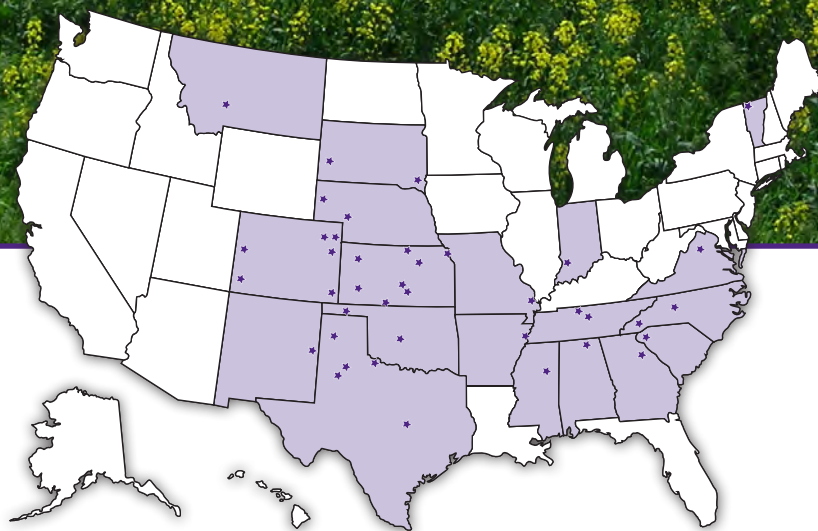


**2018**

# **National Winter Canola Variety Trial**



***Report of Progress 1150***

**K-STATE**  
Research and Extension

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

# 2018 National Winter Canola Variety Trial

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Contribution no. 19-252-S from the Kansas Agricultural Experiment Station

# 2018 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, Midwest, northern U.S., and Southeast.

## Procedures

Seed for the NWCVT was distributed to 40 locations in 19 states for the 2017–2018 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 37 entries, 22 are commercial and 15 are experimental. These entries were provided by eight global 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 37 entries were planted. Results for each trial were analyzed individually and are presented in separate tables. Differences between open-pollinated and hybrid yields can be compared to the common checks in each trial. Two open-pollinated cultivars, Quartz and Wichita, were used as checks.

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<sup>2</sup>) 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.

The Brassica Breeding and Research Program at the University of Idaho performed

total oil and protein analysis for all sites using NIR spectroscopy.

The NWCVT continues in the 2018–2019 growing season and includes 30 entries. Eight seed suppliers contributed to the trial, and it was distributed to 36 locations in 18 states.

## 2017–2018 Growing Conditions

Temperature and precipitation data are shown at the top of the page for each location. Thick black lines on the temperature graphs represent long-term average high and low temperatures (°F) for the location. 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 “17-18” represents actual precipitation. If weather information was not provided, data were taken from a nearby town.

In general, the 2017–2018 growing season saw fluctuating temperatures and below-normal precipitation. Fall temperatures were moderate. Along with dry conditions, the canola crop had less biomass than previous years going into winter. This resulted in winterkill and crown damage where cold temperatures persisted. The spring remained dry with a colder-than-normal April and above-normal temperatures in May. Yields were respectable despite the challenges shown by the weather.

## Test Sites and Results

Fifteen harvested locations in 11 states are included in this report: Meridianville, AL; Akron and Yellow Jacket, CO; Athens, GA; Vincennes, IN; Colby, Garden City, Manhattan, and Norwich, KS; Bozeman, MT; Clovis, NM; Clemson, SC; Springfield, TN; Bushland, TX; and Alburgh, VT. Fruita, CO; Ames, IA; and Salisbury, NC, were harvested but the data were not published. Twenty-two locations were not harvested because of poor stand establishment, winterkill, or too much rainfall before harvest.

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 more than 100% of the test average across multiple locations merit some consideration.

Overall, yield performance was below average because of challenging weather conditions across the United States. Open pollinated trial means ranged from 396 to 3,622 lb/acre. Hybrid trial means ranged from 330 to 4,377 lb/acre. Yields in the Great Plains were below average, mostly because of extreme drought conditions during the growing season.

Caution should be used when evaluating data from locations with coefficient of variation (CV) values greater than 20. Lower values suggest less error was observed at the location. Inestimable differences in soil type, weather, and environmental conditions play a part in increasing experimental error and CV values. Eight trial sites have CV values of greater than 20. Data other than yield may be used if provided by the cooperator.

## **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 locations. 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.

Table 26 provides information on the tolerance of varieties to blackleg fungus. The 2017–2018 blackleg nursery was planted at Stillwater, OK, by Oklahoma State University. Data is provided with permission. View Table 27 for seed sources, contact information, brand names, and traits of the winter canola varieties and hybrids grown in the NWCVT.

## **Acknowledgments**

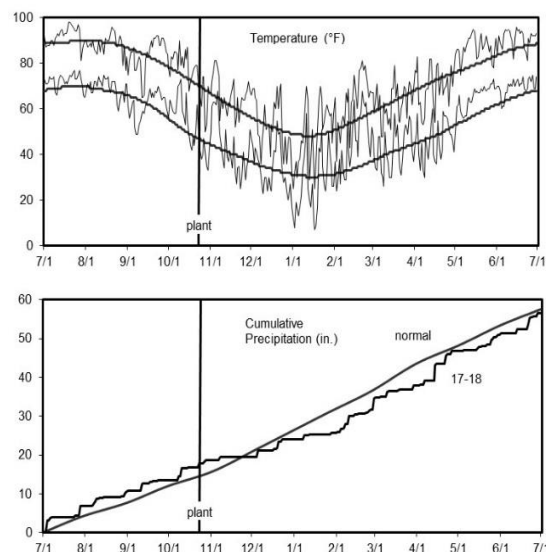
This work was funded in part by the fees paid by seed suppliers, the United States Department of Agriculture National Institute of Food and Agriculture Supplemental and Alternative Crops Competitive Grants Program, and the Kansas

Agricultural Experiment Station. Assistant scientist Scott Dooley assisted with organizing, packaging, planting, harvesting, and data collection. 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.

# Meridianville, Alabama

Ernest Cebert  
Alabama A&M University

Planted: 10/24/2017 in 7-in. rows  
Seeding Rate OP: 500,000 seeds/a  
Seeding Rate Hybrid: 300,000 seeds/a  
Harvested: 6/19/2018  
Herbicides: 2.5 pt/a Trifluralin  
Insecticides: None  
Irrigation: None  
Soil test: NA  
Fertilizer: 6.5-6.5-6.5 lb N-P-K fertilizer in fall  
120-0-0 lb N-P-K fertilizer in spring  
Elevation: 797 ft Latitude: 34° 55'N  
Comments: Variability in the trials was caused by an extremely dry fall and a wet spring. The hybrids overcame those challenges better than the open-pollinated cultivars.



**Table 1. Results for the 2018 National Winter Canola Variety Trial, open-pollinated cultivars, at Meridianville, AL**

| Name                      | Type <sup>1</sup> | Yield (lb/a) <sup>2</sup> |      |       | Yield (% of | Winter survival |      |      | Plant | Test   |          |        | Oil  | Protein |
|---------------------------|-------------------|---------------------------|------|-------|-------------|-----------------|------|------|-------|--------|----------|--------|------|---------|
|                           |                   | 2018                      | 2017 | 2-yr. | test avg.)  | (%)             | 2018 | 2017 | 2-yr. | height | Moisture | weight |      |         |
|                           |                   |                           |      |       |             |                 |      |      |       |        |          |        |      |         |
| CROPLAN by WinField       |                   |                           |      |       |             |                 |      |      |       |        |          |        |      |         |
| CP115WRR                  | OP                | 267                       | ---  | ---   | 60          | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 39.5 | 26.1    |
| CP225WRR                  | OP                | 648                       | ---  | ---   | 147         | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 38.3 | 26.1    |
| CP320WRR                  | OP                | 572                       | ---  | ---   | 130         | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 39.3 | 25.4    |
| CP45-25WRR                | OP                | 654                       | ---  | ---   | 148         | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 38.5 | 25.3    |
| Kansas State University   |                   |                           |      |       |             |                 |      |      |       |        |          |        |      |         |
| KS4670                    | OP                | 424                       | ---  | ---   | 96          | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 39.2 | 25.0    |
| KS4675                    | OP                | 291                       | ---  | ---   | 66          | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 40.4 | 25.7    |
| KSR4723                   | OP                | 333                       | ---  | ---   | 75          | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 42.1 | 24.7    |
| KSR4724S                  | OP                | 281                       | ---  | ---   | 64          | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 38.3 | 25.8    |
| Riley                     | OP                | 472                       | ---  | ---   | 107         | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 39.2 | 26.3    |
| Sumner                    | OP                | 405                       | ---  | ---   | 92          | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 38.9 | 25.9    |
| Surefire                  | OP                | 316                       | ---  | ---   | 72          | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 38.7 | 26.0    |
| Wichita                   | OP                | 272                       | ---  | ---   | 62          | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 38.4 | 26.5    |
| KWS MOMONT                |                   |                           |      |       |             |                 |      |      |       |        |          |        |      |         |
| Quartz                    | OP                | 624                       | ---  | ---   | 141         | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 41.3 | 24.6    |
| Ohlde Seed Farms          |                   |                           |      |       |             |                 |      |      |       |        |          |        |      |         |
| Torrington                | OP                | 240                       | ---  | ---   | 54          | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 39.5 | 24.9    |
| Star Specialty Seed, Inc. |                   |                           |      |       |             |                 |      |      |       |        |          |        |      |         |
| Star 915W                 | OP                | 460                       | ---  | ---   | 104         | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 39.2 | 26.4    |
| Star 930W                 | OP                | 597                       | ---  | ---   | 135         | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 38.7 | 25.3    |
| Grand Mean                |                   | 441                       | ---  | ---   | ---         | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 39.3 | 25.6    |
| Common Check OP Mean      |                   | 448                       | ---  | ---   | ---         | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 39.8 | 25.6    |
| Common Check Hybrid Mean  |                   | 1231                      | ---  | ---   | ---         | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 39.7 | 25.2    |
| CV                        |                   | 54                        | ---  | ---   | ---         | ---             | ---  | ---  | ---   | ---    | ---      | ---    | 2.9  | 4.6     |
| LSD (0.05)                |                   | 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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

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

**Table 2. Results for the 2018 National Winter Canola Variety Trial, hybrid cultivars, at Meridianville, AL**

| Name                        | Type <sup>1</sup> | Yield (lb/a) <sup>2</sup> |      |       | Yield (% of | Winter survival |      |       | Plant  | Test     |         |      |         |
|-----------------------------|-------------------|---------------------------|------|-------|-------------|-----------------|------|-------|--------|----------|---------|------|---------|
|                             |                   |                           |      |       | test avg.)  | (%)             |      |       | height | Moisture | weight  | Oil  | Protein |
|                             |                   | 2018                      | 2017 | 2-yr. | 2018        | 2018            | 2017 | 2-yr. | (in.)  | (%)      | (lb/bu) | (%)  | (%)     |
| Bayer Crop Science Division |                   |                           |      |       |             |                 |      |       |        |          |         |      |         |
| CWH189D                     | H                 | 2266                      | ---  | ---   | 134         | ---             | ---  | ---   | ---    | ---      | ---     | 38.7 | 25.6    |
| CWH190D                     | H                 | 2053                      | ---  | ---   | 122         | ---             | ---  | ---   | ---    | ---      | ---     | 40.1 | 25.6    |
| CWH239D                     | H                 | 1934                      | ---  | ---   | 115         | ---             | ---  | ---   | ---    | ---      | ---     | 41.5 | 23.5    |
| DGC173D                     | H                 | 1823                      | ---  | ---   | 108         | ---             | ---  | ---   | ---    | ---      | ---     | 39.3 | 24.8    |
| DL Seeds Inc.               |                   |                           |      |       |             |                 |      |       |        |          |         |      |         |
| Atora                       | H                 | 1908                      | ---  | ---   | 113         | ---             | ---  | ---   | ---    | ---      | ---     | 40.7 | 23.5    |
| Event                       | H                 | 2164                      | ---  | ---   | 128         | ---             | ---  | ---   | ---    | ---      | ---     | 40.6 | 22.8    |
| Phoenix CL                  | H                 | 733                       | ---  | ---   | 43          | ---             | ---  | ---   | ---    | ---      | ---     | 39.2 | 24.3    |
| Plurax CL                   | H                 | 2496                      | ---  | ---   | 148         | ---             | ---  | ---   | ---    | ---      | ---     | 40.2 | 23.5    |
| Temptation                  | H                 | 1653                      | ---  | ---   | 98          | ---             | ---  | ---   | ---    | ---      | ---     | 40.0 | 24.8    |
| Kansas State University     |                   |                           |      |       |             |                 |      |       |        |          |         |      |         |
| Wichita                     | OP                | 1218                      | ---  | ---   | 72          | ---             | ---  | ---   | ---    | ---      | ---     | 38.3 | 27.8    |
| KWS MOMONT                  |                   |                           |      |       |             |                 |      |       |        |          |         |      |         |
| HAMOUR                      | H                 | 1601                      | ---  | ---   | 95          | ---             | ---  | ---   | ---    | ---      | ---     | 37.3 | 25.6    |
| HIDYLLE                     | H                 | 1457                      | ---  | ---   | 86          | ---             | ---  | ---   | ---    | ---      | ---     | 38.8 | 24.9    |
| MH 15AY085                  | H                 | 1567                      | ---  | ---   | 93          | ---             | ---  | ---   | ---    | ---      | ---     | 38.6 | 25.6    |
| MH 15HIB001                 | H                 | 1363                      | ---  | ---   | 81          | ---             | ---  | ---   | ---    | ---      | ---     | 37.7 | 24.3    |
| MH 15HIB002                 | H                 | 1900                      | ---  | ---   | 113         | ---             | ---  | ---   | ---    | ---      | ---     | 38.3 | 25.9    |
| MH 15HT229                  | H                 | 1593                      | ---  | ---   | 94          | ---             | ---  | ---   | ---    | ---      | ---     | 43.0 | 22.9    |
| Quartz                      | OP                | 1244                      | ---  | ---   | 74          | ---             | ---  | ---   | ---    | ---      | ---     | 41.1 | 22.6    |
| Rubisco Seeds LLC           |                   |                           |      |       |             |                 |      |       |        |          |         |      |         |
| Edimax CL                   | H                 | 980                       | ---  | ---   | 58          | ---             | ---  | ---   | ---    | ---      | ---     | 39.5 | 23.4    |
| Inspiration                 | H                 | 2388                      | ---  | ---   | 142         | ---             | ---  | ---   | ---    | ---      | ---     | 39.5 | 23.4    |
| Mercedes                    | H                 | 1840                      | ---  | ---   | 109         | ---             | ---  | ---   | ---    | ---      | ---     | 40.9 | 23.8    |
| Popular                     | H                 | 1388                      | ---  | ---   | 82          | ---             | ---  | ---   | ---    | ---      | ---     | 38.4 | 25.2    |
| Grand Mean                  |                   | 1686                      | ---  | ---   | ---         | ---             | ---  | ---   | ---    | ---      | ---     | 39.6 | 24.5    |
| Common Check Hybrid Mean    |                   | 1231                      | ---  | ---   | ---         | ---             | ---  | ---   | ---    | ---      | ---     | 39.7 | 25.2    |
| Common Check OP Mean        |                   | 448                       | ---  | ---   | ---         | ---             | ---  | ---   | ---    | ---      | ---     | 39.8 | 25.6    |
| CV                          |                   | 38                        | ---  | ---   | ---         | ---             | ---  | ---   | ---    | ---      | ---     | 2.8  | 5.6     |
| LSD (0.05)                  |                   | 558                       | ---  | ---   | ---         | ---             | ---  | ---   | ---    | ---      | ---     | 2.3  | 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.

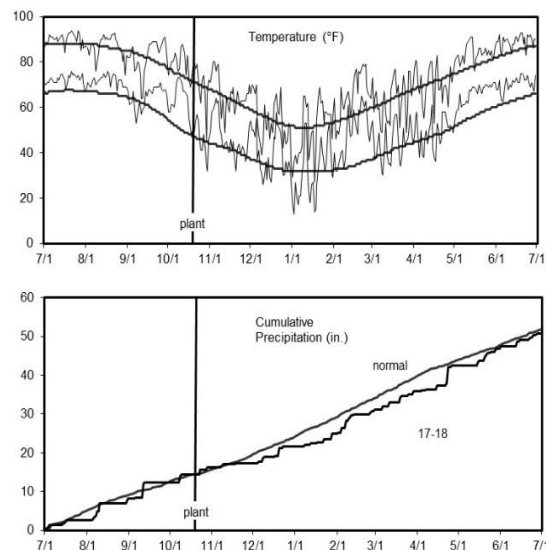
<sup>1</sup>Type: H=hybrid, OP=open pollinated

<sup>2</sup>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.

# Athens, Georgia

Daniel Mailhot  
University of Georgia

Planted: 10/20/2017 in 7-in. rows  
Seeding Rate: 5 lb/a  
Harvested: 6/15/2018  
Herbicides: Treflan  
Insecticides: None  
Irrigation: None  
Previous crop: Corn  
Soil test: P=Very high, K=Very high, pH=5.6  
Fertilizer: 70-177-354 lb N-P-K fertilizer in fall  
50-0-0 lb N-P-K fertilizer in spring  
Soil type: Wickam sandy loam  
Elevation: 500 ft Latitude: 33° 43'N  
Comments: Outstanding yields at this location.



**Table 3. Results for the 2018 National Winter Canola Variety Trial, open-pollinated cultivars, at Athens, GA**

| Name                      | Type <sup>1</sup> | Yield (lb/a) |      |       | Yield (% of | Winter survival |     |        | Plant | 50% | Maturity | Oil         | Protein |
|---------------------------|-------------------|--------------|------|-------|-------------|-----------------|-----|--------|-------|-----|----------|-------------|---------|
|                           |                   | 2018         | 2017 | 2-yr. | test avg.)  | (%)             | (%) | height | bloom |     |          |             |         |
| CROPLAN by WinField       |                   |              |      |       |             |                 |     |        |       |     |          |             |         |
| CP115WRR                  | OP                | 3503         | ---  | ---   | 97          | ---             | --- | ---    | 64    | 84  | 149      | <b>39.8</b> | 24.2    |
| CP225WRR                  | OP                | <b>3845</b>  | ---  | ---   | 106         | ---             | --- | ---    | 64    | 88  | 151      | 39.3        | 24.1    |
| CP320WRR                  | OP                | <b>3867</b>  | ---  | ---   | 107         | ---             | --- | ---    | 62    | 85  | 150      | 38.1        | 24.1    |
| CP45-25WRR                | OP                | 3619         | ---  | ---   | 100         | ---             | --- | ---    | 66    | 86  | 150      | 38.6        | 24.0    |
| Kansas State University   |                   |              |      |       |             |                 |     |        |       |     |          |             |         |
| KS4670                    | OP                | 3261         | ---  | ---   | 90          | ---             | --- | ---    | 62    | 84  | 152      | <b>40.1</b> | 23.5    |
| KS4675                    | OP                | <b>3981</b>  | ---  | ---   | 110         | ---             | --- | ---    | 67    | 88  | 153      | <b>40.1</b> | 24.1    |
| KSR4723                   | OP                | 3536         | ---  | ---   | 98          | ---             | --- | ---    | 65    | 89  | 150      | 39.4        | 23.6    |
| KSR4724S                  | OP                | 3246         | ---  | ---   | 90          | ---             | --- | ---    | 64    | 84  | 149      | 39.1        | 24.0    |
| Riley                     | OP                | <b>3808</b>  | ---  | ---   | 105         | ---             | --- | ---    | 64    | 89  | 152      | 37.6        | 25.8    |
| Sumner                    | OP                | 3476         | ---  | ---   | 96          | ---             | --- | ---    | 67    | 88  | 150      | 38.2        | 25.1    |
| Surefire                  | OP                | 3369         | ---  | ---   | 93          | ---             | --- | ---    | 69    | 95  | 155      | 37.6        | 25.4    |
| Wichita                   | OP                | 3599         | ---  | ---   | 99          | ---             | --- | ---    | 68    | 93  | 152      | 37.9        | 25.6    |
| KWS MOMONT                |                   |              |      |       |             |                 |     |        |       |     |          |             |         |
| Quartz                    | OP                | <b>4175</b>  | ---  | ---   | 115         | ---             | --- | ---    | 65    | 93  | 154      | <b>40.7</b> | 22.8    |
| Ohlde Seed Farms          |                   |              |      |       |             |                 |     |        |       |     |          |             |         |
| Torrington                | OP                | 3322         | ---  | ---   | 92          | ---             | --- | ---    | 71    | 89  | 153      | <b>40.3</b> | 23.4    |
| Star Specialty Seed, Inc. |                   |              |      |       |             |                 |     |        |       |     |          |             |         |
| Star 915W                 | OP                | <b>3840</b>  | ---  | ---   | 106         | ---             | --- | ---    | 64    | 89  | 152      | 39.1        | 24.8    |
| Star 930W                 | OP                | 3710         | ---  | ---   | 102         | ---             | --- | ---    | 66    | 88  | 149      | 38.3        | 24.3    |
| Grand Mean                |                   | 3622         | ---  | ---   | ---         | ---             | --- | ---    | 65    | 88  | 151      | 39.0        | 24.2    |
| Common Check OP Mean      |                   | 3887         | ---  | ---   | ---         | ---             | --- | ---    | 67    | 93  | 153      | 39.3        | 24.2    |
| Common Check Hybrid Mean  |                   | 3947         | ---  | ---   | ---         | ---             | --- | ---    | 67    | 92  | 153      | 37.8        | 23.9    |
| CV                        |                   | 12           | ---  | ---   | ---         | ---             | --- | ---    | 4     | 1   | 1        | 1.4         | 2.7     |
| LSD (0.05)                |                   | 369          | ---  | ---   | ---         | ---             | --- | ---    | 4     | 2   | 3        | 1.3         | 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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

