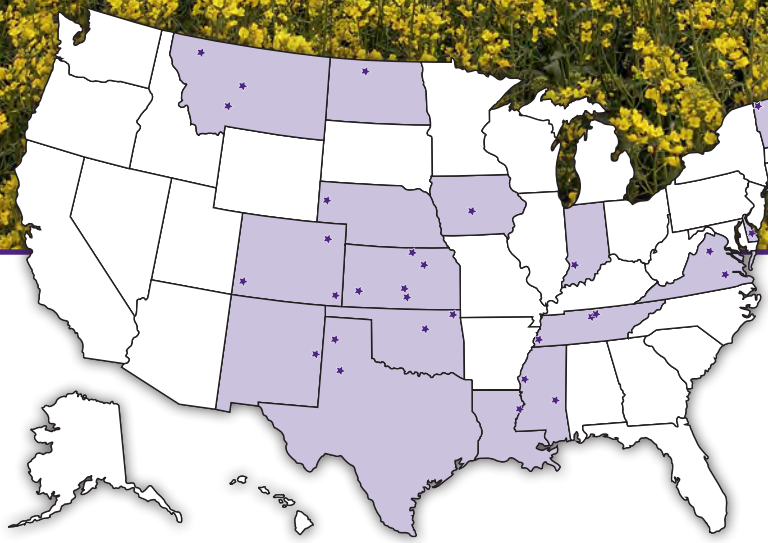
2022

National Winter Canola Variety Trial



Report of Progress 1178

K-STATE Research and Extension

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

2022 National Winter Canola Variety Trial and Roundup Ready Variety Trials

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Contribution no. 23-276-S from the Kansas Agricultural Experiment Station

2022 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 30 test sites in 15 states for the 2021–2022 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 43 entries, 13 are commercial and 30 are experimental. These entries were provided by seven 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 2022–2023 growing season and includes 42 entries. Seven seed suppliers contributed to the trial, and it was distributed to 32 locations in 15 states.

2021–2022 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 “21-22” represents actual precipitation. If weather information was not provided, data were taken from a nearby town.

In general, the 2021–2022 growing season was marked by dry conditions in the Great Plains, resulting in lower-than-normal yields. Temperatures fluctuated throughout the winter but only minimal winterkill was observed. However, the dry winter conditions resulted in reduced biomass production, limiting yield formation. Spring rains arrived during grain filling but were too late and caused only modest recovery. Some locations in the Southeast received too much rainfall in the spring.

Test Sites and Results

Nineteen harvested test sites in eleven states are included in this report: Dallas Center, IA; Vincennes, IN; Belleville, Hutchinson, Manhattan, and Norwich, KS; St. Joseph, LA; Newton and Stoneville, MS (2 sites); Bozeman, Creston, and Moccasin, MT; Clovis, NM; Perkins, OK; Ashland City and Springfield, TN; Orange, VA; and Alburgh, VT. Eleven locations were not harvested or had poor data quality because of inadequate stand establishment, winterkill, or heavy rainfall. A new cooperator in 2021–2022 is St. Joseph, LA.

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.

Overall, yields were below average for many locations. Open pollinated trial means ranged from 93 to 2,457 lb/acre. Nine OP trials produced average yields greater than 1,500 lb/acre. Hybrid trial means ranged from 64 to 3,976 lb/acre. Six hybrid trials produced average yields greater than 1,500 lb/acre.

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 35 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.

Orange, Virginia

Greg Lillard
Virginia Tech University

Planted: 9/27/2021 in 7.5-in. rows
Seeding Rate OP: 500,000 seeds/a
Seeding Rate Hybrid: 300,000 seeds/a
Desiccant: None
Harvested: 6/20/2022
Herbicides: 1.5 pt/a Trifluralin, 2 qt/a Roundup
Insecticides: None
Fungicide: None
Previous crop: Summer cover sudan grass
Soil test: P=23 ppm, K=171 ppm, pH=6.6
Fertilizer: 40-40-40 lb/a N-P-K fertilizer in fall
120-0-0 lb/a N-P-K fertilizer split application in spring
Soil type: Davidson silty clay Latitude: 38.216667
Elevation: 510 ft. Longitude: -78.116667
Comments: Yields were excellent and the hybrids showed an advantage over the open-pollinated cultivars.

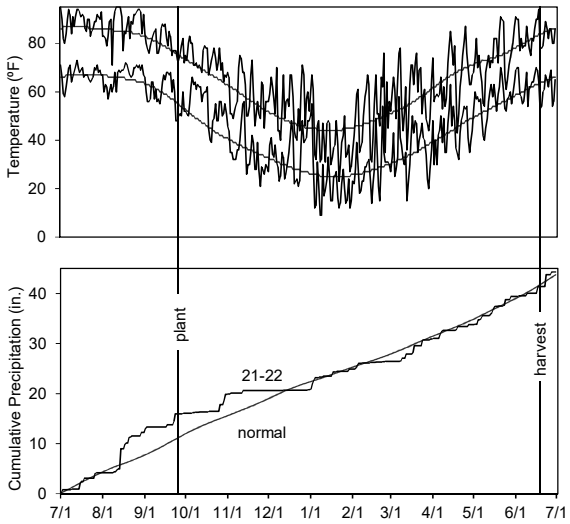


Table 1. Results for the 2022 National Winter Canola Variety Trial, open-pollinated cultivars, at Orange, VA

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN															
CP225WRR	1693	**1851**	1772	84	---	---	---	7.7	4.7	101	50	10.4	47.9	23.0	39.1
CP320WRR	1467	1724	1596	73	---	---	---	9.7	5.0	98	47	10.8	45.1	21.7	40.1
CP1022WC	2034	1630	1832	101	---	---	---	9.0	5.0	108	58	14.4	46.1	21.5	41.8
CP1066WC	**2224**	**2010**	2117	111	---	---	---	8.0	5.0	101	56	13.2	46.9	21.9	41.2
Kansas State University															
KS4662	1932	1526	1729	96	---	---	---	9.3	5.0	98	55	11.4	47.7	22.4	40.1
KS4722	1819	---	---	91	---	---	---	7.3	5.0	98	54	11.0	47.6	22.3	40.4
KS4753	**2510**	---	---	125	---	---	---	9.3	5.0	102	58	11.0	47.1	22.5	41.3
KSR4767	**2124**	1358	1741	106	---	---	---	10.0	5.0	98	52	10.8	47.6	22.2	40.2
KSR4839S	1612	---	---	80	---	---	---	8.7	5.0	102	54	10.2	43.5	20.5	42.6
KSR4848	**2270**	1131	1701	113	---	---	---	8.7	5.0	102	55	12.7	47.3	21.6	40.7
KSR4854S	**2470**	1545	2007	123	---	---	---	9.3	5.0	101	55	10.7	47.0	22.8	40.3
KSUR1212	1960	1399	1680	98	---	---	---	7.7	5.0	101	56	10.9	45.4	21.8	41.2
Griffin	1940	**1892**	1916	97	---	---	---	9.0	5.0	98	48	10.8	46.9	22.2	40.5
Riley	**2063**	1762	1913	103	---	---	---	7.7	5.0	98	50	11.8	45.5	22.2	40.6
Surefire	**2565**	**2251**	2408	128	---	---	---	8.7	5.0	98	57	11.7	47.2	22.6	40.6
Wichita	**2225**	1691	1958	111	---	---	---	7.3	4.7	101	54	10.6	47.5	22.9	39.9
Ohlde Seed Farms															
Torrington	1736	**2232**	1984	87	---	---	---	6.3	5.0	98	55	12.6	47.0	21.6	40.6
Star Specialty Seed															
Star 930W	1436	1763	1600	72	---	---	---	8.3	5.0	98	49	10.5	43.9	22.6	39.6
Grand Mean	2005	1675	---	---	---	---	---	8.4	5.0	---	54	11.4	46.5	22.1	40.6
CV	24	31	---	---	---	---	---	15.9	3.8	---	4	7.7	5.2	3.3	2.2
LSD (0.05)	522	450	---	---	---	---	---	ns	ns	---	4	1.5	ns	ns	ns

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 2. Results for the 2022 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	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Corteva Agriscience															
44D06	3888	---	---	98	100	---	---	7.7	4.7	102	---	13.8	45.3	19.8	43.9
PT264	3936	1355	2646	99	100	---	---	9.0	5.0	101	---	12.4	46.5	19.5	43.8
PT271	3734	1643	2688	94	100	---	---	7.3	5.0	101	---	11.0	47.5	18.7	45.4
PT275	4027	1706	2866	101	100	---	---	7.7	4.7	103	---	13.4	46.2	18.8	45.0
PT279CL	3718	---	---	94	100	---	---	10.0	5.0	98	---	9.8	46.0	18.9	43.5
PT284	3038	---	---	76	100	---	---	6.7	5.0	98	---	13.5	43.9	19.8	43.6
PT293	4407	1790	3099	111	100	---	---	8.3	4.7	98	---	13.4	43.1	18.9	45.3
PT297	3851	1955	2903	97	98	---	---	9.3	5.0	101	---	15.0	45.0	18.4	45.4
PT299	3958	---	---	100	98	---	---	8.0	4.7	98	---	14.2	45.4	18.6	45.4
PT302	4345	---	---	109	100	---	---	8.3	5.0	103	---	15.3	46.3	18.1	45.2
PT303	3478	---	---	87	93	---	---	7.7	5.0	103	---	14.8	45.3	19.2	44.7
PT305CL	4971	---	---	125	100	---	---	9.3	5.0	101	---	14.2	47.8	20.3	44.1
PT308	3229	---	---	81	100	---	---	8.0	5.0	98	---	12.0	46.4	19.3	44.9
PX125CL	3985	---	---	100	100	---	---	9.3	5.0	103	---	12.4	46.8	21.4	41.1
PX128	3979	1313	2646	100	100	---	---	9.0	5.0	101	---	14.9	43.5	20.1	44.5
PX131	3499	1331	2415	88	100	---	---	8.7	5.0	99	---	14.3	46.7	19.0	45.6
PX133	3391	---	---	85	100	---	---	9.3	5.0	98	---	11.3	47.2	21.5	40.9
PX135	4401	---	---	111	100	---	---	7.0	4.3	98	---	13.5	44.5	19.1	43.9
PX139CL	4139	---	---	104	100	---	---	9.3	5.0	101	---	9.9	46.5	20.3	42.8
PX140	4212	---	---	106	100	---	---	9.3	3.7	103	---	13.0	46.8	19.5	44.3
PX141	4070	---	---	102	100	---	---	8.0	5.0	102	---	10.2	46.0	19.1	45.0
PX142	4516	---	---	114	100	---	---	8.3	4.3	98	---	11.4	46.3	19.8	43.7
CROPLAN															
CP1077WC	4490	1547	3018	113	100	---	---	8.0	5.0	98	---	11.4	46.0	19.3	43.0
KWS-MOMONT															
KWS Sauros CL	4899	1948	3424	123	100	---	---	9.7	5.0	103	---	10.6	45.6	21.2	39.6
Rubisco Seeds															
Plurax CL	3235	1809	2522	81	100	---	---	9.7	5.0	98	---	11.0	45.0	20.1	43.3
Grand Mean	3976	1775	---	---	100	---	---	8.5	4.8	100	---	12.7	45.8	19.6	43.9
CV	20	32	---	---	2	---	---	15.8	10.0	0	---	10.6	4.2	3.7	1.8
LSD (0.05)	ns	ns	---	---	ns	---	---	ns	ns	1	---	2.2	ns	1.5	1.6

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.

Dallas Center, Iowa

Adam Walters and Andrew Hopkins
Corteva Agriscience

Planted: 9/8/2021 in 7.5-in. rows
Seeding Rate OP: 500,000 seeds/a
Seeding Rate Hybrid: 300,000 seeds/a
Desiccant: Roundup
Harvested: 7/9/2022
Herbicides: Roundup pre-plant
Insecticides: None
Fungicide: None
Previous crop: Peas
Fertilizer: 60-40-60 lb/a N-P-K fertilizer

Soil type: Nicollet loam Latitude: 41.68427
Elevation: 1000 ft. Longitude: -93.90047
Comments: Yields were slightly better in 2022.

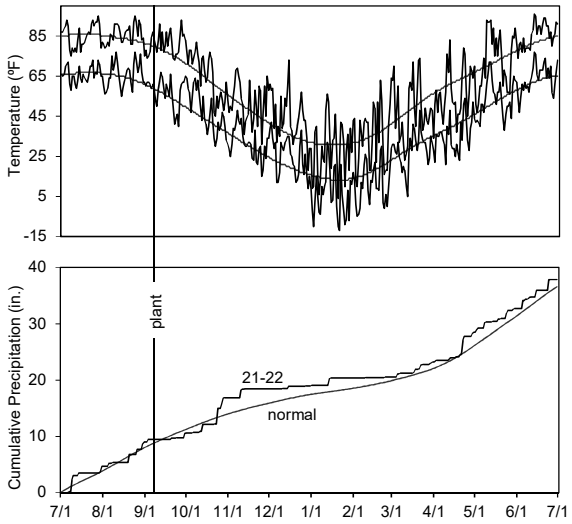


Table 3. Results for the 2022 National Winter Canola Variety Trial, open-pollinated cultivars, at Dallas Center, IA

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN															
CP225WRR	1161	1033	1097	88	---	---	---	---	---	129	---	10.5	---	24.4	37.3
CP320WRR	**1873**	1178	1526	142	---	---	---	---	---	128	---	10.1	---	22.8	39.1
CP1022WC	1046	595	821	80	---	---	---	---	---	132	---	10.1	---	23.5	38.3
CP1066WC	**1527**	1380	1453	116	---	---	---	---	---	130	---	10.7	---	23.4	39.1
Kansas State University															
KS4662	**1463**	864	1164	111	---	---	---	---	---	129	---	10.1	---	23.3	39.4
KS4722	1172	---	---	89	---	---	---	---	---	129	---	10.0	---		
KS4753	**1534**	---	---	117	---	---	---	---	---	130	---	9.8	---	25.4	38.2
KSR4767	1286	640	963	98	---	---	---	---	---	131	---	11.0	---	25.2	37.1
KSR4839S	1174	---	---	89	---	---	---	---	---	130	---	10.1	---	23.2	40.2
KSR4848	1009	1111	1060	77	---	---	---	---	---	131	---	10.7	---	21.4	44.2
KSR4854S	1237	774	1006	94	---	---	---	---	---	131	---	10.6	---	24.9	37.1
KSUR1212	**1439**	1044	1241	109	---	---	---	---	---	128	---	10.1	---	23.2	39.9
Griffin	891	1380	1136	68	---	---	---	---	---	127	---	10.3	---	22.1	40.8
Riley	**1761**	1504	1632	134	---	---	---	---	---	127	---	9.4	---	22.8	40.7
Surefire	1406	1095	1251	107	---	---	---	---	---	131	---	9.9	---		
Wichita	1210	786	998	92	---	---	---	---	---	129	---	10.3	---	24.4	38.4
Ohlde Seed Farms															
Torrington	1173	1167	1170	89	---	---	---	---	---	130	---	10.5	---	25.1	37.3
Star Specialty Seed															
Star 930W	1406	1223	1315	107	---	---	---	---	---	128	---	11.0	---	23.5	38.5
Grand Mean	1315	1037	---	---	---	---	---	---	---	129	---	10.3	---	23.7	38.9
CV	24	46	---	---	---	---	---	---	---	1	---	5.5	---	6.7	4.1
LSD (0.05)	457	ns	---	---	---	---	---	---	---	2	---	ns	---	ns	ns

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 2022 National Winter Canola Variety Trial, hybrid cultivars, at Dallas Center, IA

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Corteva Agriscience															
44D06	1603	---	---	125	---	---	---	---	---	127	---	9.1	---	20.9	41.3
PT264	1536	1683	1610	120	---	---	---	---	---	132	---	7.7	---	20.8	43.0
PT271	861	1358	1109	67	---	---	---	---	---	128	---	7.9	---	20.1	42.4
PT275	1121	**1884**	1503	87	---	---	---	---	---	131	---	9.9	---	22.9	39.9
PT279CL	989	---	---	77	---	---	---	---	---	128	---	9.3	---	22.0	38.8
PT284	1481	---	---	115	---	---	---	---	---	129	---	8.6	---	19.1	43.7
PT293	1373	**2154**	1764	107	---	---	---	---	---	130	---	7.8	---	19.5	43.2
PT297	1054	898	976	82	---	---	---	---	---	132	---	6.9	---	23.0	40.0
PT299	958	---	---	75	---	---	---	---	---	130	---	7.4	---	22.0	41.4
PT302	1335	---	---	104	---	---	---	---	---	130	---	7.0	---	21.7	40.6
PT303	1135	---	---	88	---	---	---	---	---	134	---	8.2	---	21.7	42.3
PT305CL	1296	---	---	101	---	---	---	---	---	131	---	8.4	---	23.3	38.8
PT308	1181	---	---	92	---	---	---	---	---	131	---	7.9	---	21.0	41.9
PX125CL	1583	---	---	123				---	---	129	---	9.2	---	22.0	39.5
PX128	1770	1672	1721	138	---	---	---	---	---	130	---	7.7	---	22.2	41.5
PX131	1043	1425	1234	81	---	---	---	---	---	132	---	7.1	---	21.8	42.9
PX133	935	---	---	73	---	---	---	---	---	131	---	8.9	---	23.8	38.8
PX135	1680	---	---	131	---	---	---	---	---	130	---	8.4	---	21.9	43.0
PX139CL	1293	---	---	101	---	---	---	---	---	129	---	7.9	---	23.9	41.2
PX140	1441	---	---	112	---	---	---	---	---	128	---	9.1	---	23.4	42.2
PX141	1126	---	---	88	---	---	---	---	---	129	---	8.1	---	24.6	37.7
PX142	1160	---	---	90	---	---	---	---	---	129	---	8.3	---	20.3	43.3
CROPLAN															
CP1077WC	1715	**2278**	1996	134	---	---	---	---	---	131	---	9.3	---	22.6	39.8
KWS-MOMONT															
KWS Sauros CL	951	**1908**	1429	74	---	---	---	---	---	131	---	9.2	---	24.4	39.2
Rubisco Seeds															
Plurax CL	1229	1717	1473	96	---	---	---	---	---	129	---	8.7	---	22.1	40.2
Grand Mean	1283	1729	---	---	---	---	---	---	---	---	---	8.3	---	22.1	40.9
CV	35	19	---	---	---	---	---	---	---	---	---	15.8	---	9.5	4.3
LSD (0.05)	ns	589	---	---	---	---	---	---	---	---	---	ns	---	ns	ns

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.

