.9	42.7
PT321	**3513**	---	---	112	---	---	---	8.3	77	52	8.4	17.8	45.5
PT323	3087	---	---	98	---	---	---	8.7	78	54	11.6	18.4	44.4
CROPLAN													
CP1055WC	2841	**2654**	2748	90	---	98	---	8.3	80	51	7.0	19.0	42.9
CP1077WC	2624	**2432**	2528	83	---	93	---	8.7	84	52	9.2	18.9	42.4
Photosyntech													
PST23YWT930	2681	---	---	85	---	---	---	9.0	84	54	9.6	19.5	42.7
PST23BACL09	3180	---	---	101	---	---	---	8.7	81	55	5.5	19.0	43.1
PST23EX37D	**3674**	---	---	117	---	---	---	9.0	77	52	8.2	18.2	43.9
PST23YW1721	2716	---	---	86	---	---	---	8.3	85	58	16.1	18.8	43.6
Rubisco Seeds													
Triathlon	3186	---	---	101	---	---	---	7.3	87	56	8.5	18.9	42.8
Janosh	3108	---	---	99	---	---	---	8.3	78	54	10.3	19.0	43.5
Drifter	3256	---	---	103	---	---	---	8.7	77	47	8.3	18.9	43.6
Manhattan	**3463**	---	---	110	---	---	---	8.3	78	53	5.9	19.0	43.4
Beatrix CL	3017	---	---	96	---	---	---	8.7	83	53	7.2	19.1	44.9
Grand Mean	3148	2619	---	---	---	98	---	8.6	81	53	7.7	19.1	43.0
CV	14	16	---	---	---	4	---	6.6	2	4	22.5	6.0	3.0
LSD	474	670	---	---	---	ns	---	0.9	2	3	3.0	ns	2.6
P-value	0.122	<0.05	---	---	---	0.283	---	0.007	<.0001	<.0001	<.0001	0.518	0.025

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Yields adjusted to 9% moisture content.

Garden City, Kansas

Johnathon Holman and Tom Roberts
Kansas State University

Planted: 9/5/2023
Seeding Rate OP: 500,000 seeds/a
Seeding Rate Hybrid: 300,000 seeds/a
Swathed: N/A
Harvested: 6/26/2024
Herbicides: 3 pt/a Prowl
Insecticides: None
Fungicide: None
Irrigation: 11 in.
Soil test: N/A
Fertilizer: Spring: 25-0-0 lb/a N-P-K

Latitude: 37.928725
Longitude: -98.024028

Soil type: Ulysses Richfield silt loam
Elevation: 2835 ft.
Comments: Variable weather throughout the growing season resulted in yields slightly below average. Some entries excelled despite the conditions.

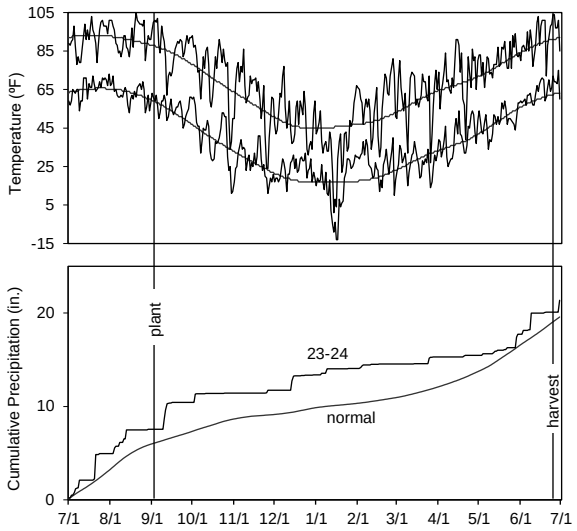


Table 15. Results for the 2024 National Winter Canola Variety Trial, open-pollinated cultivars, at Garden City, KS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	Spring vigor	Plant height	Moisture	Test weight	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(1-5)	(1-5)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN															
CP225WRR	1698	1071	1384	106	100	64	82	7.0	5.0	4.7	46	7.2	50.3	25.1	39.1
CP320WRR	1676	1112	1394	105	96	66	81	8.0	4.7	5.0	45	7.2	50.1	24.7	38.9
CP1022WC	1373	911	1142	86	100	39	69	6.0	4.0	4.0	48	7.2	50.0	25.4	38.4
CP1066WC	**2434**	**1365**	1900	152	100	93	96	7.3	5.0	5.0	52	8.4	50.2	24.5	38.8
Kansas State University															
KS4662	1828	976	1402	114	96	69	82	7.7	5.0	5.0	47	8.2	49.8	24.1	39.6
KS4737	1691	**1485**	1588	106	100	60	80	7.3	5.0	5.0	47	7.5	49.3	23.7	39.4
KSR4767	1335	1117	1226	83	100	84	92	6.7	4.7	5.0	46	6.9	49.7	25.3	38.3
KSR4839S	1074	820	947	67	100	44	72	6.7	4.7	5.0	46	7.0	50.1	23.2	40.5
KSR4848	1617	1222	1420	101	95	59	77	6.3	4.3	5.0	45	7.5	50.2	24.0	38.5
KSR4854S	1397	1173	1285	87	95	61	78	6.3	4.7	4.0	47	7.4	50.1	24.3	39.6
KSUR1212	1647	983	1315	103	100	58	79	6.3	4.7	5.0	46	7.2	50.8	23.7	39.1
Surefire	1645	1196	1420	103	90	72	81	7.0	4.3	4.7	46	7.3	50.8	25.8	39.1
Wichita	1867	1169	1518	117	96	61	78	8.3	5.0	5.0	45	7.1	50.0	24.9	38.7
Ohlde Seed Farms															
Torrington	1809	1188	1499	113	100	82	91	7.3	5.0	5.0	48	7.3	49.9	23.2	39.6
Star Specialty Seed															
Star 930W	949	947	948	59	100	65	82	3.7	3.3	4.0	42	7.3	49.0	25.7	37.6
Grand Mean	1603	1114	---	---	98	64	---	6.8	4.6	4.8	46	7.4	50.0	24.5	39.0
CV	15	28	---	---	6	23	---	15.4	7.6	4.5	3	6.9	1.4	2.8	1.6
LSD	393	430	---	---	ns	25	---	1.8	1	0.4	2	0.8	1.2	1.5	1.1
P-value	<.0001	0.085	---	---	0.776	0.011	---	0.004	<.0001	<.0001	<.0001	0.051	0.188	0.023	0.052

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data.

