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# North Dakota Canola

## *Hybrid Trial Results for 2021 and Selection Guide*

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Canola is a major oil crop in the northern Great Plains, particularly in North Dakota. In 2021, North Dakota accounted for approximately 81% of the 2.15 million canola acres planted in the U.S. This publication summarizes canola hybrid performance at the various North Dakota State University Research Extension Centers. The relative performance of the hybrids is presented in table form.

Give special attention to yield results of those trials nearest to your production area when evaluating varieties or hybrids in these trials. Also, attempt to view yield averages of several years rather than using only one year's data as a determining factor. In addition, consider other agronomic characteristics, such as maturity, lodging score and oil percentages, if available.

Research specialists and technicians helped with the field work and data compilation. The assistance given by many secretaries in entering data in respective portions of the document is very much appreciated. A special thank you goes to Lisa Johnson, Extension Plant Sciences secretary, for assisting in the compilation of this publication.

### **2021 Growing Season Update**

Canola fieldwork began at the end of April, with 1% of the acres planted by April 25 and 20% planted by May 10. On May 10, the topsoil moisture was rated at 52% very short. Frost was reported during the period May 26-28 and caused some stand issues in certain fields.

By July 5, 64% of the canola crop was flowering, compared with the average of 65% on the same day. Many parts of the state experienced a warm midsummer, and drought conditions existed. By the last week in July 2021, the North Dakota office of the National Agricultural Statistics Service reported the canola crop condition as 25% very poor, 25% poor, 30% fair, 19% good and 1% excellent. By Sept. 13, 72% of the canola acres were harvested. In general, the 2021 season was challenging, and yield is estimated to be about 1,100 pounds per acre for North Dakota.

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**Table 1. Canola Production, North Dakota 2008-2021.**

Year	Acres Planted	Acres Harvested	Yield Per Acre	Production
	------(1,000 Acres)-----		(lb.)	(1,000 lb.)
2008	910	895	1,460	1,306,700
2009	730	725	1,840	1,334,000
2010	1,280	1,270	1,720	2,184,400
2011	890	850	1,500	1,275,000
2012	1,460	1,455	1,380	2,007,900
2013	920	915	1,820	1,665,300
2014	1,200	1,190	1,800	2,142,000
2015	1,410	1,400	1,780	2,492,000
2016	1,460	1,450	1,840	2,668,000
2017	1,590	1,560	1,600	2,496,000
2018	1,590	1,580	1,960	3,096,800
2019	1,700	1,610	1,800	2,898,000
2020	1,510	1,490	1,960	2,920,400
2021 <sup>1</sup>	1,750	1,720	1,100	1,892,000
Average	1,314	1,293	1,683	2,169,893

<sup>1</sup>Forecast U.S. Department of Agriculture (USDA).  
Source: North Dakota Agricultural Statistics Service – USDA.

**Table 2. April-September 2021 Average Temperature, Precipitation and Rankings for Selected North Dakota Locations.**

Location	Average Temperature (Ranking)	Total Precipitation (Ranking)
Bowman	62.2 F (third warmest period since 1915)	8.8 inches (21st driest period since 1915)
Bismarck	64.8 F (the warmest period since 1875)	7.3 inches (sixth driest period since 1875)
Cavalier	59.7 F (17th warmest period since 1934)	10.1 inches (17th driest period since 1927)
Fargo	63.7 F (fifth warmest period since 1881)	12.3 inches (27th driest period since 1881)
Minot Exp. Station	60.9 F (ninth warmest period since 1905)	9.1 inches (21st driest period since 1894)
Williston Exp. Station	62.4 F (sixth warmest period since 1894)	7.3 inches (18th driest period since 1894)
North Dakota Average <sup>1</sup>	<b>61.2 F (fifth warmest period since 1895)</b>	<b>10.4 inches (12th driest period since 1895)</b>

Source: Adnan Akyüz, NDSU, North Dakota state climatologist.

<sup>1</sup>Statewide values are calculated based on all available locations in North Dakota rather than the mathematical average of the list above.

## About This Publication

Variety trial data from all NDSU Research Extension Centers for all crops can be found at [www.ag.ndsu.edu/varietytrials](http://www.ag.ndsu.edu/varietytrials). The agronomic data presented in this publication are from replicated research plots using experimental designs that enable the use of statistical analysis. The LSD (least significant difference) numbers beneath the columns in tables are derived from the statistical analyses and only apply to the numbers in the column in which they appear. If the difference between two varieties exceeds the LSD value, it means that with 95% or 90% probability (0.05 or 0.10 level), the higher-yielding variety has a significant yield advantage. If the difference between two varieties is less than the LSD value, then the variety yields are considered similar. The abbreviation NS is used to indicate “no significant difference” for that trait among any of the varieties.