Vincennes, Indiana

Kenneth Eck
Purdue University

Planted:	9/17/2021
Seeding Rate OP:	500,000 seeds/a
Seeding Rate Hybrid:	300,000 seeds/a
Desiccant:	6/10/2022 Reglone 1.5 pt/a
Harvested:	6/20/2022
Herbicides:	N/A
Insecticides:	1.92 oz/a Warrior II
Fungicide:	12 oz/a Quadris Top, 5.7 oz/a Proline 280C
Previous crop:	N/A
Soil test:	N/A
Fertilizer:	166-18-11-35-6-0.5-1 N-P-K-S-Mg-Cu-B fertilizer
Soil type:	N/A Latitude: N/A
Elevation:	N/A Longitude: N/A
Comments:	Yields were lower than normal. A few localized wet spots in field caused lodging in some OP plots.

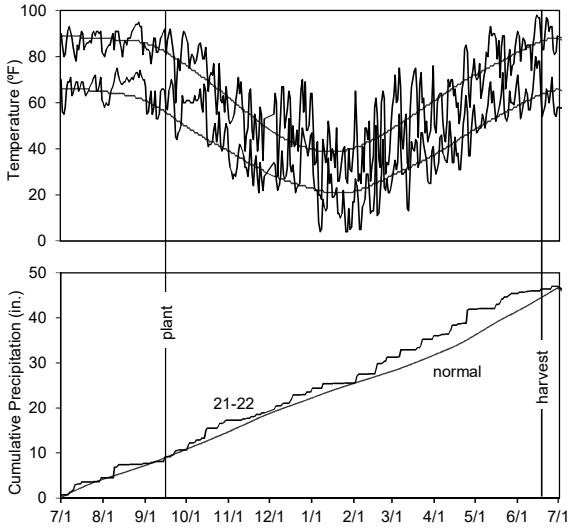


Table 5. Results for the 2022 National Winter Canola Variety Trial, open-pollinated cultivars, at Vincennes, IN

Name	Yield (lb/a)			Yield (% of test avg.)	Winter survival (%)			Fall vigor	50% bloom	Plant height	Lodging	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(1-5)	(d)	(in.)	(%)	(%)	(lb/bu)	(%)	(%)
CROPLAN															
CP225WRR	1787	2282	2035	116	99	96	98	4.8	106	52	3.3	7.1	51.2	21.7	41.4
CP320WRR	1672	**2540**	2106	108	98	96	97	4.8	105	51	8.3	7.0	51.6	21.6	40.9
CP1022WC	765	2326	1546	49	100	97	98	4.7	114	52	7.3	6.9	51.4	22.4	42.2
CP1066WC	**2623**	**2846**	2735	170	98	95	96	5.0	107	56	0.0	7.0	51.6	20.7	42.8
Kansas State University															
KS4662	1759	**2638**	2198	114	99	94	97	5.0	106	53	1.7	6.7	50.9	20.6	43.1
KS4722	1283	---	---	83	99	---	---	5.0	104	52	1.3	7.4	50.9	20.7	43.0
KS4753	1387	---	---	90	99	---	---	4.7	110	55	8.3	7.0	51.4	20.7	44.0
KSR4767	1315	2241	1778	85	98	96	97	5.0	105	55	1.7	6.9	51.4	22.0	40.9
KSR4839S	1072	---	---	69	97	---	---	4.8	110	54	27.7	7.7	51.4	20.6	44.2
KSR4848	1811	1973	1892	117	99	95	97	4.8	109	54	0.0	7.2	50.9	20.7	42.9
KSR4854S	1284	1769	1526	83	98	94	96	4.8	110	54	5.0	7.1	50.8	21.9	42.0
KSUR1212	1856	2333	2095	120	99	97	98	5.0	108	54	1.7	7.0	51.6	20.8	42.6
Griffin	1159	**3045**	2102	75	99	97	98	5.0	102	49	29.7	6.9	51.9	21.3	41.4
Riley	1699	**2493**	2096	110	99	95	97	5.0	103	53	5.0	6.6	51.6	20.9	43.0
Surefire	1273	**2863**	2068	82	97	95	96	4.8	108	54	7.3	6.7	51.8	21.7	42.0
Wichita	1482	**2681**	2081	96	99	96	98	5.0	106	53	8.3	7.0	51.6	22.1	41.6
Ohlde Seed Farms															
Torrington	1750	**2700**	2225	113	99	96	98	5.0	105	53	0.7	7.0	51.5	21.2	42.1
Star Specialty Seed															
Star 930W	1457	**2672**	2065	94	97	95	96	4.7	105	51	23.3	6.7	51.8	21.3	42.0
Grand Mean	1547	2432	---	---	98	95	---	4.9	107	53	7.8	7.0	51.4	21.3	42.4
CV	18	15	---	---	1	2	---	4.3	1	3	231.6	4.7	0.8	2.6	1.8
LSD (0.05)	491	596	---	---	ns	ns	---	ns	2	2	ns	ns	0.7	ns	1.6

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 6. Results for the 2022 National Winter Canola Variety Trial, hybrid cultivars, at Vincennes, IN

Name	Yield (% of test avg.)			Winter survival (%)				Fall vigor	50% bloom	Plant height	Lodging	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(1-5)	(d)	(in.)	(%)	(%)	(lb/bu)	(%)	(%)
Corteva Agriscience															
44D06	**2602**	---	---	94	---	---	---	5.0	106	53	0.0	6.0	52.1	20.0	43.9
PT264	**2957**	**3036**	2996	107	---	94	---	5.0	112	60	0.0	6.1	50.9	19.3	45.7
PT271	1617	**2732**	2174	59	---	97	---	5.0	108	53	2.7	6.0	52.4	19.8	44.2
PT275	**3278**	**3067**	3173	119	---	96	---	5.0	109	55	1.7	6.2	51.9	20.4	44.1
PT279CL	**2852**	---	---	103	---	---	---	5.0	106	56	0.0	6.0	51.5	19.2	44.3
PT284	2532	---	---	92	---	---	---	5.0	105	53	0.0	6.1	51.7	19.9	43.8
PT293	**3095**	**3167**	3131	112	---	95	---	5.0	107	55	4.0	5.9	51.2	20.3	45.0
PT297	**2906**	**3270**	3088	105	---	97	---	5.0	108	56	1.7	5.9	51.5	18.7	46.0
PT299	2286	---	---	83	---	---	---	5.0	104	53	0.0	6.0	51.1	19.8	44.1
PT302	2372	---	---	86	---	---	---	5.0	108	53	0.7	6.2	51.9	19.5	44.4
PT303	**2994**	---	---	109	---	---	---	5.0	109	56	3.3	6.1	51.1	18.9	45.1
PT305CL	**2824**	---	---	102	---	---	---	5.0	112	56	0.0	6.1	52.1	20.6	44.2
PT308	**2901**	---	---	105	---	---	---	5.0	107	53	5.0	6.0	51.1	19.4	45.5
PX125CL	**2648**	---	---	96	---	---	---	5.0	107	53	0.0	6.1	52.2	21.1	42.9
PX128	**2854**	2578	2716	103	---	96	---	5.0	112	55	0.0	6.0	51.8	20.4	45.4
PX131	**2998**	2367	2683	109	---	95	---	5.0	106	54	0.0	6.0	50.9	19.5	46.5
PX133	**3147**	---	---	114	---	---	---	5.0	105	50	0.0	6.0	51.5	21.2	43.5
PX135	**3212**	---	---	116	---	---	---	5.0	106	55	0.0	5.9	50.9	20.0	45.1
PX139CL	2410	---	---	87	---	---	---	5.0	107	51	0.0	6.1	52.7	20.4	43.2
PX140	**3033**	---	---	110	---	---	---	4.8	112	56	0.0	6.0	51.2	20.0	45.0
PX141	**2805**	---	---	102	---	---	---	5.0	112	56	0.0	6.1	51.7	19.4	45.4
PX142	2581	---	---	94	---	---	---	5.0	105	53	0.0	6.0	51.1	20.2	44.8
CROPLAN															
CP1077WC	**3025**	**2829**	2927	110	---	96	---	5.0	106	56	0.7	6.2	50.9	19.9	43.6
KWS-MOMONT															
KWS Sauros CL	**2823**	**2921**	2872	102	---	95	---	5.0	109	57	0.0	6.1	51.3	20.6	42.3
Rubisco Seeds															
Plurax CL	2211	2422	2316	80	---	92	---	5.0	104	53	0.0	6.1	52.2	19.7	44.2
Grand Mean	2758	2800	---	---	---	96	---	5.0	108	54	0.8	6.0	51.6	19.9	44.5
CV	15	14	---	---	---	2	---	1.2	1	2	322.0	2.7	0.7	2.4	1.4
LSD (0.05)	692	651	---	---	---	ns	---	ns	3	2	ns	ns	0.6	1.0	1.3

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.

St. Joseph, Louisiana

Dennis Burns
Louisiana State University AgCenter

Planted: 11/2/2021
Seeding Rate OP: 500,000 seeds/a
Seeding Rate Hybrid: 300,000 seeds/a
Desiccant: Roundup
Harvested: 6/6/2022
Herbicides: Clethodim
Insecticides: None
Fungicide: None
Previous crop: N/A
Fertilizer: 21-0-0-7 lb/a N-P-K-S fertilizer in fall
136-0-0-19 lb/a N-P-K-S fertilizer in spring
Soil type: N/A Lattitude: N/A
Elevation: N/A Longitude: N/A
Comments: Some vernalization differences were observed.

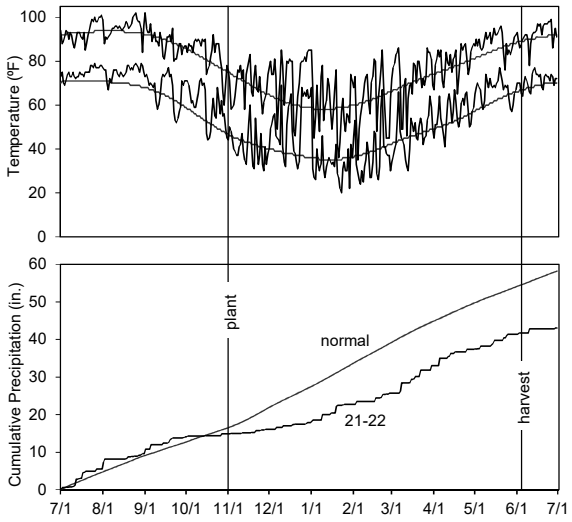


Table 7. Results for the 2022 National Winter Canola Variety Trial, open-pollinated cultivars, at St. Joseph, LA

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Verna-lization[2]	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(1-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN															
CP225WRR	956	---	---	100	---	---	---	9.3	3.3	92	48	18.0	51.4	20.6	42.0
CP320WRR	1207	---	---	126	---	---	---	9.0	3.0	92	42	20.7	40.3	20.8	41.5
CP1022WC	582	---	---	61	---	---	---	1.3	3.0	106	53	26.4	23.7	20.9	41.7
CP1066WC	898	---	---	93	---	---	---	10.0	2.7	93	48	24.0	47.9	19.9	41.9
Kansas State University															
KS4662	1046	---	---	109	---	---	---	7.7	3.0	93	45	22.1	44.9	19.5	43.1
KS4722	1161	---	---	121	---	---	---	8.3	3.0	92	46	25.0	47.8	19.6	43.6
KS4753	876	---	---	91	---	---	---	9.3	3.0	93	48	23.1	47.5	19.9	42.7
KSR4767	944	---	---	98	---	---	---	10.0	3.0	94	50	14.9	50.5	20.4	41.9
KSR4839S	858	---	---	89	---	---	---	9.7	3.3	93	49	22.1	48.1	19.4	42.6
KSR4848	551	---	---	57	---	---	---	5.3	3.0	99	48	21.8	44.4	20.0	41.6
KSR4854S	545	---	---	57	---	---	---	8.3	3.3	97	43	20.3	47.4	20.1	41.8
KSUR1212	947	---	---	99	---	---	---	6.7	3.0	93	44	22.9	47.2	19.3	42.6
Griffin	1192	---	---	124	---	---	---	8.3	3.3	90	41	19.8	47.5	18.9	42.9
Riley	1031	---	---	107	---	---	---	8.3	3.3	93	40	21.8	42.4	19.6	43.3
Surefire	758	---	---	79	---	---	---	6.0	3.0	98	47	22.9	47.8	20.7	42.2
Wichita	**1851**	---	---	193	---	---	---	10.0	3.0	92	45	20.6	47.9	20.0	42.7
Ohlde Seed Farms															
Torrington	965	---	---	101	---	---	---	10.0	3.0	91	46	18.0	48.3	19.8	42.1
Star Specialty Seed															
Star 930W	977	---	---	102	---	---	---	6.7	2.7	91	44	25.5	48.2	20.1	42.1
Grand Mean	960	---	---	---	---	---	---	8.0	3.1	94	46	21.7	46.0	20.0	42.4
CV	32	---	---	---	---	---	---	24.5	16.4	2	8	24.9	10.8	3.4	1.9
LSD (0.05)	523	---	---	---	---	---	---	3.3	ns	3	6	ns	8.6	ns	ns

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]Vernalization of plants winter plots rated on a scale of 1= minimal to 10= complete.

Table 8. Results for the 2022 National Winter Canola Variety Trial, hybrid cultivars, at St. Joseph, LA

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Verna-lization[2]	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(1-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Corteva Agriscience															
44D06	**1354**	---	---	146	---	---	---	10.0	3.0	99	54	14.2	51.0	20.6	42.8
PT264	**1977**	---	---	213	---	---	---	10.0	3.7	96	56	13.6	50.2	22.6	41.6
PT271	596	---	---	64	---	---	---	8.7	3.7	99	51	19.0	47.5	21.1	41.8
PT275	763	---	---	82	---	---	---	8.3	3.7	100	49	22.2	48.5	22.2	40.8
PT279CL	1072	---	---	116	---	---	---	9.3	3.7	97	52	14.9	50.2	19.4	43.4
PT284	414	---	---	45	---	---	---	5.3	3.7	102	52	23.6	47.8	20.9	42.0
PT293	617	---	---	67	---	---	---	7.0	3.3	98	48	15.9	49.3	19.0	44.0
PT297	922	---	---	99	---	---	---	6.3	3.7	99	44	17.9	48.9	20.5	43.0
PT299	831	---	---	90	---	---	---	9.0	3.0	93	45	16.1	48.9	18.6	45.3
PT302	1047	---	---	113	---	---	---	9.7	2.7	95	50	15.9	47.8	19.3	43.5
PT303	**1636**	---	---	176	---	---	---	9.7	3.3	92	57	12.7	50.8	19.3	44.5
PT305CL	334	---	---	36	---	---	---	2.7	3.3	110	50	21.8	38.8	19.9	42.8
PT308	586	---	---	63	---	---	---	7.3	3.3	98	51	16.0	42.3	19.7	43.2
PX125CL	1047	---	---	113	---	---	---	9.0	3.7	94	51	15.0	50.1	21.4	40.8
PX128	517	---	---	56	---	---	---	8.0	3.7	108	53	21.5	43.9	22.9	41.3
PX131	951	---	---	103	---	---	---	9.0	3.3	100	53	17.6	48.7	20.8	42.8
PX133	1050	---	---	113	---	---	---	10.0	3.7	93	53	15.6	48.9	21.4	42.5
PX135	1179	---	---	127	---	---	---	8.3	3.3	101	52	13.6	49.7	20.7	43.3
PX139CL	246	---	---	27	---	---	---	2.7	2.7	110	46	21.1	33.3	22.7	41.3
PX140	636	---	---	69	---	---	---	8.7	3.3	102	48	19.1	48.1	21.9	42.5
PX141	768	---	---	83	---	---	---	10.0	4.0	98	50	15.7	49.5	21.7	42.7
PX142	1171	---	---	126	---	---	---	10.0	3.3	97	51	13.1	49.2	19.5	45.1
CROPLAN															
CP1077WC	1046	---	---	113	---	---	---	7.3	4.0	101	51	17.3	49.2	19.4	43.0
KWS-MOMONT															
KWS Sauros CL	1168	---	---	126	---	---	---	9.0	3.3	99	54	14.7	50.1	22.4	40.0
Rubisco Seeds															
Plurax CL	1262	---	---	136	---	---	---	10.0	3.3	92	47	12.6	51.4	18.5	43.0
Grand Mean	928	---	---	---	---	---	---	8.2	3.4	99	51	16.8	47.8	20.6	42.7
CV	41	---	---	---	---	---	---	21.8	15.5	3	8	11.7	8.9	3.9	1.5
LSD (0.05)	631	---	---	---	---	---	---	2.9	ns	4	6	3.2	7.0	1.7	1.3

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]Vernalization of plants winter plots rated on a scale of 1= minimal to 10= complete.