**Table 4. Results for the 2018 National Winter Canola Variety Trial, hybrid cultivars, at Athens, GA**

| Table 1. Results for the 2016 National Winter Canola Variety Trial, Hybrid Cultivars, at Ames, IA |                   |              |      |       |                        |      |                     |       |              |           |          |      |         |  |
|---------------------------------------------------------------------------------------------------|-------------------|--------------|------|-------|------------------------|------|---------------------|-------|--------------|-----------|----------|------|---------|--|
| Name                                                                                              | Type <sup>1</sup> | Yield (lb/a) |      |       | Yield (% of test avg.) |      | Winter survival (%) |       | Plant height | 50% bloom | Maturity | Oil  | Protein |  |
|                                                                                                   |                   | 2018         | 2017 | 2-yr. | 2018                   | 2018 | 2017                | 2-yr. | (in.)        | (DOY)     | (DOY)    | (%)  | (%)     |  |
| Bayer Crop Science Division                                                                       |                   |              |      |       |                        |      |                     |       |              |           |          |      |         |  |
| CWH189D                                                                                           | H                 | 4661         | ---  | ---   | 107                    | ---  | ---                 | ---   | 69           | 93        | 152      | 38.3 | 24.8    |  |
| CWH190D                                                                                           | H                 | 4362         | ---  | ---   | 100                    | ---  | ---                 | ---   | 68           | 93        | 152      | 37.9 | 24.9    |  |
| CWH239D                                                                                           | H                 | 4810         | ---  | ---   | 110                    | ---  | ---                 | ---   | 64           | 90        | 154      | 40.2 | 22.9    |  |
| DGC173D                                                                                           | H                 | 4782         | ---  | ---   | 109                    | ---  | ---                 | ---   | 68           | 93        | 153      | 38.6 | 24.2    |  |
| DL Seeds Inc.                                                                                     |                   |              |      |       |                        |      |                     |       |              |           |          |      |         |  |
| Atora                                                                                             | H                 | 4098         | ---  | ---   | 94                     | ---  | ---                 | ---   | 69           | 90        | 155      | 40.1 | 22.7    |  |
| Event                                                                                             | H                 | 3985         | ---  | ---   | 91                     | ---  | ---                 | ---   | 65           | 91        | 155      | 41.8 | 21.4    |  |
| Phoenix CL                                                                                        | H                 | 4674         | ---  | ---   | 107                    | ---  | ---                 | ---   | 68           | 88        | 153      | 41.2 | 22.1    |  |
| Plurax CL                                                                                         | H                 | 4623         | ---  | ---   | 106                    | ---  | ---                 | ---   | 62           | 84        | 152      | 39.8 | 24.5    |  |
| Temptation                                                                                        | H                 | 4628         | ---  | ---   | 106                    | ---  | ---                 | ---   | 66           | 94        | 153      | 38.0 | 24.1    |  |
| Kansas State University                                                                           |                   |              |      |       |                        |      |                     |       |              |           |          |      |         |  |
| Wichita                                                                                           | OP                | 3778         | ---  | ---   | 86                     | ---  | ---                 | ---   | 67           | 92        | 151      | 38.2 | 24.1    |  |
| KWS MOMONT                                                                                        |                   |              |      |       |                        |      |                     |       |              |           |          |      |         |  |
| HAMOUR                                                                                            | H                 | 3637         | ---  | ---   | 83                     | ---  | ---                 | ---   | 70           | 91        | 153      | 41.1 | 22.4    |  |
| HIDYLLE                                                                                           | H                 | 4876         | ---  | ---   | 111                    | ---  | ---                 | ---   | 68           | 91        | 153      | 40.1 | 23.4    |  |
| MH 15AY085                                                                                        | H                 | 3752         | ---  | ---   | 86                     | ---  | ---                 | ---   | 68           | 91        | 155      | 40.2 | 23.0    |  |
| MH 15HIB001                                                                                       | H                 | 4269         | ---  | ---   | 98                     | ---  | ---                 | ---   | 70           | 90        | 153      | 37.6 | 22.7    |  |
| MH 15HIB002                                                                                       | H                 | 3737         | ---  | ---   | 85                     | ---  | ---                 | ---   | 70           | 87        | 153      | 35.2 | 25.7    |  |
| MH 15HT229                                                                                        | H                 | 4427         | ---  | ---   | 101                    | ---  | ---                 | ---   | 69           | 92        | 155      | 41.0 | 23.2    |  |
| Quartz                                                                                            | OP                | 4117         | ---  | ---   | 94                     | ---  | ---                 | ---   | 66           | 93        | 155      | 37.5 | 23.6    |  |
| Rubisco Seeds LLC                                                                                 |                   |              |      |       |                        |      |                     |       |              |           |          |      |         |  |
| Edimax CL                                                                                         | H                 | 5816         | ---  | ---   | 133                    | ---  | ---                 | ---   | 69           | 88        | 154      | 38.8 | 22.9    |  |
| Inspiration                                                                                       | H                 | 4633         | ---  | ---   | 106                    | ---  | ---                 | ---   | 73           | 89        | 155      | 39.5 | 23.0    |  |
| Mercedes                                                                                          | H                 | 3837         | ---  | ---   | 88                     | ---  | ---                 | ---   | 63           | 88        | 151      | 43.6 | 20.9    |  |
| Popular                                                                                           | H                 | 3994         | ---  | ---   | 91                     | ---  | ---                 | ---   | 61           | 87        | 154      | 38.6 | 24.4    |  |
| Grand Mean                                                                                        |                   | 4377         | ---  | ---   | ---                    | ---  | ---                 | ---   | 67           | 90        | 153      | 39.3 | 23.4    |  |
| Common Check Hybrid Mean                                                                          |                   | 3947         | ---  | ---   | ---                    | ---  | ---                 | ---   | 67           | 92        | 153      | 37.8 | 23.9    |  |
| Common Check OP Mean                                                                              |                   | 3826         | ---  | ---   | ---                    | ---  | ---                 | ---   | 66           | 91        | 152      | 39.3 | 24.2    |  |
| CV                                                                                                |                   | 10           | ---  | ---   | ---                    | ---  | ---                 | ---   | 3            | 1         | 1        | 4.2  | 4.4     |  |
| LSD (0.05)                                                                                        |                   | 769          | ---  | ---   | ---                    | ---  | ---                 | ---   | 4            | 2         | NS       | NS   | 2.2     |  |

**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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated



# Clemson, South Carolina

Brad Stancil  
Clemson University

Harvested: 6/14/2018  
Comments: The crop had poor stand establishment and the season was wetter than normal which reduced yields. Cultural practices were not provided.

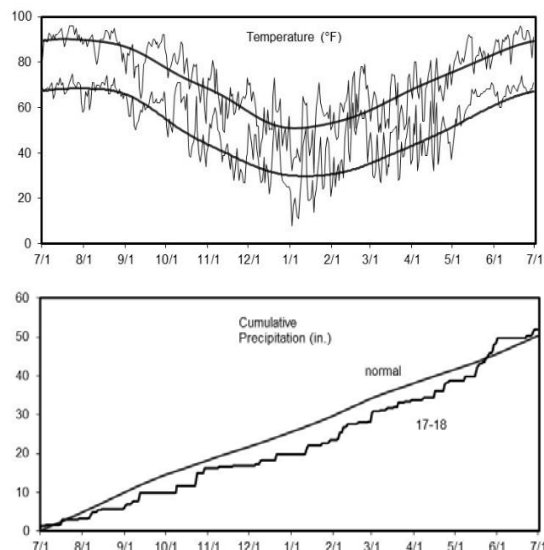


Table 5. Results for the 2018 National Winter Canola Variety at Clemson, SC

| Yield (%) of test avg.)     |                   |                           |      |       |                         |      |      |       |                     |      |         |      |              |          | Winter survival (%) |        |     | Plant height |  | Test weight |  |  | Oil |  | Protein |  |
|-----------------------------|-------------------|---------------------------|------|-------|-------------------------|------|------|-------|---------------------|------|---------|------|--------------|----------|---------------------|--------|-----|--------------|--|-------------|--|--|-----|--|---------|--|
| Name                        | Type <sup>1</sup> | Yield (lb/a) <sup>2</sup> |      |       | Yield (%) of test avg.) |      |      |       | Winter survival (%) |      |         |      | Plant height | Moisture | weight              | weight | Oil | Protein      |  |             |  |  |     |  |         |  |
|                             |                   | 2018                      | 2017 | 2-yr. | 2018                    | 2018 | 2017 | 2-yr. | (in.)               | (%)  | (lb/bu) | (%)  | (%)          |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| Bayer Crop Science Division |                   |                           |      |       |                         |      |      |       |                     |      |         |      |              |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| CWH189D                     | H                 | 871                       | ---  | ---   | 127                     | ---  | ---  | ---   | ---                 | 12.8 | ---     | 40.7 | 24.3         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| CWH190D                     | H                 | 844                       | ---  | ---   | 123                     | ---  | ---  | ---   | ---                 | 11.7 | ---     | 41.3 | 24.2         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| CROPLAN by WinField         |                   |                           |      |       |                         |      |      |       |                     |      |         |      |              |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| CP115WRR                    | OP                | 475                       | ---  | ---   | 69                      | ---  | ---  | ---   | ---                 | 12.0 | ---     | 41.9 | 22.4         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| DL Seeds Inc.               |                   |                           |      |       |                         |      |      |       |                     |      |         |      |              |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| Phoenix CL                  | H                 | 1006                      | ---  | ---   | 147                     | ---  | ---  | ---   | ---                 | 11.2 | ---     | 42.3 | 22.7         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| Plurax CL                   | H                 | 856                       | ---  | ---   | 125                     | ---  | ---  | ---   | ---                 | 10.5 | ---     | 44.1 | 20.4         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| Temptation                  | H                 | 401                       | ---  | ---   | 58                      | ---  | ---  | ---   | ---                 | 11.4 | ---     | 41.6 | 22.2         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| Kansas State University     |                   |                           |      |       |                         |      |      |       |                     |      |         |      |              |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| Riley                       | OP                | 600                       | ---  | ---   | 87                      | ---  | ---  | ---   | ---                 | 11.2 | ---     | 41.3 | 23.3         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| KWS MOMONT                  |                   |                           |      |       |                         |      |      |       |                     |      |         |      |              |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| HAMOUR                      | H                 | 707                       | ---  | ---   | 103                     | ---  | ---  | ---   | ---                 | 11.4 | ---     | 41.4 | 21.9         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| HIDYLLE                     | H                 | 748                       | ---  | ---   | 109                     | ---  | ---  | ---   | ---                 | 12.8 | ---     | 42.2 | 22.5         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| MH 15AY085                  | H                 | 348                       | ---  | ---   | 51                      | ---  | ---  | ---   | ---                 | 14.7 | ---     | 42.2 | 22.6         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| MH 15HIB001                 | H                 | 712                       | ---  | ---   | 104                     | ---  | ---  | ---   | ---                 | 12.9 | ---     | 41.8 | 21.9         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| MH 15HIB002                 | H                 | 584                       | ---  | ---   | 85                      | ---  | ---  | ---   | ---                 | 11.5 | ---     | 42.6 | 21.8         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| MH 15HT229                  | H                 | 641                       | ---  | ---   | 93                      | ---  | ---  | ---   | ---                 | 13.4 | ---     | 43.9 | 21.7         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| Quartz                      | OP                | 973                       | ---  | ---   | 142                     | ---  | ---  | ---   | ---                 | 10.9 | ---     | 43.9 | 20.3         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| Rubisco Seeds LLC           |                   |                           |      |       |                         |      |      |       |                     |      |         |      |              |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| Edimax CL                   | H                 | 790                       | ---  | ---   | 115                     | ---  | ---  | ---   | ---                 | 14.2 | ---     | 41.3 | 22.3         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| Inspiration                 | H                 | 748                       | ---  | ---   | 109                     | ---  | ---  | ---   | ---                 | 12.1 | ---     | 42.9 | 21.0         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| Mercedes                    | H                 | 708                       | ---  | ---   | 103                     | ---  | ---  | ---   | ---                 | 13.3 | ---     | 42.4 | 22.0         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| Popular                     | H                 | 654                       | ---  | ---   | 95                      | ---  | ---  | ---   | ---                 | 11.6 | ---     | 46.0 | 18.5         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| Star Specialty Seed, Inc.   |                   |                           |      |       |                         |      |      |       |                     |      |         |      |              |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| Star 915W                   | OP                | 431                       | ---  | ---   | 63                      | ---  | ---  | ---   | ---                 | 12.7 | ---     | 41.6 | 22.9         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| Mean                        |                   | 686                       | ---  | ---   | ---                     | ---  | ---  | ---   | ---                 | 12.2 | ---     | 42.4 | 22.0         |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| CV                          |                   | 33                        | ---  | ---   | ---                     | ---  | ---  | ---   | ---                 | 17.6 | ---     | 2.9  | 4.7          |          |                     |        |     |              |  |             |  |  |     |  |         |  |
| LSD (0.05)                  |                   | 316                       | ---  | ---   | ---                     | ---  | ---  | ---   | ---                 | NS   | ---     | NS   | 2.2          |          |                     |        |     |              |  |             |  |  |     |  |         |  |

**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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

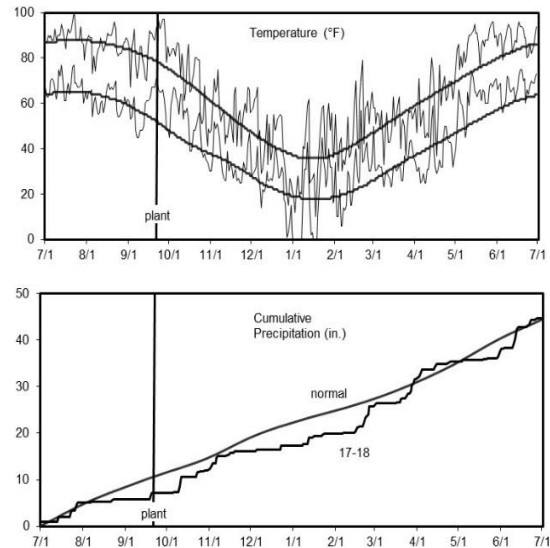
<sup>2</sup>Use yield data with caution. A CV greater than 20 indicates higher experimental error. Make variety selection decisions based on more than one year's data.

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# Vincennes, Indiana

Chuck Mansfield  
Vincennes University

Planted: 9/22/2017 in 6-in. rows  
Seeding Rate OP: 350,000 seeds/a  
Seeding Rate Hybrid: 210,000 seeds/a  
Desiccant: 1.5 pt/a Reglone on 6/7/2018  
Harvested: 6/15/2018  
Herbicides: 12 oz/a Dual, 4 oz/a Command  
Insecticides: 1.9 oz/a Warrior, 2.75 oz/a Mavrik  
Irrigation: 6 oz/a Aproach, 2.85 oz/a Proline  
Previous crop: Tomatoes and watermelon  
Soil test: P=68 lb/a, K=264 lb/a, pH=7.2  
Fertilizer: 80-0-0-12-0.5 lb N-P-K-S-B fertilizer in March  
80-0-0-12-0.5 lb N-P-K-S-B fertilizer in April  
Soil type: Lomax loam  
Elevation: 430 ft Latitude: 38° 44'N  
Comments: Yields were good but lower than previous years.  
Winterkill and disease negatively impacted yield of some plots.



**Table 6. Results for the 2018 National Winter Canola Variety Trial, open-pollinated cultivars, at Vincennes, IN**

| Name                      | Type <sup>1</sup> | Yield (lb/a) |             |       | Yield (% of | Winter survival |     |       | Fall   | Plant | 50% | Oil | Protein |
|---------------------------|-------------------|--------------|-------------|-------|-------------|-----------------|-----|-------|--------|-------|-----|-----|---------|
|                           |                   | 2018         | 2017        | 2-yr. | test avg.)  | (%)             | (%) | vigor | height | bloom |     |     |         |
|                           |                   |              |             |       |             |                 |     |       |        |       |     |     |         |
| CROPLAN by WinField       |                   |              |             |       |             |                 |     |       |        |       |     |     |         |
| CP115WRR                  | OP                | 1681         | 2722        | 2201  | 86          | 78              | 90  | 84    | 4.0    | 43    | 114 | --- | ---     |
| CP225WRR                  | OP                | <b>1989</b>  | 2772        | 2380  | 102         | 82              | 83  | 83    | 4.2    | 45    | 115 | --- | ---     |
| CP320WRR                  | OP                | <b>2164</b>  | 2829        | 2496  | 111         | 90              | 90  | 90    | 4.3    | 44    | 113 | --- | ---     |
| CP45-25WRR                | OP                | <b>1685</b>  | 2450        | 2067  | 87          | 87              | 82  | 84    | 4.2    | 46    | 114 | --- | ---     |
| Kansas State University   |                   |              |             |       |             |                 |     |       |        |       |     |     |         |
| KS4670                    | OP                | <b>2252</b>  | ---         | ---   | 116         | 95              | --- | ---   | 4.0    | 48    | 113 | --- | ---     |
| KS4675                    | OP                | <b>2364</b>  | 2929        | 2646  | 121         | 96              | 83  | 90    | 3.5    | 50    | 113 | --- | ---     |
| KSR4723                   | OP                | 1917         | ---         | ---   | 98          | 90              | --- | ---   | 3.8    | 47    | 115 | --- | ---     |
| KSR4724S                  | OP                | 1553         | ---         | ---   | 80          | 85              | --- | ---   | 3.5    | 46    | 114 | --- | ---     |
| Riley                     | OP                | <b>2255</b>  | 2706        | 2480  | 116         | 87              | 78  | 83    | 3.5    | 49    | 114 | --- | ---     |
| Sumner                    | OP                | <b>1953</b>  | 2293        | 2123  | 100         | 90              | 65  | 78    | 3.8    | 47    | 114 | --- | ---     |
| Surefire                  | OP                | 1853         | 2343        | 2098  | 95          | 92              | 70  | 81    | 3.5    | 46    | 116 | --- | ---     |
| Wichita                   | OP                | <b>2058</b>  | 2928        | 2493  | 106         | 92              | 87  | 89    | 4.0    | 48    | 115 | --- | ---     |
| KWS MOMONT                |                   |              |             |       |             |                 |     |       |        |       |     |     |         |
| Quartz                    | OP                | 1179         | 3143        | 2161  | 61          | 80              | 83  | 82    | 4.8    | 38    | 116 | --- | ---     |
| Ohlde Seed Farms          |                   |              |             |       |             |                 |     |       |        |       |     |     |         |
| Torrington                | OP                | <b>2380</b>  | <b>3066</b> | 2723  | 122         | 83              | 83  | 83    | 3.7    | 52    | 115 | --- | ---     |
| Star Specialty Seed, Inc. |                   |              |             |       |             |                 |     |       |        |       |     |     |         |
| Star 915W                 | OP                | <b>2034</b>  | <b>3407</b> | 2720  | 104         | 87              | 88  | 88    | 3.0    | 50    | 114 | --- | ---     |
| Star 930W                 | OP                | <b>2114</b>  | 2632        | 2373  | 109         | 88              | 88  | 88    | 3.8    | 47    | 114 | --- | ---     |
| Grand Mean                |                   | 1947         | 2675        | ---   | ---         | 88              | 80  | ---   | 3.8    | 46    | 114 | --- | ---     |
| Common Check OP Mean      |                   | 1618         | 2925        | ---   | ---         | 86              | 83  | ---   | 4.4    | 43    | 115 | --- | ---     |
| Common Check Hybrid Mean  |                   | 1976         | 2792        | ---   | ---         | 94              | 82  | ---   | 4.3    | 46    | 115 | --- | ---     |
| CV                        |                   | 13           | 9           | ---   | ---         | 8               | 7   | ---   | 7.4    | 6     | 0   | --- | ---     |
| LSD (0.05)                |                   | 432          | 10          | ---   | ---         | NS              | 403 | ---   | 0.5    | 5     | 1   | --- | ---     |

**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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

**Table 7. Results for the 2018 National Winter Canola Variety Trial, hybrid cultivars, at Vincennes, IN**

| Table 1. Results for the 2016 National Winter Canola Variety Trial, Hybrid Cultivar, at Ames, IA |                   |              |             |       |                        |      |      |                     |       |       |            |              |           |     |         |
|--------------------------------------------------------------------------------------------------|-------------------|--------------|-------------|-------|------------------------|------|------|---------------------|-------|-------|------------|--------------|-----------|-----|---------|
| Name                                                                                             | Type <sup>1</sup> | Yield (lb/a) |             |       | Yield (% of test avg.) |      |      | Winter survival (%) |       |       | Fall vigor | Plant height | 50% bloom | Oil | Protein |
|                                                                                                  |                   | 2018         | 2017        | 2-yr. | 2018                   | 2018 | 2017 | 2-yr.               | (1-5) | (in.) | (DOY)      | (%)          | (%)       |     |         |
| Bayer Crop Science Division                                                                      |                   |              |             |       |                        |      |      |                     |       |       |            |              |           |     |         |
| CWH189D                                                                                          | H                 | 2285         | <b>3356</b> | 2820  | 115                    | 95   | 87   | 91                  | 3.8   | 47    | 116        | ---          | ---       |     |         |
| CWH190D                                                                                          | H                 | 2060         | <b>3140</b> | 2600  | 104                    | 96   | 83   | 90                  | 3.5   | 50    | 116        | ---          | ---       |     |         |
| CWH239D                                                                                          | H                 | 1524         | <b>3216</b> | 2370  | 77                     | 72   | 77   | 74                  | 4.2   | 43    | 117        | ---          | ---       |     |         |
| DGC173D                                                                                          | H                 | 2060         | 3017        | 2538  | 104                    | 90   | 83   | 87                  | 3.8   | 49    | 116        | ---          | ---       |     |         |
| DL Seeds Inc.                                                                                    |                   |              |             |       |                        |      |      |                     |       |       |            |              |           |     |         |
| Atora                                                                                            | H                 | 1886         | ---         | ---   | 95                     | 75   | ---  | ---                 | 4.3   | 49    | 117        | ---          | ---       |     |         |
| Event                                                                                            | H                 | <b>2810</b>  | ---         | ---   | 142                    | 73   | ---  | ---                 | 4.3   | 49    | 115        | ---          | ---       |     |         |
| Phoenix CL                                                                                       | H                 | <b>2565</b>  | ---         | ---   | 129                    | 90   | ---  | ---                 | 4.3   | 51    | 114        | ---          | ---       |     |         |
| Plurax CL                                                                                        | H                 | 2239         | <b>3068</b> | 2653  | 113                    | 78   | 80   | 79                  | 5.0   | 47    | 115        | ---          | ---       |     |         |
| Temptation                                                                                       | H                 | 2286         | ---         | ---   | 115                    | 55   | ---  | ---                 | 3.7   | 49    | 117        | ---          | ---       |     |         |
| Kansas State University                                                                          |                   |              |             |       |                        |      |      |                     |       |       |            |              |           |     |         |
| Wichita                                                                                          | OP                | <b>2476</b>  | 2701        | 2589  | 125                    | 96   | 80   | 88                  | 3.7   | 51    | 115        | ---          | ---       |     |         |
| KWS MOMONT                                                                                       |                   |              |             |       |                        |      |      |                     |       |       |            |              |           |     |         |
| HAMOUR                                                                                           | H                 | 1524         | ---         | ---   | 77                     | 57   | ---  | ---                 | 4.3   | 48    | 117        | ---          | ---       |     |         |
| HIDYLLE                                                                                          | H                 | 1658         | ---         | ---   | 84                     | 33   | ---  | ---                 | 4.8   | 47    | 117        | ---          | ---       |     |         |
| MH15AY085                                                                                        | H                 | 1205         | ---         | ---   | 61                     | 33   | ---  | ---                 | 4.5   | 47    | 118        | ---          | ---       |     |         |
| MH15HIB001                                                                                       | H                 | 1669         | ---         | ---   | 84                     | 32   | ---  | ---                 | 4.3   | 49    | 118        | ---          | ---       |     |         |
| MH15HIB002                                                                                       | H                 | 1071         | ---         | ---   | 54                     | 38   | ---  | ---                 | 4.3   | 44    | 118        | ---          | ---       |     |         |
| MH15HT229                                                                                        | H                 | 1604         | ---         | ---   | 81                     | 30   | ---  | ---                 | 4.3   | 43    | 117        | ---          | ---       |     |         |
| Quartz                                                                                           | OP                | 1477         | 2997        | 2237  | 75                     | 92   | 87   | 89                  | 4.8   | 40    | 115        | ---          | ---       |     |         |
| Rubisco Seeds LLC                                                                                |                   |              |             |       |                        |      |      |                     |       |       |            |              |           |     |         |
| Edimax CL                                                                                        | H                 | 2250         | 2629        | 2439  | 114                    | 93   | 75   | 84                  | 3.5   | 50    | 115        | ---          | ---       |     |         |
| Inspiration                                                                                      | H                 | 2369         | 2811        | 2590  | 120                    | 62   | 55   | 58                  | 4.5   | 51    | 116        | ---          | ---       |     |         |
| Mercedes                                                                                         | H                 | 2265         | <b>3192</b> | 2729  | 114                    | 85   | 72   | 78                  | 4.3   | 47    | 115        | ---          | ---       |     |         |
| Popular                                                                                          | H                 | 2332         | 2980        | 2656  | 118                    | 72   | 80   | 76                  | 4.5   | 46    | 116        | ---          | ---       |     |         |
| Grand Mean                                                                                       |                   | 1982         | 2985        | ---   | ---                    | 69   | 75   | ---                 | 4.2   | 47    | 116        | ---          | ---       |     |         |
| Common Check Hybrid Mean                                                                         |                   | 1976         | 2792        | ---   | ---                    | 94   | 82   | ---                 | 4.3   | 46    | 115        | ---          | ---       |     |         |
| Common Check OP Mean                                                                             |                   | 1618         | 2925        | ---   | ---                    | 86   | 83   | ---                 | 4.4   | 43    | 115        | ---          | ---       |     |         |
| CV                                                                                               |                   | 10           | 6           | ---   | ---                    | 10   | 11   | ---                 | 6.8   | 4     | 0          | ---          | ---       |     |         |
| LSD (0.05)                                                                                       |                   | 339          | 310         | ---   | ---                    | 11   | 13   | ---                 | 0.5   | 3     | 1          | ---          | ---       |     |         |