Table 16. Results for the 2024 National Winter Canola Variety Trial, hybrid cultivars, at Garden City, KS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	Spring vigor	Plant height	Moisture	Test weight	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(1-5)	(1-5)	(in.)	(%)	(lb/bu)	(%)	(%)
Bayer Crop Science															
DK SEQUEL	**3179**	**1844**	2512	141	100	68	84	7.0	5.0	5.0	47	6.6	50.9	23.7	38.0
DK SEVERNYI	**2705**	1142	1924	120	100	45	72	6.7	4.7	4.7	43	6.5	50.5	22.0	39.6
DK SEPHOR	**3381**	**1503**	2442	150	95	58	76	7.3	4.7	4.7	43	6.8	51.3	24.0	39.2
DK EXPOWER	927	---	---	41	68	8	38	3.3	4.0	3.0	32	8.2	48.2	26.4	37.9
DK EXSTORM	**2771**	**1352**	2061	123	96	56	76	7.3	5.0	5.0	44	7.2	50.5	21.4	41.9
DK EXTERRIER	**3000**	1233	2117	134	100	55	77	6.7	4.7	5.0	48	7.0	50.4	21.1	41.0
DK EXENTIEL	2044	**1322**	1683	91	95	51	73	6.7	5.0	4.3	42	6.8	50.9	21.9	39.8
DK EXCEPTION	**2610**	**1573**	2091	116	100	57	78	7.3	4.7	4.7	44	6.9	50.2	22.1	40.1
DK EXCLAIM	1344	737	1041	60	72	19	46	7.0	5.0	3.3	43	7.6	50.7	22.4	38.4
DK EXSTAR	2241	1104	1673	100	94	44	69	6.7	5.0	5.0	40	6.7	50.8	22.3	39.7
DK EXTREMUS	2084	---	---	93	95	---	---	6.7	4.7	4.7	44	7.3	50.4	22.8	40.5
DK EXSTEEL	2378	---	---	106	87	---	---	7.3	4.7	4.7	45	6.7	50.4	23.4	40.2
DK EXPAT	**3118**	---	---	139	96	---	---	7.7	4.7	5.0	46	7.3	51.8	22.8	38.9
DK EXLEVEL	**2884**	---	---	128	86	---	---	6.7	4.7	4.7	47	7.1	51.5	22.6	39.0
DK EXCITY	**2761**	---	---	123	87	---	---	7.3	5.0	4.3	42	7.2	51.0	23.7	39.6
DK EXOTTER	2352	---	---	105	100	---	---	5.3	4.0	4.0	43	7.0	50.1	22.7	39.5
DK EXSUN	2446	---	---	109	93	---	---	8.0	4.7	4.7	47	6.8	51.1	22.2	40.0
DK EXTRACT	2456	---	---	109	100	---	---	5.3	3.7	4.7	46	6.9	51.0	23.5	38.9
DK EXIMA	**3051**	---	---	136	100	---	---	8.0	5.0	5.0	46	7.1	51.0	23.5	40.0
DK EXPORTER	**2735**	---	---	122	95	---	---	6.3	5.0	4.7	44	7.0	50.6	22.1	39.5
DK EXPACITO	1715	---	---	76	89	---	---	4.0	3.3	3.0	40	8.4	49.1	24.5	39.9
Corteva Agriscience															
PT264	2365	**1373**	1869	105	100	47	74	7.3	5.0	5.0	50	7.5	50.9	24.1	40.1
PT299	1610	1281	1445	72	74	47	60	7.7	5.0	4.3	38	6.5	48.8	22.1	41.7
PT302	1399	1284	1341	62	53	41	47	8.3	5.0	3.0	39	7.6	48.4	22.9	41.0
PT303	2078	995	1536	92	79	31	55	8.0	5.0	4.0	44	7.2	50.8	22.6	41.5
PT312	2320	**1330**	1825	103	78	50	64	9.0	5.0	4.3	44	6.5	50.1	22.0	42.1
PT314	1523	564	1044	68	70	19	44	7.7	5.0	3.7	38	6.3	47.8	23.8	39.8
PT319	2165	---	---	96	96	---	---	8.3	5.0	4.3	44	6.6	50.3	24.1	38.7
PT320	1664	---	---	74	83	---	---	6.3	4.7	3.7	41	8.4	48.0	23.0	40.6
PT321	2222	---	---	99	80	---	---	8.0	5.0	4.3	43	7.5	48.7	23.1	41.3
PT323	1357	---	---	60	58	---	---	6.0	4.3	2.3	40	7.8	48.4	22.4	41.3
CROPLAN															
CP1055WC	2414	1131	---	107	90	45	68	7.3	5.0	4.3	44	7.0	50.7	24.0	38.4
CP1077WC	2424	**1649**	---	108	96	55	76	7.0	5.0	4.7	43	6.6	50.5	23.7	39.1
Photosyntech															
PST23BACL09	1494	---	---	66	83	---	---	5.3	5.0	3.3	42	6.7	49.4	24.9	38.9
PST23YW1112	1494	---	---	66	57	---	---	7.7	5.0	3.3	43	9.1	49.9	26.2	36.8
PST23BACL249	1408	---	---	63	63	---	---	5.7	4.0	3.0	40	7.5	50.4	26.6	38.1
PST23YW314	1684	---	---	75	74	---	---	7.7	5.0	4.3	41	6.6	50.2	22.9	39.6
Rubisco Seeds															
Triathlon	3389	---	---	151	95	---	---	7.0	5.0	4.7	50	7.3	50.9	22.4	40.2
Janosh	2513	---	---	112	95	---	---	7.0	4.7	4.0	45	7.3	51.5	23.4	40.0
Drifter	2489	---	---	111	96	---	---	6.7	4.3	5.0	40	6.9	50.0	22.8	41.2
Manhattan	**2923**	---	---	130	100	---	---	7.0	4.7	5.0	46	6.9	50.9	23.2	40.1
Beatrix CL	1247	---	---	56	57	---	---	6.7	4.7	3.7	41	7.9	48.9	24.4	39.5
Grand Mean	2247	1212	---	---	86	42	---	6.9	4.7	4.2	43	7.2	50.2	23.2	39.8
CV	24	27	---	---	18	38	---	21.1	11.9	18.4	7	10.9	1.9	4.4	2.4
LSD	872	548	---	---	26	26	---	2.4	0.9	1.3	5	1.3	1.5	2.1	1.9
P-value	<.0001	<.0001	---	---	<.0005	0.001	---	0.020	0.049	<.0005	<.0001	0.019	<.0001	<.0005	<.0005

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data.

Hutchinson, Kansas

Jane Lingenfelser
Kansas State University

Planted: 9/14/2023 in 10-in. rows
Seeding Rate OP: 500,000 seeds/a
Seeding Rate Hybrid: 300,000 seeds/a
Swathed: 5/28/2024
Harvested: 6/5/2024
Herbicides: 1 qt/a Treflan,10 oz/a Assure II
Insecticides: None
Fungicide: None
Previous crop: Wheat
Soil test: N/A
Fertilizer: Fall: 50-0-0 lb/a N-P-K
Spring: 90-0-0 lb/a N-P-K
Soil type: Ost loam Latitude: 37.928725
Elevation: 1540 ft. Longitude: -98.024028
Comments: Minimal, yet timely rains resulted in excellent yields.

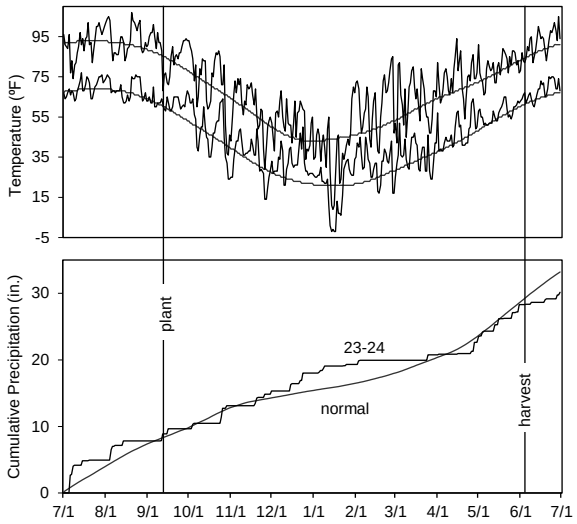


Table 17. Results for the 2024 National Winter Canola Variety Trial, open-pollinated cultivars, at Hutchinson, KS

Name	Yield (lb/a)			Yield (% of test avg.)	Winter survival (%)			Fall stand	Spring growth[1]	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN															
CP225WRR	1498	---	---	83	---	---	---	6.7	3.3	93	37	6.1	---	24.2	38.0
CP320WRR	1417	---	---	79	---	---	---	7.0	3.7	93	37	6.8	---	24.6	38.6
CP380WRR	**2017**	---	---	112	---	---	---	7.3	3.7	93	39	5.8	---	24.9	38.0
CP1022WC	1616	---	---	90	---	---	---	6.7	3.3	97	35	6.6	---	26.0	38.5
CP1066WC	**2235**	---	---	124	---	---	---	8.0	4.3	94	41	6.8	---	24.5	40.0
Kansas State University															
KS4662	**2135**	---	---	118	---	---	---	7.0	3.0	94	41	5.8	---	23.2	39.4
KS4737	**1860**	---	---	103	---	---	---	7.0	3.3	93	39	5.8	---	22.9	40.5
KSR4767	1605	---	---	89	---	---	---	6.0	3.3	94	38	5.8	---	25.2	38.9
KSR4839S	1720	---	---	95	---	---	---	7.0	3.7	94	36	6.2	---	23.9	41.3
KSR4854S	**1940**	---	---	108	---	---	---	7.0	3.3	95	39	6.4	---	24.9	38.6
KSUR1212	1781	---	---	99	---	---	---	6.7	4.0	95	39	6.4	---	23.4	38.7
Surefire	**1899**	---	---	105	---	---	---	6.3	3.7	94	38	6.2	---	25.0	38.7
Wichita	1758	---	---	97	---	---	---	6.3	3.7	95	37	6.4	---	25.9	38.4
Ohlde Seed Farms															
Torrington	1800	---	---	100	---	---	---	7.3	3.3	94	37	6.0	---	25.7	39.0
Star Specialty Seed															
Star 930W	1759	---	---	98	---	---	---	5.0	3.3	94	39	7.1	---	24.4	38.4
Grand Mean	1803	---	---	---	---	---	---	6.8	3.5	94	38	6.3	---	24.6	39.0
CV	14	---	---	---	---	---	---	11.9	11.9	1	4	9.6	---	3.0	1.6
LSD (0.05)	413	---	---	---	---	---	---	1.3	0.7	1	2	ns	---	1.6	1.3
P-value	0.020	---	---	---	---	---	---	0.038	0.083	<.0001	<.0005	0.196	---	0.016	0.003

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Spring growth rated on a scale of 1 = poor to 5 = excellent.

Table 18. Results for the 2024 National Winter Canola Variety Trial, hybrid cultivars, at Hutchinson, KS