Newton, Mississippi

Brett Rushing
Mississippi State University

Planted: 10/8/2021 in 7.5-in. rows
Seeding Rate OP: 500,000 seeds/a
Seeding Rate Hybrid: 300,000 seeds/a
Desiccant: Roundup
Harvested: N/A
Herbicides: 1 pt/a Treflan
Insecticides: None
Fungicide: None
Previous crop: Summer annul forage
Soil test: P=67 lb/a, K=126 lb/a, pH=7.4
Fertilizer: 100-0-60 lb/a N-P-K fertilizer in fall

Soil type: Prentiss fine sandy loam
Elevation: 351 ft.
Comments: Heavy rain before harvest reduced yield due to shattering.

Lattitude: 32.333889
Longitude: -89.085278

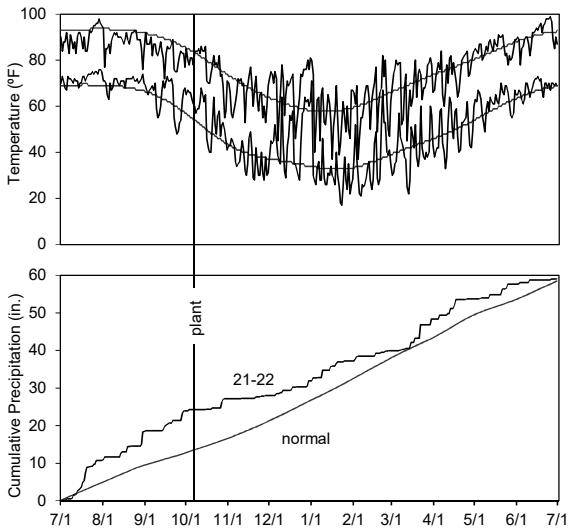


Table 9. Results for the 2022 National Winter Canola Variety Trial, open-pollinated cultivars, at Newton, MS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Lodging	Shatter	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(%)	(%)	(%)
CROPLAN															
CP225WRR	35	---	---	43	---	---	---	9.3	4.3	83	52	1.7	10.0	22.9	39.4
CP320WRR	43	---	---	54	---	---	---	9.3	4.3	82	51	0.7	15.3	22.9	39.1
CP1022WC	36	---	---	45	---	---	---	9.0	4.3	95	65	0.0	1.0	22.6	39.8
CP1066WC	81	---	---	100	---	---	---	10.0	5.0	88	60	0.7	6.7	19.8	34.5
Kansas State University															
KS4662	33	---	---	41	---	---	---	9.7	4.3	84	55	1.3	7.7	20.8	36.7
KS4722	83	---	---	102	---	---	---	8.7	4.3	84	55	0.3	13.7	21.9	42.0
KS4753	22	---	---	27	---	---	---	9.3	4.3	87	58	1.7	7.0	23.3	38.3
KSR4767	49	---	---	61	---	---	---	8.3	4.3	84	58	2.0	2.0	23.2	39.7
KSR4839S	69	---	---	85	---	---	---	8.3	4.3	88	54	3.3	31.7	22.7	40.4
KSR4848	22	---	---	28	---	---	---	9.7	4.3	87	56	2.3	5.3	11.4	30.4
KSR4854S	205	---	---	254	---	---	---	9.0	4.3	88	59	1.0	5.0	21.7	39.7
KSUR1212	71	---	---	88	---	---	---	9.0	4.3	86	56	1.3	7.0	22.4	39.7
Griffin	19	---	---	23	---	---	---	10.0	4.3	82	46	0.0	53.3	22.3	41.1
Riley	59	---	---	73	---	---	---	9.7	4.3	84	54	1.0	10.0	23.1	39.2
Surefire	43	---	---	54	---	---	---	9.0	4.3	87	56	0.0	4.3	20.5	42.0
Wichita	135	---	---	167	---	---	---	9.7	4.3	85	49	1.3	11.0	23.7	38.8
Ohlde Seed Farms															
Torrington	101	---	---	125	---	---	---	10.0	5.0	88	59	0.3	14.3	22.6	39.9
Star Specialty Seed															
Star 930W	50	---	---	62	---	---	---	10.0	5.0	84	55	0.3	12.7	23.5	38.5
Grand Mean	64	---	---	---	---	---	---	9.3	4.4	86	56	1.1	12.1	21.7	38.8
CV	116	---	---	---	---	---	---	10.2	10.0	3	10	184.6	117.1	17.5	9.6
LSD (0.05)	ns	---	---	---	---	---	---	ns	ns	4	9	ns	23.5	ns	ns

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 10. Results for the 2022 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	Shatter	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(%)	(%)	(%)
Corteva Agriscience															
44D06	92	---	---	114	---	---	---	---	---	91	52	---	10.7	22.7	40.8
PT264	75	---	---	92	---	---	---	---	---	88	59	---	1.7	23.1	41.2
PT271	97	---	---	119	---	---	---	---	---	89	52	---	30.0	16.6	46.5
PT275	280	---	---	345	---	---	---	---	---	91	52	---	18.3	23.2	39.8
PT279CL	42	---	---	52	---	---	---	---	---	85	54	---	30.0	21.6	40.1
PT284	49	---	---	60	---	---	---	---	---	89	60	---	10.7	24.2	39.2
PT293	47	---	---	58	---	---	---	---	---	88	51	---	15.0	23.3	39.2
PT297	59	---	---	73	---	---	---	---	---	88	52	---	6.7	23.9	40.6
PT299	108	---	---	134	---	---	---	---	---	82	56	---	60.0	20.8	43.0
PT302	75	---	---	93	---	---	---	---	---	83	55	---	22.7	21.7	42.0
PT303	165	---	---	204	---	---	---	---	---	84	59	---	18.3	24.3	39.4
PT305CL	85	---	---	105	---	---	---	---	---	93	55	---	1.7	22.4	41.1
PT308	95	---	---	117	---	---	---	---	---	84	52	---	13.3	21.0	41.9
PX125CL	66	---	---	81	---	---	---	---	---	91	54	---	2.7	23.0	41.3
PX128	54	---	---	66	---	---	---	---	---	93	57	---	5.0	22.0	40.0
PX131	138	---	---	171	---	---	---	---	---	89	58	---	1.3	21.6	42.2
PX133	62	---	---	77	---	---	---	---	---	84	50	---	30.0	20.6	42.4
PX135	83	---	---	103	---	---	---	---	---	89	54	---	2.7	23.6	39.8
PX139CL	152	---	---	188	---	---	---	---	---	93	49	---	5.7	21.9	41.4
PX140	51	---	---	62	---	---	---	---	---	91	56	---	18.3	22.0	41.6
PX141	35	---	---	43	---	---	---	---	---	93	55	---	13.3	23.2	40.3
PX142	187	---	---	231	---	---	---	---	---	91	49	---	6.0	20.1	43.4
CROPLAN															
CP1077WC	13	---	---	16	---	---	---	---	---	89	56	---	0.7	23.4	38.8
KWS-MOMONT															
KWS Sauros CL	163	---	---	201	---	---	---	---	---	87	59	---	2.0	23.5	38.1
Rubisco Seeds															
Plurax CL	52	---	---	65	---	---	---	---	---	87	50	---	13.3	21.3	41.3
Grand Mean	93	---	---	---	---	---	---	---	---	89	54	---	13.6	22.3	40.9
CV	103	---	---	---	---	---	---	---	---	3	5	---	86.2	8.7	6.4
LSD (0.05)	ns	---	---	---	---	---	---	---	---	4	5	---	19.2	ns	ns

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

Bob Suttner and Andrew Hopkins
Corteva Agriscience

Planted: 11/1/2021 in 7.5-in. rows
Seeding Rate OP: 525,000 seeds/a
Seeding Rate Hybrid: 310,000 seeds/a
Desiccant: Defol
Harvested: 6/15/2022
Herbicides: Treflan
Insecticides: None
Fungicide: None
Previous crop: N/A
Fertilizer: 21-0-0-24 lb/a N-P-K-S fertilizer in fall
42-22.5-60-46 lb/a N-P-K-S fertilizer in spring
Soil type: N/A Latitude: N/A
Elevation: N/A Longitude: N/A
Comments: Yields were low for the region and variability was high.

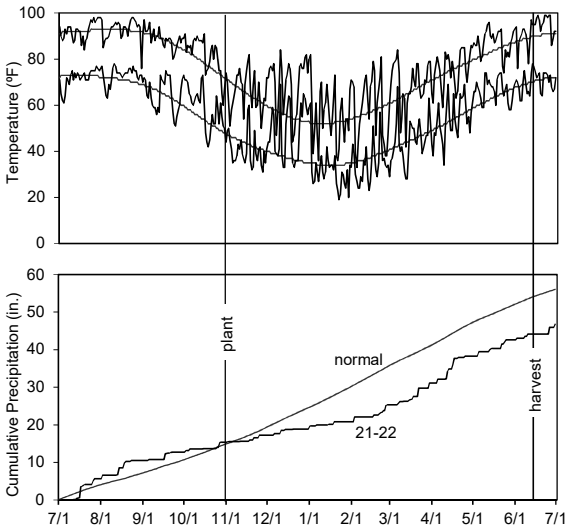


Table 11. Results for the 2022 National Winter Canola Variety Trial, open-pollinated cultivars, at Stoneville, MS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	50% bloom	Maturity	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(d)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN															
CP225WRR	1215	---	---	87	80	---	---	7.3	110	156	61	12.7	---	---	---
CP320WRR	**1701**	---	---	121	90	---	---	6.3	109	155	57	10.1	---	---	---
CP1022WC	877	---	---	63	77	---	---	7.3	115	160	73	12.8	---	---	---
CP1066WC	**1444**	---	---	103	67	---	---	6.7	112	156	60	10.1	---	---	---
Kansas State University															
KS4662	**1827**	---	---	130	87	---	---	6.7	110	157	64	9.3	---	---	---
KS4722	**1569**	---	---	112	90	---	---	8.0	111	156	61	12.7	---	---	---
KS4753	1368	---	---	98	77	---	---	7.7	112	157	62	12.2	---	---	---
KSR4767	**1703**	---	---	121	83	---	---	7.3	109	155	59	8.4	---	---	---
KSR4839S	1286	---	---	92	87	---	---	6.3	110	157	65	8.9	---	---	---
KSR4848	1335	---	---	95	90	---	---	8.0	112	158	62	9.5	---	---	---
KSR4854S	794	---	---	57	67	---	---	6.0	111	158	67	11.0	---	---	---
KSUR1212	**1579**	---	---	113	87	---	---	8.3	111	158	57	9.5	---	---	---
Griffin	1371	---	---	98	90	---	---	7.0	114	156	60	8.1	---	---	---
Riley	**1686**	---	---	120	80	---	---	7.0	112	156	58	11.3	---	---	---
Surefire	1105	---	---	79	77	---	---	7.7	111	158	63	12.5	---	---	---
Wichita	**1537**	---	---	110	90	---	---	6.7	111	156	58	8.5	---	---	---
Ohlde Seed Farms															
Torrington	**1441**	---	---	103	93	---	---	7.0	111	157	59	10.6	---	---	---
Star Specialty Seed															
Star 930W	1290	---	---	92	80	---	---	7.3	110	156	60	11.0	---	---	---
Grand Mean	1403	---	---	---	83	---	---	7.1	111	157	61	10.5	---	---	---
CV	27	---	---	---	15	---	---	14.3	1	1	9	28.8	---	---	---
LSD (0.05)	417	---	---	---	ns	---	---	ns	1	2	7	ns	---	---	---

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 12. Results for the 2022 National Winter Canola Variety Trial, hybrid cultivars, at Stoneville, MS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	50% bloom	Maturity	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(d)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Corteva Agriscience															
44D06	**1815**	---	---	106	87	---	---	6.7	112	158	63	8.5	---	---	---
PT264	**1898**	---	---	111	77	---	---	6.7	112	158	62	8.2	---	---	---
PT271	664	---	---	39	63	---	---	6.7	113	160	61	9.2	---	---	---
PT275	1382	---	---	81	87	---	---	6.0	114	159	64	10.2	---	---	---
PT279CL	**1913**	---	---	112	83	---	---	6.7	111	158	61	9.7	---	---	---
PT284	1261	---	---	74	70	---	---	6.3	111	158	65	9.7	---	---	---
PT293	**2058**	---	---	120	90	---	---	6.7	112	158	59	9.0	---	---	---
PT297	1547	---	---	91	80	---	---	6.3	112	159	62	9.3	---	---	---
PT299	1581	---	---	93	67	---	---	7.3	109	156	62	9.0	---	---	---
PT302	**1811**	---	---	106	67	---	---	6.7	111	158	59	9.9	---	---	---
PT303	1683	---	---	99	80	---	---	6.3	111	157	67	9.9	---	---	---
PT305CL	1668	---	---	98	80	---	---	7.3	116	162	57	8.6	---	---	---
PT308	**2089**	---	---	122	97	---	---	7.3	111	157	63	9.2	---	---	---
PX125CL	1512	---	---	89	83	---	---	6.3	112	159	63	8.9	---	---	---
PX128	1128	---	---	66	63	---	---	7.7	116	163	64	11.9	---	---	---
PX131	1578	---	---	92	93	---	---	7.7	114	161	64	9.4	---	---	---
PX133	**1891**	---	---	111	83	---	---	7.0	108	158	61	8.7	---	---	---
PX135	**2046**	---	---	120	90	---	---	7.7	112	160	68	9.3	---	---	---
PX139CL	**1808**	---	---	106	90	---	---	7.3	115	161	63	9.8	---	---	---
PX140	**2017**	---	---	118	67	---	---	7.0	115	160	65	10.2	---	---	---
PX141	1228	---	---	72	90	---	---	6.7	115	159	63	9.8	---	---	---
PX142	**2280**	---	---	133	87	---	---	7.7	112	158	65	10.2	---	---	---
CROPLAN															
CP1077WC	**1930**	---	---	113	90	---	---	7.3	111	159	63	10.0	---	---	---
KWS-MOMONT															
KWS Sauros CL	**2000**	---	---	117	70	---	---	5.3	111	159	63	8.5	---	---	---
Rubisco Seeds															
Plurax CL	**1808**	---	---	106	87	---	---	6.3	111	157	65	9.9	---	---	---
Grand Mean	1708	---	---	---	81	---	---	6.8	112	159	63	9.4	---	---	---
CV	21	---	---	---	20	---	---	13.8	1	1	7	12.2	---	---	---
LSD (0.05)	590	---	---	---	ns	---	---	ns	1	2	7	ns	---	---	---

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

Bob Suttner and Andrew Hopkins
Corteva Agriscience

Planted: 11/3/2021 in 7.5-in. rows
Seeding Rate OP: 525,000 seeds/a
Seeding Rate Hybrid: 310,000 seeds/a
Dessicant: Defol
Harvested: 6/16/2022
Herbicides: Treflan
Insecticides: None
Fungicide: None
Previous crop: N/A
Fertilizer: 21-0-0-24 lb/a N-P-K-S fertilizer in fall
42-22.5-60-46 lb/a N-P-K-S fertilizer in spring
Soil type: N/A Lattitude: N/A
Elevation: N/A Longitude: N/A
Comments: Yields were low and variable.