**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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

# Springfield, Tennessee

Dennis West  
University of Tennessee

Planted: 9/25/2017 in 7-in. rows  
Seeding Rate OP: 500,000 seeds/a  
Seeding Rate Hybrid: 300,000 seeds/a  
Harvested: 6/14/2018  
Herbicides: 4 oz/a Stinger, 10 oz/a Assure II  
Fungicides: 4.3 oz/a Proline  
Irrigation: None  
Previous crop: Fallow  
Soil test: P=Med, K=Med, pH=7.2  
Fertilizer: 30-0-0 lb N-P-K fertilizer in fall  
140-0-0-23 lb N-P-K-S fertilizer in spring  
Soil type: Crider silt loam  
Elevation: 706 ft Latitude: 36° 32'N  
Comments: Consistent yields were reported at this location.

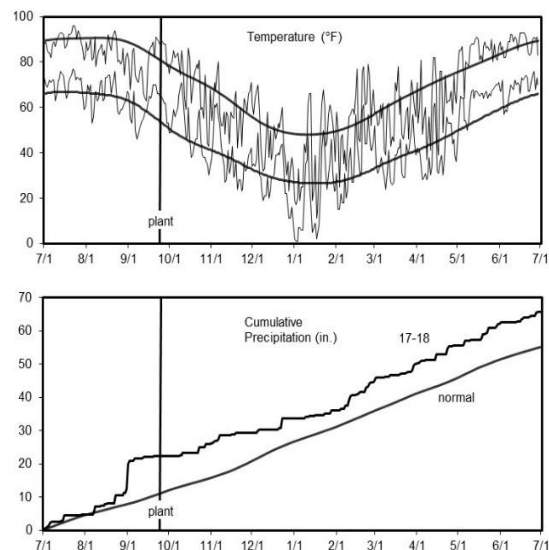


Table 8. Results for the 2018 National Winter Canola Variety Trial at Springfield, TN

| Yield (% of test avg.)      |                   |              |      |       |                        |      |      |                     |       |     |              |          |        | Winter survival (%) |     | Plant height |  | Moisture |  | Test weight |  | Oil |  | Protein |  |
|-----------------------------|-------------------|--------------|------|-------|------------------------|------|------|---------------------|-------|-----|--------------|----------|--------|---------------------|-----|--------------|--|----------|--|-------------|--|-----|--|---------|--|
| Name                        | Type <sup>1</sup> | Yield (lb/a) |      |       | Yield (% of test avg.) |      |      | Winter survival (%) |       |     | Plant height | Moisture | weight | weight              | Oil | Protein      |  |          |  |             |  |     |  |         |  |
|                             |                   | 2018         | 2017 | 2-yr. | 2018                   | 2018 | 2017 | 2-yr.               | (in.) | (%) | (lb/bu)      | (%)      | (%)    |                     |     |              |  |          |  |             |  |     |  |         |  |
| Bayer Crop Science Division |                   |              |      |       |                        |      |      |                     |       |     |              |          |        |                     |     |              |  |          |  |             |  |     |  |         |  |
| CWH189D                     | H                 | 2754         | ---  | ---   | 102                    | ---  | ---  | ---                 | ---   | --- | 51.0         | 37.1     | 27.3   |                     |     |              |  |          |  |             |  |     |  |         |  |
| CWH190D                     | H                 | 2087         | ---  | ---   | 78                     | ---  | ---  | ---                 | ---   | --- | 50.8         | 39.8     | 26.6   |                     |     |              |  |          |  |             |  |     |  |         |  |
| CWH239D                     | H                 | 3132         | ---  | ---   | 116                    | ---  | ---  | ---                 | ---   | --- | 50.2         | 41.1     | 23.2   |                     |     |              |  |          |  |             |  |     |  |         |  |
| DGC173D                     | H                 | 2953         | ---  | ---   | 110                    | ---  | ---  | ---                 | ---   | --- | 50.0         | 38.6     | 26.2   |                     |     |              |  |          |  |             |  |     |  |         |  |
| DL Seeds Inc.               |                   |              |      |       |                        |      |      |                     |       |     |              |          |        |                     |     |              |  |          |  |             |  |     |  |         |  |
| Atora                       | H                 | 2533         | ---  | ---   | 94                     | ---  | ---  | ---                 | ---   | --- | 51.4         | 42.3     | 23.8   |                     |     |              |  |          |  |             |  |     |  |         |  |
| Event                       | H                 | 2990         | ---  | ---   | 111                    | ---  | ---  | ---                 | ---   | --- | 50.6         | 41.4     | 23.5   |                     |     |              |  |          |  |             |  |     |  |         |  |
| Phoenix CL                  | H                 | 3532         | ---  | ---   | 131                    | ---  | ---  | ---                 | ---   | --- | 50.2         | 42.8     | 23.5   |                     |     |              |  |          |  |             |  |     |  |         |  |
| Plurax CL                   | H                 | 3028         | 2534 | 2781  | 113                    | ---  | ---  | ---                 | ---   | --- | 49.2         | 43.0     | 23.6   |                     |     |              |  |          |  |             |  |     |  |         |  |
| Temptation                  | H                 | 2415         | ---  | ---   | 90                     | ---  | ---  | ---                 | ---   | --- | 50.1         | 43.2     | 23.5   |                     |     |              |  |          |  |             |  |     |  |         |  |
| Kansas State University     |                   |              |      |       |                        |      |      |                     |       |     |              |          |        |                     |     |              |  |          |  |             |  |     |  |         |  |
| KS4670                      | OP                | 2802         | ---  | ---   | 104                    | ---  | ---  | ---                 | ---   | --- | 51.2         | 39.7     | 26.4   |                     |     |              |  |          |  |             |  |     |  |         |  |
| KS4675                      | OP                | 2074         | 2449 | 2262  | 77                     | ---  | ---  | ---                 | ---   | --- | 50.9         | 41.4     | 27.1   |                     |     |              |  |          |  |             |  |     |  |         |  |
| Riley                       | OP                | 3064         | 2536 | 2800  | 114                    | ---  | ---  | ---                 | ---   | --- | 47.5         | 40.1     | 25.7   |                     |     |              |  |          |  |             |  |     |  |         |  |
| Sumner                      | OP                | 2130         | 2508 | 2319  | 79                     | ---  | ---  | ---                 | ---   | --- | 47.2         | 40.5     | 26.9   |                     |     |              |  |          |  |             |  |     |  |         |  |
| Surefire                    | OP                | 2239         | 2427 | 2333  | 83                     | ---  | ---  | ---                 | ---   | --- | 48.3         | 39.6     | 27.4   |                     |     |              |  |          |  |             |  |     |  |         |  |
| Wichita                     | OP                | 2520         | 2812 | 2666  | 94                     | ---  | ---  | ---                 | ---   | --- | 49.3         | 39.4     | 27.3   |                     |     |              |  |          |  |             |  |     |  |         |  |
| KWS MOMONT                  |                   |              |      |       |                        |      |      |                     |       |     |              |          |        |                     |     |              |  |          |  |             |  |     |  |         |  |
| HAMOUR                      | H                 | 2884         | 2805 | 2845  | 107                    | ---  | ---  | ---                 | ---   | --- | 50.1         | 41.5     | 23.1   |                     |     |              |  |          |  |             |  |     |  |         |  |
| HIDYLLE                     | H                 | 3172         | ---  | ---   | 118                    | ---  | ---  | ---                 | ---   | --- | 49.9         | 41.4     | 24.0   |                     |     |              |  |          |  |             |  |     |  |         |  |
| MH 15AY085                  | H                 | 2788         | ---  | ---   | 104                    | ---  | ---  | ---                 | ---   | --- | 50.7         | 42.0     | 24.4   |                     |     |              |  |          |  |             |  |     |  |         |  |
| MH 15HIB001                 | H                 | 2639         | ---  | ---   | 98                     | ---  | ---  | ---                 | ---   | --- | 49.7         | 41.3     | 23.7   |                     |     |              |  |          |  |             |  |     |  |         |  |
| MH 15HIB002                 | H                 | 2167         | ---  | ---   | 81                     | ---  | ---  | ---                 | ---   | --- | 48.4         | 40.1     | 24.7   |                     |     |              |  |          |  |             |  |     |  |         |  |
| MH 15HT229                  | H                 | 2673         | ---  | ---   | 99                     | ---  | ---  | ---                 | ---   | --- | 49.6         | 43.2     | 25.2   |                     |     |              |  |          |  |             |  |     |  |         |  |
| Quartz                      | OP                | 2243         | 2781 | 2512  | 83                     | ---  | ---  | ---                 | ---   | --- | 48.4         | 39.0     | 25.6   |                     |     |              |  |          |  |             |  |     |  |         |  |
| Ohlde Seed Farms            |                   |              |      |       |                        |      |      |                     |       |     |              |          |        |                     |     |              |  |          |  |             |  |     |  |         |  |
| Torrington                  | OP                | 2463         | 2440 | 2451  | 92                     | ---  | ---  | ---                 | ---   | --- | 50.3         | 41.4     | 25.4   |                     |     |              |  |          |  |             |  |     |  |         |  |
| Rubisco Seeds LLC           |                   |              |      |       |                        |      |      |                     |       |     |              |          |        |                     |     |              |  |          |  |             |  |     |  |         |  |
| Edimax CL                   | H                 | 2482         | 3536 | 3009  | 92                     | ---  | ---  | ---                 | ---   | --- | 48.9         | 41.4     | 22.9   |                     |     |              |  |          |  |             |  |     |  |         |  |
| Inspiration                 | H                 | 3343         | 3275 | 3309  | 124                    | ---  | ---  | ---                 | ---   | --- | 49.6         | 40.0     | 24.9   |                     |     |              |  |          |  |             |  |     |  |         |  |
| Mercedes                    | H                 | 2659         | 3111 | 2885  | 99                     | ---  | ---  | ---                 | ---   | --- | 50.3         | 41.2     | 25.5   |                     |     |              |  |          |  |             |  |     |  |         |  |
| Popular                     | H                 | 2819         | 2497 | 2658  | 105                    | ---  | ---  | ---                 | ---   | --- | 49.6         | 41.8     | 23.9   |                     |     |              |  |          |  |             |  |     |  |         |  |
| Mean                        |                   | 2689         | 2874 | ---   | ---                    | ---  | ---  | ---                 | ---   | --- | 49.8         | 40.9     | 25.0   |                     |     |              |  |          |  |             |  |     |  |         |  |
| CV                          |                   | 17           | 13   | ---   | ---                    | ---  | ---  | ---                 | ---   | --- | 3.7          | 2.8      | 3.4    |                     |     |              |  |          |  |             |  |     |  |         |  |
| LSD (0.05)                  |                   | 745          | 603  | ---   | ---                    | ---  | ---  | ---                 | ---   | --- | 3.0          | 2.3      | 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.

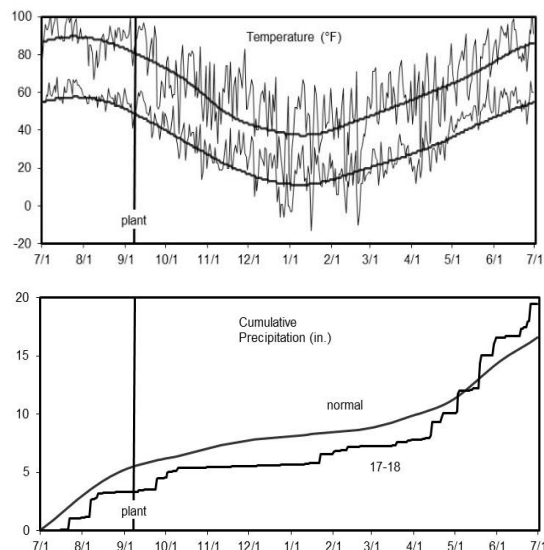
<sup>1</sup>Type: H=hybrid, OP=open pollinated

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# Akron, Colorado

Jerry Johnson, Ed Asfeld, and Sally Jones-Diamond  
Colorado State University

Planted: 9/8/2017  
Seeding Rate OP: 500,000 seeds/a  
Seeding Rate Hybrid: 300,000 seeds/a  
Harvested: 7/17-7/18/2018  
Herbicides: None  
Insecticides: None  
Irrigation: 0.5 in. preplant, 0.5 in. post emerge  
Previous crop: Wheat  
Soil test: NA  
Fertilizer: 120-50-0-0 lb N-P-K-S fertilizer in fall  
0-0-0 lb N-P-K fertilizer in spring  
Soil type: Weld silt loam  
Elevation: 4537 ft Latitude: 40° 9'N  
Comments: Good emergence and stand establishment. In general, the trial had good winter survival. No pest or weed issues after spring green-up.



**Table 9. Results for the 2018 National Winter Canola Variety Trial, open-pollinated cultivars, at Akron, CO**

| Name                      | Type <sup>1</sup> | Yield (lb/a) <sup>2</sup> |      |       | Yield (% of | Winter survival |      |       | Fall  | Moisture | Test    |        |      |
|---------------------------|-------------------|---------------------------|------|-------|-------------|-----------------|------|-------|-------|----------|---------|--------|------|
|                           |                   | 2018                      | 2017 | 2-yr. | test avg.)  | (%)             | 2018 | 2017  | 2-yr. |          | vigor   | weight | Oil  |
|                           |                   | 2018                      | 2017 | 2-yr. | 2018        | 2018            | 2017 | 2-yr. | (1-5) | (%)      | (lb/bu) | (%)    | (%)  |
| CROPLAN by WinField       |                   |                           |      |       |             |                 |      |       |       |          |         |        |      |
| CP115WRR                  | OP                | 1172                      | 1567 | 1370  | 90          | 67              | ---  | ---   | 3.3   | ---      | ---     | 28.5   | 26.7 |
| CP225WRR                  | OP                | 1648                      | 1811 | 1730  | 127         | 63              | ---  | ---   | 3.3   | ---      | ---     | 35.3   | 26.1 |
| CP320WRR                  | OP                | 1415                      | 1659 | 1537  | 109         | 73              | ---  | ---   | 4.0   | ---      | ---     | 32.9   | 25.9 |
| CP45-25WRR                | OP                | 1452                      | 1689 | 1571  | 112         | 67              | ---  | ---   | 3.7   | ---      | ---     | 31.1   | 26.6 |
| Kansas State University   |                   |                           |      |       |             |                 |      |       |       |          |         |        |      |
| KS4670                    | OP                | 1810                      | ---  | ---   | 139         | 82              | ---  | ---   | 4.0   | ---      | ---     | 35.7   | 26.0 |
| KS4675                    | OP                | 1448                      | 1175 | 1312  | 112         | 76              | ---  | ---   | 3.9   | ---      | ---     | 34.0   | 25.8 |
| KSR4723                   | OP                | 1314                      | ---  | ---   | 101         | 61              | ---  | ---   | 3.9   | ---      | ---     | 30.7   | 27.1 |
| KSR4724S                  | OP                | 1252                      | ---  | ---   | 97          | 77              | ---  | ---   | 3.7   | ---      | ---     | 29.0   | 26.9 |
| Riley                     | OP                | 1175                      | 1355 | 1265  | 91          | 67              | ---  | ---   | 3.7   | ---      | ---     | 33.8   | 26.2 |
| Sumner                    | OP                | 906                       | 1302 | 1104  | 70          | 63              | ---  | ---   | 3.7   | ---      | ---     | 26.8   | 26.3 |
| Surefire                  | OP                | 905                       | 1726 | 1315  | 70          | 67              | ---  | ---   | 3.3   | ---      | ---     | 31.1   | 26.7 |
| Wichita                   | OP                | 1550                      | 1264 | 1407  | 119         | 73              | ---  | ---   | 3.3   | ---      | ---     | 35.0   | 26.2 |
| KWS MOMONT                |                   |                           |      |       |             |                 |      |       |       |          |         |        |      |
| Quartz                    | OP                | 1415                      | 989  | 1202  | 109         | 77              | ---  | ---   | 4.0   | ---      | ---     | 33.6   | 27.4 |
| Ohlde Seed Farms          |                   |                           |      |       |             |                 |      |       |       |          |         |        |      |
| Torrington                | OP                | 1377                      | 1533 | 1455  | 106         | 73              | ---  | ---   | 3.7   | ---      | ---     | 33.0   | 26.5 |
| Star Specialty Seed, Inc. |                   |                           |      |       |             |                 |      |       |       |          |         |        |      |
| Star 915W                 | OP                | 783                       | 1237 | 1010  | 60          | 60              | ---  | ---   | 3.0   | ---      | ---     | 27.9   | 27.6 |
| Star 930W                 | OP                | 1384                      | 1540 | 1462  | 107         | 70              | ---  | ---   | 3.7   | ---      | ---     | 33.5   | 26.0 |
| Mean                      |                   | 1297                      | 1432 | ---   | ---         | 69              | ---  | ---   | 3.6   | ---      | ---     | 31.8   | 26.4 |
| CV                        |                   | 40                        | 19   | ---   | ---         | 12              | ---  | ---   | 15.3  | ---      | ---     | 6.9    | 3.4  |
| LSD (0.10)                |                   | NS                        | 406  | ---   | ---         | 12              | ---  | ---   | NS    | ---      | ---     | 4.9    | 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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

<sup>2</sup>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 2018 National Winter Canola Variety Trial, hybrid cultivars, at Akron, CO**

| Table 10: Results for the 2016 National Winter Canola Variety Trial, Hybrid Canola, at Afton, SD |                   |                           |      |       |             |                 |      |       |       |       |          |        |      |
|--------------------------------------------------------------------------------------------------|-------------------|---------------------------|------|-------|-------------|-----------------|------|-------|-------|-------|----------|--------|------|
| Name                                                                                             | Type <sup>1</sup> | Yield (lb/a) <sup>2</sup> |      |       | Yield (% of | Winter survival |      |       | Fall  | Test  |          |        |      |
|                                                                                                  |                   | 2018                      | 2017 | 2-yr. | test avg.)  | (%)             | 2018 | 2017  | 2-yr. | vigor | Moisture | weight | Oil  |
|                                                                                                  |                   | 2018                      | 2017 | 2-yr. | 2018        | 2018            | 2017 | 2-yr. | (1-5) | (%)   | (lb/bu)  | (%)    | (%)  |
| Bayer Crop Science Division                                                                      |                   |                           |      |       |             |                 |      |       |       |       |          |        |      |
| CWH189D                                                                                          | H                 | 1333                      | 1705 | 1519  | 72          | 57              | ---  | ---   | 3.7   | ---   | ---      | 33.7   | 26.3 |
| CWH190D                                                                                          | H                 | 2213                      | 1635 | 1924  | 119         | 50              | ---  | ---   | 4.0   | ---   | ---      | 33.5   | 25.6 |
| CWH239D                                                                                          | H                 | 1969                      | 1204 | 1587  | 106         | 30              | ---  | ---   | 3.7   | ---   | ---      | 35.8   | 26.1 |
| DGC173D                                                                                          | H                 | 1635                      | 1756 | 1695  | 88          | 57              | ---  | ---   | 3.7   | ---   | ---      | 35.3   | 25.1 |
| DL Seeds Inc.                                                                                    |                   |                           |      |       |             |                 |      |       |       |       |          |        |      |
| Atora                                                                                            | H                 | 1902                      | ---  | ---   | 102         | 27              | ---  | ---   | 3.7   | ---   | ---      | 34.0   | 24.7 |
| Event                                                                                            | H                 | 1796                      | ---  | ---   | 96          | 37              | ---  | ---   | 4.0   | ---   | ---      | 36.3   | 25.3 |
| Temptation                                                                                       | H                 | 1831                      | ---  | ---   | 98          | 33              | ---  | ---   | 3.3   | ---   | ---      | 34.6   | 25.6 |
| KWS MOMONT                                                                                       |                   |                           |      |       |             |                 |      |       |       |       |          |        |      |
| HIDYLLE                                                                                          | H                 | 2386                      | ---  | ---   | 128         | 40              | ---  | ---   | 3.3   | ---   | ---      | 34.6   | 26.2 |
| Rubisco Seeds LLC                                                                                |                   |                           |      |       |             |                 |      |       |       |       |          |        |      |
| Edimax CL                                                                                        | H                 | 1818                      | 1102 | 1460  | 98          | 20              | ---  | ---   | 3.3   | ---   | ---      | 32.4   | 26.7 |
| Inspiration                                                                                      | H                 | 2142                      | 1795 | 1969  | 115         | 23              | ---  | ---   | 3.3   | ---   | ---      | 32.6   | 26.5 |
| Mercedes                                                                                         | H                 | 1600                      | 1612 | 1606  | 86          | 60              | ---  | ---   | 3.3   | ---   | ---      | 30.9   | 25.6 |
| Popular                                                                                          | H                 | 1683                      | ---  | ---   | 90          | 57              | ---  | ---   | 4.0   | ---   | ---      | 34.8   | 25.1 |
| Mean                                                                                             |                   | 1864                      | 1482 | ---   | ---         | 41              | ---  | ---   | 3.6   | ---   | ---      | 34.1   | 25.7 |
| CV                                                                                               |                   | 37                        | 27   | ---   | ---         | 36              | ---  | ---   | 14.0  | ---   | ---      | 6.6    | 1.7  |
| LSD (0.10)                                                                                       |                   | NS                        | NS   | ---   | ---         | 21              | ---  | ---   | NS    | ---   | ---      | NS     | 1.0  |

**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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

<sup>2</sup>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.