Name	Yield (lb/a)			Yield (% of test avg.)	Winter survival (%)			Fall stand	Spring growth[1]	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Bayer															
DK SEQUEL	**2486**	---	---	115	---	---	---	7.7	5.0	90	37	5.2	---	25.1	37.8
DK SEVERNYI	**2428**	---	---	112	---	---	---	7.3	3.3	94	35	5.3	---	24.6	39.4
DK SEPHOR	**2719**	---	---	125	---	---	---	7.3	4.7	94	39	5.1	---	25.0	40.5
DK EXPOWER	1859	---	---	86	---	---	---	5.7	3.7	91	37	5.0	---	24.7	39.6
DK EXSTORM	2323	---	---	107	---	---	---	6.7	2.3	94	35	5.2	---	23.4	40.9
DK EXTERRIER	**2590**	---	---	119	---	---	---	7.7	4.0	92	41	5.1	---	23.2	40.6
DK EXENTIEL	2353	---	---	108	---	---	---	7.7	2.7	92	39	5.1	---	24.1	40.8
DK EXCEPTION	**2425**	---	---	112	---	---	---	7.7	3.7	92	42	5.6	---	23.1	40.2
DK EXCLAIM	1462	---	---	67	---	---	---	7.3	1.0	95	36	5.6	---	24.8	39.8
DK EXSTAR	2284	---	---	105	---	---	---	6.7	3.0	91	37	5.6	---	22.9	40.9
DK EXTREMUS	1877	---	---	86	---	---	---	7.7	1.3	92	37	5.0	---	23.8	38.9
DK EXSTEEL	2267	---	---	104	---	---	---	8.0	2.0	93	41	4.9	---	23.4	40.5
DK EXPAT	**2834**	---	---	131	---	---	---	7.7	4.3	92	41	5.5	---	23.6	39.1
DK EXLEVEL	**2422**	---	---	112	---	---	---	7.0	2.7	90	41	5.8	---	24.4	40.4
DK EXCITY	**2521**	---	---	116	---	---	---	7.7	2.7	92	39	5.1	---	24.8	41.6
DK EXOTTER	2048	---	---	94	---	---	---	7.3	3.3	90	39	4.6	---	23.6	39.6
DK EXSUN	**2522**	---	---	116	---	---	---	7.7	3.7	92	39	4.8	---	23.3	40.5
DK EXTRACT	2229	---	---	103	---	---	---	7.3	3.3	91	40	4.9	---	24.1	38.3
DK EXIMA	**2499**	---	---	115	---	---	---	8.3	3.0	89	42	5.1	---	25.7	39.4
DK EXPORTER	**2760**	---	---	127	---	---	---	7.0	3.7	90	42	5.3	---	24.0	39.5
DK EXPACITO	2123	---	---	98	---	---	---	7.3	2.7	93	40	5.1	---	24.8	39.4
Corteva Agriscience															
PT264	2257	---	---	104	---	---	---	7.3	4.3	96	41	4.7	---	23.8	40.2
PT299	2119	---	---	98	---	---	---	7.0	3.3	89	39	4.4	---	21.3	42.3
PT302	2034	---	---	94	---	---	---	6.7	2.3	93	37	4.8	---	23.2	42.2
PT303	1704	---	---	78	---	---	---	7.7	1.7	95	41	5.0	---	23.8	39.7
PT312	2180	---	---	100	---	---	---	7.0	2.0	94	39	4.8	---	22.2	42.1
PT314	2120	---	---	98	---	---	---	7.3	2.7	91	39	5.0	---	23.5	42.3
PT319	1883	---	---	87	---	---	---	6.7	2.3	93	36	5.3	---	25.4	39.2
PT320	2204	---	---	102	---	---	---	7.3	1.3	95	42	5.3	---	24.1	42.4
PT321	1569	---	---	72	---	---	---	7.3	1.0	90	37	5.8	---	23.5	41.0
PT323	1706	---	---	79	---	---	---	7.3	1.0	93	27	4.9	---	22.1	42.6
CROPLAN															
CP1055WC	2094	---	---	96	---	---	---	7.7	1.7	92	37	5.4	---	23.7	38.7
CP1077WC	2065	---	---	95	---	---	---	6.7	2.3	94	35	5.7	---	23.9	40.1
Photosyntech															
PST23BACL09	2159	---	---	99	---	---	---	7.3	2.3	90	41	5.0	---	25.1	39.6
PST23YW1112	2037	---	---	94	---	---	---	8.0	1.0	94	42	5.5	---	24.1	38.2
PST23BACL249	1559	---	---	72	---	---	---	7.3	1.3	96	35	4.9	---	25.9	37.8
PST23YW314	1775	---	---	82	---	---	---	7.7	1.0	93	37	5.2	---	23.1	39.3
Rubisco Seeds															
Triathlon	2120	---	---	98	---	---	---	6.0	3.3	97	39	6.2	---	24.7	38.8
Janosh	2161	---	---	100	---	---	---	8.0	2.0	94	39	4.9	---	24.8	38.8
Drifter	**2456**	---	---	113	---	---	---	8.0	3.0	90	37	4.5	---	22.9	41.5
Manhattan	2371	---	---	109	---	---	---	7.3	2.7	91	39	5.1	---	24.4	40.8
Beatrix CL	1574	---	---	73	---	---	---	6.7	1.3	93	38	5.5	---	25.7	39.9
Grand Mean	2171	---	---	---	---	---	---	7.3	2.6	92	38	5.2	---	24.0	40.1
CV	12	---	---	---	---	---	---	9.8	27.6	1	7	8.4	---	3.4	2.9
LSD (0.05)	419	---	---	---	---	---	---	1.2	1.2	2	4	0.7	---	1.7	2.4
P-value	<.0001	---	---	---	---	---	---	0.025	<.0001	<.0001	0.010	0.002	---	<.0005	0.004

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Spring growth rated on a scale of 1 = poor to 5 = excellent.

Manhattan, Kansas

Michael Stamm
Kansas State University

Planted:	9/26/2023 in 10-in. rows
Seeding Rate OP:	500,000 seeds/a
Seeding Rate Hybrid:	300,000 seeds/a
Swathed:	6/10/2024
Harvested:	6/14/2024
Herbicides:	32 oz/a Treflan, 10 oz/a Assure II
Insecticides:	None
Fungicide:	None
Previous crop:	Wheat
Soil test:	N/A
Fertilizer:	Fall: 37-0-0-38 lb/a N-P-K-S Spring: 90-0-0 lb/a N-P-K
Soil type:	Smolan silt loam Latitude: 39.136669
Elevation:	1064 ft. Longitude: -96.641559
Comments:	A significant aster yellows infestation negatively affected yields.

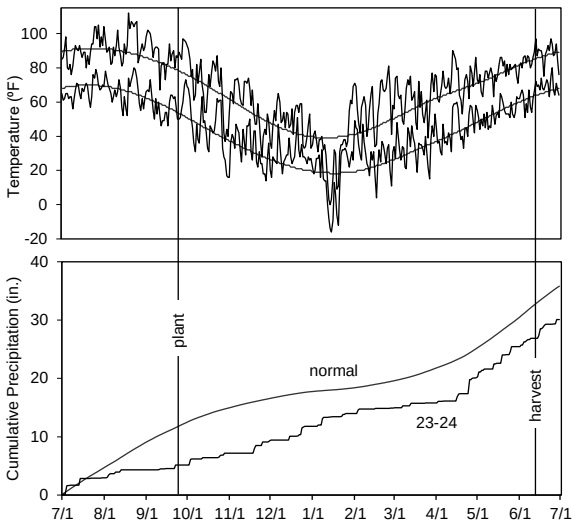


Table 19. Results for the 2024 National Winter Canola Variety Trial, open-pollinated cultivars, at Manhattan, KS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall vigor[2]	Spring vigor	50% bloom	Plant height	Aster yellows[3]	Moisture	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(1-5)	(1-5)	(d)	(in.)	(1-9)	(%)	(%)	(%)
CROPLAN															
CP225WRR	1037	---	---	91	---	---	---	2.5	---	101	43	2.5	6.8	20.1	39.9
CP320WRR	1583	---	---	139	---	---	---	3.5	---	97	40	3.0	6.5	20.0	39.2
CP1022WC	1544	---	---	136	---	---	---	2.5	---	105	49	4.0	7.7	22.6	37.2
CP1066WC	1869	---	---	164	---	---	---	3.0	---	102	46	4.0	7.5	19.9	40.9
Kansas State University															
KS4662	568	---	---	50	---	---	---	2.8	---	100	43	8.0	6.5	20.2	40.6
KS4737	1483	---	---	130	---	---	---	3.5	---	99	47	5.0	7.0	20.1	41.3
KSR4767	956	---	---	84	---	---	---	3.5	---	99	42	5.0	6.9	21.7	38.3
KSR4839S	867	---	---	76	---	---	---	3.3	---	100	43	3.5	7.8	19.6	40.0
KSR4848	980	---	---	86	---	---	---	3.0	---	102	41	6.0	7.1	21.3	38.8
KSR4854S	1135	---	---	100	---	---	---	2.8	---	101	46	5.5	7.0	20.2	40.4
KSUR1212	969	---	---	85	---	---	---	3.3	---	100	43	4.0	7.8	20.7	39.9
Surefire	680	---	---	60	---	---	---	2.5	---	102	40	6.0	7.0	22.6	37.6
Wichita	1348	---	---	119	---	---	---	4.0	---	100	44	5.5	7.1	21.3	38.7
Ohlde Seed Farms															
Torrington	980	---	---	86	---	---	---	3.3	---	101	46	6.0	8.5	20.9	39.6
Star Specialty Seed															
Star 930W	1056	---	---	93	---	---	---	2.5	---	101	42	3.0	9.3	21.7	37.3
Grand Mean	1137	---	---	---	---	---	---	3.1	---	100	44	4.7	7.4	20.9	39.3
CV	39	---	---	---	---	---	---	15.3	---	2	4	49.6	15	5.7	6.0
LSD (0.05)	ns	---	---	---	---	---	---	ns	---	ns	4	ns	ns	ns	ns
P-value	0.309	---	---	---	---	---	---	0.106	---	0.051	0.008	0.658	0.558	0.310	0.811

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data.

[2]Fall and spring vigor rated on a scale of 1=poor to 5=excellent.

[3]Aster yellows rated on a scale of 1=low infestation to 9=extreme infestation.