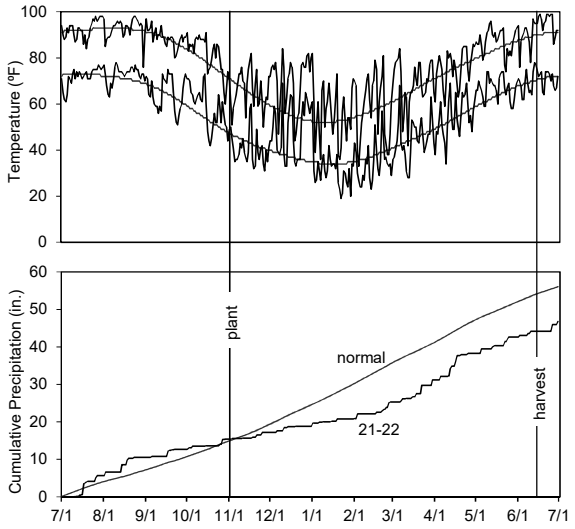


Table 13. Results for the 2022 National Winter Canola Variety Trial, open-pollinated cultivars, at Stoneville, MS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN															
CP225WRR	**1020**	---	---	100	83	---	---	6.0	---	111	50	9.3	---	---	---
CP320WRR	**1140**	---	---	112	53	---	---	5.7	---	111	41	10.2	---	---	---
CP1022WC	498	---	---	49	57	---	---	6.7	---	120	44	7.9	---	---	---
CP1066WC	**1077**	---	---	106	80	---	---	6.3	---	113	43	11.1	---	---	---
Kansas State University															
KS4662	**1214**	---	---	119	83	---	---	7.0	---	113	47	11.0	---	---	---
KS4722	892	---	---	88	87	---	---	6.7	---	111	47	10.3	---	---	---
KS4753	**1112**	---	---	109	83	---	---	7.0	---	111	54	11.4	---	---	---
KSR4767	**1269**	---	---	125	57	---	---	6.0	---	111	47	10.9	---	---	---
KSR4839S	515	---	---	51	67	---	---	6.3	---	114	38	8.7	---	---	---
KSR4848	**986**	---	---	97	83	---	---	7.3	---	115	48	11.0	---	---	---
KSR4854S	**1241**	---	---	122	90	---	---	9.0	---	116	44	11.6	---	---	---
KSUR1212	**1308**	---	---	129	87	---	---	7.0	---	111	51	11.3	---	---	---
Griffin	836	---	---	82	63	---	---	6.0	---	112	37	9.4	---	---	---
Riley	**1211**	---	---	119	83	---	---	7.0	---	113	43	11.5	---	---	---
Surefire	842	---	---	83	70	---	---	7.0	---	114	41	10.4	---	---	---
Wichita	**1245**	---	---	122	63	---	---	6.3	---	114	46	10.9	---	---	---
Ohlde Seed Farms															
Torrington	**1045**	---	---	103	80	---	---	6.7	---	112	48	11.0	---	---	---
Star Specialty Seed															
Star 930W	**1163**	---	---	114	73	---	---	6.0	---	112	43	10.6	---	---	---
Grand Mean	1017	---	---	---	75	---	---	6.7	---	113	44	10.4	---	---	---
CV	23	---	---	---	25	---	---	16.5	---	1	11	7.9	---	---	---
LSD (0.05)	409	---	---	---	ns	---	---	ns	---	2	9	1.5	---	---	---

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 adjust to 9% moisture content.

Table 14. Results for the 2022 National Winter Canola Variety Trial, hybrid cultivars, at Stoneville, MS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Corteva Agriscience															
44D06	**1401**	---	---	135	80	---	---	6.3	---	111	49	9.9	---	---	---
PT264	**1654**	---	---	159	90	---	---	7.3	---	112	51	9.3	---	---	---
PT271	578	---	---	56	70	---	---	5.7	---	116	45	8.4	---	---	---
PT275	947	---	---	91	73	---	---	4.7	---	118	47	9.4	---	---	---
PT279CL	**1295**	---	---	125	80	---	---	6.7	---	112	49	9.2	---	---	---
PT284	461	---	---	44	80	---	---	6.7	---	115	44	9.4	---	---	---
PT293	1132	---	---	109	77	---	---	6.7	---	115	48	8.4	---	---	---
PT297	1227	---	---	118	73	---	---	6.3	---	115	48	8.9	---	---	---
PT299	703	---	---	68	87	---	---	6.7	---	110	47	8.7	---	---	---
PT302	721	---	---	69	53	---	---	4.7	---	113	44	7.4	---	---	---
PT303	1059	---	---	102	80	---	---	6.3	---	113	49	8.9	---	---	---
PT305CL	1047	---	---	101	77	---	---	6.7	---	118	51	9.1	---	---	---
PT308	1140	---	---	110	90	---	---	8.0	---	113	48	8.7	---	---	---
PX125CL	1106	---	---	106	87	---	---	7.3	---	113	48	9.7	---	---	---
PX128	607	---	---	58	90	---	---	6.7	---	117	48	10.1	---	---	---
PX131	816	---	---	78	90	---	---	7.0	---	118	47	8.3	---	---	---
PX133	851	---	---	82	73	---	---	6.3	---	110	46	8.1	---	---	---
PX135	**1263**	---	---	121	90	---	---	8.0	---	116	47	8.9	---	---	---
PX139CL	1114	---	---	107	83	---	---	6.3	---	119	43	8.8	---	---	---
PX140	1153	---	---	111	83	---	---	7.7	---	118	51	9.1	---	---	---
PX141	913	---	---	88	73	---	---	7.3	---	117	49	8.1	---	---	---
PX142	1061	---	---	102	77	---	---	6.7	---	113	49	8.5	---	---	---
CROPLAN															
CP1077WC	**1638**	---	---	158	87	---	---	7.0	---	113	42	9.8	---	---	---
KWS-MOMONT															
KWS Sauros CL	**1250**	---	---	120	80	---	---	5.3	---	114	46	8.8	---	---	---
Rubisco Seeds															
Plurax CL	854	---	---	82	83	---	---	7.7	---	110	48	8.7	---	---	---
Grand Mean	1040	---	---	---	80	---	---	6.6	---	115	47	8.9	---	---	---
CV	25	---	---	---	17	---	---	22.1	---	2	7	12.6	---	---	---
LSD (0.05)	421	---	---	---	ns	---	---	ns	---	3	ns	ns	---	---	---

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 adjust to 9% moisture content.

Ashland City, Tennessee

Jason de Koff
Tennessee State University

Planted:	9/28/2021 in 6-in. rows
Seeding Rate OP:	500,000 seeds/a
Seeding Rate Hybrid:	300,000 seeds/a
Desiccant	None
Harvested:	6/9/2022
Herbicides:	0.7 lb ai/a trifluralin, 5.4 lb ai/a glyphosate
Insecticides:	None
Fungicide:	None
Previous crop:	Summer fallow
Soil test:	N/A
Fertilizer:	27-0-0-30 lb/a N-P-K-S fertilizer in fall 74-0-40 lb/a N-P-K fertilizer in spring
Soil type:	Lindside-Nolin silt loam Latitude: N/A
Elevation:	400 ft. Longitude: N/A
Comments:	Only non-GMO entries at this site. Yields were excellent in 2022.

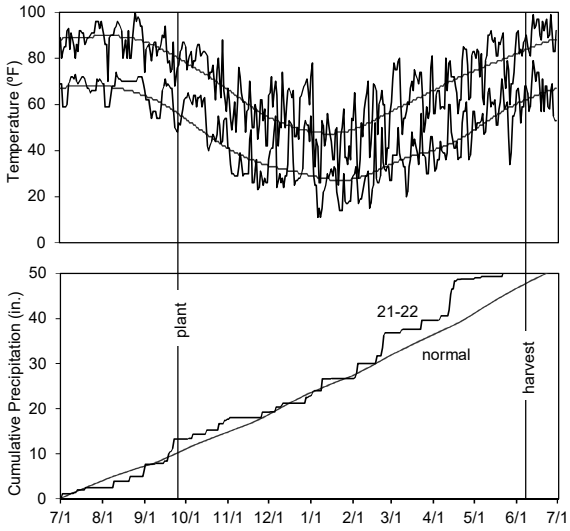


Table 15. Results for the 2022 National Winter Canola Variety Trial, open-pollinated cultivars, at Ashland City, TN

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN															
CP1022WC	1643	**3155**	2399	71	---	67	---	---	---	---	---	---	---	20.0	43.0
CP1066WC	2091	**2755**	2423	90	---	58	---	---	---	---	---	---	---	18.7	44.6
Kansas State University															
KS4662	**2577**	2111	2344	111	---	50	---	---	---	---	---	---	---	19.2	44.3
KS4722	2412	---	---	104	---	---	---	---	---	---	---	---	---	18.4	44.9
KS4753	2426	---	---	105	---	---	---	---	---	---	---	---	---	19.8	44.2
KSUR1212	1983	1857	1920	86	---	48	---	---	---	---	---	---	---	18.8	44.9
Griffin	2348	1571	1959	101	---	65	---	---	---	---	---	---	---	18.7	44.5
Riley	**2818**	1560	2189	122	---	54	---	---	---	---	---	---	---	19.4	44.8
Surefire	2146	**3291**	2718	93	---	66	---	---	---	---	---	---	---	20.2	43.7
Wichita	**3033**	**3631**	3332	131	---	62	---	---	---	---	---	---	---	19.7	43.6
Ohlde Seed Farms															
Torrington	1975	**2740**	2357	85	---	65	---	---	---	---	---	---	---	19.8	43.3
Grand Mean	2314	2345	---	---	---	58	---	---	---	---	---	---	---	19.3	44.1
CV	16	23	---	---	---	14	---	---	---	---	---	---	---	3.7	1.9
LSD (0.05)	519	1243	---	---	---	ns	---	---	---	---	---	---	---	ns	ns

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 2022 National Winter Canola Variety Trial, hybrid cultivars, at Ashland City, TN

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Corteva Agriscience															
44D06	3923	---	---	134	---	---	---	---	---	---	---	---	---	18.6	45.0
PT264	2799	3506	3153	96	---	62	---	---	---	---	---	---	---	17.8	46.7
PT271	3107	3439	3273	106	---	69	---	---	---	---	---	---	---	18.3	45.9
PT275	3236	3133	3185	111	---	48	---	---	---	---	---	---	---	19.1	45.1
PT279CL	3668	---	---	125	---	---	---	---	---	---	---	---	---	18.1	45.1
PT284	2414	---	---	83	---	---	---	---	---	---	---	---	---	18.5	45.2
PT293	3233	3084	3159	110	---	79	---	---	---	---	---	---	---	18.2	46.6
PT297	3040	3458	3249	104	---	72	---	---	---	---	---	---	---	17.4	46.7
PT299	3187	---	---	109	---	---	---	---	---	---	---	---	---	17.1	47.7
PT302	2719	---	---	93	---	---	---	---	---	---	---	---	---	18.0	46.2
PT303	2870	---	---	98	---	---	---	---	---	---	---	---	---	18.1	47.3
PT305CL	3241	---	---	111	---	---	---	---	---	---	---	---	---	18.9	45.7
PT308	2670	---	---	91	---	---	---	---	---	---	---	---	---	17.8	46.2
PX125CL	2570	---	---	88	---	---	---	---	---	---	---	---	---	19.6	43.7
PX128	2567	3381	2974	88	---	62	---	---	---	---	---	---	---	19.5	45.2
PX131	2391	4004	3197	82	---	44	---	---	---	---	---	---	---	17.8	47.1
PX133	2608	---	---	89	---	---	---	---	---	---	---	---	---	17.6	46.4
PX135	1734	---	---	59	---	---	---	---	---	---	---	---	---	17.7	46.4
PX139CL	3439	---	---	118	---	---	---	---	---	---	---	---	---	19.1	44.5
PX140	2764	---	---	94	---	---	---	---	---	---	---	---	---	18.5	45.8
PX141	2501	---	---	85	---	---	---	---	---	---	---	---	---	18.5	46.3
PX142	2692	---	---	92	---	---	---	---	---	---	---	---	---	18.0	46.8
CROPLAN															
CP1077WC	3584	3570	3577	122	---	61	---	---	---	---	---	---	---	17.3	46.3
KWS-MOMONT															
KWS Sauros CL	2996	3983	3490	102	---	54	---	---	---	---	---	---	---	18.5	44.1
Rubisco Seeds															
Plurax CL	3198	2287	2742	109	---	43	---	---	---	---	---	---	---	18.7	44.8
Grand Mean	2926	3495	---	---	---	59	---	---	---	---	---	---	---	18.3	45.9
CV	21	24	---	---	---	23	---	---	---	---	---	---	---	4.4	2.5
LSD (0.05)	ns	ns	---	---	---	ns	---	---	---	---	---	---	---	ns	ns

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.

Springfield, Tennessee

Mitchell Richmond and Brad Fisher
University of Tennessee

Planted:	9/28/2021 in 7-in. rows
Seeding Rate OP:	500,000 seeds/a
Seeding Rate Hybrid:	300,000 seeds/a
Desiccant:	N/A
Harvested:	6/13/2022
Herbicides:	None
Insecticides:	None
Fungicide:	7 fl oz/a Aframe, 4.3 fl oz/a Proline
Previous crop:	Soybeans
Soil test:	P=21 lb/a, K=101 lb/a, S=3 lb/a, pH=7.0
Fertilizer:	40-0-0-23-1 lb/a N-P-K-S-B in fall 160-29-30-23-1 lb/a N-P-K-S-B in spring
Soil type:	Dickson silt loam Latitude: N/A
Elevation:	706 ft. Longitude: N/A
Comments:	Although lower than 2021, this site produces consistent yields.

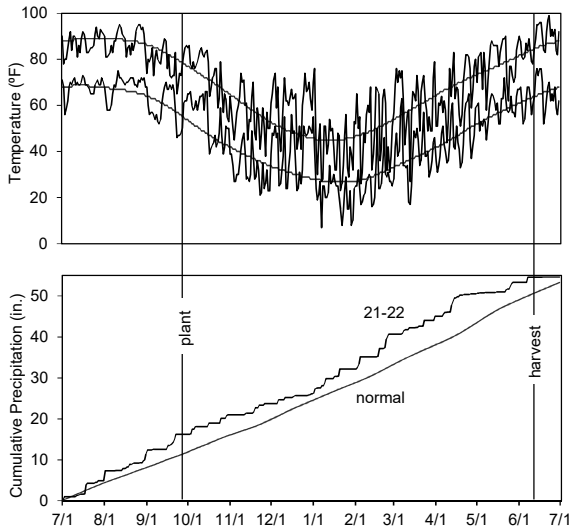


Table 17. Results for the 2022 National Winter Canola Variety Trial, open-pollinated cultivars, at Springfield, TN

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN															
CP1022WC	2585	3898	3242	100	---	---	---	9.7	4.0	106	50	12.9	---	19.6	42.7
CP1066WC	2527	4272	3399	98	---	---	---	8.7	4.0	97	49	10.4	---	19.8	42.8
Kansas State University															
KS4662	2318	**4750**	3534	90	---	---	---	9.7	4.3	97	48	11.9	---	22.5	41.1
KS4722	2265	---	---	88	---	---	---	9.7	4.0	91	44	10.6	---	18.5	43.6
KS4753	2667	---	---	104	---	---	---	9.3	4.0	99	50	10.5	---	21.7	41.6
KSUR1212	2037	4134	3085	79	---	---	---	9.0	4.0	96	47	11.2	---	18.2	43.2
Griffin	2562	3908	3235	99	---	---	---	9.7	4.3	95	43	9.7	---	25.1	38.7
Riley	2293	**4603**	3448	89	---	---	---	9.0	4.0	93	44	10.2	---	19.3	43.0
Surefire	2608	**4450**	3529	101	---	---	---	9.7	4.7	99	48	10.9	---	23.1	41.7
Wichita	2738	**4553**	3645	106	---	---	---	9.0	4.3	97	46	10.4	---	22.0	40.1
Ohlde Seed Farms															
Torrington	2430	4078	3254	94	---	---	---	9.3	4.0	94	45	10.7	---	21.5	41.7
Grand Mean	2457	4244	---	---	---	---	---	9.3	4.2	97	47	10.8	---	21.0	41.8
CV	16	6	---	---	---	---	---	6.1	8.1	2	11	8.5	---	11.1	4.2
LSD (0.05)	ns	458	---	---	---	---	---	ns	ns	4	ns	2	---	ns	ns

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 18. Results for the 2022 National Winter Canola Variety Trial, hybrid cultivars, at Springfield, TN

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Corteva Agriscience															
44D06	2962	---	---	115	---	---	---	8.3	4.0	98	49	8.7	---	20.7	41.4
PT264	3271	**4524**	3897	127	---	100	---	9.0	4.0	98	53	8.7	---	21.6	41.9
PT271	2735	**4633**	3684	106	---	89	---	9.0	4.0	99	46	8.5	---	18.1	43.8
PT275	2641	**4352**	3496	102	---	93	---	8.3	4.3	99	47	9.0	---	17.4	44.8
PT279CL	2504	---	---	97	---	---	---	8.7	5.0	93	45	8.6	---	17.2	44.9
PT284	2235	---	---	87	---	---	---	9.0	4.3	93	43	10.1	---	17.9	44.8
PT293	2815	**4675**	3745	109	---	96	---	8.7	4.7	94	47	8.8	---	17.4	44.9
PT297	2394	3998	3196	93	---	92	---	8.7	5.0	93	44	10.0	---	16.6	45.4
PT299	2603	---	---	101	---	---	---	9.0	4.7	91	47	10.3	---	16.4	46.1
PT302	2397	---	---	93	---	---	---	8.0	4.3	95	43	9.3	---	18.7	43.4
PT303	2861	---	---	111	---	---	---	9.3	4.7	97	51	8.6	---	19.5	43.7
PT305CL	2563	---	---	99	---	---	---	9.7	4.3	97	48	8.5	---	17.7	44.2
PT308	2777	---	---	108	---	---	---	9.0	5.0	95	52	8.0	---	17.7	44.4
PX125CL	2712	---	---	105	---	---	---	9.0	4.0	95	45	7.8	---	20.2	42.1
PX128	2754	4071	3412	107	---	87	---	9.3	4.3	104	50	13.1	---	21.9	42.3
PX131	2578	**4286**	3432	100	---	100	---	8.7	4.3	99	46	9.1	---	16.4	45.8
PX133	2878	---	---	112	---	---	---	9.0	4.3	92	44	9.9	---	19.6	44.3
PX135	2720	---	---	106	---	---	---	9.0	4.0	95	44	7.9	---	18.2	43.8
PX139CL	2445	---	---	95	---	---	---	9.0	4.0	101	39	8.8	---	16.8	45.4
PX140	2406	---	---	93	---	---	---	9.3	4.7	102	49	10.7	---	20.1	43.2
PX141	2458	---	---	95	---	---	---	8.7	4.7	98	49	8.1	---	16.6	45.6
PX142	2757	---	---	107	---	---	---	8.3	4.0	96	46	8.7	---	20.0	43.8
CROPLAN															
CP1077WC	2686	**4863**	3775	104	---	96	---	9.0	4.7	93	43	8.7	---	16.7	45.6
KWS-MOMONT															
KWS Sauros CL	2475	**4737**	3606	96	---	89	---	8.0	4.0	95	48	9.6	---	16.9	45.3
Rubisco Seeds															
Plurax CL	2974	**4228**	3601	115	---	100	---	9.0	4.7	92	45	8.3	---	18.1	43.1
Grand Mean	2664	4486	---	---	---	94	---	8.8	4.4	96	47	9.1	---	18.3	44.2
CV	20	13	---	---	---	7	---	6.1	9.7	2	10	13.0	---	10.5	3.1
LSD (0.05)	ns	986	---	---	---	ns	---	ns	0.7	4	ns	2.0	---	ns	ns

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.