# Yellow Jacket, Colorado

Katie Russell  
Colorado State University

Planted: 8/31/2017  
Seeding Rate OP: 500,000 seeds/a  
Seeding Rate Hybrid: 300,000 seeds/a  
Harvested: 7/16/2018  
Herbicides: 5 oz/a Volunteer  
Insecticides: None  
Irrigation: None  
Previous crop: Wheat  
Soil test: P=45 lb/a, K=390 lb/a, pH=7.0  
Fertilizer: 0-0-0 lb N-P-K fertilizer in fall  
0-0-0 lb N-P-K fertilizer in spring  
Soil type: Wetherill silt loam  
Elevation: 6961 ft Latitude: 37° 32'N  
Comments: Drought conditions and some winterkill resulted in poorer yields. Open-pollinated cultivars generally had better survival, but that wasn't reflected in yields.

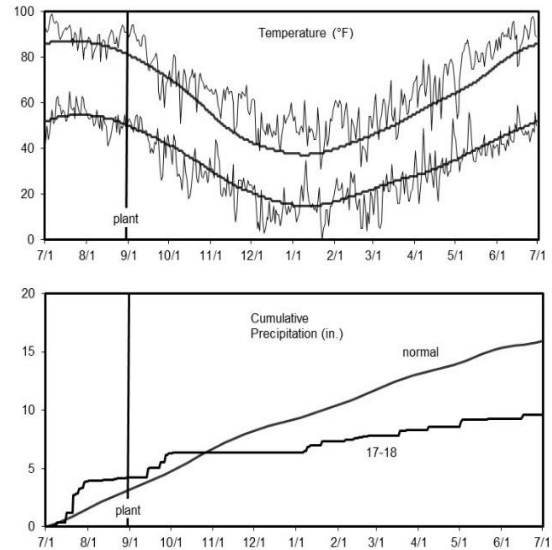


Table 11. Results for the 2018 National Winter Canola Variety Trial, open-pollinated cultivars, at Yellow Jacket, CO

| Name                      | Type <sup>1</sup> | Yield (lb/a) <sup>2</sup> |      |       | Yield (% of | Winter survival |      |       | Plant  | 50%   | Moisture | Oil  | Protein |
|---------------------------|-------------------|---------------------------|------|-------|-------------|-----------------|------|-------|--------|-------|----------|------|---------|
|                           |                   | 2018                      | 2017 | 2-yr. | test avg.)  | (%)             |      |       | height | bloom |          |      |         |
|                           |                   |                           |      |       | 2018        | 2018            | 2017 | 2-yr. | (in.)  | (DOY) |          |      |         |
| CROPLAN by WinField       |                   |                           |      |       |             |                 |      |       |        |       |          |      |         |
| CP115WRR                  | OP                | 383                       | ---  | ---   | 97          | 63              | ---  | ---   | 24     | 127   | 4.9      | 36.6 | 26.0    |
| CP225WRR                  | OP                | 344                       | ---  | ---   | 87          | 65              | ---  | ---   | 28     | 127   | 4.9      | 36.6 | 24.6    |
| CP320WRR                  | OP                | 537                       | ---  | ---   | 136         | 67              | ---  | ---   | 27     | 127   | 4.8      | 36.5 | 25.4    |
| CP45-25WRR                | OP                | 364                       | ---  | ---   | 92          | 60              | ---  | ---   | 28     | 131   | 4.9      | 36.2 | 25.5    |
| Kansas State University   |                   |                           |      |       |             |                 |      |       |        |       |          |      |         |
| KS4670                    | OP                | 417                       | ---  | ---   | 105         | 70              | ---  | ---   | 28     | 127   | 4.7      | 37.6 | 24.2    |
| KS4675                    | OP                | 415                       | ---  | ---   | 105         | 53              | ---  | ---   | 26     | 127   | 4.9      | 38.6 | 25.5    |
| KSR4723                   | OP                | 322                       | ---  | ---   | 81          | 60              | ---  | ---   | 26     | 127   | 4.8      | 34.5 | 25.4    |
| KSR4724S                  | OP                | 415                       | ---  | ---   | 105         | 63              | ---  | ---   | 27     | 124   | 4.8      | 38.7 | 26.3    |
| Riley                     | OP                | 448                       | ---  | ---   | 113         | 65              | ---  | ---   | 27     | 131   | 4.8      | 37.4 | 26.2    |
| Sumner                    | OP                | 281                       | ---  | ---   | 71          | 63              | ---  | ---   | 23     | 134   | 5.2      | 38.5 | 26.3    |
| Surefire                  | OP                | 430                       | ---  | ---   | 108         | 77              | ---  | ---   | 30     | 127   | 4.9      | 35.5 | 25.5    |
| Wichita                   | OP                | 382                       | ---  | ---   | 96          | 67              | ---  | ---   | 26     | 124   | 4.9      | 38.4 | 26.4    |
| KWS MOMONT                |                   |                           |      |       |             |                 |      |       |        |       |          |      |         |
| Quartz                    | OP                | 427                       | ---  | ---   | 108         | 60              | ---  | ---   | 25     | 134   | 4.9      | 36.1 | 24.8    |
| Ohlde Seed Farms          |                   |                           |      |       |             |                 |      |       |        |       |          |      |         |
| Torrington                | OP                | 449                       | ---  | ---   | 113         | 67              | ---  | ---   | 28     | 127   | 4.8      | 37.2 | 25.7    |
| Star Specialty Seed, Inc. |                   |                           |      |       |             |                 |      |       |        |       |          |      |         |
| Star 915W                 | OP                | 269                       | ---  | ---   | 68          | 57              | ---  | ---   | 26     | 130   | 4.7      | 36.6 | 24.7    |
| Star 930W                 | OP                | 432                       | ---  | ---   | 109         | 67              | ---  | ---   | 27     | 127   | 4.8      | 36.2 | 25.1    |
| Grand Mean                |                   | 396                       | ---  | ---   | ---         | 64              | ---  | ---   | 27     | ---   | 4.8      | 37.0 | 25.4    |
| Common Check OP Mean      |                   | 404                       | ---  | ---   | ---         | 63              | ---  | ---   | 26     | ---   | 4.9      | 37.2 | 25.6    |
| Common Check Hybrid Mean  |                   | 376                       | ---  | ---   | ---         | 38              | ---  | ---   | 27     | ---   | 4.8      | 35.0 | 24.9    |
| CV                        |                   | 37                        | ---  | ---   | ---         | 14              | ---  | ---   | 9      | ---   | 3.4      | 5.2  | 2.8     |
| LSD (0.05)                |                   | NS                        | ---  | ---   | ---         | 7               | ---  | ---   | 1      | ---   | 0.1      | 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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

<sup>2</sup>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 12. Results for the 2018 National Winter Canola Variety Trial, hybrid cultivars, at Yellow Jacket, CO**

| Table 1. Yield results for the 2016 National Winter Canola Variety Trial, Hybrid Canola, at Phenix Station, BC |                   |                           |      |       |                        |      |      |                     |    |     |                    |                 |              |         |             |
|----------------------------------------------------------------------------------------------------------------|-------------------|---------------------------|------|-------|------------------------|------|------|---------------------|----|-----|--------------------|-----------------|--------------|---------|-------------|
| Name                                                                                                           | Type <sup>1</sup> | Yield (lb/a) <sup>2</sup> |      |       | Yield (% of test avg.) |      |      | Winter survival (%) |    |     | Plant height (in.) | 50% bloom (DOY) | Moisture (%) | Oil (%) | Protein (%) |
|                                                                                                                |                   | 2018                      | 2017 | 2-yr. | 2018                   | 2018 | 2017 | 2-yr.               |    |     |                    |                 |              |         |             |
| Bayer Crop Science Division                                                                                    |                   |                           |      |       |                        |      |      |                     |    |     |                    |                 |              |         |             |
| CWH189D                                                                                                        | H                 | 368                       | ---  | ---   | 111                    | 57   | ---  | ---                 | 30 | 131 | 4.8                | 36.2            | 25.5         |         |             |
| CWH190D                                                                                                        | H                 | 255                       | ---  | ---   | 77                     | 55   | ---  | ---                 | 29 | 128 | 4.8                | 36.4            | 24.5         |         |             |
| CWH239D                                                                                                        | H                 | 367                       | ---  | ---   | 111                    | 40   | ---  | ---                 | 27 | 131 | 4.7                | 37.6            | 25.0         |         |             |
| DGC173D                                                                                                        | H                 | 376                       | ---  | ---   | 114                    | 55   | ---  | ---                 | 28 | 131 | 4.8                | 37.6            | 26.1         |         |             |
| DL Seeds Inc.                                                                                                  |                   |                           |      |       |                        |      |      |                     |    |     |                    |                 |              |         |             |
| Atora                                                                                                          | H                 | 277                       | ---  | ---   | 84                     | 47   | ---  | ---                 | 29 | 134 | 5.1                | 32.3            | 23.9         |         |             |
| Event                                                                                                          | H                 | 309                       | ---  | ---   | 94                     | 57   | ---  | ---                 | 24 | 131 | 4.9                | 35.5            | 23.8         |         |             |
| Phoenix CL                                                                                                     | H                 | 206                       | ---  | ---   | 62                     | 42   | ---  | ---                 | 25 | 134 | 5.1                | 37.1            | 24.4         |         |             |
| Plurax CL                                                                                                      | H                 | 443                       | ---  | ---   | 134                    | 72   | ---  | ---                 | 25 | 128 | 5.2                | 38.0            | 24.9         |         |             |
| Temptation                                                                                                     | H                 | 497                       | ---  | ---   | 151                    | 37   | ---  | ---                 | 26 | 131 | 5.0                | 35.9            | 23.4         |         |             |
| Kansas State University                                                                                        |                   |                           |      |       |                        |      |      |                     |    |     |                    |                 |              |         |             |
| Wichita                                                                                                        | OP                | 327                       | ---  | ---   | 99                     | 33   | ---  | ---                 | 27 | 124 | 4.8                | 32.5            | 25.9         |         |             |
| KWS MOMONT                                                                                                     |                   |                           |      |       |                        |      |      |                     |    |     |                    |                 |              |         |             |
| HAMOUR                                                                                                         | H                 | 320                       | ---  | ---   | 97                     | 60   | ---  | ---                 | 28 | 134 | 4.8                | 38.6            | 25.5         |         |             |
| HIDYLLE                                                                                                        | H                 | 509                       | ---  | ---   | 154                    | 53   | ---  | ---                 | 25 | 131 | 4.6                | 35.4            | 24.8         |         |             |
| MH 15AY085                                                                                                     | H                 | 308                       | ---  | ---   | 93                     | 60   | ---  | ---                 | 29 | 131 | 4.8                | 35.1            | 25.5         |         |             |
| MH 15HIB001                                                                                                    | H                 | 365                       | ---  | ---   | 111                    | 40   | ---  | ---                 | 26 | 131 | 4.9                | 35.8            | 25.7         |         |             |
| MH 15HIB002                                                                                                    | H                 | 200                       | ---  | ---   | 61                     | 40   | ---  | ---                 | 26 | 134 | 5.2                | 32.8            | 25.4         |         |             |
| MH 15HT229                                                                                                     | H                 | 371                       | ---  | ---   | 112                    | 70   | ---  | ---                 | 28 | 134 | 5.0                | 34.4            | 24.9         |         |             |
| Quartz                                                                                                         | OP                | 425                       | ---  | ---   | 129                    | 42   | ---  | ---                 | 26 | 128 | 4.7                | 37.5            | 24.0         |         |             |
| Rubisco Seeds LLC                                                                                              |                   |                           |      |       |                        |      |      |                     |    |     |                    |                 |              |         |             |
| Edimax CL                                                                                                      | H                 | 254                       | ---  | ---   | 77                     | 47   | ---  | ---                 | 26 | 134 | 5.5                | 30.2            | 24.3         |         |             |
| Inspiration                                                                                                    | H                 | 194                       | ---  | ---   | 59                     | 53   | ---  | ---                 | 27 | 134 | 5.2                | 36.1            | 25.1         |         |             |
| Mercedes                                                                                                       | H                 | 329                       | ---  | ---   | 100                    | 55   | ---  | ---                 | 28 | 131 | 4.9                | 34.1            | 24.6         |         |             |
| Popular                                                                                                        | H                 | 280                       | ---  | ---   | 85                     | 53   | ---  | ---                 | 25 | 131 | 5.1                | 35.8            | 24.4         |         |             |
| Grand Mean                                                                                                     |                   | 330                       | ---  | ---   | ---                    | 51   | ---  | ---                 | 27 | --- | 4.9                | 35.4            | 24.8         |         |             |
| Common Check Hybrid Mean                                                                                       |                   | 376                       | ---  | ---   | ---                    | 38   | ---  | ---                 | 27 | --- | 4.8                | 35.0            | 24.9         |         |             |
| Common Check OP Mean                                                                                           |                   | 404                       | ---  | ---   | ---                    | 63   | ---  | ---                 | 26 | --- | 4.9                | 37.2            | 25.6         |         |             |
| CV                                                                                                             |                   | 54                        | ---  | ---   | ---                    | 37   | ---  | ---                 | 6  | --- | 5.7                | 7.9             | 2.6          |         |             |
| LSD (0.05)                                                                                                     |                   | NS                        | ---  | ---   | ---                    | NS   | ---  | ---                 | 1  | --- | 0.2                | NS              | 1.4          |         |             |

**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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

<sup>2</sup>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.

# Colby, Kansas

Rob Aiken  
Kansas State University

Planted: 9/8/2017 in 30-in. rows  
Seeding Rate OP: 500,000 seeds/a  
Seeding Rate Hybrid: 300,000 seeds/a  
Harvested: 6/29/2018  
Herbicides: 1 qt/a Treflan, 12 oz/a Select Max  
Insecticides: None  
Irrigation: 7.15 in.  
Previous crop: Wheat  
Soil test: NA  
Fertilizer: 240-35-0 lb N-P-K fertilizer in fall  
Soil type: Richfield silty clay loam  
Elevation: 3160 ft Latitude: 39° 23'N  
Comments: A severe hail storm on 6/22/2018 caused major pod loss and low yields. Use yield data with caution. Winter survival was excellent at this location.

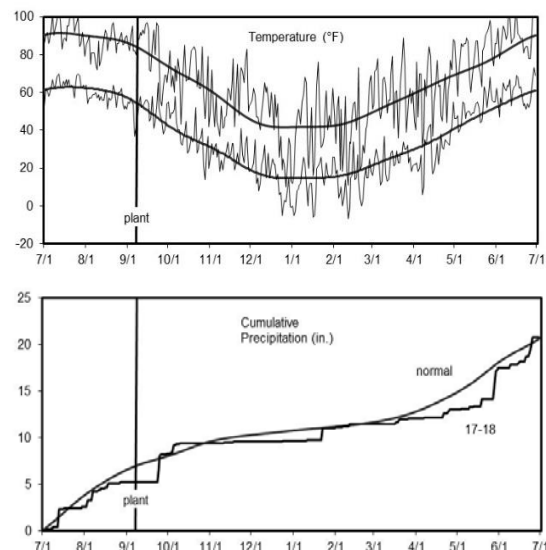


Table 13. Results for the 2018 National Winter Canola Variety Trial, open-pollinated cultivars, at Colby, KS

| Yield (lb/a)²             |       |               |      |       |                        |      |      |                     |        |            |            |           |     |         |
|---------------------------|-------|---------------|------|-------|------------------------|------|------|---------------------|--------|------------|------------|-----------|-----|---------|
| Name                      | Type¹ | Yield (lb/a)² |      |       | Yield (% of test avg.) |      |      | Winter survival (%) |        | Fall stand | Fall vigor | 50% bloom | Oil | Protein |
|                           |       | 2018          | 2017 | 2-yr. | 2018                   | 2018 | 2017 | 2-yr.               | (0-10) | (1-5)      | (DOY)      | (%)       | (%) | (%)     |
| CROPLAN by WinField       |       |               |      |       |                        |      |      |                     |        |            |            |           |     |         |
| CP115WRR                  | OP    | 383           | ---  | ---   | 65                     | 100  | ---  | ---                 | 7.5    | 2.5        | 127        | ---       | --- | ---     |
| CP225WRR                  | OP    | 575           | ---  | ---   | 98                     | 75   | ---  | ---                 | 4.0    | 2.0        | 129        | ---       | --- | ---     |
| CP320WRR                  | OP    | 385           | ---  | ---   | 66                     | 100  | ---  | ---                 | 8.0    | 3.5        | 128        | ---       | --- | ---     |
| CP45-25WRR                | OP    | 538           | ---  | ---   | 92                     | 98   | ---  | ---                 | 6.5    | 3.5        | 128        | ---       | --- | ---     |
| Kansas State University   |       |               |      |       |                        |      |      |                     |        |            |            |           |     |         |
| KS4670                    | OP    | 640           | ---  | ---   | 109                    | 100  | ---  | ---                 | 8.5    | 4.0        | 128        | ---       | --- | ---     |
| KS4675                    | OP    | 696           | ---  | ---   | 119                    | 100  | ---  | ---                 | 8.0    | 3.5        | 128        | ---       | --- | ---     |
| KSR4723                   | OP    | 391           | ---  | ---   | 67                     | 100  | ---  | ---                 | 7.5    | 4.0        | 128        | ---       | --- | ---     |
| KSR4724S                  | OP    | 451           | ---  | ---   | 77                     | 100  | ---  | ---                 | 7.5    | 4.0        | 128        | ---       | --- | ---     |
| Riley                     | OP    | 665           | ---  | ---   | 114                    | 100  | ---  | ---                 | 6.5    | 3.0        | 127        | ---       | --- | ---     |
| Sumner                    | OP    | 674           | ---  | ---   | 115                    | 100  | ---  | ---                 | 5.5    | 3.0        | 127        | ---       | --- | ---     |
| Surefire                  | OP    | 801           | ---  | ---   | 137                    | 100  | ---  | ---                 | 8.0    | 4.5        | 130        | ---       | --- | ---     |
| Wichita                   | OP    | 572           | ---  | ---   | 98                     | 100  | ---  | ---                 | 7.0    | 2.5        | 128        | ---       | --- | ---     |
| KWS MOMONT                |       |               |      |       |                        |      |      |                     |        |            |            |           |     |         |
| Quartz                    | OP    | 935           | ---  | ---   | 160                    | 100  | ---  | ---                 | 9.0    | 5.0        | 130        | ---       | --- | ---     |
| Ohlde Seed Farms          |       |               |      |       |                        |      |      |                     |        |            |            |           |     |         |
| Torrington                | OP    | 609           | ---  | ---   | 104                    | 100  | ---  | ---                 | 5.5    | 3.0        | 128        | ---       | --- | ---     |
| Star Specialty Seed, Inc. |       |               |      |       |                        |      |      |                     |        |            |            |           |     |         |
| Star 915W                 | OP    | 649           | ---  | ---   | 111                    | 75   | ---  | ---                 | 4.5    | 1.5        | 128        | ---       | --- | ---     |
| Star 930W                 | OP    | 654           | ---  | ---   | 112                    | 100  | ---  | ---                 | 6.5    | 3.5        | 128        | ---       | --- | ---     |
| Grand Mean                |       | 585           | ---  | ---   | ---                    | 97   | ---  | ---                 | 6.8    | 3.3        | 128        | ---       | --- | ---     |
| Common Check OP Mean      |       | 753           | ---  | ---   | ---                    | 100  | ---  | ---                 | 8.0    | 3.8        | 129        | ---       | --- | ---     |
| Common Check Hybrid Mean  |       | 660           | ---  | ---   | ---                    | 100  | ---  | ---                 | 7.0    | 3.3        | 129        | ---       | --- | ---     |
| CV                        |       | 30            | ---  | ---   | ---                    | 12   | ---  | ---                 | 24.2   | 21.6       | 1          | ---       | --- | ---     |
| LSD (0.05)                |       | 201           | ---  | ---   | ---                    | NS   | ---  | ---                 | 1.8    | 1.5        | 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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