Table 20. Results for the 2024 National Winter Canola Variety Trial, hybrid cultivars, at Manhattan, KS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall vigor[2]	Spring vigor	50% bloom	Plant height	Aster yellows[3]	Moisture	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(1-5)	(1-5)	(d)	(in.)	(1-9)	(%)	(%)	(%)
Bayer Crop Science															
DK SEQUEL	2766	---	---	129	---	---	---	4.0	4.3	95	44	4.0	7.0	18.9	42.0
DK SEVERNYI	1760	---	---	82	---	---	---	3.3	3.5	102	39	5.0	6.9	19.0	42.3
DK SEPHOR	2459	---	---	115	---	---	---	3.8	4.2	99	42	3.5	7.0	18.5	42.9
DK EXPOWER	782	---	---	37	---	---	---	2.3	2.5	99	35	2.0	6.9	19.1	41.6
DK EXSTORM	1250	---	---	58	---	---	---	3.0	4.0	100	39	5.0	7.3	17.6	43.1
DK EXTERRIER	2487	---	---	116	---	---	---	3.5	4.0	98	47	4.0	7.2	17.3	44.4
DK EXENTIEL	2045	---	---	96	---	---	---	3.8	4.3	99	39	4.0	7.1	18.7	42.4
DK EXCEPTION	2104	---	---	98	---	---	---	3.8	4.5	97	42	5.0	7.3	17.3	43.1
DK EXCLAIM	2069	---	---	97	---	---	---	3.7	4.3	101	41	5.5	7.0	19.1	42.4
DK EXSTAR	2158	---	---	101	---	---	---	3.3	3.8	97	44	6.0	7.0	18.5	43.5
DK EXTREMUS	2374	---	---	111	---	---	---	3.8	5.0	96	43	5.5	7.0	18.7	41.7
DK EXSTEEL	1769	---	---	83	---	---	---	3.0	3.5	100	44	7.5	7.3	18.6	43.3
DK EXPAT	3143	---	---	147	---	---	---	3.3	4.5	99	47	3.5	7.0	18.1	43.6
DK EXLEVEL	1784	---	---	83	---	---	---	3.0	3.5	99	41	7.5	7.3	18.5	42.7
DK EXCITY	2156	---	---	101	---	---	---	4.0	3.8	95	44	5.0	6.9	19.9	42.2
DK EXOTTER	2640	---	---	123	---	---	---	3.5	4.0	96	48	5.5	6.9	18.9	42.1
DK EXSUN	2546	---	---	119	---	---	---	3.8	4.0	98	47	4.5	7.1	18.6	41.7
DK EXTRACT	2293	---	---	107	---	---	---	3.0	3.3	98	41	4.0	7.0	18.2	43.3
DK EXIMA	2370	---	---	111	---	---	---	3.5	4.3	95	43	4.0	6.8	17.6	43.5
DK EXPORTER	2030	---	---	95	---	---	---	3.8	4.3	98	43	4.0	7.0	18.1	41.0
DK EXPACITO	1986	---	---	93	---	---	---	3.5	3.8	100	41	4.0	7.1	18.1	44.4
Corteva Agriscience		---	---		---	---	---								
PT264	2668	---	---	125	---	---	---	3.3	3.5	103	45	4.0	6.9	17.5	45.4
PT299	1562	---	---	73	---	---	---	2.8	3.0	95	36	4.5	6.9	18.3	45.2
PT302	1226	---	---	57	---	---	---	2.3	3.3	100	41	2.5	7.1	18.8	43.0
PT303	2794	---	---	131	---	---	---	3.8	4.2	103	44	6.0	7.3	18.1	44.9
PT312	2415	---	---	113	---	---	---	3.3	3.8	100	42	3.0	6.9	18.1	45.3
PT314	2246	---	---	105	---	---	---	3.5	3.8	98	43	4.5	7.0	18.0	45.4
PT319	1372	---	---	64	---	---	---	3.0	3.3	100	47	7.5	7.3	21.9	38.8
PT320	2590	---	---	121	---	---	---	3.5	4.0	102	46	4.0	7.3	20.2	40.8
PT321	1623	---	---	76	---	---	---	3.3	3.8	99	44	4.5	7.7	19.7	41.5
PT323	2805	---	---	131	---	---	---	3.5	3.8	99	40	4.5	6.9	16.4	47.6
CROPLAN															
CP1055WC	2344	---	---	109	---	---	---	3.5	4.3	98	42	3.0	7.0	18.3	43.9
CP1077WC	1965	---	---	92	---	---	---	3.0	3.3	99	38	2.5	7.7	18.3	43.6
Photosyntech															
PST23BACL09	2450	---	---	114	---	---	---	3.0	3.5	98	46	3.5	7.1	19.0	42.3
PST23YW1112	3274	---	---	153	---	---	---	3.8	4.4	100	47	2.5	7.2	20.2	40.7
PST23BACL249	2335	---	---	109	---	---	---	3.3	4.0	101	44	4.0	6.7	18.3	42.0
PST23YW314	2280	---	---	107	---	---	---	3.0	3.3	101	43	4.0	6.9	20.0	41.0
Rubisco Seeds															
Triathlon	1869	---	---	87	---	---	---	3.8	4.0	103	51	6.5	7.4	18.3	42.8
Janosh	1544	---	---	72	---	---	---	2.8	3.8	101	47	8.0	7.0	20.5	39.2
Drifter	2733	---	---	128	---	---	---	4.0	4.5	93	45	4.0	6.6	18.3	40.9
Manhattan	1740	---	---	81	---	---	---	2.5	3.8	98	41	6.5	7.6	18.6	42.8
Beatrix CL	1098	---	---	51	---	---	---	2.5	3.0	101	42	6.0	7.5	20.3	43.0
Grand Mean	2141	---	---	---	---	---	---	3.3	3.8	99	43	4.6	7.1	18.7	42.7
CV	33	---	---	---	---	---	---	14.1	14.1	1	7	36.0	4.4	5.8	4.2
LSD (0.05)	ns	---	---	---	---	---	---	0.9	0.9	3	6	2.8	ns	1.8	3.1
P-value	0.261	---	---	---	---	---	---	0.021	0.052	<.0001	0.002	0.096	0.289	0.063	0.071

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data.

[2]Fall and spring vigor rated on a scale of 1=poor to 5=excellent.

[3]Aster yellows rated on a scale of 1=low infestation to 9=extreme infestation.

Norwich, Kansas

Cody Swinehart and David Swinehart

Planted:	9/21/2023 in 10-in. rows	
Seeding Rate OP:	500,000 seeds/a	
Seeding Rate Hybrid:	300,000 seeds/a	
Swathed:	N/A	
Harvested:	6/5/2024	
Herbicides:	10 oz/a Assure II	
Insecticides:	N/A	
Fungicide:	N/A	
Previous crop:	Wheat	
Soil test:	N/A	
Fertilizer:	Fall: 6-16-0 lb N-P-K	
	Spring: 100-0-0-10 lb N-P-K-S	
Soil type:	Renfrow clay loam	Lattitude: 37.415207
Elevation:	1496 ft.	Longitude: -97.849154
Comments:	Drought stress resulted in small plants and limited yield.	

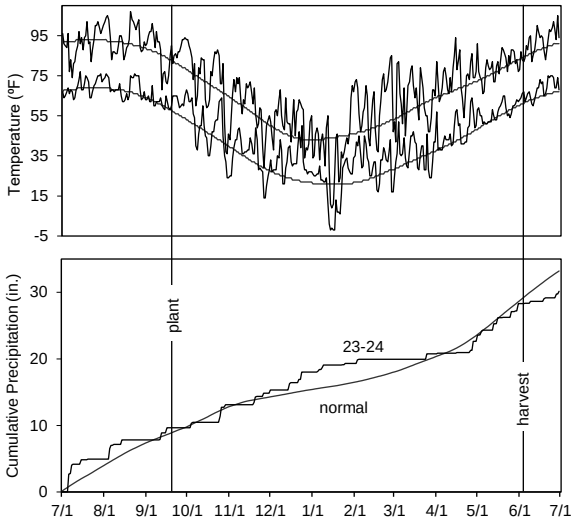


Table 21. Results for the 2024 National Winter Canola Variety Trial, open-pollinated cultivars, at Norwich, KS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Spring stand[2]	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(1-9)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN															
CP225WRR	1101	---	---	100	---	---	---	---	6.7	---	38	11.3	---	23.8	40.7
CP320WRR	912	---	---	83	---	---	---	---	4.7	---	36	11.2	---	22.8	41.0
CP1022WC	1309	---	---	119	---	---	---	---	6.5	---	41	13.7	---	22.8	41.8
CP1066WC	1494	---	---	136	---	---	---	---	7.7	---	39	12.1	---	21.0	43.0
Kansas State University															
KS4662	960	---	---	87	---	---	---	---	4.7	---	41	12.9	---	21.8	42.4
KS4737	989	---	---	90	---	---	---	---	5.3	---	40	12.1	---	22.1	42.8
KSR4767	1066	---	---	97	---	---	---	---	6.7	---	41	11.4	---	22.8	41.4
KSR4839S	982	---	---	89	---	---	---	---	5.3	---	39	11.8	---	22.1	42.7
KSR4848	1069	---	---	97	---	---	---	---	6.7	---	38	12.6	---	21.9	41.7
KSR4854S	1346	---	---	122	---	---	---	---	6.3	---	40	12.0	---	24.0	41.0
KSUR1212	1362	---	---	124	---	---	---	---	7.3	---	39	10.9	---	22.6	42.5
Surefire	1176	---	---	107	---	---	---	---	4.7	---	38	11.0	---	24.3	40.5
Wichita	577	---	---	52	---	---	---	---	5.7	---	34	11.9	---	23.4	41.2
Ohlde Seed Farms															
Torrington	1025	---	---	93	---	---	---	---	4.3	---	39	11.2	---	21.8	42.6
Star Specialty Seed															
Star 930W	1142	---	---	104	---	---	---	---	5.0	---	38	11.5	---	22.8	41.5
Grand Mean	1101	---	---	---	---	---	---	---	5.8	---	39	11.8	---	22.7	41.8
CV	32	---	---	---	---	---	---	---	20.8	---	5	11.4	---	4.9	1.7
LSD (0.05)	ns	---	---	---	---	---	---	---	2.0	---	ns	ns	---	ns	1.5
P-value	0.302	---	---	---	---	---	---	---	0.028	---	0.157	0.500	---	0.274	0.044

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data. Yields adjusted to 9% moisture content.