Belleville, Kansas

Scott Dooley
Kansas State University

Planted:	9/10/2021 in 10-in. rows
Seeding Rate OP:	500,000 seeds/a
Seeding Rate Hybrid:	300,000 seeds/a
Swathed:	6/28/2022
Harvested:	7/8/2022
Herbicides:	3 pt/a Acumen, 9 oz/a Assure II
Insecticides:	None
Fungicide:	None
Previous crop:	Wheat
Fertilizer:	90-0-0-20 lb/a N-P-K-S fertilizer in spring
Soil type:	Crete silt loam Latitude: 39.814246
Elevation:	1530 ft. Longitude: -97.671639
Comments:	A combination of drought and cold temperatures during the winter reduced yields.

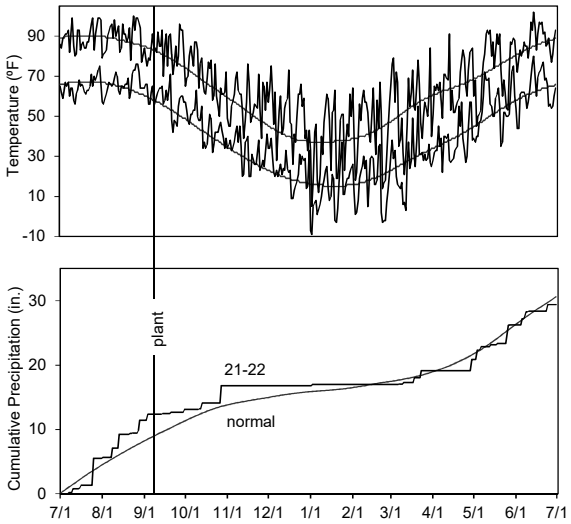


Table 19. Results for the 2022 National Winter Canola Variety Trial, open-pollinated cultivars, at Belleville, KS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Spring vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN															
CP225WRR	1054	**4242**	2648	88	59	97	78	8.9	3.3	---	---	13.4	48.6	23.6	37.4
CP320WRR	**1460**	**4214**	2837	122	90	88	89	8.3	3.2	---	---	12.7	49.1	23.7	37.3
CP1022WC	992	**4071**	2532	83	60	90	75	8.3	2.8	---	---	14.2	43.8	24.5	37.5
CP1066WC	**1844**	**4228**	3036	154	96	88	92	9.0	4.5	---	---	12.6	45.5	22.1	37.8
Kansas State University															
KS4662	**1482**	**4550**	3016	124	83	83	83	8.7	4.0	---	---	12.0	46.2	22.6	38.8
KS4722	1054	---	---	88	74	---	---	8.7	3.3	---	---	12.6	46.3	23.7	37.0
KS4753	**1647**	---	---	138	83	---	---	8.9	3.9	---	---	12.6	47.2	23.9	38.2
KSR4767	1225	**4179**	2702	102	68	92	80	8.3	3.0	---	---	12.3	48.0	25.1	36.7
KSR4839S	878	---	---	73	70	---	---	9.3	3.5	---	---	13.0	49.0	22.7	40.5
KSR4848	1113	**4063**	2588	93	60	90	75	9.0	2.8	---	---	13.4	47.1	23.8	37.6
KSR4854S	1005	**4169**	2587	84	60	96	78	8.7	3.0	---	---	13.3	47.7	24.0	38.1
KSUR1212	1210	3196	2203	101	75	68	71	8.7	3.2	---	---	13.2	49.0	23.3	38.5
Griffin	1056	**4512**	2784	88	83	90	87	8.7	4.0	---	---	12.6	47.8	23.4	37.5
Riley	1117	**4278**	2698	93	75	89	82	9.0	3.7	---	---	12.8	48.2	23.4	38.4
Surefire	944	**4389**	2667	79	75	92	84	9.3	3.7	---	---	12.8	47.1	23.3	37.8
Wichita	1125	3110	2118	94	91	57	74	8.3	3.8	---	---	13.5	49.9	23.4	38.3
Ohlde Seed Farms															
Torrington	1361	**3845**	2603	114	82	84	83	9.0	3.7	---	---	12.7	47.7	23.4	38.4
Star Specialty Seed															
Star 930W	1135	**4163**	2649	95	85	93	89	9.3	3.5	---	---	12.6	48.1	23.3	37.8
Grand Mean	1197	3964	---	---	76	84	---	8.8	3.5	---	---	12.9	47.5	23.5	38.0
CV	19	13	---	---	18	22	---	6.3	12.8	---	---	5.8	3.7	3.3	2.3
LSD (0.05)	389	851	---	---	23	20	---	ns	0.8	---	---	ns	3.0	ns	ns

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 20. Results for the 2022 National Winter Canola Variety Trial, hybrid cultivars, at Belleville, KS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Spring vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Corteva Agriscience															
44D06	887	---	---	78	69	---	---	8.3	3.5	---	---	11.1	39.0	23.4	38.1
PT264	**1606**	**5090**	3348	142	82	98	90	8.7	3.3	---	---	9.7	45.8	22.1	39.5
PT271	701	**4869**	2785	62	53	92	73	8.7	2.3	---	---	10.8	38.9	23.3	37.4
PT275	674	4100	2387	59	18	81	50	7.7	1.0	---	---	12.4	37.8	24.2	38.2
PT279CL	978	---	---	86	22	---	---	7.7	1.0	---	---	13.2	45.6	23.3	39.1
PT284	**1384**	---	---	122	75	---	---	7.3	3.2	---	---	12.4	45.9	22.3	39.6
PT293	**1747**	**4670**	3208	154	80	---	---	8.0	3.3	---	---	11.5	43.8	21.2	39.9
PT297	877	**4686**	2781	77	33	89	61	7.7	1.3	---	---	11.8	44.1	22.1	39.7
PT299	722	---	---	64	58	---	---	7.7	3.0	---	---	10.1	38.2	21.0	37.9
PT302	1083	---	---	95	33	---	---	8.3	1.0	---	---	12.1	46.6	22.5	39.1
PT303	1042	---	---	92	38	---	---	8.3	1.7	---	---	11.2	46.6	22.4	40.2
PT305CL	1057	---	---	93	47	---	---	8.7	2.0	---	---	12.3	41.8	24.5	37.8
PT308	714	---	---	63	12	---	---	9.0	1.0	---	---	11.0	42.4	23.1	39.6
PX125CL	627	---	---	55	67	---	---	8.7	2.8	---	---	10.6	42.8	22.8	37.3
PX128	1285	**5119**	3202	113	73	97	85	8.3	2.8	---	---	10.5	44.0	21.8	40.1
PX131	1254	4278	2766	111	67	95	81	8.7	3.2	---	---	10.1	40.8	21.7	40.3
PX133	**1349**	---	---	119	60	---	---	9.0	3.0	---	---	10.2	45.2	22.7	38.9
PX135	**1618**	---	---	143	90	---	---	8.7	3.8	---	---	9.3	43.6	21.2	40.5
PX139CL	995	---	---	88	87	---	---	8.0	3.3	---	---	9.9	43.4	22.6	37.8
PX140	**1665**	---	---	147	90	---	---	8.3	3.8	---	---	10.8	48.1	22.6	40.4
PX141	1191	---	---	105	80	---	---	8.7	3.0	---	---	10.2	45.5	24.0	38.7
PX142	**1729**	---	---	152	80	---	---	9.0	2.8	---	---	11.0	45.0	22.5	40.3
CROPLAN															
CP1077WC	1124	4264	2694	99	52	89	71	8.3	2.0	---	---	11.9	41.7	23.3	37.3
KWS-MOMONT															
KWS Sauros CL	1112	**4955**	3033	98	67	95	81	8.3	2.8	---	---	10.2	43.0	24.2	36.6
Rubisco Seeds															
Plurax CL	1235	3916	2576	109	72	93	83	8.3	3.3	---	---	10.1	44.3	21.3	39.0
Grand Mean	1141	4589	---	---	60	92	---	8.3	2.6	---	---	11.0	43.4	22.6	38.9
CV	23	8	---	---	25	7	---	8.0	21.7	---	---	9.5	10.0	2.8	2.0
LSD (0.05)	432	631	---	---	16	8	---	ns	0.9	---	---	1.7	ns	1.3	2

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.

Hutchinson, Kansas

Jane Lingenfelser
Kansas State University

Planted: 9/22/2021 in 10-in. rows
Seeding Rate OP: 500,000 seeds/a
Seeding Rate Hybrid: 300,000 seeds/a
Swathed: 6/13/2022
Harvested: 6/21/2022
Herbicides: 1 qt/a Treflan, 9 oz/a Assure II
Insecticides: None
Fungicide: None
Previous crop: Wheat
Soil test: N/A
Fertilizer: 30-0-0 lb/a N-P-K fertilizer in fall
90-0-0 lb/a N-P-K fertilizer in spring
Soil type: Ost loam Latitude: 37.928725
Elevation: 1540 ft. Longitude: -98.024028
Comments: Yields were below normal due to drought and low biomass production.

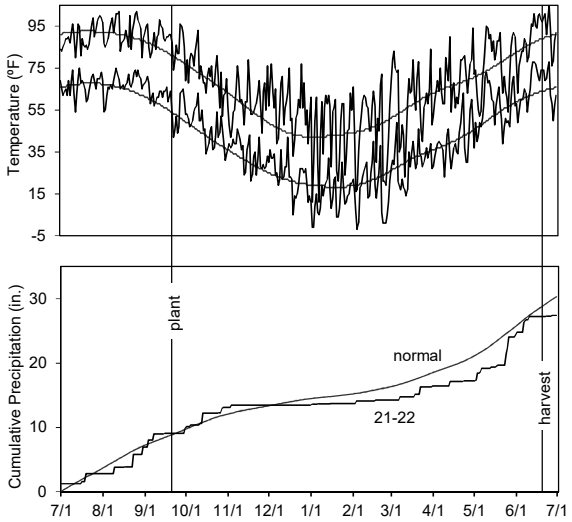


Table 21. Results for the 2022 National Winter Canola Variety Trial, open-pollinated cultivars, at Hutchinson, KS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN															
CP225WRR	661	2791	1726	93	---	---	---	7.7	---	---	---	---	---	25.0	38.2
CP320WRR	841	3067	1954	118	---	---	---	7.7	---	---	---	---	---	25.7	36.9
CP1022WC	474	2808	1641	66	---	---	---	7.3	---	---	---	---	---	26.1	38.5
CP1066WC	903	3000	1951	126	---	---	---	7.0	---	---	---	---	---	24.2	39.5
Kansas State University															
KS4662	906	3262	2084	127	---	---	---	7.0	---	---	---	---	---	25.0	39.0
KS4722	707	---	---	99	---	---	---	8.0	---	---	---	---	---	24.5	37.8
KS4753	717	---	---	100	---	---	---	8.0	---	---	---	---	---	25.6	38.4
KSR4767	511	2875	1693	72	---	---	---	7.3	---	---	---	---	---	25.5	34.1
KSR4839S	641	---	---	90	---	---	---	7.3	---	---	---	---	---	24.4	39.4
KSR4848	589	2747	1668	82	---	---	---	7.7	---	---	---	---	---	26.0	37.4
KSR4854S	684	2960	1822	96	---	---	---	7.7	---	---	---	---	---	25.0	35.5
KSUR1212	978	2888	1933	137	---	---	---	7.0	---	---	---	---	---	24.9	38.4
Griffin	647	3347	1997	91	---	---	---	7.3	---	---	---	---	---	24.9	38.2
Riley	771	2956	1864	108	---	---	---	7.3	---	---	---	---	---	24.7	39.3
Surefire	720	3531	2126	101	---	---	---	7.7	---	---	---	---	---	25.7	36.3
Wichita	792	3014	1903	111	---	---	---	6.3	---	---	---	---	---	26.0	37.6
Ohlde Seed Farms															
Torrington	661	3329	1995	93	---	---	---	7.7	---	---	---	---	---	25.9	37.6
Star Specialty Seed															
Star 930W	657	2984	1821	92	---	---	---	7.7	---	---	---	---	---	24.6	37.3
Grand Mean	715	3011	---	---	---	---	---	7.4	---	---	---	---	---	25.2	37.7
CV	24	13	---	---	---	---	---	7.5	---	---	---	---	---	2.6	4.1
LSD (0.05)	ns	ns	---	---	---	---	---	ns	---	---	---	---	---	ns	ns

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 22. Results for the 2022 National Winter Canola Variety Trial, hybrid cultivars, at Hutchinson, KS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Corteva Agriscience															
44D06	812	---	---	98	---	---	---	6.3	---	---	---	---	---	26.0	35.0
PT264	**903**	3290	2096	109	---	---	---	6.3	---	---	---	---	---	26.3	35.3
PT271	**932**	**3841**	2387	113	---	---	---	6.0	---	---	---	---	---	26.7	35.5
PT275	**917**	3198	2057	111	---	---	---	5.3	---	---	---	---	---	25.5	36.0
PT279CL	690	---	---	83	---	---	---	6.7	---	---	---	---	---	25.0	36.8
PT284	**878**	---	---	106	---	---	---	6.0	---	---	---	---	---	25.8	34.9
PT293	772	2822	1797	93	---	---	---	5.3	---	---	---	---	---	26.4	35.5
PT297	738	3113	1925	89	---	---	---	5.7	---	---	---	---	---	24.9	38.5
PT299	**1130**	---	---	136	---	---	---	5.3	---	---	---	---	---	23.4	39.7
PT302	784	---	---	95	---	---	---	6.0	---	---	---	---	---	25.2	35.0
PT303	707	---	---	85	---	---	---	6.0	---	---	---	---	---	26.0	36.4
PT305CL	699	---	---	84	---	---	---	5.7	---	---	---	---	---	27.0	34.9
PT308	**997**	---	---	120	---	---	---	6.3	---	---	---	---	---	25.4	36.6
PX125CL	**962**	---	---	116	---	---	---	5.7	---	---	---	---	---	26.2	35.0
PX128	432	3016	1724	52	---	---	---	6.3	---	---	---	---	---	26.3	36.1
PX131	611	3422	2017	74	---	---	---	6.7	---	---	---	---	---	25.9	36.3
PX133	**1152**	---	---	139	---	---	---	6.0	---	---	---	---	---	25.6	37.1
PX135	740	---	---	89	---	---	---	6.0	---	---	---	---	---	25.6	36.4
PX139CL	**1032**	---	---	125	---	---	---	6.7	---	---	---	---	---	27.1	34.9
PX140	**894**	---	---	108	---	---	---	7.0	---	---	---	---	---	25.4	38.5
PX141	788	---	---	95	---	---	---	6.7	---	---	---	---	---	26.9	34.0
PX142	**965**	---	---	117	---	---	---	6.3	---	---	---	---	---	25.1	36.8
CROPLAN															
CP1077WC	762	3453	2108	92	---	---	---	7.3	---	---	---	---	---	25.8	35.2
KWS-MOMONT															
KWS Sauros CL	407	3288	1847	49	---	---	---	5.7	---	---	---	---	---	30.9	32.9
Rubisco Seeds															
Plurax CL	**999**	**3600**	2299	121	---	---	---	6.0	---	---	---	---	---	24.5	34.5
Grand Mean	828	3352	---	---	---	---	---	6.1	---	---	---	---	---	25.9	35.9
CV	23	13	---	---	---	---	---	12.3	---	---	---	---	---	2.8	3.5
LSD (0.05)	314	365	---	---	---	---	---	ns	---	---	---	---	---	1.5	2.6

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.