<sup>2</sup>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 14. Results for the 2018 National Winter Canola Variety Trial, hybrid cultivars, at Colby, KS**

| Table 1. Results for the 2016 National Winter Canola Variety Trial, Hybrid Canola, at Colby, ND |                   |                           |      |       |                        |      |      |                     |        |            |            |           |     |         |
|-------------------------------------------------------------------------------------------------|-------------------|---------------------------|------|-------|------------------------|------|------|---------------------|--------|------------|------------|-----------|-----|---------|
| Name                                                                                            | Type <sup>1</sup> | Yield (lb/a) <sup>2</sup> |      |       | Yield (% of test avg.) |      |      | Winter survival (%) |        | Fall stand | Fall vigor | 50% bloom | Oil | Protein |
|                                                                                                 |                   | 2018                      | 2017 | 2-yr. | 2018                   | 2018 | 2017 | 2-yr.               | (0-10) | (1-5)      | (DOY)      | (%)       | (%) |         |
| Bayer Crop Science Division                                                                     |                   |                           |      |       |                        |      |      |                     |        |            |            |           |     |         |
| CWH189D                                                                                         | H                 | 952                       | ---  | ---   | 105                    | 100  | ---  | ---                 | 6.5    | 3.0        | 128        | ---       | --- |         |
| CWH190D                                                                                         | H                 | 1122                      | ---  | ---   | 123                    | 100  | ---  | ---                 | 7.0    | 3.5        | 127        | ---       | --- |         |
| CWH239D                                                                                         | H                 | 1092                      | ---  | ---   | 120                    | 100  | ---  | ---                 | 8.0    | 4.5        | 128        | ---       | --- |         |
| DGC173D                                                                                         | H                 | 982                       | ---  | ---   | 108                    | 98   | ---  | ---                 | 5.0    | 3.0        | 127        | ---       | --- |         |
| DL Seeds Inc.                                                                                   |                   |                           |      |       |                        |      |      |                     |        |            |            |           |     |         |
| Atora                                                                                           | H                 | 844                       | ---  | ---   | 93                     | 98   | ---  | ---                 | 5.5    | 3.5        | 129        | ---       | --- |         |
| Event                                                                                           | H                 | 1381                      | ---  | ---   | 152                    | 100  | ---  | ---                 | 7.0    | 4.0        | 128        | ---       | --- |         |
| Phoenix CL                                                                                      | H                 | 927                       | ---  | ---   | 102                    | 100  | ---  | ---                 | 6.0    | 3.0        | 130        | ---       | --- |         |
| Plurax CL                                                                                       | H                 | 850                       | ---  | ---   | 93                     | 100  | ---  | ---                 | 6.5    | 3.5        | 127        | ---       | --- |         |
| Temptation                                                                                      | H                 | 1024                      | ---  | ---   | 113                    | 100  | ---  | ---                 | 8.0    | 4.0        | 130        | ---       | --- |         |
| Kansas State University                                                                         |                   |                           |      |       |                        |      |      |                     |        |            |            |           |     |         |
| Wichita                                                                                         | OP                | 501                       | ---  | ---   | 55                     | 100  | ---  | ---                 | 5.0    | 2.5        | 127        | ---       | --- |         |
| KWS MOMONT                                                                                      |                   |                           |      |       |                        |      |      |                     |        |            |            |           |     |         |
| HAMOUR                                                                                          | H                 | 714                       | ---  | ---   | 78                     | 98   | ---  | ---                 | 4.5    | 3.0        | 130        | ---       | --- |         |
| HIDYLLE                                                                                         | H                 | 735                       | ---  | ---   | 81                     | 100  | ---  | ---                 | 6.0    | 3.5        | 130        | ---       | --- |         |
| MH 15AY085                                                                                      | H                 | 561                       | ---  | ---   | 62                     | 100  | ---  | ---                 | 5.5    | 3.5        | 130        | ---       | --- |         |
| MH 15HIB001                                                                                     | H                 | 848                       | ---  | ---   | 93                     | 100  | ---  | ---                 | 6.5    | 3.5        | 130        | ---       | --- |         |
| MH 15HIB002                                                                                     | H                 | 780                       | ---  | ---   | 86                     | 98   | ---  | ---                 | 7.0    | 4.5        | 130        | ---       | --- |         |
| MH 15HT229                                                                                      | H                 | 831                       | ---  | ---   | 91                     | 100  | ---  | ---                 | 6.5    | 3.5        | 130        | ---       | --- |         |
| Quartz                                                                                          | OP                | 819                       | ---  | ---   | 90                     | 100  | ---  | ---                 | 9.0    | 4.0        | 130        | ---       | --- |         |
| Rubisco Seeds LLC                                                                               |                   |                           |      |       |                        |      |      |                     |        |            |            |           |     |         |
| Edimax CL                                                                                       | H                 | 948                       | ---  | ---   | 104                    | 100  | ---  | ---                 | 7.5    | 4.5        | 129        | ---       | --- |         |
| Inspiration                                                                                     | H                 | 1395                      | ---  | ---   | 153                    | 100  | ---  | ---                 | 6.5    | 3.5        | 127        | ---       | --- |         |
| Mercedes                                                                                        | H                 | 821                       | ---  | ---   | 90                     | 100  | ---  | ---                 | 7.0    | 3.5        | 127        | ---       | --- |         |
| Popular                                                                                         | H                 | 996                       | ---  | ---   | 109                    | 100  | ---  | ---                 | 7.0    | 4.0        | 130        | ---       | --- |         |
| Grand Mean                                                                                      |                   | 911                       | ---  | ---   | ---                    | 100  | ---  | ---                 | 6.5    | 3.6        | 129        | ---       | --- |         |
| Common Check Hybrid Mean                                                                        |                   | 660                       | ---  | ---   | ---                    | 100  | ---  | ---                 | 7.0    | 3.3        | 129        | ---       | --- |         |
| Common Check OP Mean                                                                            |                   | 753                       | ---  | ---   | ---                    | 100  | ---  | ---                 | 8.0    | 3.8        | 129        | ---       | --- |         |
| CV                                                                                              |                   | 26                        | ---  | ---   | ---                    | 2    | ---  | ---                 | 24.4   | 17.5       | 1          | ---       | --- |         |
| LSD (0.05)                                                                                      |                   | 252                       | ---  | ---   | ---                    | NS   | ---  | ---                 | NS     | 0.7        | 1          | ---       | --- |         |

**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.

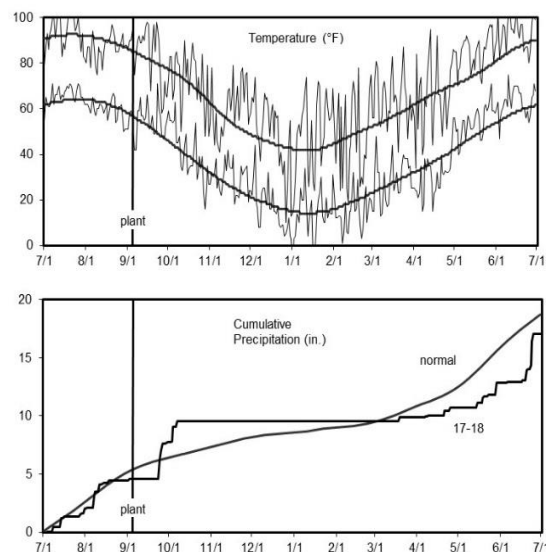
<sup>1</sup>Type: H=hybrid, OP=open pollinated

<sup>2</sup>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.

## Garden City, Kansas

Johnathon Holman and Scott Maxwell  
Kansas State University

Planted: 9/5/2017 in 8-in. rows  
Seeding Rate OP: 500,000 seeds/a  
Seeding Rate Hybrid: 300,000 seeds/a  
Harvested: 6/26/2018  
Herbicides: 3 pt/a Prowl  
Insecticides: None  
Irrigation: 10.67 in.  
Previous crop: Wheat  
Soil test: NA  
Fertilizer: 0-0-0-0 lb N-P-K-S fertilizer in fall  
100-0-0 lb N-P-K fertilizer in spring  
Soil type: Ulysses Richfield silt loam  
Elevation: 2869 ft Latitude: 37° 58'N  
Comments: Plants overwintered very well but hail before harvest severely reduced yields. Cultivars showed variability in tolerance to shatter.



**Table 15. Results for the 2018 National Winter Canola Variety Trial, open-pollinated cultivars, at Garden City, KS**

| Name                      | Type <sup>1</sup> | Yield (lb/a) <sup>2</sup> |             |       | Yield (% of | Winter survival |     |     | Fall  | Plant  | Shatter | Oil         | Protein |
|---------------------------|-------------------|---------------------------|-------------|-------|-------------|-----------------|-----|-----|-------|--------|---------|-------------|---------|
|                           |                   | 2018                      | 2017        | 2-yr. | test avg.)  | (%)             | (%) | (%) | vigor | height |         |             |         |
| CROPLAN by WinField       |                   |                           |             |       |             |                 |     |     |       |        |         |             |         |
| CP115WRR                  | OP                | 353                       | 1146        | 750   | 46          | 75              | 93  | 84  | 2.9   | 36     | 54.5    | 33.0        | 30.9    |
| CP225WRR                  | OP                | 633                       | 1221        | 927   | 82          | 48              | 83  | 65  | 3.3   | 37     | 45.0    | 34.4        | 29.4    |
| CP320WRR                  | OP                | 777                       | 1168        | 972   | 100         | 82              | 90  | 86  | 3.0   | 36     | 53.3    | 34.4        | 29.4    |
| CP45-25WRR                | OP                | 574                       | 1235        | 905   | 74          | 93              | 88  | 91  | 3.1   | 41     | 45.5    | <b>34.6</b> | 29.7    |
| Kansas State University   |                   |                           |             |       |             |                 |     |     |       |        |         |             |         |
| KS4670                    | OP                | 888                       | ---         | ---   | 115         | 70              | --- | --- | 3.3   | 39     | 43.3    | <b>34.9</b> | 29.8    |
| KS4675                    | OP                | 908                       | <b>1691</b> | 1299  | 117         | 94              | 92  | 93  | 3.5   | 41     | 45.0    | <b>34.6</b> | 30.2    |
| KSR4723                   | OP                | 729                       | ---         | ---   | 94          | 66              | --- | --- | 3.3   | 39     | 50.0    | <b>34.9</b> | 29.9    |
| KSR4724S                  | OP                | 1130                      | ---         | ---   | 146         | 65              | --- | --- | 4.0   | 39     | 26.7    | <b>36.0</b> | 29.1    |
| Riley                     | OP                | 896                       | <b>1700</b> | 1298  | 116         | 81              | 90  | 86  | 3.0   | 38     | 38.3    | <b>35.0</b> | 30.3    |
| Sumner                    | OP                | 954                       | 830         | 892   | 123         | 73              | 68  | 71  | 3.3   | 37     | 30.0    | <b>34.6</b> | 30.6    |
| Surefire                  | OP                | 888                       | <b>1742</b> | 1315  | 115         | 60              | 82  | 71  | 3.0   | 42     | 35.0    | 34.5        | 31.0    |
| Wichita                   | OP                | 750                       | <b>1509</b> | 1130  | 97          | 90              | 90  | 90  | 3.0   | 39     | 50.0    | <b>34.7</b> | 30.5    |
| KWS MOMONT                |                   |                           |             |       |             |                 |     |     |       |        |         |             |         |
| Quartz                    | OP                | 1436                      | <b>1756</b> | 1596  | 185         | 67              | 95  | 81  | 3.3   | 36     | 30.0    | 33.5        | 28.3    |
| Ohlde Seed Farms          |                   |                           |             |       |             |                 |     |     |       |        |         |             |         |
| Torrington                | OP                | 776                       | 1266        | 1021  | 100         | 85              | 75  | 80  | 3.0   | 41     | 40.0    | <b>34.9</b> | 29.9    |
| Star Specialty Seed, Inc. |                   |                           |             |       |             |                 |     |     |       |        |         |             |         |
| Star 915W                 | OP                | 932                       | <b>1433</b> | 1183  | 120         | 60              | 92  | 76  | 3.1   | 34     | 28.0    | <b>35.4</b> | 30.4    |
| Star 930W                 | OP                | 877                       | 1206        | 1041  | 113         | 70              | 90  | 80  | 3.0   | 39     | 33.3    | 34.5        | 29.3    |
| Grand Mean                |                   | 801                       | 1265        | ---   | ---         | 71              | 83  | --- | 3.2   | 38     | 41.6    | 34.5        | 30.0    |
| Common Check OP Mean      |                   | 1093                      | 1655        | ---   | ---         | 79              | 92  | --- | 3.2   | 38     | 40.0    | 34.1        | 29.4    |
| Common Check Hybrid Mean  |                   | 1021                      | 1817        | ---   | ---         | 79              | 90  | --- | 3.3   | 39     | 32.5    | 33.9        | 29.2    |
| CV                        |                   | 42                        | 22          | ---   | ---         | 19              | 14  | --- | 13.6  | 7      | 43.5    | 2.0         | 2.1     |
| LSD (0.05)                |                   | NS                        | 459         | ---   | ---         | 24              | 19  | --- | NS    | NS     | NS      | 1.4         | 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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

<sup>2</sup>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 2018 National Winter Canola Variety Trial, hybrid cultivars, at Garden City, KS**

| Table 1. Results for the 2016 National Winter Canola Variety Trial, Hybrid Canola, at Garden City, KS |                   |                           |      |       |                        |                     |      |       |            |              |         |      |         |  |
|-------------------------------------------------------------------------------------------------------|-------------------|---------------------------|------|-------|------------------------|---------------------|------|-------|------------|--------------|---------|------|---------|--|
| Name                                                                                                  | Type <sup>1</sup> | Yield (lb/a) <sup>2</sup> |      |       | Yield (% of test avg.) | Winter survival (%) |      |       | Fall vigor | Plant height | Shatter | Oil  | Protein |  |
|                                                                                                       |                   | 2018                      | 2017 | 2-yr. | 2018                   | 2018                | 2017 | 2-yr. | (1-5)      | (in.)        | (%)     | (%)  | (%)     |  |
| Bayer Crop Science Division                                                                           |                   |                           |      |       |                        |                     |      |       |            |              |         |      |         |  |
| CWH189D                                                                                               | H                 | 2206                      | 1963 | 2084  | 147                    | 72                  | 77   | 74    | 3.0        | 37           | 0.0     | 34.5 | 29.1    |  |
| CWH190D                                                                                               | H                 | 1908                      | 1173 | 1540  | 127                    | 90                  | 53   | 72    | 3.0        | 41           | 13.3    | 35.6 | 28.2    |  |
| CWH239D                                                                                               | H                 | 2130                      | 996  | 1563  | 141                    | 71                  | 25   | 48    | 3.0        | 36           | 0.0     | 35.5 | 28.7    |  |
| DGC173D                                                                                               | H                 | 1994                      | 1880 | 1937  | 132                    | 65                  | 50   | 57    | 3.3        | 40           | 10.0    | 34.1 | 29.6    |  |
| DL Seeds Inc.                                                                                         |                   |                           |      |       |                        |                     |      |       |            |              |         |      |         |  |
| Atora                                                                                                 | H                 | 1283                      | ---  | ---   | 85                     | 66                  | ---  | ---   | 3.3        | 44           | 21.7    | 32.6 | 29.5    |  |
| Event                                                                                                 | H                 | 1258                      | ---  | ---   | 84                     | 69                  | ---  | ---   | 3.7        | 37           | 28.3    | 33.1 | 28.8    |  |
| Phoenix CL                                                                                            | H                 | 2093                      | ---  | ---   | 139                    | 57                  | ---  | ---   | 3.3        | 35           | 0.0     | 34.7 | 28.9    |  |
| Plurax CL                                                                                             | H                 | 910                       | 1683 | 1297  | 60                     | 68                  | 93   | 81    | 4.0        | 41           | 33.3    | 33.5 | 29.9    |  |
| Temptation                                                                                            | H                 | 1451                      | ---  | ---   | 96                     | 65                  | ---  | ---   | 3.3        | 41           | 18.3    | 33.9 | 29.5    |  |
| Kansas State University                                                                               |                   |                           |      |       |                        |                     |      |       |            |              |         |      |         |  |
| Wichita                                                                                               | OP                | 742                       | 1737 | 1239  | 49                     | 79                  | 85   | 82    | 3.0        | 39           | 38.3    | 34.8 | 30.5    |  |
| KWS MOMONT                                                                                            |                   |                           |      |       |                        |                     |      |       |            |              |         |      |         |  |
| HAMOUR                                                                                                | H                 | 1181                      | ---  | ---   | 78                     | 65                  | ---  | ---   | 4.0        | 42           | 31.7    | 34.6 | 29.8    |  |
| HIDYLLE                                                                                               | H                 | 1088                      | ---  | ---   | 72                     | 42                  | ---  | ---   | 3.7        | 39           | 26.7    | 31.8 | 31.0    |  |
| MH 15AY085                                                                                            | H                 | 1672                      | ---  | ---   | 111                    | 47                  | ---  | ---   | 4.0        | 46           | 3.3     | 33.9 | 30.9    |  |
| MH 15HIB001                                                                                           | H                 | 1243                      | ---  | ---   | 83                     | 57                  | ---  | ---   | 3.0        | 36           | 10.0    | 31.5 | 31.2    |  |
| MH 15HIB002                                                                                           | H                 | 1616                      | ---  | ---   | 107                    | 24                  | ---  | ---   | 3.7        | 37           | 3.3     | 33.1 | 31.2    |  |
| MH 15HT229                                                                                            | H                 | 1867                      | ---  | ---   | 124                    | 55                  | ---  | ---   | 3.3        | 39           | 10.0    | 35.6 | 30.4    |  |
| Quartz                                                                                                | OP                | 1300                      | 2122 | 1711  | 86                     | 79                  | 90   | 84    | 3.7        | 38           | 26.7    | 33.1 | 28.0    |  |
| Rubisco Seeds LLC                                                                                     |                   |                           |      |       |                        |                     |      |       |            |              |         |      |         |  |
| Edimax CL                                                                                             | H                 | 1768                      | 1093 | 1431  | 117                    | 73                  | 30   | 52    | 3.0        | 38           | 6.7     | 34.1 | 29.3    |  |
| Inspiration                                                                                           | H                 | 1842                      | 394  | 1118  | 122                    | 70                  | 10   | 40    | 3.7        | 41           | 0.0     | 32.8 | 30.1    |  |
| Mercedes                                                                                              | H                 | 1105                      | 1359 | 1232  | 73                     | 68                  | 50   | 59    | 3.7        | 39           | 33.3    | 35.6 | 29.2    |  |
| Popular                                                                                               | H                 | 956                       | 1648 | 1302  | 64                     | 79                  | 83   | 81    | 3.3        | 37           | 41.7    | 35.1 | 29.1    |  |
| Grand Mean                                                                                            |                   | 1505                      | 1251 | ---   | ---                    | 65                  | 51   | ---   | 3.4        | 39           | 17.0    | 34.0 | 29.7    |  |
| Common Check Hybrid Mean                                                                              |                   | 1021                      | 1817 | ---   | ---                    | 79                  | 90   | ---   | 3.3        | 39           | 32.5    | 33.9 | 29.2    |  |
| Common Check OP Mean                                                                                  |                   | 1093                      | 1655 | ---   | ---                    | 79                  | 92   | ---   | 3.2        | 38           | 40.0    | 34.1 | 29.4    |  |
| CV                                                                                                    |                   | 13                        | 39   | ---   | ---                    | 21                  | 53   | ---   | 12.5       | 6            | 49.7    | 3.3  | 1.9     |  |
| LSD (0.05)                                                                                            |                   | 314                       | 869  | ---   | ---                    | 22                  | 44   | ---   | 0.7        | 4            | 13.9    | 2.4  | 1.2     |  |

**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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

<sup>2</sup>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.

# Manhattan, Kansas

Michael Stamm and Scott Dooley  
Kansas State University

Planted: 9/20/2017 in 10-in. rows  
Seeding Rate OP: 500,000 seeds/a  
Seeding Rate Hybrid: 300,000 seeds/a  
Swathed: 6/7/2018 (OP), 6/11/2018 (H)  
Harvested: 6/11/2018 (OP), 6/16/2018 (H)  
Herbicides: 1 qt/a Treflan, 10 oz/a Assure II  
Insecticides: None  
Irrigation: None  
Previous crop: Wheat  
Soil test: NA  
Fertilizer: 35-0-0-30 lb N-P-K-S fertilizer in fall  
100-0-0 lb N-P-K fertilizer in spring  
Soil type: Rossville silt loam  
Elevation: 1064 ft Latitude: 39° 12'N  
Comments: Dry soils reduced fall growth. Crown damage was observed. Extremely dry growing season. Yields were respectable for the conditions.