[2]Spring stand rated on a scale from 1=poor to 9=excellent.

Table 22. Results for the 2024 National Winter Canola Variety Trial, hybrid cultivars, at Norwich, KS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Spring stand[2]	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(1-9)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Bayer Crop Science															
DK SEQUEL	**1264**	---	---	110	---	---	---	---	7.7	---	34	9.2	---	22.1	41.2
DK SEVERNYI	**1379**	---	---	120	---	---	---	---	6.3	---	34	8.7	---	19.5	44.5
DK SEPHOR	537	---	---	47	---	---	---	---	5.0	---	31	12.1	---	19.8	43.8
DK EXPOWER	378	---	---	33	---	---	---	---	3.0	---	31	7.7	---	18.5	44.7
DK EXSTORM	**1412**	---	---	122	---	---	---	---	7.3	---	38	10.3	---	22.3	42.1
DK EXTERRIER	1181	---	---	102	---	---	---	---	7.0	---	38	10.9	---	18.9	44.5
DK EXENTIEL	1220	---	---	106	---	---	---	---	7.3	---	37	9.5	---	21.2	43.3
DK EXCEPTION	**1307**	---	---	113	---	---	---	---	7.3	---	35	9.4	---	19.5	43.9
DK EXCLAIM	1223	---	---	106	---	---	---	---	7.0	---	35	11.4	---	20.6	44.4
DK EXSTAR	1200	---	---	104	---	---	---	---	6.0	---	34	10.5	---	23.5	41.0
DK EXTREMUS	**1288**	---	---	112	---	---	---	---	7.0	---	36	10.7	---	21.2	43.4
DK EXSTEEL	677	---	---	59	---	---	---	---	6.7	---	37	8.2	---	19.6	44.8
DK EXPAT	**1722**	---	---	149	---	---	---	---	8.0	---	39	9.8	---	20.8	42.3
DK EXLEVEL	**1322**	---	---	115	---	---	---	---	6.7	---	40	11.6	---	20.9	43.3
DK EXCITY	**1565**	---	---	136	---	---	---	---	7.0	---	39	8.7	---	21.7	42.8
DK EXOTTER	1179	---	---	102	---	---	---	---	7.0	---	38	9.9	---	21.0	43.2
DK EXSUN	**1305**	---	---	113	---	---	---	---	8.3	---	36	9.0	---	18.5	44.5
DK EXTRACT	1136	---	---	99	---	---	---	---	7.0	---	38	8.8	---	20.7	41.9
DK EXIMA	**1666**	---	---	144	---	---	---	---	8.7	---	38	8.6	---	21.5	41.8
DK EXPORTER	894	---	---	78	---	---	---	---	6.0	---	36	9.1	---	19.7	42.9
DK EXPACITO	1069	---	---	93	---	---	---	---	8.0	---	38	9.0	---	19.0	45.3
Corteva Agriscience															
PT264	**1261**	---	---	109	---	---	---	---	7.0	---	38	10.9	---	22.6	43.7
PT299	1112	---	---	96	---	---	---	---	7.0	---	32	8.8	---	21.4	44.0
PT302	**1343**	---	---	117	---	---	---	---	7.7	---	36	12.2	---	19.3	46.9
PT303	**1712**	---	---	149	---	---	---	---	7.7	---	42	10.6	---	20.7	44.2
PT312	**1514**	---	---	131	---	---	---	---	8.0	---	42	12.1	---	21.0	45.1
PT314	1070	---	---	93	---	---	---	---	7.3	---	36	10.0	---	17.5	48.1
PT319	877	---	---	76	---	---	---	---	7.0	---	36	12.0	---	21.8	42.6
PT320	893	---	---	77	---	---	---	---	6.3	---	38	12.7	---	22.0	43.7
PT321	**1428**	---	---	124	---	---	---	---	7.3	---	38	10.9	---	20.7	45.3
PT323	735	---	---	64	---	---	---	---	6.3	---	35	10.7	---	19.8	45.1
CROPLAN															
CP1055WC	1198	---	---	104	---	---	---	---	7.7	---	34	9.7	---	19.8	43.2
CP1077WC	1105	---	---	96	---	---	---	---	7.7	---	34	9.8	---	21.8	42.1
Photosyntech															
PST23BACL09	826	---	---	72	---	---	---	---	6.0	---	39	9.5	---	19.8	43.6
PST23YW1112	1180	---	---	102	---	---	---	---	6.0	---	35	13.1	---	22.3	40.2
PST23BACL249	912	---	---	79	---	---	---	---	5.7	---	37	13.4	---	23.0	41.4
PST23YW314	522	---	---	45	---	---	---	---	5.0	---	32	12.8	---	19.3	44.4
Rubisco Seeds															
Triathlon	1193	---	---	103	---	---	---	---	6.3	---	42	10.3	---	20.4	41.5
Janosh	**1542**	---	---	134	---	---	---	---	8.0	---	36	14.0	---	21.2	43.5
Drifter	826	---	---	72	---	---	---	---	6.3	---	33	11.2	---	20.5	44.5
Manhattan	969	---	---	84	---	---	---	---	7.0	---	38	10.2	---	20.6	44.0
Beatrix CL	928	---	---	80	---	---	---	---	5.3	---	35	11.5	---	22.7	43.0
Grand Mean	1153	---	---	---	---	---	---	---	6.8	---	36	10.4	---	20.7	43.6
CV	25	---	---	---	---	---	---	---	13.5	---	7	16.9	---	6.3	2.8
LSD (0.05)	476	---	---	---	---	---	---	---	1.5	---	5	2.9	---	2.7	2.5
P-value	<.0001	---	---	---	---	---	---	---	<.0001	---	0.006	0.002	---	0.011	<.0005

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data. Yields adjusted to 9% moisture content.

[2]Spring stand rated on a scale from 1=poor to 9=excellent.

Clovis, New Mexico

Sangu Angadi and Guru Yadahalli
New Mexico State University

Planted: 9/6/2023 in 6-in. rows
Seeding Rate OP: 500,000 seeds/a
Seeding Rate Hybrid: 300,000 seeds/a
Desiccant: 5/31/2024 Gramoxone 2.7 pt/a
Harvested:
Herbicides: 1.5 pt/a Treflan HFP
Insecticides: 25 oz/a Sivanto, 22.5 oz/a Vantacor, 4 oz/a Avaunt, Mustang Maxx 4 oz/a
Irrigation: 5.70 in.
Soil test: N=7.2 ppm, P=7.0 ppm, K=385 ppm, pH=8.0
Previous crop: Wheat
Fertilizer: 155-60-0-43 lb/a N-P-K-S
Soil type: Olton clay loam Latitude: 34.599850
Elevation: 4437 ft. Longitude: -103.220032
Comments: Yields were slightly below average at this High Plains site.

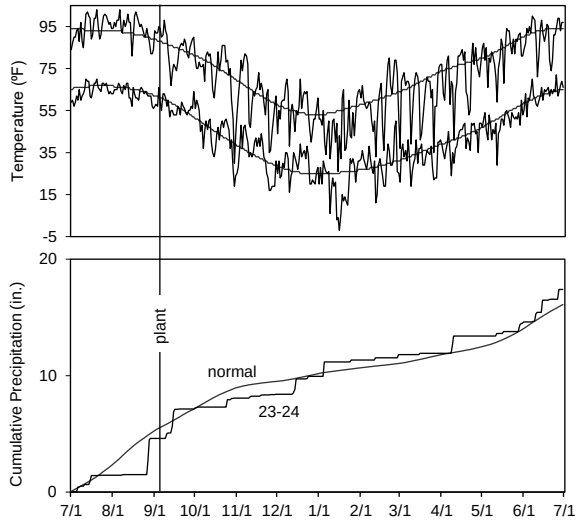


Table 23. Results for the 2024 National Winter Canola Variety Trial, open-pollinated cultivars, at Clovis, NM

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(%)	(%)
CROPLAN														
CP225WRR	1251	---	---	98	75	---	---	6.3	3.3	100	34	9.0	27.3	35.8
CP320WRR	970	---	---	76	87	---	---	6.7	3.7	99	34	11.1	29.4	34.7
CP1022WC	1331	---	---	104	88	---	---	6.0	3.0	106	39	12.3	27.0	35.3
CP1066WC	1501	---	---	118	88	---	---	8.0	3.7	101	39	9.0	27.0	36.2
Kansas State University														
KS4662	1353	---	---	106	82	---	---	5.3	3.3	98	40	8.2	26.9	35.9
KS4737	1586	---	---	124	72	---	---	5.7	3.3	99	37	10.3	26.4	37.3
KSR4767	1262	---	---	99	73	---	---	5.3	3.3	97	40	8.8	27.9	34.9
KSR4839S	1056	---	---	83	75	---	---	5.7	3.0	100	38	8.4	28.1	36.2
KSR4848	1253	---	---	98	80	---	---	7.7	3.7	100	36	11.3	27.8	35.2
KSR4854S	1344	---	---	105	78	---	---	5.7	3.3	100	38	8.3	28.2	34.7
KSUR1212	1196	---	---	94	73	---	---	5.0	3.0	98	38	7.9	28.0	34.8
Surefire	1178	---	---	92	87	---	---	7.3	3.3	100	37	7.7	29.0	35.2
Wichita	1214	---	---	95	70	---	---	6.7	3.3	99	37	9.1	30.5	33.4
Ohlde Seed Farms														
Torrington	1519	---	---	119	80	---	---	4.0	3.3	94	35	7.9	26.9	36.4
Star Specialty Seed														
Star 930W	1133	---	---	89	75	---	---	6.3	3.3	98	35	7.7	27.1	36.1
Grand Mean	1276	---	---	---	79	---	---	6.1	3.3	99	37	9.1	27.8	35.5
CV	22	---	---	---	11	---	---	29.0	15.6	1	7	10.3	5.5	4.1
LSD (0.05)	ns	---	---	---	ns	---	---	ns	ns	2	ns	1.6	ns	ns
P-value	0.422	---	---	---	0.135	---	---	0.420	0.897	<.0001	0.072	<.0001	0.459	0.613

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data. Yields adjusted to 9% moisture content.