Manhattan, Kansas

Michael Stamm
Kansas State University

Planted: 9/15/2021 in 10-in. rows
Seeding Rate OP: 500,000 seeds/a
Seeding Rate Hybrid: 300,000 seeds/a
Swathed: 6/14/2022
Harvested: 6/30/2022
Herbicides: 32 oz/a Treflan, 9 oz/a Assure II
Insecticides: None
Fungicide: None
Previous crop: Wheat
Soil test: N/A
Fertilizer: 30-32-0-30 lb/a N-P-K-S fertilizer in fall
90-0-0-20 lb/a N-P-K-S fertilizer in spring
Soil type: Smolan silt loam Latitude: 39.136669
Elevation: 1064 ft. Longitude: -96.641559
Comments: Yields were negatively affected by excessive fall growth and severe drought over winter.

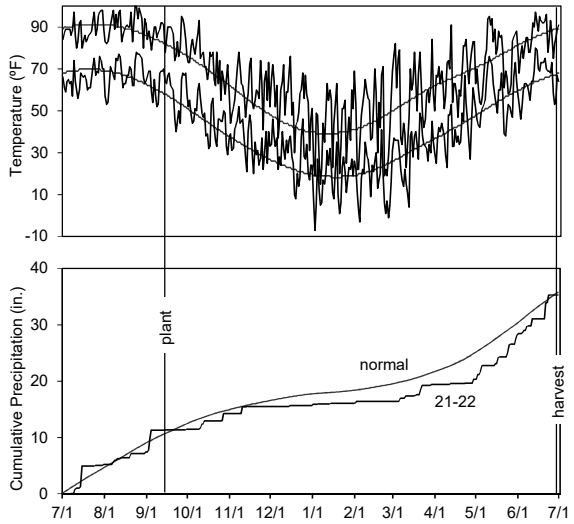


Table 23. Results for the 2022 National Winter Canola Variety Trial, open-pollinated cultivars, at Manhattan, KS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Spring vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN															
CP225WRR	131	3396	1763	54	97	---	---	---	3.7	115	---	4.8	---	24.0	29.1
CP320WRR	170	3598	1884	71	97	---	---	---	3.2	114	---	4.9	---	25.9	32.8
CP1022WC	272	3126	1699	113	97	---	---	---	3.3	116	---	7.9	---	24.4	31.7
CP1066WC	333	**4026**	2179	138	99	---	---	---	3.5	115	---	7.4	---	24.7	32.5
Kansas State University															
KS4662	218	3646	1932	91	98	---	---	---	3.5	112	---	5.8	---	24.9	32.6
KS4722	301	---	---	125	99	---	---	---	4.2	112	---	7.5	---	23.9	33.2
KS4753	244	---	---	102	99	---	---	---	4.0	113	---	5.9	---	24.8	30.8
KSR4767	184	**3871**	2028	77	98	---	---	---	4.2	112	---	5.5	---	25.1	31.5
KSR4839S	341	---	---	142	97	---	---	---	3.7	113	---	5.4	---	24.4	32.0
KSR4848	224	**3788**	2006	93	93	---	---	---	3.7	113	---	6.9	---	24.5	31.5
KSR4854S	267	3476	1872	111	99	---	---	---	3.8	115	---	6.4	---	25.0	33.9
KSUR1212	257	3600	1928	107	98	---	---	---	4.0	113	---	4.8	---	25.3	31.9
Griffin	234	3659	1946	97	97	---	---	---	3.5	111	---	6.2	---	24.5	30.8
Riley	299	**3931**	2115	124	95	---	---	---	3.7	111	---	8.9	---	24.6	31.3
Surefire	260	**4009**	2134	108	99	---	---	---	4.2	113	---	5.8	---	25.4	31.5
Wichita	160	**3970**	2065	66	97	---	---	---	3.3	113	---	3.1	---	26.0	32.0
Ohlde Seed Farms															
Torrington	267	**3780**	2023	111	96	---	---	---	4.0	112	---	7.6	---	24.8	30.7
Star Specialty Seed															
Star 930W	166	3293	1729	69	98	---	---	---	3.7	113	---	5.1	---	24.9	30.4
Grand Mean	240	3683	---	---	97	---	---	---	3.7	113	---	6.1	---	24.8	31.7
CV	29	9	---	---	1	---	---	---	12.2	1	---	33.7	---	2.6	6.3
LSD (0.05)	ns	361	---	---	2	---	---	---	ns	2	---	ns	---	1.1	ns

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 24. Results for the 2022 National Winter Canola Variety Trial, hybrid cultivars, at Manhattan, KS

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Spring vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Corteva Agriscience															
44D06	461	---	---	123	99	---	---	---	4.7	111	---	6.4	---	25.9	33.3
PT264	359	3902	2130	95	94	---	---	---	3.0	116	---	8.2	---	25.0	35.5
PT271	**614**	**4431**	2522	163	95	---	---	---	3.3	116	---	7.7	---	25.4	35.1
PT275	299	**3946**	2123	80	75	---	---	---	1.2	---	---	8.0	---	24.4	32.4
PT279CL	279	---	---	74	85	---	---	---	2.5	116	---	6.8	---	23.4	33.9
PT284	367	---	---	98	88	---	---	---	3.3	115	---	9.8	---	24.5	34.7
PT293	**593**	3541	2067	158	88	---	---	---	2.7	115	---	7.8	---	24.0	36.5
PT297	309	3348	1829	82	75	---	---	---	1.3	117	---	9.6	---	24.8	34.5
PT299	333	---	---	88	83	---	---	---	2.7	113	---	8.7	---	22.6	35.5
PT302	289	---	---	77	85	---	---	---	1.3	117	---	6.2	---	22.8	34.8
PT303	381	---	---	101	91	---	---	---	2.5	117	---	9.2	---	24.2	35.3
PT305CL	323	---	---	86	85	---	---	---	1.8	---	---	7.6	---	24.5	34.2
PT308	298	---	---	79	83	---	---	---	1.5	117	---	7.9	---	24.2	34.5
PX125CL	277	---	---	74	97	---	---	---	4.2	113	---	8.6	---	24.7	33.6
PX128	440	3175	1807	117	96	---	---	---	3.8	116	---	7.2	---	24.5	35.5
PX131	363	3318	1841	97	92	---	---	---	3.2	116	---	4.8	---	24.3	37.0
PX133	200	---	---	53	88	---	---	---	3.2	115	---	6.9	---	24.5	32.4
PX135	300	---	---	80	94	---	---	---	3.7	114	---	7.0	---	23.6	30.9
PX139CL	533	---	---	142	96	---	---	---	3.7	115	---	6.9	---	24.9	33.1
PX140	443	---	---	118	97	---	---	---	4.3	115	---	6.6	---	26.1	35.3
PX141	**734**	---	---	195	94	---	---	---	4.3	115	---	6.8	---	25.1	33.2
PX142	223	---	---	59	95	---	---	---	3.5	116	---	8.4	---	24.9	31.1
CROPLAN															
CP1077WC	445	3797	2121	118	88	---	---	---	3.3	116	---	6.2	---	24.5	34.6
KWS-MOMONT															
KWS Sauros CL	296	**4372**	2334	79	83	---	---	---	2.3	116	---	6.5	---	25.9	31.7
Rubisco Seeds															
Plurax CL	246	3642	1944	65	90	---	---	---	3.7	111	---	5.5	---	24.3	33.6
Grand Mean	376	3699	---	---	90	---	---	---	3.0	115	---	7.4	---	24.5	34.0
CV	32	7	---	---	7	---	---	---	26.5	1	---	26.2	---	2.4	5.2
LSD (0.05)	197	464	---	---	10	---	---	---	1.3	3	---	ns	---	1.3	ns

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.

Norwich, Kansas

Cody Swinehart and David Swinehart

Planted:	9/27/2021 in 10-in. rows
Seeding Rate OP:	500,000 seeds/a
Seeding Rate Hybrid:	300,000 seeds/a
Swathed:	6/10/2022
Harvested:	6/16/2022
Herbicides:	N/A
Insecticides:	N/A
Fungicide:	N/A
Previous crop:	Wheat
Soil test:	N/A
Fertilizer:	4-12-0-3-0.3 lb N-P-K-S-Zn fertilizer in the fall 85-0-0-7 lb N-P-K-S fertilizer in the spring
Soil type:	Renfrow clay loam Lattitude: 37.415207
Elevation:	1496 ft. Longitude: -97.849154
Comments:	The crop yielded well under drought conditions.

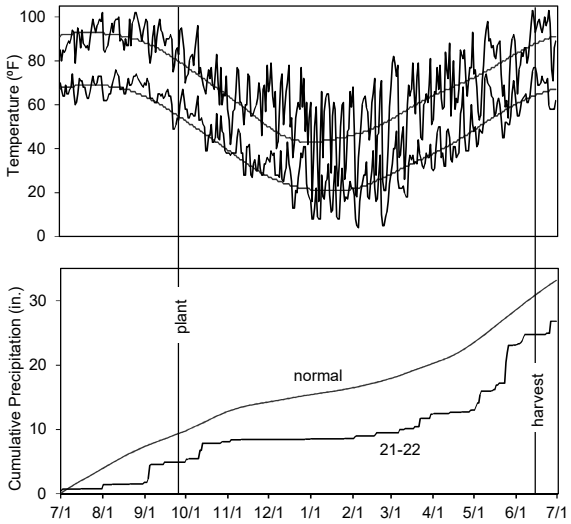


Table 25. Results for the 2022 National Winter Canola Variety Trial, open-pollinated cultivars, at Norwich, KS

Name	Yield (lb/a)			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN															
CP225WRR	1634	1991	1813	100	---	---	---	9.3	---	---	---	---	---	23.3	39.0
CP320WRR	1613	**2461**	2037	99	---	---	---	9.7	---	---	---	---	---	23.4	38.5
CP1022WC	1653	1949	1801	101	---	---	---	9.0	---	---	---	---	---	24.1	41.7
CP1066WC	1633	2150	1892	100	---	---	---	9.0	---	---	---	---	---	22.8	41.1
Kansas State University															
KS4662	1503	2077	1790	92	---	---	---	9.0	---	---	---	---	---	22.2	40.4
KS4722	1679	---	---	103	---	---	---	9.7	---	---	---	---	---	22.7	40.1
KS4753	1532	---	---	94	---	---	---	9.3	---	---	---	---	---	25.0	39.6
KSR4767	1479	1905	1692	91	---	---	---	9.3	---	---	---	---	---	22.2	40.5
KSR4839S	1651	---	---	101	---	---	---	9.7	---	---	---	---	---	22.7	41.3
KSR4848	1572	1971	1771	96	---	---	---	9.3	---	---	---	---	---	23.5	40.6
KSR4854S	1841	**2350**	2096	113	---	---	---	9.0	---	---	---	---	---	22.2	41.5
KSUR1212	1874	2055	1964	115	---	---	---	9.7	---	---	---	---	---	22.9	40.4
Griffin	1732	2111	1921	106	---	---	---	9.0	---	---	---	---	---	22.0	41.1
Riley	1508	**2238**	1873	93	---	---	---	9.7	---	---	---	---	---	24.3	39.4
Surefire	1883	2061	1972	116	---	---	---	9.3	---	---	---	---	---	24.0	39.7
Wichita	1612	1863	1738	99	---	---	---	9.0	---	---	---	---	---	22.6	39.7
Ohlde Seed Farms															
Torrington	1437	**2588**	2012	88	---	---	---	9.7	---	---	---	---	---	23.4	40.5
Star Specialty Seed															
Star 930W	1493	1838	1665	92	---	---	---	9.3	---	---	---	---	---	22.3	40.2
Grand Mean	1629	2081	---	---	---	---	---	9.3	---	---	---	---	---	23.1	40.3
CV	18	12	---	---	---	---	---	3.9	---	---	---	---	---	3.5	2.3
LSD (0.05)	ns	426	---	---	---	---	---	ns	---	---	---	---	---	1.7	ns

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 2022 National Winter Canola Variety Trial, hybrid cultivars, at Norwich, KS

Name	Yield (lb/a)			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Corteva Agriscience															
44D06	**1956**	---	---	120	---	---	---	9.3	---	---	---	---	---	21.5	43.2
PT264	1174	2106	1640	72	---	---	---	8.3	---	---	---	---	---	19.4	45.2
PT271	**1558**	1934	1746	96	---	---	---	9.7	---	---	---	---	---	22.1	43.1
PT275	**1747**	2526	2137	107	---	---	---	9.0	---	---	---	---	---	20.9	43.9
PT279CL	**1606**	---	---	99	---	---	---	9.3	---	---	---	---	---	21.2	43.6
PT284	1451	---	---	89	---	---	---	9.3	---	---	---	---	---	20.4	43.7
PT293	**1787**	2350	2068	110	---	---	---	9.3	---	---	---	---	---	19.7	45.0
PT297	**1884**	2321	2102	116	---	---	---	9.3	---	---	---	---	---	20.8	45.2
PT299	**1546**	---	---	95	---	---	---	9.3	---	---	---	---	---	18.5	46.7
PT302	**1709**	---	---	105	---	---	---	9.7	---	---	---	---	---	20.5	44.5
PT303	**1833**	---	---	113	---	---	---	9.3	---	---	---	---	---	20.7	44.9
PT305CL	**1732**	---	---	106	---	---	---	9.0	---	---	---	---	---	22.2	43.4
PT308	**1785**	---	---	110	---	---	---	9.7	---	---	---	---	---	21.1	44.5
PX125CL	**1787**	---	---	110	---	---	---	9.3	---	---	---	---	---	20.3	42.4
PX128	1220	1998	1609	75	---	---	---	9.0	---	---	---	---	---	20.8	45.6
PX131	1376	2192	1784	85	---	---	---	9.3	---	---	---	---	---	20.2	46.0
PX133	**1718**	---	---	105	---	---	---	9.3	---	---	---	---	---	24.0	40.7
PX135	1487	---	---	91	---	---	---	8.7	---	---	---	---	---	20.2	45.3
PX139CL	**1752**	---	---	108	---	---	---	9.3	---	---	---	---	---	23.3	42.4
PX140	1390	---	---	85	---	---	---	9.7	---	---	---	---	---	19.6	45.3
PX141	**1910**	---	---	117	---	---	---	9.0	---	---	---	---	---	21.1	45.2
PX142	1395	---	---	86	---	---	---	9.0	---	---	---	---	---	17.8	47.1
CROPLAN															
CP1077WC	**1595**	2309	1952	98	---	---	---	8.7	---	---	---	---	---	20.4	43.4
KWS-MOMONT															
KWS Sauros CL	**1720**	2277	1999	106	---	---	---	9.3	---	---	---	---	---	21.7	41.7
Rubisco Seeds															
Plurax CL	**1597**	2480	2039	98	---	---	---	9.3	---	---	---	---	---	20.6	43.0
Grand Mean	1629	2267	---	---	---	---	---	9.2	---	---	---	---	---	20.8	44.2
CV	16	16	---	---	---	---	---	6.4	---	---	---	---	---	5.5	2.1
LSD (0.05)	419	ns	---	---	---	---	---	ns	---	---	---	---	---	2.4	1.9

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.

Clovis, New Mexico

Sangu Angadi and Mallory Nielson
New Mexico State University

Planted: 9/7/2021
Seeding Rate OP: 500,000 seeds/a
Seeding Rate Hybrid: 300,000 seeds/a
Desiccant: None
Harvested: 7/27/2022
Herbicides: 1.5 pt/a Treflan HFP
Insecticides: 10 oz/a Sivanto, 5 oz/a Vantacor, 0.75 oz/a Transform
Irrigation: 3.90 in.
Previous crop: Wheat
Soil test: N=22 ppm, P=12 ppm, K=478 ppm, S=10 ppm, pH=7.9, OM=2%
Fertilizer: 95-40-0-28 lb/a fertilizer in fall
Soil type: Olton clay loam Latitude: 34.599850
Elevation: 4437 ft. Longitude: -103.220032
Comments: Yields were negatively impacted by high temperatures and drought.