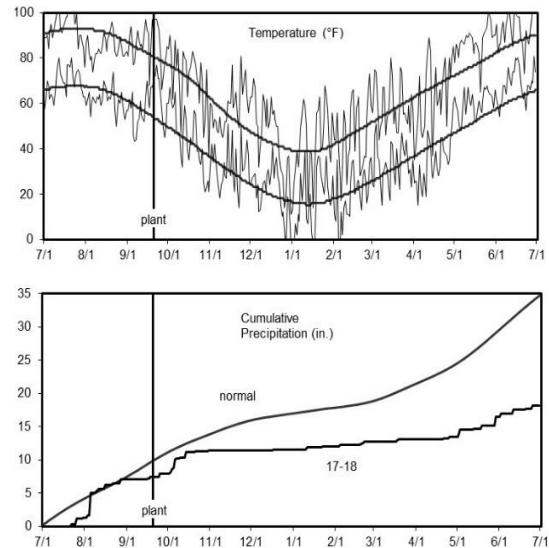


Table 17. Results for the 2018 National Winter Canola Variety Trial, open-pollinated cultivars, at Manhattan, KS

| Name                      | Type <sup>1</sup> | Yield (lb/a) |      |       | Yield (% of | Winter survival |     |       | 50%    | Plant  | Test | Oil  | Protein |
|---------------------------|-------------------|--------------|------|-------|-------------|-----------------|-----|-------|--------|--------|------|------|---------|
|                           |                   | 2018         | 2017 | 2-yr. | test avg.)  | (%)             | (%) | bloom | height | weight |      |      |         |
|                           |                   |              |      |       |             |                 |     |       |        |        |      |      |         |
| CROPLAN by WinField       |                   |              |      |       |             |                 |     |       |        |        |      |      |         |
| CP115WRR                  | OP                | 1640         | 1997 | 1818  | 91          | 95              | 99  | 97    | 115    | 36     | 45.2 | 32.5 | 29.6    |
| CP225WRR                  | OP                | 1764         | 2006 | 1885  | 98          | 90              | 98  | 94    | 117    | 37     | 45.5 | 36.0 | 26.9    |
| CP320WRR                  | OP                | 1411         | 1929 | 1670  | 79          | 88              | 100 | 94    | 114    | 37     | 41.8 | 33.5 | 28.2    |
| CP45-25WRR                | OP                | 1910         | 1842 | 1876  | 106         | 90              | 97  | 94    | 116    | 39     | 45.0 | 34.9 | 27.7    |
| Kansas State University   |                   |              |      |       |             |                 |     |       |        |        |      |      |         |
| KS4670                    | OP                | 2108         | ---  | ---   | 117         | 98              | --- | ---   | 113    | 42     | 45.4 | 38.3 | 26.2    |
| KS4675                    | OP                | 2298         | 1926 | 2112  | 128         | 97              | 99  | 98    | 117    | 41     | 46.2 | 37.7 | 27.6    |
| KSR4723                   | OP                | 1847         | ---  | ---   | 103         | 93              | --- | ---   | 117    | 38     | 43.2 | 35.8 | 28.4    |
| KSR4724S                  | OP                | 1610         | ---  | ---   | 90          | 97              | --- | ---   | 114    | 39     | 42.5 | 35.6 | 27.3    |
| Riley                     | OP                | 1943         | 2036 | 1990  | 108         | 95              | 99  | 97    | 116    | 37     | 45.2 | 36.6 | 28.3    |
| Sumner                    | OP                | 1760         | 1602 | 1681  | 98          | 98              | 100 | 99    | 115    | 37     | 45.4 | 36.6 | 29.3    |
| Surefire                  | OP                | 2320         | 2093 | 2206  | 129         | 93              | 99  | 96    | 120    | 45     | 46.6 | 34.6 | 27.6    |
| Wichita                   | OP                | 1790         | 1756 | 1773  | 100         | 92              | 97  | 94    | 118    | 40     | 45.8 | 35.2 | 28.1    |
| KWS MOMONT                |                   |              |      |       |             |                 |     |       |        |        |      |      |         |
| Quartz                    | OP                | 1109         | 1886 | 1498  | 62          | 84              | 99  | 92    | 118    | 32     | 35.0 | 35.6 | 26.0    |
| Ohlde Seed Farms          |                   |              |      |       |             |                 |     |       |        |        |      |      |         |
| Torrington                | OP                | 1721         | 2007 | 1864  | 96          | 89              | 100 | 95    | 117    | 41     | 46.5 | 35.5 | 27.6    |
| Star Specialty Seed, Inc. |                   |              |      |       |             |                 |     |       |        |        |      |      |         |
| Star 915W                 | OP                | 1359         | 1705 | 1532  | 76          | 83              | 98  | 90    | 117    | 39     | 44.1 | 36.4 | 28.0    |
| Star 930W                 | OP                | 1997         | 1796 | 1897  | 111         | 95              | 99  | 97    | 117    | 39     | 46.3 | 34.9 | 27.8    |
| Grand Mean                |                   | 1797         | 1816 | ---   | ---         | 92              | 97  | ---   | 116    | 38     | 44.3 | 35.4 | 27.9    |
| Common Check OP Mean      |                   | 1449         | 1893 | ---   | ---         | 88              | 98  | ---   | 118    | 36     | 40.4 | 35.4 | 27.0    |
| Common Check Hybrid Mean  |                   | 1673         | 1818 | ---   | ---         | 92              | 98  | ---   | 118    | 37     | 44.5 | 37.2 | 26.0    |
| CV                        |                   | 18           | 10   | ---   | ---         | 8               | 3   | ---   | 1      | 6      | 6.0  | 4.6  | 3.3     |
| LSD (0.05)                |                   | 576          | 305  | ---   | ---         | NS              | 6   | ---   | 2      | 4      | 4.6  | 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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

**Table 18. Results for the 2018 National Winter Canola Variety Trial, hybrid cultivars, at Manhattan, KS**

| Table 10: Results for the 2019 National Winter Canola Variety Trial, Hybrid cultivars, at Manhattan, KS |                   |                           |      |       |                        |      |                     |       |           |              |             |      |         |
|---------------------------------------------------------------------------------------------------------|-------------------|---------------------------|------|-------|------------------------|------|---------------------|-------|-----------|--------------|-------------|------|---------|
| Name                                                                                                    | Type <sup>1</sup> | Yield (lb/a) <sup>2</sup> |      |       | Yield (% of test avg.) |      | Winter survival (%) |       | 50% bloom | Plant height | Test weight | Oil  | Protein |
|                                                                                                         |                   | 2018                      | 2017 | 2-yr. | 2018                   | 2018 | 2017                | 2-yr. | (DOY)     | (in.)        | (lb/bu)     | (%)  | (%)     |
| Bayer Crop Science Division                                                                             |                   |                           |      |       |                        |      |                     |       |           |              |             |      |         |
| CWH189D                                                                                                 | H                 | 2301                      | 2148 | 2225  | 123                    | 97   | 100                 | 99    | 117       | 40           | 46.0        | 37.8 | 26.4    |
| CWH190D                                                                                                 | H                 | 2291                      | 2044 | 2168  | 122                    | 91   | 100                 | 96    | 117       | 43           | 45.8        | 38.7 | 27.6    |
| CWH239D                                                                                                 | H                 | 2076                      | 1982 | 2029  | 111                    | 88   | 99                  | 94    | 118       | 37           | 41.5        | 38.8 | 25.9    |
| DGC173D                                                                                                 | H                 | 1875                      | 2013 | 1944  | 100                    | 94   | 99                  | 97    | 118       | 42           | 37.5        | 37.5 | 26.7    |
| DL Seeds Inc.                                                                                           |                   |                           |      |       |                        |      |                     |       |           |              |             |      |         |
| Atora                                                                                                   | H                 | 1888                      | ---  | ---   | 101                    | 85   | ---                 | ---   | 119       | 43           | 45.1        | 36.8 | 27.0    |
| Event                                                                                                   | H                 | 2251                      | ---  | ---   | 120                    | 94   | ---                 | ---   | 117       | 37           | 46.7        | 38.0 | 25.5    |
| Phoenix CL                                                                                              | H                 | 1751                      | ---  | ---   | 93                     | 83   | ---                 | ---   | 117       | 39           | 44.3        | 38.1 | 26.8    |
| Plurax CL                                                                                               | H                 | 2188                      | 1938 | 2063  | 117                    | 90   | 98                  | 94    | 116       | 39           | 46.5        | 38.4 | 26.4    |
| Temptation                                                                                              | H                 | 1889                      | ---  | ---   | 101                    | 85   | ---                 | ---   | 119       | 39           | 47.1        | 39.6 | 25.8    |
| Kansas State University                                                                                 |                   |                           |      |       |                        |      |                     |       |           |              |             |      |         |
| Wichita                                                                                                 | OP                | 2081                      | 1747 | 1914  | 111                    | 98   | 99                  | 98    | 117       | 40           | 48.9        | 38.5 | 26.8    |
| KWS MOMONT                                                                                              |                   |                           |      |       |                        |      |                     |       |           |              |             |      |         |
| HAMOUR                                                                                                  | H                 | 2303                      | ---  | ---   | 123                    | 80   | ---                 | ---   | 119       | 43           | 45.2        | 35.8 | 28.6    |
| HIDYLLE                                                                                                 | H                 | 1503                      | ---  | ---   | 80                     | 67   | ---                 | ---   | 120       | 40           | 44.2        | 37.3 | 26.3    |
| MH 15AY085                                                                                              | H                 | 1316                      | ---  | ---   | 70                     | 60   | ---                 | ---   | 120       | 39           | 42.8        | 34.9 | 28.0    |
| MH 15HIB001                                                                                             | H                 | 1230                      | ---  | ---   | 66                     | 62   | ---                 | ---   | 121       | 43           | 41.5        | 34.3 | 29.1    |
| MH 15HIB002                                                                                             | H                 | 947                       | ---  | ---   | 51                     | 47   | ---                 | ---   | 122       | 41           | 38.2        | 37.1 | 26.9    |
| MH 15HT229                                                                                              | H                 | 2055                      | ---  | ---   | 110                    | 88   | ---                 | ---   | 119       | 41           | 45.0        | 41.3 | 26.0    |
| Quartz                                                                                                  | OP                | 1266                      | 1867 | 1566  | 68                     | 87   | 96                  | 91    | 119       | 33           | 40.0        | 35.8 | 25.2    |
| Rubisco Seeds LLC                                                                                       |                   |                           |      |       |                        |      |                     |       |           |              |             |      |         |
| Edimax CL                                                                                               | H                 | 2026                      | 2014 | 2020  | 108                    | 85   | 94                  | 90    | 118       | 44           | 45.7        | 37.1 | 26.3    |
| Inspiration                                                                                             | H                 | 1999                      | 2118 | 2059  | 107                    | 67   | 90                  | 78    | 119       | 41           | 45.7        | 38.2 | 26.0    |
| Mercedes                                                                                                | H                 | 2018                      | 2351 | 2185  | 108                    | 92   | 99                  | 95    | 118       | 39           | 47.0        | 38.8 | 26.0    |
| Popular                                                                                                 | H                 | 2104                      | 2010 | 2057  | 112                    | 87   | 97                  | 92    | 118       | 37           | 48.0        | 38.5 | 25.8    |
| Grand Mean                                                                                              |                   | 1874                      | 2055 | ---   | ---                    | 82   | 97                  | ---   | 118       | 40           | 45.2        | 37.7 | 26.6    |
| Common Check Hybrid Mean                                                                                |                   | 1673                      | 1818 | ---   | ---                    | 92   | 98                  | ---   | 118       | 37           | 44.5        | 37.2 | 26.0    |
| Common Check OP Mean                                                                                    |                   | 1449                      | 1893 | ---   | ---                    | 88   | 98                  | ---   | 118       | 36           | 40.4        | 35.4 | 27.0    |
| CV                                                                                                      |                   | 15                        | 8    | ---   | ---                    | 13   | 4                   | ---   | 1         | 4            | 5.4         | 3.3  | 2.8     |
| LSD (0.05)                                                                                              |                   | 462                       | 269  | ---   | ---                    | 18   | NS                  | ---   | 1         | 3            | 4.1         | 2.6  | 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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated



# Norwich, Kansas

Cody and David Swinehart

Planted: 10/2/2017 in 10-in. rows  
 Seeding Rate OP: 500,000 seeds/a  
 Seeding Rate Hybrid: 300,000 seeds/a  
 Harvested: 6/15/2018  
 Herbicides: 1 qt/a Treflan  
 Insecticides: None  
 Irrigation: None  
 Previous crop: Wheat  
 Soil test: NA  
 Fertilizer: 35-0-0-30 lb N-P-K-S fertilizer in fall  
 100-0-0 lb N-P-K fertilizer in spring  
 Soil type: Renfrow clay loam  
 Elevation: 1496 ft Latitude: 37° 24'N  
 Comments: Yields are representative of local producers' fields.  
 Dry conditions post establishment resulted in smaller than normal plants. Winterkill was observed in the spring.

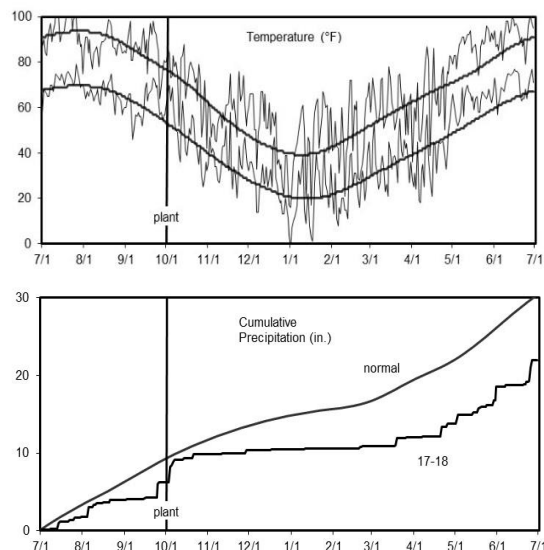


Table 19. Results for the 2018 National Winter Canola Variety Trial, open-pollinated cultivars, at Norwich, KS

| Name                      | Type <sup>1</sup> | Yield (lb/a) |      |       | Yield (% of | Winter survival |       |        | Fall  | 50%    | Test | Oil  | Protein |
|---------------------------|-------------------|--------------|------|-------|-------------|-----------------|-------|--------|-------|--------|------|------|---------|
|                           |                   | 2018         | 2017 | 2-yr. | test avg.)  | (%)             | 2-yr. | (0-10) | bloom | weight |      |      |         |
| CROPLAN by WinField       |                   |              |      |       |             |                 |       |        |       |        |      |      |         |
| CP115WRR                  | OP                | 814          | ---  | ---   | 56          | 60              | ---   | ---    | 7.0   | 117    | 47.3 | 37.2 | 30.4    |
| CP225WRR                  | OP                | 1516         | ---  | ---   | 105         | 80              | ---   | ---    | 9.0   | 116    | 49.0 | 38.2 | 28.9    |
| CP320WRR                  | OP                | 1632         | ---  | ---   | 113         | 70              | ---   | ---    | 8.5   | 116    | 51.1 | 37.3 | 29.4    |
| CP45-25WRR                | OP                | 1550         | ---  | ---   | 107         | 65              | ---   | ---    | 8.5   | 117    | 51.1 | 36.9 | 29.0    |
| Kansas State University   |                   |              |      |       |             |                 |       |        |       |        |      |      |         |
| KS4670                    | OP                | 1615         | ---  | ---   | 112         | 70              | ---   | ---    | 9.0   | 116    | 48.9 | 38.1 | 28.6    |
| KS4675                    | OP                | 1541         | ---  | ---   | 107         | 70              | ---   | ---    | 8.5   | 116    | 49.8 | 38.5 | 29.1    |
| KSR4723                   | OP                | 1435         | ---  | ---   | 99          | 70              | ---   | ---    | 7.5   | 116    | 50.4 | 38.3 | 29.4    |
| KSR4724S                  | OP                | 1402         | ---  | ---   | 97          | 65              | ---   | ---    | 7.0   | 116    | 48.6 | 39.3 | 28.2    |
| Riley                     | OP                | 1685         | ---  | ---   | 117         | 80              | ---   | ---    | 8.0   | 116    | 50.0 | 38.9 | 28.8    |
| Sumner                    | OP                | 1527         | ---  | ---   | 106         | 75              | ---   | ---    | 8.0   | 116    | 50.1 | 38.0 | 29.5    |
| Surefire                  | OP                | 1639         | ---  | ---   | 114         | 75              | ---   | ---    | 7.5   | 117    | 52.3 | 37.4 | 29.9    |
| Wichita                   | OP                | 1708         | ---  | ---   | 118         | 80              | ---   | ---    | 8.5   | 116    | 50.1 | 38.0 | 29.4    |
| KWS MOMONT                |                   |              |      |       |             |                 |       |        |       |        |      |      |         |
| Quartz                    | OP                | 1520         | ---  | ---   | 105         | 70              | ---   | ---    | 8.5   | 118    | 48.6 | 38.1 | 26.4    |
| Ohlde Seed Farms          |                   |              |      |       |             |                 |       |        |       |        |      |      |         |
| Torrington                | OP                | 1612         | ---  | ---   | 112         | 75              | ---   | ---    | 7.5   | 116    | 50.9 | 37.5 | 29.2    |
| Star Specialty Seed, Inc. |                   |              |      |       |             |                 |       |        |       |        |      |      |         |
| Star 915W                 | OP                | 892          | ---  | ---   | 62          | 70              | ---   | ---    | 7.5   | 117    | 47.1 | 38.9 | 29.8    |
| Star 930W                 | OP                | 1485         | ---  | ---   | 103         | 75              | ---   | ---    | 9.0   | 117    | 52.1 | 37.9 | 29.6    |
| Grand Mean                |                   | 1443         | ---  | ---   | ---         | 71              | ---   | ---    | 8.1   | 116    | 49.6 | 38.1 | 29.0    |
| Common Check OP Mean      |                   | 1614         | ---  | ---   | ---         | 75              | ---   | ---    | 8.5   | 117    | 49.3 | 38.1 | 27.9    |
| Common Check Hybrid Mean  |                   | 1547         | ---  | ---   | ---         | 77              | ---   | ---    | 8.0   | 117    | 49.7 | 37.8 | 28.3    |
| CV                        |                   | 11           | ---  | ---   | ---         | 13              | ---   | ---    | 7.5   | 1      | 4.0  | 2.3  | 2.4     |
| LSD (0.05)                |                   | 321          | ---  | ---   | ---         | NS              | ---   | ---    | 1.3   | 1      | NS   | NS   | 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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

**Table 20. Results for the 2018 National Winter Canola Variety Trial, hybrid cultivars, at Norwich, KS**

| Table 26: Results for the 2016 National Winter Canola Variety Trial, Hybrid Canola, at Northway, IL |                   |              |      |       |                        |      |                     |     |                   |                 |                     |         |             |
|-----------------------------------------------------------------------------------------------------|-------------------|--------------|------|-------|------------------------|------|---------------------|-----|-------------------|-----------------|---------------------|---------|-------------|
| Name                                                                                                | Type <sup>1</sup> | Yield (lb/a) |      |       | Yield (% of test avg.) |      | Winter survival (%) |     | Fall stand (0-10) | 50% bloom (DOY) | Test weight (lb/bu) | Oil (%) | Protein (%) |
|                                                                                                     |                   | 2018         | 2017 | 2-yr. | 2018                   | 2017 | 2-yr.               |     |                   |                 |                     |         |             |
| Bayer Crop Science Division                                                                         |                   |              |      |       |                        |      |                     |     |                   |                 |                     |         |             |
| CWH189D                                                                                             | H                 | 1687         | ---  | ---   | 106                    | 73   | ---                 | --- | 6.7               | 116             | 50.9                | 38.7    | 29.7        |
| CWH190D                                                                                             | H                 | 1482         | ---  | ---   | 93                     | 73   | ---                 | --- | 7.3               | 117             | 49.3                | 39.3    | 30.0        |
| CWH239D                                                                                             | H                 | 1897         | ---  | ---   | 119                    | 77   | ---                 | --- | 7.3               | 116             | 47.8                | 39.8    | 28.4        |
| DGC173D                                                                                             | H                 | 1660         | ---  | ---   | 104                    | 80   | ---                 | --- | 6.7               | 116             | 49.6                | 38.6    | 29.5        |
| DL Seeds Inc.                                                                                       |                   |              |      |       |                        |      |                     |     |                   |                 |                     |         |             |
| Atora                                                                                               | H                 | 1064         | ---  | ---   | 67                     | 60   | ---                 | --- | 7.0               | 118             | 46.2                | 39.0    | 28.7        |
| Event                                                                                               | H                 | 1900         | ---  | ---   | 119                    | 80   | ---                 | --- | 7.3               | 115             | 50.4                | 40.6    | 26.2        |
| Phoenix CL                                                                                          | H                 | 1198         | ---  | ---   | 75                     | 67   | ---                 | --- | 7.3               | 116             | 47.8                | 38.8    | 29.8        |
| Plurax CL                                                                                           | H                 | 1902         | ---  | ---   | 119                    | 80   | ---                 | --- | 8.0               | 117             | 49.7                | 39.4    | 27.8        |
| Temptation                                                                                          | H                 | 1578         | ---  | ---   | 99                     | 67   | ---                 | --- | 7.7               | 118             | 48.2                | 39.1    | 27.1        |
| Kansas State University                                                                             |                   |              |      |       |                        |      |                     |     |                   |                 |                     |         |             |
| Wichita                                                                                             | OP                | 1440         | ---  | ---   | 90                     | 77   | ---                 | --- | 7.7               | 117             | 50.0                | 37.8    | 29.9        |
| KWS MOMONT                                                                                          |                   |              |      |       |                        |      |                     |     |                   |                 |                     |         |             |
| HAMOUR                                                                                              | H                 | 1788         | ---  | ---   | 112                    | 73   | ---                 | --- | 8.0               | 117             | 48.1                | 38.7    | 28.6        |
| HIDYLLE                                                                                             | H                 | 1408         | ---  | ---   | 88                     | 73   | ---                 | --- | 7.7               | 118             | 49.4                | 36.7    | 30.2        |
| MH 15AY085                                                                                          | H                 | 1236         | ---  | ---   | 78                     | 60   | ---                 | --- | 7.7               | 118             | 40.8                | 37.7    | 29.9        |
| MH 15HIB001                                                                                         | H                 | 1235         | ---  | ---   | 78                     | 50   | ---                 | --- | 7.3               | 118             | 44.0                | 35.1    | 30.8        |
| MH 15HIB002                                                                                         | H                 | 1421         | ---  | ---   | 89                     | 60   | ---                 | --- | 8.0               | 118             | 44.1                | 37.1    | 30.2        |
| MH 15HT229                                                                                          | H                 | 1758         | ---  | ---   | 110                    | 73   | ---                 | --- | 7.7               | 117             | 46.7                | 40.0    | 29.5        |
| Quartz                                                                                              | OP                | 1653         | ---  | ---   | 104                    | 77   | ---                 | --- | 8.3               | 118             | 49.4                | 37.9    | 26.7        |
| Rubisco Seeds LLC                                                                                   |                   |              |      |       |                        |      |                     |     |                   |                 |                     |         |             |
| Edimax CL                                                                                           | H                 | 1292         | ---  | ---   | 81                     | 63   | ---                 | --- | 7.3               | 116             | 45.9                | 37.2    | 27.5        |
| Inspiration                                                                                         | H                 | 1571         | ---  | ---   | 99                     | 70   | ---                 | --- | 7.7               | 116             | 49.0                | 37.6    | 28.9        |
| Mercedes                                                                                            | H                 | 1818         | ---  | ---   | 114                    | 77   | ---                 | --- | 8.0               | 115             | 50.5                | 41.4    | 26.6        |
| Popular                                                                                             | H                 | 1850         | ---  | ---   | 116                    | 80   | ---                 | --- | 7.7               | 115             | 50.7                | 40.0    | 28.1        |
| Grand Mean                                                                                          |                   | 1572         | ---  | ---   | ---                    | 71   | ---                 | --- | 7.5               | 117             | 48.0                | 38.6    | 28.8        |
| Common Check Hybrid Mean                                                                            |                   | 1547         | ---  | ---   | ---                    | 77   | ---                 | --- | 8.0               | 117             | 49.7                | 37.8    | 28.3        |
| Common Check OP Mean                                                                                |                   | 1614         | ---  | ---   | ---                    | 75   | ---                 | --- | 8.5               | 117             | 49.3                | 38.1    | 27.9        |
| CV                                                                                                  |                   | 14           | ---  | ---   | ---                    | 12   | ---                 | --- | 7.4               | 1               | 4.6                 | 2.0     | 2.3         |
| LSD (0.05)                                                                                          |                   | 367          | ---  | ---   | ---                    | 12   | ---                 | --- | NS                | 2               | 3.8                 | 1.6     | 1.4         |

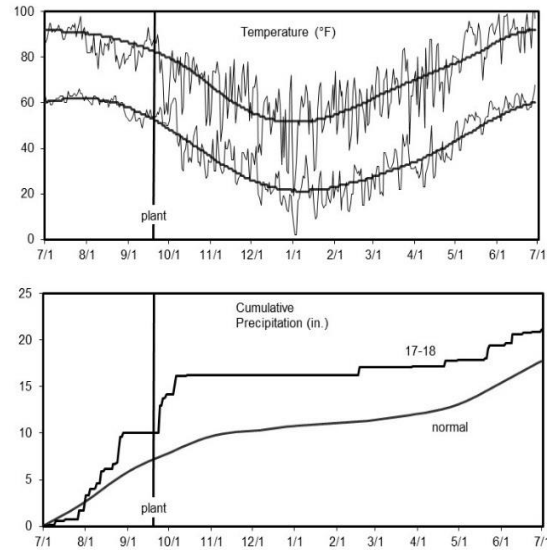
**Bold:** Superior LSD group. Unless two entries differ by more than the LSD, little confidence can be placed in one being superior to the other.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

# Clovis, New Mexico

Sangu Angadi and Sultan Begna  
New Mexico State University

Planted: 9/20/2017 in 6-in. rows  
Seeding Rate OP: 500,000 seeds/a  
Seeding Rate Hybrid: 300,000 seeds/a  
Desiccant: 2 pt/a Reglone on 6/14/2018  
Harvested: 6/20/2018  
Herbicides: 1.5 pt/a Treflan HFP, 5.3 oz/a Select  
Insecticides: 14 oz/a Prevethan in fall  
1 pt/a Dimethoate in spring  
Irrigation: 11.3 in.  
Previous crop: Wheat  
Soil test: 6-26-531 ppm N-P-K, pH=8.1  
Fertilizer: 125-20-0-35 lb N-P-K-S fertilizer in fall  
Soil type: Olton clay loam  
Elevation: 4437 ft Latitude: 34° 36'N  
Comments: The crop persisted through a significant drought and yields were slightly below average for this location.