Table 24. Results for the 2024 National Winter Canola Variety Trial, hybrid cultivars, at Clovis, NM

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(%)	(%)
Bayer Crop Science														
DK SEQUEL	**2369**	---	---	122	87	---	---	7.0	3.7	91	32	10.4	24.1	37.4
DK SEVERNYI	1850	---	---	96	82	---	---	7.7	3.3	100	32	9.2	26.6	36.6
DK SEPHOR	**2180**	---	---	113	77	---	---	7.0	3.0	97	34	8.5	25.9	36.5
DK EXPOWER	2089	---	---	108	80	---	---	6.0	3.3	92	37	9.3	23.0	39.7
DK EXSTORM	1888	---	---	98	85	---	---	8.0	3.3	96	35	9.7	23.6	39.6
DK EXTERRIER	1831	---	---	95	88	---	---	8.7	3.7	97	38	10.2	24.1	39.2
DK EXENTIEL	2033	---	---	105	85	---	---	7.7	3.7	92	38	10.5	22.8	39.0
DK EXCEPTION	**2146**	---	---	111	85	---	---	8.0	3.3	95	36	11.8	22.4	39.5
DK EXCLAIM	1834	---	---	95	85	---	---	8.0	3.7	102	39	11.7	21.8	40.4
DK EXSTAR	1714	---	---	89	83	---	---	6.3	3.0	98	37	9.9	26.4	35.9
DK Extremus	1904	---	---	98	90	---	---	8.0	3.3	94	35	10.1	26.6	36.7
DK EXSTEEL	1685	---	---	87	83	---	---	8.7	3.3	100	38	9.7	26.4	36.5
DK EXPAT	2088	---	---	108	88	---	---	8.3	3.3	98	36	9.9	26.1	36.5
DK EXLEVEL	**2542**	---	---	131	90	---	---	7.0	3.3	93	36	9.0	23.7	38.1
DK EXCITY	1829	---	---	95	88	---	---	9.3	3.7	94	39	9.9	27.8	35.9
DK EXOTTER	1994	---	---	103	83	---	---	8.7	4.0	94	37	10.6	24.0	38.4
DK EXSUN	2008	---	---	104	87	---	---	9.3	4.0	96	38	10.3	23.8	38.6
DK EXTRACT	**2349**	---	---	121	83	---	---	7.3	3.3	95	38	10.7	24.3	37.6
DK EXIMA	**2713**	---	---	140	87	---	---	8.3	3.7	96	37	9.8	24.1	38.6
DK EXPORTER	**2444**	---	---	126	92	---	---	7.7	4.0	90	34	10.4	21.3	40.2
DK EXPACITO	1915	---	---	99	82	---	---	8.7	4.0	98	36	10.7	23.9	38.2
Corteva Agriscience														
PT264	1522	---	---	79	82	---	---	7.0	4.0	101	39	9.2	26.9	36.8
PT299	1380	---	---	71	83	---	---	7.0	3.0	94	35	11.4	24.0	40.4
PT302	1526	---	---	79	85	---	---	8.0	3.7	99	34	10.2	25.1	39.2
PT303	2067	---	---	107	85	---	---	8.7	4.0	97	38	9.5	23.7	39.8
PT312	1791	---	---	93	75	---	---	7.3	3.7	100	38	10.8	23.0	40.6
PT314	**2160**	---	---	112	90	---	---	8.7	3.7	93	38	9.2	22.3	41.6
PT319	1561	---	---	81	83	---	---	8.7	3.7	101	33	10.1	27.3	35.0
PT320	1708	---	---	88	85	---	---	8.7	3.7	100	39	9.6	23.0	40.3
PT321	1716	---	---	89	92	---	---	8.7	3.0	94	34	9.2	24.0	40.6
PT323	1743	---	---	90	82	---	---	8.3	6.0	96	37	10.0	20.5	43.0
CROPLAN														
CP1055WC	2119	---	---	110	88	---	---	8.7	3.0	93	37	10.1	23.3	38.4
CP1077WC	1619	---	---	84	87	---	---	9.0	3.7	98	36	11.1	23.6	39.2
Rubisco Seeds														
Triathlon	1788	---	---	92	87	---	---	8.7	4.0	100	42	11.7	22.1	40.5
Janosh	1640	---	---	85	87	---	---	7.7	3.3	100	32	11.2	25.2	37.7
Drifter	2032	---	---	105	83	---	---	7.0	3.3	92	33	11.0	22.9	40.5
Manhattan	1956	---	---	101	88	---	---	7.0	3.0	97	37	11.4	22.7	40.1
Beatrix CL	1771	---	---	92	77	---	---	7.0	3.7	92	39	9.3	27.2	36.6
Grand Mean	1934		---	---	85		---	7.9	3.6	96	36	10.2	24.2	38.7
CV	19	---	---	---	5	---	---	10.6	20.5	3	9	11.3	6.8	4.2
LSD (0.05)	586	---	---	---	8	---	---	1.4	ns	4	ns	ns	3.4	3.3
P-value	0.006	---	---	---	0.004	---	---	<.0001	0.075	<.0001	0.093	0.056	0.005	0.003

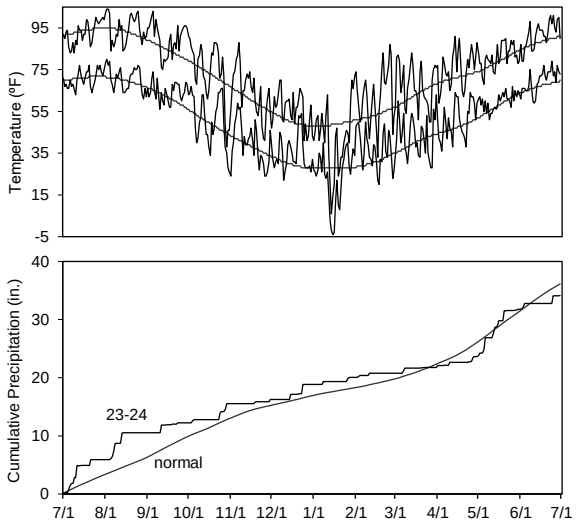
Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Yields adjusted to 9% moisture content.

Perkins, Oklahoma

Josh Lofton
Oklahoma State University

Seeding Rate OP: 500,000 seeds/a
Seeding Rate Hybrid: 300,000 seeds/a



Comments: Yields were above average despite a challenging year. Open-pollinated cultivars outyielded the hybrids.

Table 25. Results for the 2024 National Winter Canola Variety Trial, open-pollinated cultivars, at Perkins, OK

Name	Yield (lb/a)			Yield (% of test avg.)	Winter survival (%)			Fall stand	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN														
CP225WRR	2378	---	---	103	---	---	---	---	---	---	---	---	23.0	35.9
CP320WRR	2105	---	---	91	---	---	---	---	---	---	---	---	21.9	36.7
CP1022WC	2480	---	---	107	---	---	---	---	---	---	---	---	23.6	36.6
CP1066WC	2297	---	---	100	---	---	---	---	---	---	---	---	22.3	38.0
Kansas State University														
KS4662	2580	---	---	112	---	---	---	---	---	---	---	---	20.1	39.7
KS4737	2225	---	---	96	---	---	---	---	---	---	---	---	21.0	39.8
KSR4767	2405	---	---	104	---	---	---	---	---	---	---	---	20.6	38.6
KSR4839S	2020	---	---	88	---	---	---	---	---	---	---	---	21.0	39.1
KSR4848	2475	---	---	107	---	---	---	---	---	---	---	---	21.2	38.9
KSR4854S	2080	---	---	90	---	---	---	---	---	---	---	---	22.4	37.1
KSUR1212	2242	---	---	97	---	---	---	---	---	---	---	---	20.6	38.8
Surefire	2418	---	---	105	---	---	---	---	---	---	---	---	23.5	36.4
Wichita	2512	---	---	109	---	---	---	---	---	---	---	---	20.5	37.1
Ohlde Seed Farms														
Torrington	2057	---	---	89	---	---	---	---	---	---	---	---	22.7	36.8
Star Specialty Seed														
Star 930W	2338	---	---	101	---	---	---	---	---	---	---	---	21.9	36.6
Grand Mean	2307	---	---	---	---	---	---	---	---	---	---	---	21.8	37.7
CV	12	---	---	---	---	---	---	---	---	---	---	---	5.2	3.0
LSD (0.05)	ns	---	---	---	---	---	---	---	---	---	---	---	ns	2.4
P-value	0.296	---	---	---	---	---	---	---	---	---	---	---	0.100	0.034

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

Table 26. Results for the 2024 National Winter Canola Variety Trial, hybrid cultivars, at Perkins, OK