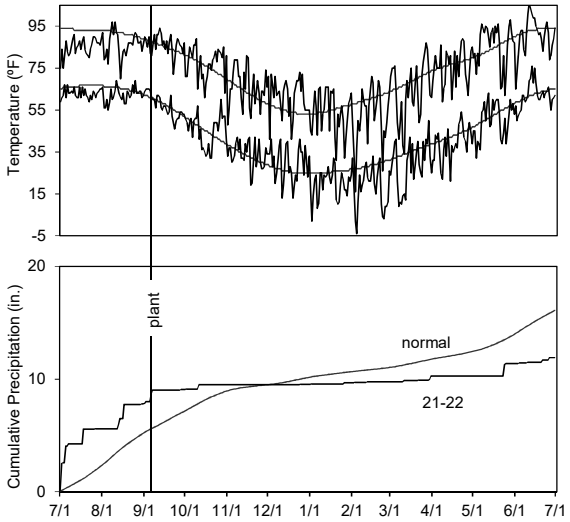


Table 27. Results for the 2022 National Winter Canola Variety Trial, open-pollinated cultivars, at Clovis, NM

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN															
CP225WRR	688	2128	1408	91	94	30	62	6.7	4.7	---	---	6.9	50.8	29.3	33.0
CP320WRR	949	2842	1895	125	84	36	60	6.7	4.7	---	---	7.0	49.2	27.6	35.2
CP1022WC	327	2377	1352	43	93	42	68	8.0	4.7	---	---	8.4	44.3	30.2	33.4
CP1066WC	899	1803	1351	119	91	33	62	8.7	5.0	---	---	7.3	51.5	29.4	32.7
Kansas State University															
KS4662	904	2478	1691	119	92	32	62	7.7	5.0	---	---	6.9	49.4	27.4	35.3
KS4722	803	---	---	106	80	---	---	8.0	5.0	---	---	6.9	47.2	28.6	34.1
KS4753	686	---	---	91	78	---	---	7.0	4.3	---	---	7.2	47.6	29.4	34.7
KSR4767	764	2679	1721	101	80	40	60	7.7	4.7	---	---	6.6	48.6	29.3	33.5
KSR4839S	696	---	---	92	83	---	---	8.3	4.7	---	---	6.7	50.4	28.3	35.5
KSR4848	526	2763	1644	69	85	37	61	7.7	4.7	---	---	7.8	46.6	29.5	32.5
KSR4854S	754	2659	1706	100	79	38	58	8.7	5.0	---	---	7.0	49.4	28.5	34.7
KSUR1212	902	2344	1623	119	77	41	59	7.7	4.7	---	---	6.7	50.7	30.3	33.5
Griffin	807	2378	1593	106	74	34	54	8.7	5.0	---	---	6.7	48.4	29.8	33.3
Riley	740	2447	1593	98	87	48	67	7.0	5.0	---	---	6.8	49.7	30.7	33.3
Surefire	709	2312	1511	94	84	37	60	7.0	4.3	---	---	7.3	48.8	30.3	32.9
Wichita	1017	2071	1544	134	98	36	67	7.0	5.0	---	---	6.6	49.0	30.4	33.3
Ohlde Seed Farms															
Torrington	568	2115	1342	75	74	44	59	8.7	4.7	---	---	7.0	49.0	30.6	32.4
Star Specialty Seed															
Star 930W	896	2246	1571	118	89	34	62	7.3	5.0	---	---	6.6	51.7	28.4	34.9
Grand Mean	750	2387	---	---	85	38	---	7.7	4.8	---	---	---	---	29.3	33.8
CV	---	23	---	---	16	27	---	17.8	10.1	---	---	---	---	2.5	2.3
LSD (0.05)	---	ns	---	---	ns	ns	---	ns	ns	---	---	---	---	1.6	1.6

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 28. Results for the 2022 National Winter Canola Variety Trial, hybrid cultivars, at Clovis, NM

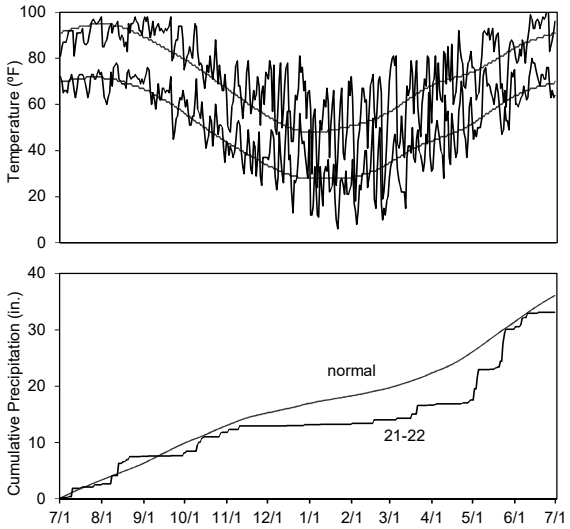
Name	Yield (lb/a)			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Corteva Agriscience															
44D06	884	---	---	105	93	---	---	7.3	4.3	---	---	7.0	49.3	29.4	33.7
PT264	638	2114	1376	76	79	57	68	9.0	5.0	---	---	7.2	48.6	30.4	32.5
PT271	864	2198	1531	103	83	50	66	9.3	5.0	---	---	7.3	50.7	29.9	33.7
PT275	827	1963	1395	99	94	50	72	7.3	5.0	---	---	6.9	50.2	30.1	31.9
PT279CL	**1016**	---	---	121	95	---	---	7.3	4.3	---	---	6.9	49.9	27.8	35.5
PT284	709	---	---	84	94	---	---	7.3	4.3	---	---	7.4	46.3	28.4	34.3
PT293	821	2457	1639	98	75	45	60	8.0	4.7	---	---	8.0	48.3	29.8	33.5
PT297	919	1804	1361	109	91	59	75	8.0	4.7	---	---	7.1	50.0	28.3	36.1
PT299	870	---	---	104	93	---	---	7.0	4.7	---	---	7.3	49.3	27.0	37.2
PT302	**1167**	---	---	139	100	---	---	6.7	4.3	---	---	7.2	49.8	27.8	36.5
PT303	**1131**	---	---	135	89	---	---	8.0	4.7	---	---	6.9	50.9	28.6	35.9
PT305CL	685	---	---	82	80	---	---	8.3	5.0	---	---	7.6	48.0	30.9	32.2
PT308	1011	---	---	120	84	---	---	9.0	5.0	---	---	7.2	51.1	28.8	34.3
PX125CL	706	---	---	84	97	---	---	7.7	5.0	---	---	7.1	49.6	29.1	33.2
PX128	540	1938	1239	64	82	56	69	8.3	4.7	---	---	7.4	48.8	30.1	33.9
PX131	565	2362	1463	67	93	58	76	7.7	4.3	---	---	7.3	42.7	28.7	35.4
PX133	857	---	---	102	80	---	---	9.7	5.0	---	---	7.2	49.8	29.8	33.6
PX135	773	---	---	92	98	---	---	7.7	4.3	---	---	7.0	46.9	28.8	35.0
PX139CL	853	---	---	102	88	---	---	7.3	4.7	---	---	7.0	50.5	30.5	33.1
PX140	**1294**	---	---	154	97	---	---	7.3	4.7	---	---	7.3	53.2	28.5	35.5
PX141	975	---	---	116	81	---	---	8.0	5.0	---	---	8.0	50.0	30.9	32.0
PX142	**1036**	---	---	123	88	---	---	8.3	5.0	---	---	7.3	51.1	30.1	34.1
CROPLAN															
CP1077WC	685	**2826**	1755	82	89	55	72	8.3	5.0	---	---	8.1	45.4	29.5	33.7
KWS-MOMONT															
KWS Sauros CL	672	**2689**	1680	80	100	48	74	5.7	3.7	---	---	7.3	47.2	30.8	31.4
Rubisco Seeds															
Plurax CL	492	2322	1407	59	86	60	73	7.7	5.0	---	---	7.6	45.2	29.9	31.6
Grand Mean	840	2366	---	---	89	54	---	7.9	4.7	---	---	7.3	48.9	29.4	34.0
CV	20	8	---	---	12	12	---	10.6	9.2	---	---	9.2	6.5	1.9	2.6
LSD (0.05)	281	319	---	---	11	ns	---	1.4	0.7	---	---	ns	ns	1.1	1.8

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.

Perkins, Oklahoma

Josh Lofton
Oklahoma State University

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



Comments: Dry winter conditions negatively impacted yields.

Table 29. Results for the 2022 National Winter Canola Variety Trial, open-pollinated cultivars, at Perkins, OK

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN															
CP225WRR	1253	921	1087	96	---	---	---	---	---	---	---	13.2	45.5	25.5	37.2
CP320WRR	1202	762	982	92	---	---	---	---	---	---	---	11.4	45.2	25.8	36.4
CP1022WC	1130	757	943	86	---	---	---	---	---	---	---	12.8	43.0	25.8	36.5
CP1066WC	**1750**	446	1098	134	---	---	---	---	---	---	---	12.5	52.3	24.7	38.4
Kansas State University															
KS4662	1388	935	1162	106	---	---	---	---	---	---	---	12.7	44.3	23.8	39.0
KS4722	**1465**	---	---	112	---	---	---	---	---	---	---	14.8	46.1	24.8	38.2
KS4753	1442	---	---	110	---	---	---	---	---	---	---	13.2	47.0	25.0	38.3
KSR4767	1147	**1258**	1202	88	---	---	---	---	---	---	---	11.5	43.8	25.1	36.8
KSR4839S	1137	---	---	87	---	---	---	---	---	---	---	11.3	45.4	23.0	40.2
KSR4848	1273	811	1042	97	---	---	---	---	---	---	---	14.1	46.8	25.5	36.8
KSR4854S	1265	825	1045	97	---	---	---	---	---	---	---	12.0	48.8	25.6	37.1
KSUR1212	1338	867	1103	102	---	---	---	---	---	---	---	13.9	46.8	25.5	37.7
Griffin	1238	**1338**	1288	95	---	---	---	---	---	---	---	12.5	44.8	24.6	38.1
Riley	1340	718	1029	102	---	---	---	---	---	---	---	13.0	43.2	25.2	37.7
Surefire	1380	**1052**	1216	105	---	---	---	---	---	---	---	12.7	49.9	25.9	36.3
Wichita	1405	720	1063	107	---	---	---	---	---	---	---	14.0	48.9	26.1	37.0
Ohlde Seed Farms															
Torrington	1347	**1078**	1212	103	---	---	---	---	---	---	---	13.7	47.1	25.6	37.2
Star Specialty Seed															
Star 930W	1070	702	886	82	---	---	---	---	---	---	---	10.1	45.7	25.1	37.0
Grand Mean	1309	844	---	---	---	---	---	---	---	---	---	12.7	46.4	25.1	37.5
CV	13	23	---	---	---	---	---	---	---	---	---	11.2	8.4	3.1	2.4
LSD (0.05)	286	325	---	---	---	---	---	---	---	---	---	2.4	6.4	ns	1.9

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 30. Results for the 2022 National Winter Canola Variety Trial, hybrid cultivars, at Perkins, OK

Name	Yield (lb/a)[1]			Yield (% of test avg.)	Winter survival (%)			Fall stand	Fall vigor	50% bloom	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-10)	(1-5)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
Corteva Agriscience															
44D06	**1605**	---	---	111	---	---	---	---	---	---	---	13.1	48.3	22.1	40.1
PT264	**1943**	**1170**	1557	134	---	---	---	---	---	---	---	13.9	47.6	23.0	40.4
PT271	1415	**1771**	1593	97	---	---	---	---	---	---	---	14.6	48.3	21.7	40.7
PT275	**1710**	923	1317	118	---	---	---	---	---	---	---	16.7	49.0	22.6	40.9
PT279CL	1418	---	---	98	---	---	---	---	---	---	---	14.6	46.7	21.6	40.7
PT284	1467	---	---	101	---	---	---	---	---	---	---	12.8	49.7	22.1	39.6
PT293	**1693**	1059	1376	117	---	---	---	---	---	---	---	12.9	49.6	22.8	40.5
PT297	1088	**1581**	1335	75	---	---	---	---	---	---	---	12.0	47.0	22.0	41.7
PT299	1442	---	---	99	---	---	---	---	---	---	---	12.6	48.6	21.1	42.1
PT302	1242	---	---	86	---	---	---	---	---	---	---	13.9	44.5	21.2	41.1
PT303	1013	---	---	70	---	---	---	---	---	---	---	11.8	40.8	22.5	41.4
PT305CL	1437	---	---	99	---	---	---	---	---	---	---	13.7	49.0	23.7	38.8
PT308	1193	---	---	82	---	---	---	---	---	---	---	13.9	43.2	22.3	41.5
PX125CL	1445	---	---	100	---	---	---	---	---	---	---	13.7	44.6	23.7	38.2
PX128	1528	**1186**	1357	105	---	---	---	---	---	---	---	13.4	49.2	22.7	42.3
PX131	1278	818	1048	88	---	---	---	---	---	---	---	11.4	48.1	21.6	42.3
PX133	1700	---	---	117	---	---	---	---	---	---	---	12.9	49.4	21.8	40.5
PX135	**1590**	---	---	110	---	---	---	---	---	---	---	13.2	51.3	21.7	42.5
PX139CL	1307	---	---	90	---	---	---	---	---	---	---	11.7	46.9	23.2	37.6
PX140	1572	---	---	108	---	---	---	---	---	---	---	14.8	50.2	22.6	41.9
PX141	**1628**	---	---	112	---	---	---	---	---	---	---	14.6	47.7	22.0	42.1
PX142	1420	---	---	98	---	---	---	---	---	---	---	12.5	47.5	22.8	41.7
CROPLAN															
CP1077WC	1450	**1268**	1359	100	---	---	---	---	---	---	---	11.4	46.9	21.9	37.6
KWS-MOMONT															
KWS Sauros CL	1223	1139	1181	84	---	---	---	---	---	---	---	11.6	46.0	25.3	36.0
Rubisco Seeds															
Plurax CL	1482	566	1024	102	---	---	---	---	---	---	---	12.7	49.4	21.8	39.3
Grand Mean	1452	1070	---	---	---	---	---	---	---	---	---	13.2	47.6	22.4	40.5
CV	15	41	---	---	---	---	---	---	---	---	---	13.7	7.4	3.1	2.7
LSD (0.05)	354	615	---	---	---	---	---	---	---	---	---	ns	ns	1.4	2.3

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.

Bozeman, Montana

Perry Miller and Sam Koeshall
Land Resources and Environmental Science

Planted: 7/19/2021
Seeding Rate OP: 500,000 seeds/a
Seeding Rate Hybrid: 300,000 seeds/a
Desiccant: None
Harvested: N/A
Herbicides: None
Insecticides: None
Irrigation: 1 in. prior to planting
Previous crop: N/A
Soil test: N/A
Fertilizer: 100-0-0 lb/a N-P-K fertilizer in fall

Soil type: Amsterdam silt loam Latitude: 45.666667
Elevation: 4775 ft. Longitude: N/A
Comments: The varieties recovered remarkably well and compensated for low plant stands.

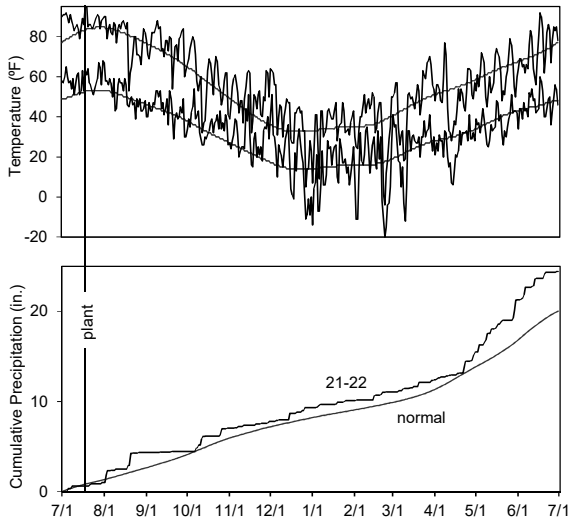


Table 31. Results for the 2022 Roundup Ready Variety Trial, at Bozeman, MT

Name	Yield (lb/a)			Yield (% of test avg.)	Winter survival (%)			Spring vigor	Spring stand	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(0-5)	(plants/m^2)	(%)	(lb/bu)	(%)	(%)
CROPLAN													
CP225WRR	1330	---	---	76	---	---	---	1.1	4.4	---	---	26.4	37.5
CP320WRR	1237	---	---	71	---	---	---	1.4	4.1	---	---	26.1	37.1
Kansas State University													
KSR4765	**1971**	---	---	113	---	---	---	3.5	5.6	---	---	25.0	37.6
KSR4767	**1977**	---	---	113	---	---	---	3.6	7.3	---	---	26.0	37.9
KSR4777	1779	---	---	102	---	---	---	2.3	4.1	---	---	26.2	37.6
KSR4837	1803	---	---	103	---	---	---	2.8	4.6	---	---	26.3	37.3
KSR4838	1789	---	---	103	---	---	---	1.5	4.8	---	---	26.3	37.1
KSR4839S	1584	---	---	91	---	---	---	1.8	3.4	---	---	24.9	39.5
KSR4843S	1317	---	---	75	---	---	---	1.4	2.8	---	---	26.6	36.5
KSR4844S	1230	---	---	70	---	---	---	1.1	3.0	---	---	27.2	36.0
KSR4846	1639	---	---	94	---	---	---	1.8	3.4	---	---	26.2	37.7
KSR4848	1463	---	---	84	---	---	---	1.6	3.4	---	---	26.8	36.9
KSR4849	1228	---	---	70	---	---	---	1.4	1.8	---	---	26.4	37.2
KSR4850	1863	---	---	107	---	---	---	3.0	5.3	---	---	26.9	36.1
KSR4852S	**2035**	---	---	117	---	---	---	2.8	6.7	---	---	25.2	40.5
KSR4853S	**2004**	---	---	115	---	---	---	3.8	6.0	---	---	26.5	37.0
KSR4854S	1810	---	---	104	---	---	---	3.8	5.3	---	---	25.0	39.6
KSR4925	**2267**	---	---	130	---	---	---	4.8	10.1	---	---	25.4	39.8
KSR4926S	**2034**	---	---	117	---	---	---	3.0	6.6	---	---	25.4	39.7
KSR4927S	**1985**	---	---	114	---	---	---	2.5	5.0	---	---	24.7	38.8
KSR4928	**2301**	---	---	132	---	---	---	5.0	9.2	---	---	25.3	38.8
Mean	1745	---	---	---	---	---	---	2.7	5.2	---	---	25.9	37.9
CV	17	---	---	---	---	---	---	---	---	---	---	2.4	2.1
LSD (0.05)	375	---	---	---	---	---	---	---	---	---	---	1.3	1.6

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

Clint Beiermann
Montana State University

Planted: 8/23/2021
Seeding Rate OP: 500,000 seeds/a
Seeding Rate Hybrid: 300,000 seeds/a
Desiccant: None
Harvested: 8/16/2022
Herbicides: None
Insecticides: Lambda-cy
Irrigation: N/A
Previous crop: Fallow
Soil test: NO_3^-=167 lb/a, P=12 lb/a, K=143 lb/a, S=72 lb/a
Fertilizer: 100-42-37-20 lb/a N-P-K-S fertilizer in spring

Soil type: Silty clay loam Latitude: 48.187028
Elevation: 2950 ft. Longitude: -114.140861
Comments: Consistent yields and high oil content measured at this site.