**Table 21. Results for the 2018 National Winter Canola Variety Trial, open-pollinated cultivars, at Clovis, NM**

| Name                      | Type <sup>1</sup> | Yield (lb/a) <sup>2</sup> |      |       | Yield (% of | Winter survival |      |       | 50%   | Plant  | Test    | Oil  | Protein |
|---------------------------|-------------------|---------------------------|------|-------|-------------|-----------------|------|-------|-------|--------|---------|------|---------|
|                           |                   |                           |      |       | test avg.)  | (%)             |      |       | bloom | height | weight  |      |         |
|                           |                   | 2018                      | 2017 | 2-yr. | 2018        | 2018            | 2017 | 2-yr. | (DOY) | (in.)  | (lb/bu) | (%)  | (%)     |
| CROPLAN by WinField       |                   |                           |      |       |             |                 |      |       |       |        |         |      |         |
| CP115WRR                  | OP                | 2821                      | 975  | 1898  | 100         | ---             | ---  | ---   | 97    | 39     | 47.1    | 35.9 | 29.5    |
| CP225WRR                  | OP                | 2844                      | 1014 | 1929  | 101         | ---             | ---  | ---   | 96    | 41     | 48.4    | 36.4 | 29.4    |
| CP320WRR                  | OP                | 2947                      | 1397 | 2172  | 104         | ---             | ---  | ---   | 98    | 41     | 48.8    | 36.1 | 30.6    |
| CP45-25WRR                | OP                | 2531                      | 1122 | 1827  | 89          | ---             | ---  | ---   | 98    | 39     | 48.2    | 35.1 | 30.2    |
| Kansas State University   |                   |                           |      |       |             |                 |      |       |       |        |         |      |         |
| KS4670                    | OP                | 2977                      | ---  | ---   | 105         | ---             | ---  | ---   | 94    | 39     | 49.0    | 36.3 | 29.8    |
| KS4675                    | OP                | 2930                      | 955  | 1943  | 104         | ---             | ---  | ---   | 95    | 39     | 47.1    | 37.6 | 29.0    |
| KSR4723                   | OP                | 2561                      | ---  | ---   | 90          | ---             | ---  | ---   | 99    | 39     | 47.6    | 36.9 | 29.5    |
| KSR4724S                  | OP                | 2806                      | ---  | ---   | 99          | ---             | ---  | ---   | 94    | 39     | 47.9    | 37.4 | 29.6    |
| Riley                     | OP                | 3208                      | 869  | 2038  | 113         | ---             | ---  | ---   | 100   | 40     | 46.2    | 35.5 | 30.2    |
| Sumner                    | OP                | 3136                      | 671  | 1904  | 111         | ---             | ---  | ---   | 96    | 39     | 46.6    | 36.1 | 30.2    |
| Surefire                  | OP                | 3100                      | 1489 | 2294  | 110         | ---             | ---  | ---   | 97    | 39     | 49.2    | 34.4 | 30.5    |
| Wichita                   | OP                | 2679                      | 1463 | 2071  | 95          | ---             | ---  | ---   | 99    | 41     | 46.0    | 35.7 | 30.7    |
| KWS MOMONT                |                   |                           |      |       |             |                 |      |       |       |        |         |      |         |
| Quartz                    | OP                | 2373                      | 1819 | 2096  | 84          | ---             | ---  | ---   | 102   | 42     | 46.7    | 34.6 | 29.3    |
| Ohlde Seed Farms          |                   |                           |      |       |             |                 |      |       |       |        |         |      |         |
| Torrington                | OP                | 3016                      | 1093 | 2055  | 107         | ---             | ---  | ---   | 96    | 39     | 48.6    | 36.6 | 29.7    |
| Star Specialty Seed, Inc. |                   |                           |      |       |             |                 |      |       |       |        |         |      |         |
| Star 915W                 | OP                | 1995                      | 984  | 1490  | 71          | ---             | ---  | ---   | 96    | 38     | 48.0    | 38.0 | 29.9    |
| Star 930W                 | OP                | 2904                      | 1269 | 2086  | 103         | ---             | ---  | ---   | 96    | 41     | 47.8    | 33.8 | 31.1    |
| Grand Mean                |                   | 2830                      | 1122 | ---   | ---         | ---             | ---  | ---   | 97    | 39     | 47.7    | 36.1 | 29.9    |
| Common Check OP Mean      |                   | 2526                      | 1384 | ---   | ---         | ---             | ---  | ---   | 100   | 42     | 46.4    | 35.2 | 30.0    |
| Common Check Hybrid Mean  |                   | 3198                      | 1705 | ---   | ---         | ---             | ---  | ---   | 100   | 42     | 50.1    | 35.6 | 30.2    |
| CV                        |                   | 19                        | 27   | ---   | ---         | ---             | ---  | ---   | 1     | 6      | 3.8     | 2.6  | 3.4     |
| LSD (0.05)                |                   | 869                       | 501  | ---   | ---         | ---             | ---  | ---   | 2     | 4      | 3.0     | 2.0  | 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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

<sup>2</sup>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 22. Results for the 2018 National Winter Canola Variety Trial, hybrid cultivars, at Clovis, NM**

| Table 22P Results for the 2016 National Winter Canola Variety Trial, Hybrid Canola, at Crohn, MN. |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
|---------------------------------------------------------------------------------------------------|-------------------|--------------|------|-------|-------------|-----------------|-----|-------|--------|--------|------|------|---------|--|
| Name                                                                                              | Type <sup>1</sup> | Yield (lb/a) |      |       | Yield (% of | Winter survival |     |       | 50%    | Plant  | Test | Oil  | Protein |  |
|                                                                                                   |                   | 2018         | 2017 | 2-yr. | test avg.)  | (%)             | (%) | bloom | height | weight |      |      |         |  |
|                                                                                                   |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
| 2018                                                                                              |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
| 2017                                                                                              |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
| 2-yr.                                                                                             |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
| 2018                                                                                              |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
| 2018                                                                                              |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
| 2017                                                                                              |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
| 2-yr.                                                                                             |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
| (DOY)                                                                                             |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
| (in.)                                                                                             |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
| (lb/bu)                                                                                           |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
| (%)                                                                                               |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
| (%)                                                                                               |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
| Bayer Crop Science Division                                                                       |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
| CWH189D                                                                                           | H                 | 3013         | 1803 | 2408  | 89          | ---             | --- | ---   | 98     | 43     | 49.8 | 36.4 | 30.1    |  |
| CWH190D                                                                                           | H                 | 3292         | 1729 | 2511  | 98          | ---             | --- | ---   | 98     | 41     | 51.5 | 35.6 | 30.4    |  |
| CWH239D                                                                                           | H                 | 3357         | 1227 | 2292  | 100         | ---             | --- | ---   | 99     | 38     | 50.7 | 36.9 | 29.4    |  |
| DGC173D                                                                                           | H                 | 3396         | 1271 | 2333  | 101         | ---             | --- | ---   | 99     | 43     | 50.9 | 35.8 | 30.7    |  |
| DL Seeds Inc.                                                                                     |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
| Atora                                                                                             | H                 | 3314         | ---  | ---   | 98          | ---             | --- | ---   | 98     | 44     | 51.2 | 37.9 | 29.3    |  |
| Event                                                                                             | H                 | 3451         | ---  | ---   | 102         | ---             | --- | ---   | 99     | 43     | 50.5 | 37.1 | 29.2    |  |
| Phoenix CL                                                                                        | H                 | 3295         | ---  | ---   | 98          | ---             | --- | ---   | 98     | 43     | 50.4 | 38.0 | 29.3    |  |
| Plurax CL                                                                                         | H                 | 3428         | 1887 | 2658  | 102         | ---             | --- | ---   | 94     | 42     | 50.2 | 37.2 | 29.3    |  |
| Temptation                                                                                        | H                 | 3571         | ---  | ---   | 106         | ---             | --- | ---   | 99     | 44     | 50.1 | 36.6 | 29.8    |  |
| Kansas State University                                                                           |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
| Wichita                                                                                           | OP                | 2957         | 1744 | 2350  | 88          | ---             | --- | ---   | 98     | 41     | 49.9 | 36.0 | 30.9    |  |
| KWS MOMONT                                                                                        |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
| HAMOUR                                                                                            | H                 | 3364         | 1543 | 2453  | 100         | ---             | --- | ---   | 100    | 44     | 50.9 | 35.6 | 30.0    |  |
| HIDYLLE                                                                                           | H                 | 3560         | ---  | ---   | 106         | ---             | --- | ---   | 99     | 44     | 50.8 | 36.1 | 29.2    |  |
| MH 15AY085                                                                                        | H                 | 3302         | ---  | ---   | 98          | ---             | --- | ---   | 99     | 45     | 50.5 | 37.4 | 29.1    |  |
| MH 15HIB001                                                                                       | H                 | 3688         | ---  | ---   | 110         | ---             | --- | ---   | 93     | 43     | 49.4 | 36.0 | 31.3    |  |
| MH 15HIB002                                                                                       | H                 | 2851         | ---  | ---   | 85          | ---             | --- | ---   | 91     | 41     | 49.0 | 35.5 | 30.8    |  |
| MH 15HT229                                                                                        | H                 | 3363         | ---  | ---   | 100         | ---             | --- | ---   | 98     | 43     | 48.9 | 38.4 | 30.2    |  |
| Quartz                                                                                            | OP                | 3440         | 1872 | 2656  | 102         | ---             | --- | ---   | 102    | 43     | 50.3 | 35.1 | 29.5    |  |
| Rubisco Seeds LLC                                                                                 |                   |              |      |       |             |                 |     |       |        |        |      |      |         |  |
| Edimax CL                                                                                         | H                 | 3238         | 1061 | 2149  | 96          | ---             | --- | ---   | 97     | 44     | 50.6 | 37.0 | 28.8    |  |
| Inspiration                                                                                       | H                 | 3511         | 1089 | 2300  | 104         | ---             | --- | ---   | 95     | 45     | 50.3 | 37.4 | 29.5    |  |
| Mercedes                                                                                          | H                 | 3713         | 1632 | 2673  | 110         | ---             | --- | ---   | 100    | 40     | 50.9 | 36.4 | 29.4    |  |
| Popular                                                                                           | H                 | 3605         | 1641 | 2623  | 107         | ---             | --- | ---   | 94     | 41     | 50.9 | 37.2 | 29.2    |  |
| Grand Mean                                                                                        |                   | 3367         | 1401 | ---   | ---         | ---             | --- | ---   | 98     | 43     | 50.4 | 36.7 | 29.8    |  |
| Common Check Hybrid Mean                                                                          |                   | 3198         | 1705 | ---   | ---         | ---             | --- | ---   | 100    | 42     | 50.1 | 35.6 | 30.2    |  |
| Common Check OP Mean                                                                              |                   | 2526         | 1384 | ---   | ---         | ---             | --- | ---   | 100    | 42     | 46.4 | 35.2 | 30.0    |  |
| CV                                                                                                |                   | 8            | 16   | ---   | ---         | ---             | --- | ---   | 1      | 7      | 1.8  | 2.6  | 2.3     |  |
| LSD (0.05)                                                                                        |                   | 450          | 367  | ---   | ---         | ---             | --- | ---   | 2      | 5      | 1.5  | 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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

# Bushland, Texas

Jourdan Bell  
Texas A&M University

Planting date 1: 9/6/2017  
Planting date 2: 9/19/2017  
Harvested: 6/26/2018  
Herbicides: 1.5 pt/a Treflan  
Insecticides: 2 oz/a Beseige  
Irrigation: 5 in.  
Previous crop: Fallow  
Soil test: NA  
Fertilizer: 68-20-0-0 lb N-P-K-S fertilizer  
Soil type: Pantex silty clay loam  
Elevation: 3825 ft Latitude: 35° 11'N  
Comments: Planted into good soil moisture but a severe winter drought limited yields.

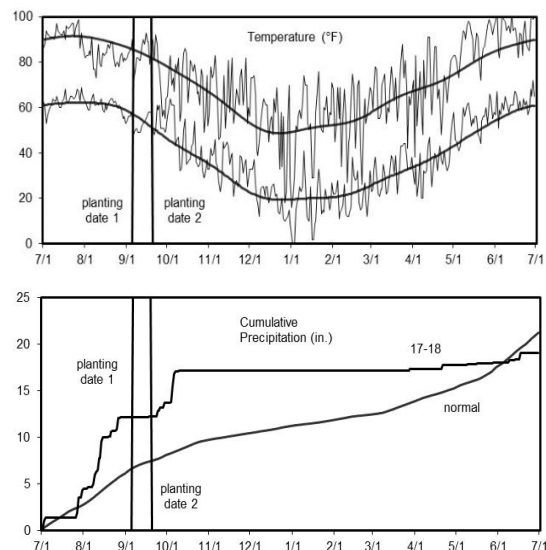


Table 23. Results for the 2018 National Winter Canola Variety Trial at Bushland, TX

| Name of the variety       |                   |                              |      |       |                        |      |      |                              |      |       |                        |      |      |         |             |
|---------------------------|-------------------|------------------------------|------|-------|------------------------|------|------|------------------------------|------|-------|------------------------|------|------|---------|-------------|
| Name                      | Type <sup>1</sup> | Yield (lb/a)                 |      |       | Yield (% of test avg.) |      |      | Yield (lb/a) <sup>2</sup>    |      |       | Yield (% of test avg.) |      |      | Oil (%) | Protein (%) |
|                           |                   | 2018                         | 2016 | 2-yr. | 2018                   | (%)  | (%)  | 2018                         | 2016 | 2-yr. | 2018                   | (%)  | (%)  |         |             |
|                           |                   | Planting date 1 <sup>3</sup> |      |       |                        |      |      | Planting date 2 <sup>3</sup> |      |       |                        |      |      |         |             |
| CROPLAN by WinField       |                   |                              |      |       |                        |      |      |                              |      |       |                        |      |      |         |             |
| CP115WRR                  | OP                | 410                          | 1619 | 1015  | 63                     | 30.0 | 26.3 | 521                          | 865  | 693   | 84                     | 33.1 | 28.5 |         |             |
| CP225WRR                  | OP                | 557                          | 995  | 776   | 85                     | 32.0 | 27.0 | 558                          | 1001 | 779   | 90                     | 32.5 | 27.3 |         |             |
| CP45-25WRR                | OP                | 464                          | 1652 | 1058  | 71                     | 32.7 | 26.7 | 439                          | 1428 | 934   | 71                     | 33.2 | 27.5 |         |             |
| DL Seeds Inc.             |                   |                              |      |       |                        |      |      |                              |      |       |                        |      |      |         |             |
| Phoenix CL                | H                 | 768                          | ---  | ---   | 117                    | 28.3 | 25.5 | 698                          | ---  | ---   | 112                    | 32.4 | 26.7 |         |             |
| Plurax CL                 | H                 | 396                          | ---  | ---   | 61                     | 29.8 | 26.2 | 840                          | ---  | ---   | 135                    | 34.8 | 27.5 |         |             |
| Kansas State University   |                   |                              |      |       |                        |      |      |                              |      |       |                        |      |      |         |             |
| Riley                     | OP                | 711                          | ---  | ---   | 109                    | 28.4 | 25.8 | 312                          | ---  | ---   | 50                     | 30.8 | 26.4 |         |             |
| KWS MOMONT                |                   |                              |      |       |                        |      |      |                              |      |       |                        |      |      |         |             |
| Quartz                    | OP                | 595                          | 2615 | 1605  | 91                     | 31.9 | 25.2 | 857                          | 1916 | 1387  | 138                    | 33.6 | 25.9 |         |             |
| Rubisco Seeds LLC         |                   |                              |      |       |                        |      |      |                              |      |       |                        |      |      |         |             |
| Edimax CL                 | H                 | 1061                         | 2288 | 1674  | 162                    | 29.1 | 25.5 | 754                          | 1791 | 1273  | 121                    | 31.6 | 26.3 |         |             |
| Inspiration               | H                 | 1391                         | 1559 | 1475  | 213                    | 30.9 | 26.6 | 1382                         | 1857 | 1620  | 222                    | 33.4 | 27.0 |         |             |
| Mercedes                  | H                 | 783                          | 1706 | 1244  | 120                    | 31.1 | 25.6 | 350                          | 2316 | 1333  | 56                     | 33.6 | 26.7 |         |             |
| Popular                   | H                 | 546                          | 1698 | 1122  | 83                     | 27.6 | 25.1 | 447                          | 1687 | 1067  | 72                     | 28.6 | 25.2 |         |             |
| Star Specialty Seed, Inc. |                   |                              |      |       |                        |      |      |                              |      |       |                        |      |      |         |             |
| Star 915W                 | OP                | 731                          | 1361 | 1046  | 112                    | 29.8 | 27.3 | 715                          | 966  | 841   | 115                    | 34.8 | 29.1 |         |             |
| Star 930W                 | OP                | 706                          | ---  | ---   | 108                    | 31.1 | 26.3 | 729                          | ---  | ---   | 117                    | 34.3 | 27.6 |         |             |
| Mean                      |                   | 654                          | 1595 | ---   | ---                    | 30.6 | 26.2 | 623                          | 1443 | ---   | ---                    | 32.9 | 27.0 |         |             |
| CV                        |                   | 18                           | ---  | ---   | ---                    | 7.5  | 2.9  | 23                           | ---  | ---   | ---                    | 5.4  | 2.2  |         |             |
| LSD (0.05)                |                   | 404                          | 370  | ---   | ---                    | NS   | NS   | 455                          | 370  | ---   | ---                    | NS   | 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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

<sup>2</sup>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.

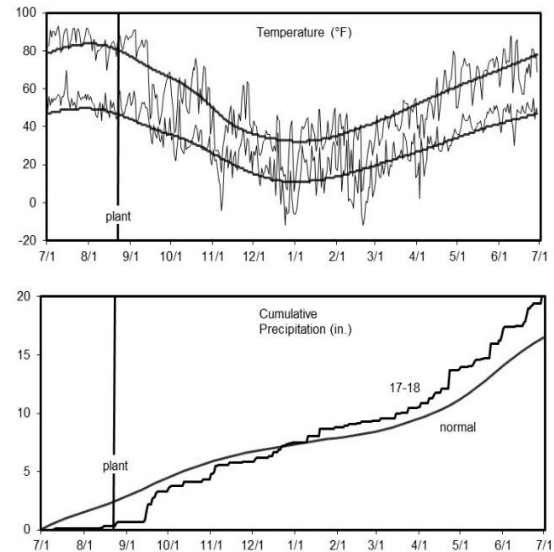
<sup>3</sup>For the 2015-16 season, planting date 1 was on 8/17/2015 and planting date 2 was on 10/2/2015.

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# Bozeman, Montana

Perry Miller and Jeff Holmes  
Montana State University

Planted: 8/23/2017  
Harvested: 8/22/2018  
Herbicides: 32 oz/a Glyphosate  
Insecticides: Warrior  
Irrigation: None  
Previous crop: Fallow  
Soil test: NA  
Fertilizer: 121-0-0-0 lb N-P-K-S fertilizer in fall  
0-0-0 lb N-P-K fertilizer in spring  
Soil type: Amsterdam silt loam  
Elevation: 4775 ft Latitude: 45° 40'N  
Comments: Only two replications were harvested because of stand losses. Tied for second wettest crop year in the last 50 years. Winter canola stand was thin.



**Table 24. Results for the 2018 National Winter Canola Variety Trial at Bozeman, MT**

| Name                      | Type <sup>1</sup> | Yield (lb/a) |             |       | Yield (% of | Winter survival |      |       | Plant  | Test     |         |      |         |
|---------------------------|-------------------|--------------|-------------|-------|-------------|-----------------|------|-------|--------|----------|---------|------|---------|
|                           |                   |              |             |       | test avg.)  | (%)             |      |       | height | Moisture | weight  | Oil  | Protein |
|                           |                   | 2018         | 2016        | 2-yr. | 2018        | 2018            | 2017 | 2-yr. | (in.)  | (%)      | (lb/bu) | (%)  | (%)     |
| CROPLAN by WinField       |                   |              |             |       |             |                 |      |       |        |          |         |      |         |
| CP115WRR                  | OP                | 2740         | <b>2757</b> | 2748  | 93          | ---             | ---  | ---   | ---    | ---      | ---     | 41.4 | 23.0    |
| CP225WRR                  | OP                | 2609         | <b>2694</b> | 2651  | 88          | ---             | ---  | ---   | ---    | ---      | ---     | 42.4 | 21.4    |
| CP320WRR                  | OP                | <b>3605</b>  | 2436        | 3021  | 122         | ---             | ---  | ---   | ---    | ---      | ---     | 43.5 | 21.1    |
| CP45-25WRR                | OP                | 2975         | 2346        | 2661  | 101         | ---             | ---  | ---   | ---    | ---      | ---     | 42.0 | 22.3    |
| Kansas State University   |                   |              |             |       |             |                 |      |       |        |          |         |      |         |
| KSR4723                   | OP                | <b>3568</b>  | ---         | ---   | 121         | ---             | ---  | ---   | ---    | ---      | ---     | 43.6 | 21.5    |
| KSR4724S                  | OP                | 2243         | ---         | ---   | 76          | ---             | ---  | ---   | ---    | ---      | ---     | 43.8 | 21.4    |
| Star Specialty Seed, Inc. |                   |              |             |       |             |                 |      |       |        |          |         |      |         |
| Star 915W                 | OP                | 2626         | 2329        | 2477  | 89          | ---             | ---  | ---   | ---    | ---      | ---     | 42.5 | 22.9    |
| Star 930W                 | OP                | <b>3292</b>  | <b>2632</b> | 2962  | 111         | ---             | ---  | ---   | ---    | ---      | ---     | 41.1 | 23.5    |
| Mean                      |                   | 2957         | 2439        | ---   | ---         | ---             | ---  | ---   | ---    | ---      | ---     | 42.6 | 22.1    |
| CV                        |                   | 14           | ---         | ---   | ---         | ---             | ---  | ---   | ---    | ---      | ---     | 2.3  | 3.7     |
| LSD (0.3)                 |                   | 454          | 381         | ---   | ---         | ---             | ---  | ---   | ---    | ---      | ---     | 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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

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# Alburgh, Vermont

Heather Darby and Sara Ziegler  
University of Vermont

Planted: 8/24/2017 in 6-in. rows  
Seeding Rate OP: 500,000 seeds/a  
Seeding Rate Hybrid: 300,000 seeds/a  
Harvested: 7/16/2018  
Herbicides: None  
Insecticides: None  
Irrigation: None  
Previous crop: Spring barley  
Soil test: P=25 lb/a, K=86 lb/a, pH=7.0  
Fertilizer: 60-0-0 lb N-P-K fertilizer in spring  
Soil type: Benson rocky silt loam  
Elevation: 124 ft Latitude: 45° 0'N  
Comments: Winter stand losses reduced yields, but overall performance was similar to previous years.