Name	Yield (lb/a)			Yield (% of test avg.)	Winter survival (%)			Fall stand	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Bayer Crop Science														
DK SEQUEL	2398	---	---	111	---	---	---	---	---	---	---	---	17.6	39.0
DK SEVERNYI	2090	---	---	97	---	---	---	---	---	---	---	---	18.3	39.3
DK SEPHOR	2282	---	---	105	---	---	---	---	---	---	---	---	18.2	39.2
DK EXPOWER	2238	---	---	103	---	---	---	---	---	---	---	---	18.6	39.9
DK EXSTORM	2363	---	---	109	---	---	---	---	---	---	---	---	18.4	43.4
DK EXTERRIER	2107	---	---	97	---	---	---	---	---	---	---	---	17.6	42.9
DK EXENTIEL	2003	---	---	93	---	---	---	---	---	---	---	---	19.0	42.7
DK EXCEPTION	2235	---	---	103	---	---	---	---	---	---	---	---	18.4	38.8
DK EXCLAIM	2152	---	---	99	---	---	---	---	---	---	---	---	19.1	40.3
DK EXSTAR	2212	---	---	102	---	---	---	---	---	---	---	---	18.3	42.6
DK EXTREMUS	1920	---	---	89	---	---	---	---	---	---	---	---	19.0	40.1
DK EXSTEEL	2138	---	---	99	---	---	---	---	---	---	---	---	18.5	39.9
DK EXPAT	2162	---	---	100	---	---	---	---	---	---	---	---	17.6	37.6
DK EXLEVEL	2082	---	---	96	---	---	---	---	---	---	---	---	19.6	38.2
DK EXCITY	2147	---	---	99	---	---	---	---	---	---	---	---	18.3	41.5
DK EXOTTER	2150	---	---	99	---	---	---	---	---	---	---	---	18.4	39.5
DK EXSUN	2438	---	---	113	---	---	---	---	---	---	---	---	19.1	38.7
DK EXTRACT	1915	---	---	88	---	---	---	---	---	---	---	---	18.3	38.3
DK EXIMA	2055	---	---	95	---	---	---	---	---	---	---	---	18.1	39.4
DK EXPORTER	2153	---	---	99	---	---	---	---	---	---	---	---	18.4	40.8
DK EXPACITO	2243	---	---	104	---	---	---	---	---	---	---	---	19.1	40.9
Corteva Agriscience														
PT264	2285	---	---	106	---	---	---	---	---	---	---	---	18.4	42.6
PT299	2270	---	---	105	---	---	---	---	---	---	---	---	17.3	42.5
PT302	2345	---	---	108	---	---	---	---	---	---	---	---	18.3	42.6
PT303	2077	---	---	96	---	---	---	---	---	---	---	---	19.0	41.9
PT312	2078	---	---	96	---	---	---	---	---	---	---	---	18.4	43.3
PT314	2125	---	---	98	---	---	---	---	---	---	---	---	15.4	43.4
PT319	2175	---	---	100	---	---	---	---	---	---	---	---	22.8	36.9
PT320	2282	---	---	105	---	---	---	---	---	---	---	---	18.8	43.4
PT321	2233	---	---	103	---	---	---	---	---	---	---	---	18.5	44.3
PT323	2300	---	---	106	---	---	---	---	---	---	---	---	17.0	43.4
CROPLAN														
CP1055WC	1957	---	---	90	---	---	---	---	---	---	---	---	11.6	31.2
CP1077WC	2220	---	---	103	---	---	---	---	---	---	---	---	19.2	41.2
Photosyntech														
PST23BACL09	2107	---	---	97	---	---	---	---	---	---	---	---	19.2	41.9
PST23YW1112	2130	---	---	98	---	---	---	---	---	---	---	---	20.6	37.4
PST23BACL249	2138	---	---	99	---	---	---	---	---	---	---	---	20.5	39.1
PST23YW314	1957	---	---	90	---	---	---	---	---	---	---	---	18.3	42.3
Rubisco Seeds														
Triathlon	2052	---	---	95	---	---	---	---	---	---	---	---	18.7	40.0
Janosh	2403	---	---	111	---	---	---	---	---	---	---	---	19.3	39.1
Drifter	2090	---	---	97	---	---	---	---	---	---	---	---	18.3	41.4
Manhattan	2133	---	---	99	---	---	---	---	---	---	---	---	18.7	42.7
Beatrix CL	2115	---	---	98	---	---	---	---	---	---	---	---	19.0	40.9
Grand Mean	2166	---	---	---	---	---	---	---	---	---	---	---	18.5	40.7
CV	13	---	---	---	---	---	---	---	---	---	---	---	5.5	3.9
LSD (0.05)	ns	---	---	---	---	---	---	---	---	---	---	---	2.1	3.2
P-value	0.954	---	---	---	---	---	---	---	---	---	---	---	<.0001	<.0001

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

Creston, Montana

Jessica Torrion and Moose Larson
Montana State University

Planted: 8/24/2023
Seeding Rate OP: 500,000 seeds/a
Seeding Rate Hybrid: 300,000 seeds/a
Desiccant: None
Harvested: 8/29/2024
Herbicides: Gatlin, Buccaneer Plus
Insecticides: Lambda-cy, Crusader
Irrigation: N/A
Previous crop: Barley
Soil test: NO_3^-=70 lb/a, P=9 lb/a, K=206 lb/a
Fertilizer: 80-35-40 lb/a N-P-K

Soil type: Creston silt loam Latitude: 48.187028
Elevation: 2950 ft. Longitude: -114.140861
Comments: Very-high winds and hard rain in mid-August caused shattering and some yield loss.

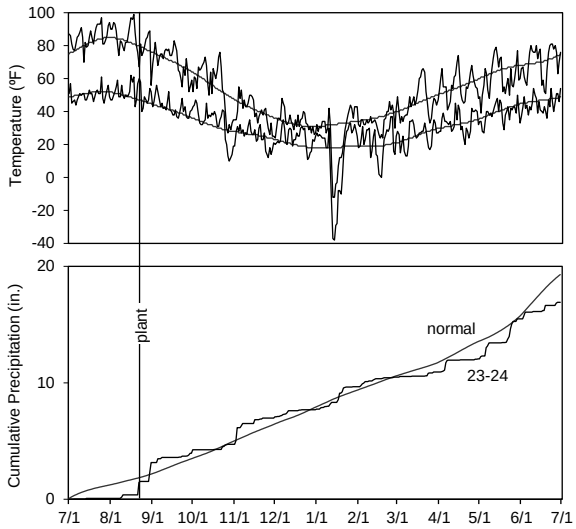


Table 27. Results for the 2024 Roundup Ready Variety Trial, open-pollinated cultivars, at Creston, MT

Name	Type[1]	Yield (lb/a)[2]			Yield (% of test avg.)	Winter survival (%)			Fall stand	50% bloom	Shatter	Plant height	Protein	Oil
		2024	2023	2-yr.	2024	2024	2023	2-yr.	(1-m row)	(d)	(%)	(in.)	(%)	(%)
Bayer Crop Science														
TFW107D	H	**1451**	---	---	152	54	---	---	14	139	13	35	18.8	44.4
TFW115D	H	**1646**	---	---	172	73	---	---	14	139	22	34	19.5	43.4
TFW116D	H	**1690**	---	---	177	51	---	---	18	139	10	38	19.5	44.9
CROPLAN														
CP225WRR	OP	762	299	530	80	71	9	40	15	140	40	35	20.8	43.2
CP320WRR	OP	1057	**621**	839	111	42	26	34	22	140	22	35	20.7	43.6
Kansas State University														
KSR4767	OP	996	316	656	104	65	29	47	16	141	23	36	21.5	42.7
KSR4837	OP	812	**666**	739	85	73	25	49	16	141	27	38	21.0	43.2
KSR4839S	OP	843	**698**	771	88	50	22	36	20	141	43	37	20.5	44.6
KSR4846	OP	922	---	---	97	63	---	---	19	139	30	38	20.4	44.3
KSR4848	OP	748	431	590	78	66	33	49	14	140	27	38	21.5	42.9
KSR4850	OP	890	---	---	93	80	---	---	13	140	35	35	20.3	42.4
KSR4852S	OP	988	**984**	986	103	71	30	51	18	140	27	37	19.7	45.9
KSR4854S	OP	734	561	648	77	57	14	35	19	140	33	36	21.3	44.0
KSR4925	OP	718	**899**	809	75	61	33	47	21	143	32	37	21.4	43.1
KSR4926S	OP	993	567	780	104	58	23	41	17	140	22	36	21.6	43.2
KSR4927S	OP	825	**655**	740	86	73	21	47	17	140	28	36	20.6	43.4
KSR4928	OP	822	**687**	755	86	39	24	31	21	143	40	36	21.5	42.1
KSR4966S	OP	691	**652**	672	72	81	20	51	15	141	33	37	20.8	43.2
KSR4967	OP	678	241	460	71	55	16	36	18	141	50	37	20.4	43.6
Star Specialty Seed														
Star 930W	OP	843	---	---	88	63	---	---	14	142	38	35	21.6	42.9
Mean		956	569	---	---	62	23	---	17	140	30	36	20.7	43.5
CV		18	49	---	---	38	61	---	21	1	36	5	4.2	2.5
LSD		280	382	---	---	ns	ns	---	ns	2.2	18	ns	ns	ns
P-value		<.0001	0.090	---	---	0.765	0.142	---	0.100	0.003	0.007	0.143	0.118	0.229

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Type: H=hybrid, OP=open-pollinated

[2]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data.