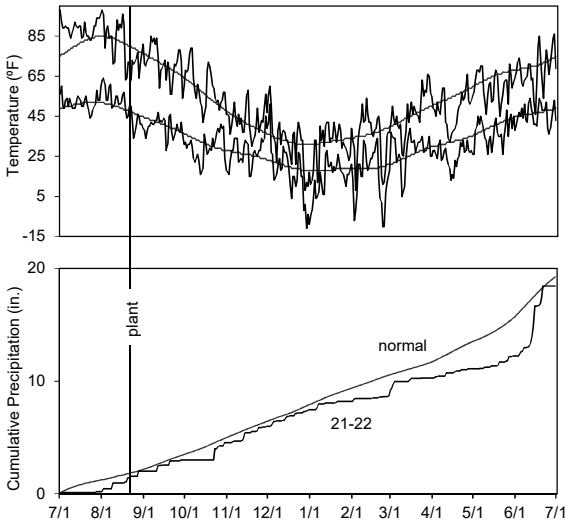


Table 32. Results for the 2022 Roundup Ready Variety Trial, at Creston, MT

Name	Type[1]	Yield (lb/a)			Yield (% of test avg.)	Winter survival (%)			50% bloom	Lodging	Plant height	Moisture	Test weight	Protein	Oil
		2022	2021	2-yr.	2022	2022	2021	2-yr.	(d)	(%)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN															
CP225WRR	OP	2267	4213	3240	96	85	94	89	146	1.7	45	5.8	50.7	20.4	42.6
CP320WRR	OP	2390	**4399**	3394	101	86	92	89	146	0.0	45	5.6	51.1	20.1	43.7
Kansas State University															
KSR4767	OP	2382	4177	3279	101	77	94	86	146	0.0	51	5.7	51.0	20.9	43.2
KSR4837	OP	2334	---	---	99	75	---	---	147	0.0	48	5.9	51.1	20.7	43.2
KSR4839S	OP	2003	---	---	85	82	---	---	146	1.7	52	5.4	50.6	21.3	42.1
KSR4846	OP	2232	---	---	94	76	---	---	146	3.3	45	5.6	50.6	20.6	42.9
KSR4848	OP	2353	3947	3150	99	81	89	85	146	1.7	50	5.7	50.8	20.4	42.8
KSR4850	OP	2193	---	---	93	85	---	---	146	1.7	47	5.5	51.5	20.3	43.7
KSR4852S	OP	2320	---	---	98	83	---	---	146	0.0	46	5.6	50.8	19.3	43.5
KSR4854S	OP	2473	4046	3260	105	88	92	90	146	1.7	49	5.6	50.5	20.8	43.8
KSR4925	OP	2428	---	---	103	75	---	---	149	0.0	46	5.6	50.6	20.9	43.3
KSR4926S	OP	2282	---	---	96	77	---	---	146	1.7	45	5.9	50.4	21.3	41.9
KSR4927S	OP	2442	---	---	103	80	---	---	146	1.7	46	5.9	50.3	21.7	42.3
KSR4928	OP	2322	---	---	98	79	---	---	148	0.0	55	5.8	50.6	20.0	43.9
KSR4966S	OP	2238	---	---	95	76	---	---	146	5.3	49	5.7	50.0	19.7	43.2
KSR4967	OP	2102	---	---	89	73	---	---	146	0.0	50	5.4	50.7	20.6	44.6
KSU2	H	**2679**	---	---	113	70	---	---	146	1.7	50	5.6	50.7	21.7	43.0
KSU3	H	**2806**	---	---	119	74	---	---	146	15.0	50	5.6	50.6	20.3	43.2
KSU4	H	**2590**	---	---	109	67	---	---	146	0.0	50	5.7	50.4	21.5	42.0
KSU7D	H	2476	---	---	105	77	---	---	144	0.0	42	5.8	51.4	20.8	43.5
Mean		2366	4202	---	---	78	92	---	146	1.9	48	5.7	50.7	20.7	43.1
CV		7	5	---	---	6	2	---	1	224.1	4	3.3	0.5	6.8	3.3
LSD (0.05)		287	292	---	---	8	3	---	1	6.9	ns	ns	0.4	ns	ns

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

Moccasin, Montana

Patrick Carr and Simon Fordyce
Montana State University

Planted:	8/4/2021 in 12-in. rows
Seeding Rate OP:	500,000 seeds/a
Seeding Rate Hybrid:	300,000 seeds/a
Desiccant:	None
Harvested:	8/18/2022
Herbicides:	0.88 oz/a quizalofop, 0.56 lb ai/a
Insecticides:	0.025 lb ai/a cypermethrin
Irrigation:	None
Previous crop:	Winter wheat
Soil test:	N/A
Fertilizer:	10-15-10-5 lb/a N-P-K-S fertilizer in fall 70-14-10-14 lb/a N-P-K-S fertilizer in spring
Soil type:	Danvers-Judith clay loam
Latitude:	47.062988
Longitude:	-109.965559
Elevation:	4250 ft.
Comments:	Canola yielded well following a very dry 2021.

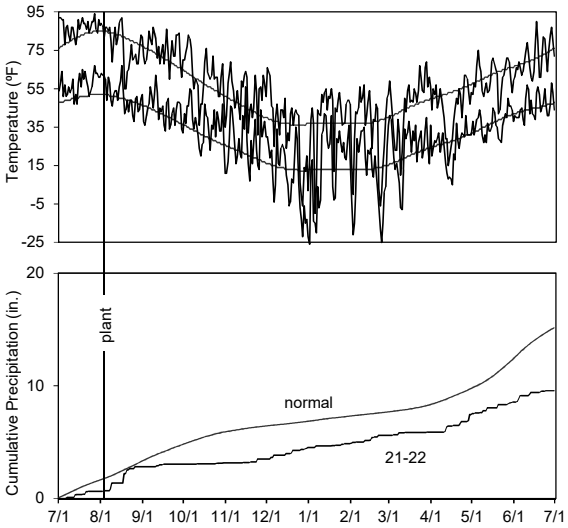


Table 33. Results for the 2022 Roundup Ready Variety Trial, at Moccasin, MT

Name	Yield (lb/a)			Yield (% of test avg.)	Winter survival (%)			50% bloom	Maturity	Plant height	Moisture	Test weight	Protein	Oil
	2022	2021	2-yr.	2022	2022	2021	2-yr.	(d)	(d)	(in.)	(%)	(lb/bu)	(%)	(%)
CROPLAN														
CP225WRR	1892	---	---	103	79	---	---	147	200	42	4.6	52.2	24.8	37.9
CP320WRR	2170	---	---	119	80	---	---	147	200	42	4.8	52.6	22.8	39.5
Kansas State University														
KSR4765	1893	---	---	103	87	---	---	149	200	47	4.7	52.4	23.9	38.1
KSR4767	1844	---	---	101	98	---	---	148	200	48	4.7	52.4	25.0	38.5
KSR4777	1906	---	---	104	65	---	---	146	200	45	4.6	52.3	24.3	38.7
KSR4837	1718	---	---	94	82	---	---	148	200	48	4.8	52.7	23.2	38.8
KSR4838	1865	---	---	102	75	---	---	146	200	42	4.8	52.3	22.7	38.5
KSR4839S	1742	---	---	95	82	---	---	148	199	48	4.6	52.6	22.7	40.7
KSR4843S	1830	---	---	100	82	---	---	149	201	50	4.8	52.5	24.8	38.9
KSR4844S	1820	---	---	99	80	---	---	146	201	48	4.7	52.4	23.6	39.8
KSR4846	1802	---	---	98	85	---	---	147	199	46	4.6	52.7	24.6	37.7
KSR4848	1863	---	---	102	92	---	---	149	201	46	4.7	52.4	23.6	39.9
KSR4849	1610	---	---	88	92	---	---	149	201	45	4.8	51.6	23.6	39.6
KSR4850	1760	---	---	96	86	---	---	148	199	45	4.7	53.0	23.8	37.6
KSR4852S	1798	---	---	98	93	---	---	150	201	46	4.9	52.4	24.2	39.6
KSR4853S	1676	---	---	92	93	---	---	147	200	47	4.8	52.3	24.1	38.8
KSR4854S	1797	---	---	98	96	---	---	146	199	46	4.7	52.2	25.2	38.5
KSR4925	1823	---	---	100	66	---	---	149	202	45	4.8	51.9	23.1	40.6
KSR4926S	1892	---	---	103	69	---	---	149	199	45	4.7	52.5	24.0	39.5
KSR4927S	1851	---	---	101	67	---	---	149	200	46	4.8	52.2	23.9	39.4
KSR4928	1878	---	---	103	94	---	---	149	200	47	4.8	52.2	22.6	39.5
Mean	1830	---	---	---	83	---	---	148	200	46	4.7	52.4	23.8	39.1
CV	11	---	---	---	17	---	---	1	0	5	2.2	0.4	4.1	2.1
LSD (0.05)	ns	---	---	---	20	---	---	2	1	4	0.1	0.3	ns	1.7

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.

Alburgh, Vermont

Heather Darby
University of Vermont

Planted: 9/2/2021 in 6-in. rows
Seeding Rate OP: 500,000 seeds/a
Seeding Rate Hybrid: 300,000 seeds/a
Desiccant: None
Harvested: 7/22/2022
Herbicides: None
Insecticides: None
Fungicide: None
Previous crop: Winter barley
Soil test: P=16 ppm, K=104 ppm, pH=7.2
Fertilizer: 84-0-0-96 lb/a N-P-K-S fertilizer in spring

Soil type: Benson rocky silt loam Latitude: 44.999983
Elevation: 125 ft. Longitude: -73.296330
Comments: Yield variability was extremely high.

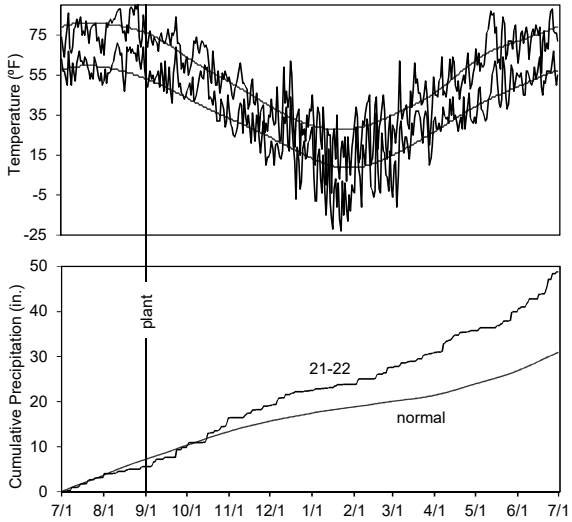


Table 34. Results for the 2022 National Winter Canola Variety Trial at Alburgh, VT

Name	Type[1]	Yield (lb/a)[2]			Yield (% of test avg.)	Winter survival (%)			Fall vigor	50% bloom	Plant height	Lodging	Moisture	Test weight	Protein	Oil
		2022	2021	2-yr.	2022	2022	2021	2-yr.	(1-5)	(d)	(in.)	(%)	(%)	(lb/bu)	(%)	(%)
Corteva Agriscience																
PT264	H	852	---	---	55	40	---	---	3.3	138	42	3.3	8.2	45.5	14.3	48.0
PT293	H	1737	---	---	113	93	---	---	5.0	136	50	1.7	10.2	41.6	16.5	46.2
PT297	H	897	---	---	58	75	---	---	4.3	136	50	3.3	9.4	43.8	14.3	48.2
PX128	H	2319	---	---	150	72	---	---	3.7	137	41	0.0	8.5	44.4	13.4	47.8
PX131	H	320	---	---	21	68	---	---	3.0	136	41	0.0	10.2	40.4	13.5	48.8
CROPLAN																
CP1066WC	OP	1482	**3300**	2391	96	77	---	---	4.3	136	48	1.7	11.1	44.6	17.7	45.0
Kansas State University																
KS4662	OP	1358	**3265**	2311	88	78	75	77	3.0	138	45	0.0	9.8	44.2	18.1	45.4
KS4722	OP	1037	---	---	67	68	---	---	3.0	137	48	1.7	10.8	44.4	15.6	45.4
KS4753	OP	178	---	---	12	80	---	---	3.0	137	47	1.7	8.7	43.2	17.2	43.9
Griffin	OP	1093	---	---	71	82	---	---	3.7	136	42	0.0	12.2	44.1	17.1	45.5
Riley	OP	1389	**3444**	2416	90	67	60	63	3.0	137	42	0.0	12.4	46.5	16.5	44.7
Surefire	OP	---	**3052**	---	---	85	58	72	3.7	137	44	0.0	4.9	---	17.2	45.2
KWS-MOMONT																
KWS Sauros CL	H	1671	1213	1442	108	57	---	---	4.0	137	41	3.3	9.2	42.6	20.3	42.8
Ohlde Seed Farms																
Torrington	OP	1119	**3529**	2324	73	92	62	77	4.3	137	46	5.0	10.0	45.2	17.1	45.7
Rubisco Seeds																
Plurax CL	H	602	**2776**	1689	39	88	68	78	4.0	136	41	0.0	10.4	44.6	13.4	48.3
Mean		1544	2726	---	---	75	54	---	3.7	137	45	1.4	10.5	44.7	16.2	46.2
CV		---	17	---	---	33	28	---	21.7	1	11	168.3	---	---	15.6	4.5
LSD (0.05)		---	792	---	---	ns	26	---	---	ns	ns	ns	---	---	ns	ns

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.

Table 35. Seed sources for entries in the 2021-2022 National Winter Canola Variety Trial

Source	Type[1]	Trait[2]	Release Date	Maturity[3]
Corteva Agrisciences				
Andrew Hopkins (andrew.hopkins@corteva.com)				
PT264	H	---	---	M
PT271	H	---	---	M
PT275	H	---	---	M
PT279CL	H	CL	---	M
PT284	H	---	---	M
PT293	H	---	---	M
PT297	H	---	---	M
PT299	H	---	---	M
PT302	H	---	---	M
PT303	H	---	---	M
PT305CL	H	CL	---	M
PT308	H	---	---	M
PX125CL	H	CL, SD	---	M
PX128	H	SD	---	M
PX131	H	SD	---	M
PX133	H	SD	---	M
PX135	H	SD	---	M
PX139CL	H	CL, SD	---	M
PX140	H	SD	---	M
PX141	H	SD	---	M
PX142	H	SD	---	M
44D06	H	---	---	M
CROPLAN				
Mick Miller (MMiller5@landolakes.com)				
CP225WRR	OP	RR/SURT	2010	M
CP320WRR	OP	RR	2017	E
CP1022WC	OP	G2FLEX	2020	F
CP1066WC	OP	---	2020	F
CP1077WC	H	---	---	M
Kansas State University Canola Breeding Program				
Michael J. Stamm (mjstamm@ksu.edu)				
KS4662	OP	---	---	M
KS4722	OP	---	---	M
KS4753	OP	---	---	F
KSR4767	OP	RR	---	M
KSR4839S	OP	RR/SURT	---	M
KSR4848	OP	RR	---	M
KSR4854S	OP	RR/SURT	---	M
KSUR1212	OP	SU	---	M
Griffin	OP	---	2011	M
Riley	OP	---	2010	M
Surefire	OP	SU	2017	MF
Wichita	OP	---	1999	M
KWS-MOMONT				
Marie-Aude Vanhersecke (marie-aude.vanhersecke@kws.com)				
KWS Sauros CL	H	CL	---	M
Ohlde Seed Farms				
Shane Ohlde (shane@ohldeseed.com)				
Torrington	OP	---	2016	M
Rubisco Seeds LLC				
Claire Caldbeck (info@rubiscoseeds.com)				
Plurax CL	H	CL	2018	M
Star Specialty Seeds, Inc.				
Jim Johnson (jimj_star@hotmail.com)				
Star 930W	OP	RR	2013	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.

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

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