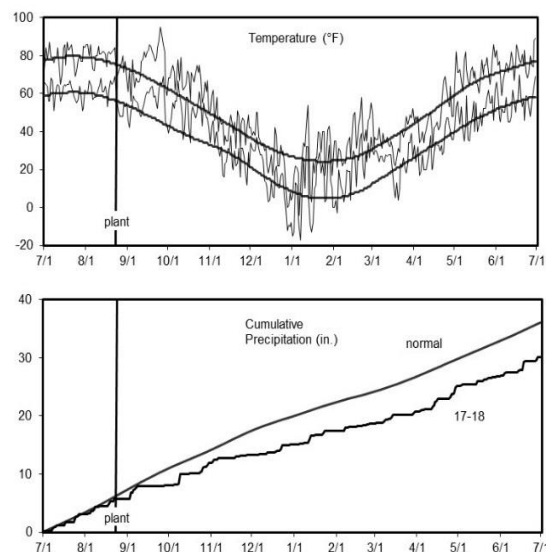


Table 25. Results for the 2018 National Winter Canola Variety Trial at Alburgh, VT

| Name                        | Type <sup>1</sup> | Yield (lb/a) <sup>2</sup> |      |       | Yield (% of | Winter survival |      |      | Fall  | 50%   | Test  | Oil  | Protein |        |
|-----------------------------|-------------------|---------------------------|------|-------|-------------|-----------------|------|------|-------|-------|-------|------|---------|--------|
|                             |                   | 2018                      | 2017 | 2-yr. | test avg.)  | (%)             | 2018 | 2017 | 2-yr. | vigor | bloom |      |         | weight |
|                             |                   |                           |      |       |             |                 |      |      |       |       |       |      |         | (%)    |
|                             |                   |                           |      |       |             |                 |      |      |       |       |       |      |         | (%)    |
| Bayer Crop Science Division |                   |                           |      |       |             |                 |      |      |       |       |       |      |         |        |
| CWH189D                     | H                 | 1792                      | ---  | ---   | 150         | 77              | ---  | ---  | 3.3   | 130   | 48.3  | 43.4 | 21.6    |        |
| CWH190D                     | H                 | 1634                      | ---  | ---   | 137         | 68              | ---  | ---  | 3.3   | 130   | 48.2  | 43.1 | 21.5    |        |
| DGC173D                     | H                 | 929                       | ---  | ---   | 78          | 52              | ---  | ---  | 3.3   | 130   | 45.2  | 41.5 | 22.1    |        |
| DL Seeds Inc.               |                   |                           |      |       |             |                 |      |      |       |       |       |      |         |        |
| Atora                       | H                 | 1033                      | ---  | ---   | 87          | 53              | ---  | ---  | 4.0   | 132   | 45.6  | 44.3 | 20.9    |        |
| Phoenix CL                  | H                 | 556                       | ---  | ---   | 47          | 23              | ---  | ---  | 5.0   | 133   | 43.1  | 42.1 | 22.4    |        |
| Plurax CL                   | H                 | 880                       | 1151 | 1015  | 74          | 48              | ---  | ---  | 4.0   | 131   | 45.1  | 42.8 | 21.3    |        |
| Kansas State University     |                   |                           |      |       |             |                 |      |      |       |       |       |      |         |        |
| Riley                       | OP                | 1581                      | 1519 | 1550  | 133         | 52              | ---  | ---  | 4.3   | 130   | 46.6  | 43.8 | 23.1    |        |
| Surefire                    | OP                | 1580                      | ---  | ---   | 133         | 60              | ---  | ---  | 4.0   | 130   | 46.6  | 42.1 | 22.7    |        |
| KWS MOMONT                  |                   |                           |      |       |             |                 |      |      |       |       |       |      |         |        |
| HAMOUR                      | H                 | 1140                      | ---  | ---   | 96          | 53              | ---  | ---  | 3.7   | 130   | 47.5  | 43.3 | 20.7    |        |
| HIDYLLE                     | H                 | 1095                      | ---  | ---   | 92          | 38              | ---  | ---  | 4.7   | 130   | 48.5  | 44.5 | 20.6    |        |
| Quartz                      | OP                | 1905                      | 1356 | 1631  | 160         | 82              | ---  | ---  | 2.7   | 130   | 47.2  | 45.5 | 18.6    |        |
| Rubisco Seeds LLC           |                   |                           |      |       |             |                 |      |      |       |       |       |      |         |        |
| Edimax CL                   | H                 | 778                       | 1278 | 1028  | 65          | 38              | ---  | ---  | 4.7   | 134   | 45.0  | 42.6 | 20.7    |        |
| Inspiration                 | H                 | 1269                      | 1332 | 1300  | 107         | 45              | ---  | ---  | 4.3   | 131   | 44.5  | 44.7 | 20.8    |        |
| Mercedes                    | H                 | 577                       | 1323 | 950   | 48          | 28              | ---  | ---  | 5.0   | 135   | 46.5  | 45.2 | 21.0    |        |
| Popular                     | H                 | 1111                      | 1278 | 1194  | 93          | 52              | ---  | ---  | 4.3   | 132   | 45.8  | 45.0 | 20.0    |        |
| Mean                        |                   | 1191                      | 1239 | ---   | ---         | 51              | ---  | ---  | 4.0   | 131   | 46.2  | 43.6 | 21.2    |        |
| CV                          |                   | 33                        | 28   | ---   | ---         | 31              | ---  | ---  | 13.6  | 1     | 3.6   | 2.8  | 4.4     |        |
| LSD (0.05)                  |                   | 660                       | NS   | ---   | ---         | 26              | ---  | ---  | 0.9   | 3     | 2.8   | NS   | 2.0     |        |

**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.

<sup>1</sup>Type: H=hybrid, OP=open pollinated

<sup>2</sup>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.

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**Table 26. Results for the 2018 Blackleg (*Leptosphaeria maculans*) Trial at Stillwater, OK.**

**National Winter Canola Variety Trial**

J.P. Damicone, D.L. Teeter, F. Cevallos, B. Johnson, and J.J. Lofton, Oklahoma State University

M.J. Stamm, Kansas State University

| Entry                              | Yield <sup>1</sup><br>(lb/a) | Fall stand <sup>2</sup><br>(%) | Aphid damage <sup>3</sup><br>(%) | Blackleg leaf spot <sup>4</sup><br>(%) | Blackleg incidence <sup>5</sup><br>(%) | Blackleg incidence <sup>6</sup><br>(≥3) | Blackleg severity <sup>7</sup><br>(0-5) |
|------------------------------------|------------------------------|--------------------------------|----------------------------------|----------------------------------------|----------------------------------------|-----------------------------------------|-----------------------------------------|
| <b>Checks</b>                      |                              |                                |                                  |                                        |                                        |                                         |                                         |
| Bristol                            | 651 no                       | 62 c                           | 7 a                              | 0.3 a                                  | 100 a                                  | 80 abc                                  | 3.87 a-d                                |
| Eurol                              | 405 o                        | 35 d                           | 32 a                             | 0.3 a                                  | 83 abc                                 | 47 e-j                                  | 2.80 g-m                                |
| <b>Bayer Crop Science Division</b> |                              |                                |                                  |                                        |                                        |                                         |                                         |
| CWH189D                            | 1703 g-l                     | 98 a                           | 3 a                              | 0.0 a                                  | 57 ef                                  | 30 ij                                   | 2.20 lm                                 |
| CWH190D                            | 1862 e-k                     | 100 a                          | 10 a                             | 0.7 a                                  | 83 abc                                 | 70 b-e                                  | 3.37 b-h                                |
| CWH239D                            | 1923 d-k                     | 100 a                          | 8 a                              | 0.0 a                                  | 60 def                                 | 40 g-j                                  | 2.50 i-n                                |
| DGC173D                            | 2381 b-f                     | 83 b                           | 5 a                              | 0.7 a                                  | 63 c-f                                 | 27 ij                                   | 2.23 k-n                                |
| <b>CROPLAN by WinField</b>         |                              |                                |                                  |                                        |                                        |                                         |                                         |
| CP115WRR                           | 1653 h-m                     | 83 b                           | 5 a                              | 0.0 a                                  | 100 a                                  | 70 b-e                                  | 3.53 a-g                                |
| CP225WRR                           | 1148 lm                      | 87 ab                          | 10 a                             | 0.0 a                                  | 90 ab                                  | 70 b-e                                  | 3.43 b-h                                |
| CP320WRR                           | 1649 h-m                     | 100 a                          | 8 a                              | 0.3 a                                  | 93 ab                                  | 80 abc                                  | 3.80 a-e                                |
| CP45-25WRR                         | 1379 j-m                     | 90 a                           | 15 a                             | 0.3 a                                  | 100 a                                  | 77 abc                                  | 3.77 a-e                                |
| <b>DL Seeds Inc.</b>               |                              |                                |                                  |                                        |                                        |                                         |                                         |
| Atora                              | 2177 b-h                     | 100 a                          | 5 a                              | 0.3 c                                  | 60 def                                 | 23 j                                    | 2.03 mn                                 |
| Event                              | 3164 a                       | 100 a                          | 2 a                              | 0.0 a                                  | 57 ef                                  | 37 g-j                                  | 2.50 i-n                                |
| Phoenix CL                         | 1827 f-k                     | 100 a                          | 18 a                             | 0.3 a                                  | 77 b-e                                 | 47 e-j                                  | 2.87 f-m                                |
| Plurax CL                          | 2714 ab                      | 92 ab                          | 8 a                              | 0.3 a                                  | 83 abc                                 | 27 ij                                   | 2.50 i-n                                |
| Temptation                         | 2509 bcd                     | 95 ab                          | 8 a                              | 0.0 a                                  | 60 def                                 | 30 ij                                   | 2.23 k-n                                |
| <b>Kansas State University</b>     |                              |                                |                                  |                                        |                                        |                                         |                                         |
| KS4670                             | 2140 b-h                     | 97 ab                          | 10 a                             |                                        | 90 ab                                  | 57 c-h                                  | 3.07 d-k                                |
| KS4675                             | 1654 h-m                     | 93 ab                          | 5 a                              | 0.0 a                                  | 83 abc                                 | 70 b-e                                  | 3.57 a-g                                |
| KSR4723                            | 1499 i-m                     | 100 a                          | 5 a                              | 1.7 a                                  | 97 ab                                  | 80 abc                                  | 4.07 ab                                 |
| KSR4724S                           | 1448 i-m                     | 97 ab                          | 12 a                             | 0.0 a                                  | 93 ab                                  | 60 b-g                                  | 3.20 c-j                                |
| Riley                              | 1685 h-l                     | 93 ab                          | 18 a                             | 0.0 a                                  | 93 ab                                  | 73 bcd                                  | 3.67 a-f                                |
| Sumner                             | 1418 j-m                     | 90 ab                          | 7 a                              | 0.7 a                                  | 90 ab                                  | 73 bcd                                  | 3.73 a-e                                |
| Surefire                           | 2220 b-h                     | 100 a                          | 8 a                              | 0.0 a                                  | 80 a-d                                 | 43 f-j                                  | 2.77 g-m                                |
| Wichita                            | 2312 b-g                     | 100 a                          | 3 a                              | 0.7 a                                  | 100 a                                  | 47 e-j                                  | 3.03 d-l                                |
| <b>KWS MOMONT</b>                  |                              |                                |                                  |                                        |                                        |                                         |                                         |
| HAMOUR                             | 2485 bcd                     | 100 a                          | 8 a                              | 0.7 a                                  | 83 abc                                 | 43 f-j                                  | 2.80 g-m                                |
| HIDYLLE                            | 2170 b-h                     | 100 a                          | 3 a                              | 0.3 a                                  | 77 b-e                                 | 50 d-i                                  | 2.97 e-l                                |
| MH 15AY085                         | 1974 d-j                     | 93 ab                          | 7 a                              | 0.3 a                                  | 60 def                                 | 37 g-j                                  | 2.33 k-n                                |
| MH 15HIB001                        | 2645 abc                     | 97 ab                          | 2 a                              | 0.0 a                                  | 60 def                                 | 47 e-j                                  | 2.63 h-n                                |
| MH 15HIB002                        | 2466 b-e                     | 100 a                          | 7 a                              | 0.0 a                                  | 50 fg                                  | 30 ij                                   | 2.20 lm                                 |
| MH 15HT229                         | 2668 ab                      | 100 a                          | 3 a                              | 0.0 a                                  | 30 g                                   | 23 j                                    | 1.87 n                                  |
| Quartz                             | 2048 c-i                     | 100 a                          | 2 a                              | 0.3 a                                  | 80 a-d                                 | 67 b-f                                  | 3.23 b-j                                |

**Table 26, continued. Results for the 2018 Blackleg (*Leptosphaeria maculans*) Trial at Stillwater, OK.  
National Winter Canola Variety Trial**

| <b>Entry</b>                     | <b>Yield<sup>1</sup><br/>(lb/a)</b> | <b>Fall stand<sup>2</sup><br/>(%)</b> | <b>Aphid<br/>damage<sup>3</sup><br/>(%)</b> | <b>Blackleg<br/>leaf spot<sup>4</sup><br/>(%)</b> | <b>Blackleg<br/>incidence<sup>5</sup><br/>(%)</b> | <b>Blackleg<br/>incidence<sup>6</sup><br/>(≥3)</b> | <b>Blackleg<br/>severity<sup>7</sup><br/>(0-5)</b> |
|----------------------------------|-------------------------------------|---------------------------------------|---------------------------------------------|---------------------------------------------------|---------------------------------------------------|----------------------------------------------------|----------------------------------------------------|
| <b>Ohlde Seed Farms</b>          |                                     |                                       |                                             |                                                   |                                                   |                                                    |                                                    |
| Torrington                       | 1834 f-k                            | 92 ab                                 | 7 a                                         | 0.0 a                                             | 82 abc                                            | 50 d-i                                             | 2.97 e-l                                           |
| <b>Rubisco Seeds LLC</b>         |                                     |                                       |                                             |                                                   |                                                   |                                                    |                                                    |
| Edimax CL                        | 2385 b-f                            | 100 a                                 | 18 a                                        | 0.3 a                                             | 63 c-f                                            | 33 hij                                             | 2.47 j-n                                           |
| Inspiration                      | 2378 b-f                            | 100 a                                 | 8 a                                         | 0.0 a                                             | 80 a-d                                            | 43 f-j                                             | 2.73 g-m                                           |
| Mercedes                         | 2311 b-g                            | 100 a                                 | 5 a                                         | 0.3 a                                             | 80 a-d                                            | 57 c-h                                             | 3.03 d-l                                           |
| Popular                          | 2304 b-g                            | 100 a                                 | 10 a                                        | 0.0 a                                             | 90 ab                                             | 43 f-j                                             | 2.97 e-l                                           |
| <b>Star Specialty Seed, Inc.</b> |                                     |                                       |                                             |                                                   |                                                   |                                                    |                                                    |
| Star 915W                        | 1054 mn                             | 88 ab                                 | 12 a                                        | 0.3 a                                             | 100 a                                             | 100 a                                              | 4.30 a                                             |
| Star 930W                        | 1682 h-l                            | 97 ab                                 | 35 a                                        | 0.0 a                                             | 93 ab                                             | 60 b-g                                             | 3.33 b-i                                           |
| <b>P&gt;F</b>                    | <0.01                               | <0.01                                 | 0.33                                        | 0.06                                              | <0.01                                             | <0.01                                              | <0.01                                              |
| <b>CV</b>                        | 19.8                                | 9.3                                   | 248.9                                       | 115.5                                             | 16.4                                              | 27.9                                               | 17.2                                               |

<sup>1</sup>Values in a column followed by the same letter are not statistically different at P=0.05 according to t-tests

<sup>2</sup>Percentage of plot coverage with foliage on 17 Apr 2018.

<sup>3</sup>Percentage of plot with aphid damage on 25 May 2018.

<sup>4</sup>Percentage of leaves with the blackleg leaf spot on 20 Dec 2018.

<sup>5</sup>Percentage of plants with blackleg after swathing on 5 Jun 2018.

<sup>6</sup>Percentage of plants with severe blackleg (severity rating of ≥3) after swathing on 5 Jun 2018.

<sup>7</sup>Severity of internal stem decay from blackleg on a 1 to 5 scale where 1 = no disease, 2 = >0 to ≤25% stem

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**Table 27. Seed sources for entries in the 2017-2018 National Winter Canola Variety Trial**

| Source                                                                                       | Type <sup>1</sup> | Trait <sup>2</sup> | Available date | Maturity <sup>3</sup> | Source                                                                      | Type <sup>1</sup> | Trait <sup>2</sup> | Available date | Maturity <sup>3</sup> |
|----------------------------------------------------------------------------------------------|-------------------|--------------------|----------------|-----------------------|-----------------------------------------------------------------------------|-------------------|--------------------|----------------|-----------------------|
| <b>CROPLAN by WinField</b><br>Mark Torno (mtorno@landolakes.com)                             |                   |                    |                |                       | <b>KWS MOMONT</b><br>Thierry Momont (thierry.momont@kws.com)                |                   |                    |                |                       |
| CP115WRR                                                                                     | OP                | RR/SURT            | 2008           | ME                    | <b>Photosyntech</b><br>Bob Amstrup (bob.amstrup@photosyntech.com)           |                   |                    |                |                       |
| CP225WRR                                                                                     | OP                | RR/SURT            | 2014           | M                     | HAMOUR                                                                      | H                 | ---                | ---            | F                     |
| CP320WRR                                                                                     | OP                | RR                 | 2017           | E                     | HIDYLLE                                                                     | H                 | ---                | ---            | F                     |
| CP45-25WRR                                                                                   | OP                | RR/SURT            | 2013           | M                     | MH 15HIB001                                                                 | H                 | CL                 | ---            | M                     |
| <b>DL Seeds Inc.</b><br>Kevin McCallum (kevin.mccallum@dlseeds.ca)                           |                   |                    |                |                       | MH 15HIB002                                                                 | H                 | CL                 | ---            | ME                    |
| Atora                                                                                        | H                 | ---                | ---            | M                     | MH 15AY085                                                                  | H                 | ---                | ---            | F                     |
| Event                                                                                        | H                 | ---                | ---            | M                     | MH 15HT229                                                                  | H                 | ---                | ---            | F                     |
| Phoenix CL                                                                                   | H                 | CL                 | ---            | M                     | Quartz                                                                      | OP                | ---                | 2015           | M                     |
| Plurax CL                                                                                    | H                 | CL                 | 2018           | E                     | <b>Bayer Crop Science Division</b><br>David Kelner (david.kelner@bayer.com) |                   |                    |                |                       |
| Temptation                                                                                   | H                 | ---                | ---            | F                     | CWH189D                                                                     | H                 | SD/CL              | ---            | M                     |
| <b>Kansas State University Canola Breeding Program</b><br>Michael J. Stamm (mjstamm@ksu.edu) |                   |                    |                |                       | CWH190D                                                                     | H                 | SD/CL              | ---            | M                     |
| KS4670                                                                                       | OP                | ---                | ---            | M                     | CWH239D                                                                     | H                 | SD                 | ---            | M                     |
| KS4675                                                                                       | OP                | ---                | ---            | M                     | DGC173D                                                                     | H                 | SD                 | ---            | M                     |
| KSR4723                                                                                      | OP                | RR                 | ---            | M                     | <b>Rubisco Seeds LLC</b><br>Claire Caldbeck (info@rubiscoseeds.com)         |                   |                    |                |                       |
| KSR4724S                                                                                     | OP                | RR/SURT            | ---            | E                     | Edimax CL                                                                   | H                 | CL                 | 2012           | M                     |
| Riley                                                                                        | OP                | ---                | 2010           | M                     | Inspiration                                                                 | H                 | ---                | 2014           | M                     |
| Sumner                                                                                       | OP                | SU                 | 2003           | ME                    | Mercedes                                                                    | H                 | ---                | 2014           | M                     |
| Surefire                                                                                     | OP                | SU                 | 2017           | F                     | Popular                                                                     | H                 | ---                | 2016           | E                     |
| Wichita                                                                                      | OP                | ---                | 1999           | M                     | <b>Star Specialty Seed, Inc.</b><br>Jim Johnson (jimj_star@hotmail.com)     |                   |                    |                |                       |
| <b>Ohlde Seed Farms</b><br>Shane Ohlde (shane@ohldeedseed.com)                               |                   |                    |                |                       | Star 915W                                                                   | OP                | RR/SURT            | 2014           | M                     |
| Torrington                                                                                   | OP                | ---                | 2016           | M                     | Star 930W                                                                   | OP                | RR                 | 2013           | ME                    |

<sup>1</sup> OP = open pollinated, H = hybrid

<sup>2</sup> SU and SURT = sulfonylurea carryover tolerant; CL = Clearfield (imidazolinone resistant); RR = Roundup Ready; SD = semi dwarf

<sup>3</sup> E = Early; ME = Medium/Early; M = Medium; MF = Medium/Full; F = Full

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