Alburgh, Vermont

Heather Darby
University of Vermont

Planted: 8/28/2023 in 6-in. rows
Seeding Rate OP: 500,000 seeds/a
Seeding Rate Hybrid: 300,000 seeds/a
Desiccant: None
Harvested: 7/19/2024
Herbicides: None
Insecticides: None
Fungicide: None
Previous crop: Winter rye
Soil test: N/A
Fertilizer: Fall: 60-60-60 lb/a N-P-K

Soil type: Benson rocky silt loam Latitude: 45.008280
Elevation: 125 ft. Longitude: -73.307385
Comments: Exceptional yields and very-high oil contents in a year with above-normal precipitation.

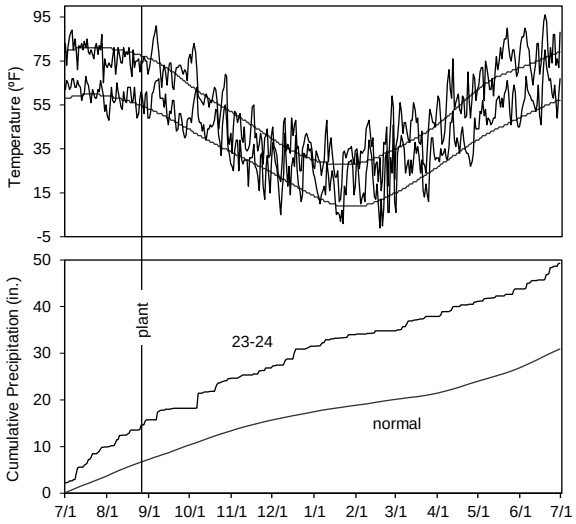


Table 28. Results for the 2024 National Winter Canola Variety Trial at Alburgh, VT

Name	Type[1]	Yield (lb/a)[2]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Protein	Oil
		2024	2023	2-yr.	2024	2024	2023	2-yr.	(0-10)	(1-5)	(d)	(in)	(%)	(%)	(%)
Bayer Crop Science															
DK EXOTTER	H	**2787**	---	---	106	83	---	---	10.0	4.5	130	60	8.5	16.0	46.8
DK EXSUN	H	2606	---	---	99	80	---	---	9.8	4.8	132	61	8.1	16.3	45.4
DK EXIMA	H	**3014**	---	---	114	98	---	---	9.5	4.5	129	59	8.7	15.1	46.9
DK EXPACITO	H	**3450**	---	---	131	83	---	---	10.0	5.0	134	66	8.6	17.3	45.9
Corteva Agriscience															
PT319	H	2666	---	---	101	83	---	---	9.5	4.8	131	61	9.0	18.2	45.1
PT320	H	2005	---	---	76	30	---	---	9.5	5.0	135	55	10.2	16.2	47.6
PT321	H	2180	---	---	83	38	---	---	10.0	5.0	131	53	11.4	16.3	48.1
PT323	H	1772	---	---	67	28	---	---	9.8	4.8	132	52	13.8	15.8	47.1
CROPLAN															
CP1066WC	OP	2191	1678	1934	83	93	92	92	9.8	4.3	134	59	9.1	18.1	44.7
Kansas State University															
Surefire	OP	2378	1765	2072	90	95	93	94	9.8	4.5	131	56	8.6	17.0	45.2
Rubisco Seeds															
Triathlon	H	**3071**	---	---	116	95	---	---	9.3	4.5	134	64	8.5	15.9	46.2
Janosh	H	**2842**	---	---	108	78	---	---	9.8	5.0	130	58	9.2	15.2	47.0
Drifter	H	**2874**	---	---	109	93	---	---	9.8	4.5	129	59	8.0	14.5	47.8
Manhattan	H	**3209**	---	---	122	88	---	---	9.3	4.8	130	59	9.4	15.3	47.6
Beatrix CL	H	2529	---	---	96	78	---	---	10.0	5.0	131	57	8.8	16.7	46.5
Mean		2638	2189	---	---	76	93	---	9.7	4.7	131	59	9.3	16.3	46.5
CV		19	21	---	---	20	6	---	6.5	10.3	1	6	10.6	7.9	2.4
LSD		729.2	ns	---	---	21	8	---	ns	ns	2	5	1.4	ns	ns
P-value		0.001	0.270	---	---	<.0001	0.094	---	0.804	0.435	<.0001	<.0005	<.0001	0.281	0.130

Bold: Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

[1]Type: H=hybrid, OP=open-pollinated

[2]Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data. Yields adjusted to 9% moisture.

Table 29. Seed sources for entries in the 2023-2024 National Winter Canola Variety Trial

Source	Type[1]	Trait[2]	Commercial Variety	Maturity[3]
Bayer Crop Science				
Bryan Thomas (bryan.thomas@bayer.com)				
DK SEQUEL	H	SD	---	M
DK SEVERNYI	H	SD	---	M
DK SEPHOR	H	SD	---	M
DK EXPOWER	H	---	---	M
DK EXSTORM	H	---	---	M
DK EXTERRIER	H	---	---	M
DK EXENTIEL	H	---	---	M
DK EXCEPTION	H	---	---	M
DK EXCLAIM	H	---	---	M
DK EXSTAR	H	---	---	M
DK EXTREMUS	H	---	---	M
DK EXSTEEL	H	---	---	M
DK EXPAT	H	---	---	M
DK EXLEVEL	H	---	---	M
DK EXCITY	H	---	---	M
DK EXOTTER	H	---	---	M
DK EXSUN	H	---	---	M
DK EXTRACT	H	---	---	M
DK EXIMA	H	---	---	M
DK EXPORTER	H	---	---	M
DK EXPACITO	H	---	---	M
Corteva Agrisciences				
Andrew Hopkins (andrew.hopkins@corteva.com)				
PT264	H	---	---	M
PT299	H	---	---	M
PT302	H	---	---	M
PT303	H	---	Y	M
PT312	H	---	---	M
PT314	H	---	Y	M
PT319	H	---	---	M
PT320	H	---	---	M
PT321	H	---	---	M
PT323	H	---	---	M
CROPLAN				
Mick Miller (MMiller5@landolakes.com)				
CP225WRR	OP	RR/SURT	Y	M
CP320WRR	OP	RR	Y	M
CP1022WC	OP	G2FLEX	Y	F
CP1055WC	H	CL	Y	M
CP1066WC	OP	---	Y	MF
CP1077WC	H	PS	Y	M
Kansas State University Canola Breeding Program				
Michael J. Stamm (mjstamm@ksu.edu)				
KS4662	OP	---	---	M
KS4737	OP	---	---	M
KSR4767	OP	RR	---	M
KSR4839S	OP	RR/SURT	---	M
KSR4848	OP	RR	---	M
KSR4854S	OP	RR/SURT	---	M
KSUR1212	OP	SU	---	M
Surefire	OP	SU	Y	MF
Wichita	OP	---	---	M
Ohlde Seed Farms				
Shane Ohlde (shane@ohldeseed.com)				
Torrington	OP	---	Y	M
Photosyntech				
Bob Amstrup (bob.amstrup@photosyntech.com)				
PST23YWT930	H	---	---	M
PST23BACL09	H	CL	---	M
PST23EX37D	H	---	---	M
PST23YW1112	H	---	---	M
PST23BACL249	H	CL	---	M
PST23YW1721	H	---	---	M
PST23YW314	H	---	---	M
Rubisco Seeds LLC				
Claire Caldbeck (info@rubiscoseeds.com)				
Beatrix CL	H	CL	Y	M
Drifter	H	---	Y	M
Janosh	H	---	Y	M
Manhattan	H	---	Y	M
Triathlon	H	---	Y	M
Star Specialty Seeds, Inc.				
Jim Johnson (jimj_star@hotmail.com)				
Star 930W	OP	RR	Y	ME

[1]OP=open pollinated. H=hybrid.

[2]CL=Clearfield (imidazolinone resistant). RR=Roundup Ready (glyphosate resistant). SD=semi-dwarf hybrid. SU, SURT=sulfonylurea carryover tolerant. G2FLEX=tolerance to Group 2 soil residual. PS=pod shatter

[3]E=Early. ME=Medium early. M=Medium. MF=Medium full. F=Full.

Senior Authors

Michael Stamm and Allison Aubert
Department of Agronomy, Kansas State University, Manhattan

Other Contributors

Sangu Angadi and Guru Yadahalli, New Mexico State University, Clovis
Jourdan Bell, Texas A&M University AgriLife Research and Extension, Amarillo
Dennis Burns, Louisiana State University, St. Joseph
Heather Darby, University of Vermont, St. Albans
Jason de Koff, Tennessee State University, Nashville
Scott Dooley, Kansas State University, Belleville
Kenneth Eck, Purdue University, Vincennes
Brad Fisher, University of Tennessee, Springfield
Johnathon Holman and Tom Roberts, Kansas State University, Garden City
Andrew Hopkins, Corteva Agrisciences, York, Nebraska
Zane Jenkins, Colorado State University, Walsh
Sally Jones-Diamond, Colorado State University, Ft. Collins
Bruce Kirksey, Agricenter International, Memphis, Tennessee
Greg Lillard, Virginia Tech University, Orange
Jane Lingenfelser, Kansas State University, Manhattan
Josh Lofton, Oklahoma State University, Stillwater
Reagan Noland, Texas A&M University, San Angelo
W. John Park, Clemson University, Florence, South Carolina
Mitchell Richmond, University of Tennessee, Knoxville
Brett Rushing, Mississippi State University, Newton
Katie Russell, Colorado State University, Yellow Jacket
Dipak Santra, University of Nebraska-Lincoln, Scottsbluff
Cody and David Swinehart, Norwich, Kansas
Jessica Torrion and Moose Larson, Montana State University, Creston

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