The CV is a measure of variability in the trial. The CV stands for coefficient of variation and is expressed as a percentage. Large CVs mean a large amount of variation that could not be attributed to differences in the varieties. **The CVs for yield in 2021 tended to be higher than normal and data should be interpreted with caution.** In the tables, the mean indicates the average of the observations in the column. Only compare values within the table and look for trends for the desired trait among different experimental sites and years.

Oil and harvest yield were adjusted to 8.5% moisture, except where otherwise indicated in the footnotes. Oil content is intended to differentiate among hybrids at one location. LSD values should be used to determine differences among hybrids. **The oil content data are not intended to be compared among locations.**

Presentation of data for the varieties tested does not imply approval or endorsement by the authors or agencies conducting the tests. NDSU approves the reproduction of any table in this publication only if no portion is deleted, appropriate footnotes are given, the order of the data is not rearranged and NDSU is credited for the data.

**Table 3. Company Name, Short Name Used in the Tables and URL With Company Information.**

Company/Brand	Short	URL
BASF	BASF	agriculture.basf.us/crop-protection/products/seeds/invigor.html
BrettYoung	BrettYoung	www.brettyoung.ca/us-seed-crop-inputs/canola
Bayer/Dekalb	Dekalb	www.dekalbasgrowdeltapine.com/
DuPont/Pioneer	Pioneer	www.pioneer.com/us
Dyna-Gro Seed	Dyna-Gro	www.dynagroseed.com
Integra Fortified Seed	Integra	www.wilburellisagribusiness.com/integra-seed/
Meridian Seeds/Canterra	Meridian	www.meridianseeds.com/product-information/canola/
Nuseed SA	Nuseed	www.nuseed.com
Star Specialty	Star	www.starspecialtyseed.com
WinField/Croplan	Croplan	www.winfieldunited.com/products/winfield-united-seed/

**Table 4. 2021 Summary of TruFlex, Liberty Link, and Clearfield Canola Hybrids in North Dakota.**

Company/ Brand	Hybrid	Type <sup>1</sup>	Blackleg Rating <sup>2</sup>	Clubroot Resistance <sup>3</sup>	REC Langdon	REC Minot	REC Williston	Irrigated Williston
BASF	L233P	LL	R	No	x	x	x	x
BASF	L234PC	LL	R	Yes	x	x	--	--
BASF	L255PC	LL	R	Yes	x	x	--	--
BASF	L340PC	LL	R	Yes	x	x	x	x
BASF	L343PC	LL	R	Yes	x	x	--	--
BASF	L345PC	LL	R	Yes	x	x	x	x
BASF	LR344PC	TFLL	R	Yes	x	x	x	x
Croplan	CP7130LL	LL	R	No	x	x	x	--
Croplan	CP7144LL	LL	R	No	x	x	x	--
Dekalb	DKLL82SC	LL	R	No	x	x	--	--
Dekalb	DKTFLL21SC	TFLL	R	No	x	x	--	--
Dekalb	H19W94354	LL	R	No	x	--	--	--
Dyna-Gro	DG 200CL	CL	R	No	x	--	--	--
Meridian	CS2500 CL	CL	R	No	--	--	x	--
Meridian	CS2700 CL	CL	R	Yes	x	--	x	--
Meridian	CS4000 LL	LL	R	Yes	x	x	x	--
Pioneer	P505MSL	LL	R	Yes	x	x	--	--
Pioneer	P506ML	LL	R	Yes	x	x	--	--

<sup>1</sup>LL = Liberty Link, CL = Clearfield System and TF = Roundup Ready TruFlex.

<sup>2</sup>Blackleg rating provided by company, R = Resistant.

<sup>3</sup>Hybrid Clubroot resistance rating provided by company.

**Table 5. 2021 Summary of TruFlex and Roundup Ready Canola Hybrids in North Dakota.**

Company/ Brand	Hybrid	Type <sup>1</sup>	Blackleg Rating <sup>2</sup>	Clubroot Resistance <sup>3</sup>	REC Langdon	REC Minot	REC Williston	Irrigated Williston
BASF	LR344PC	TFLL	R	Yes	--	x	x	--
BrettYoung	BY 6204TF	TF	R	Yes	x	x	--	--
BrettYoung	BY 6207TF	TF	R	Yes	x	x	--	--
BrettYoung	BY 6211TF	TF	R	No	x	x	x	x
Croplan	CP9978TF	TF	R	No	x	x	x	x
Dekalb	DKTF91SC	TF	R	No	--	x	x	--
Dekalb	DKTF96SC	TF	R	No	x	x	--	--
Dekalb	DKTF99SC	TF	R	No	x	--	x	--
Dekalb	DKTFLL21SC	TFLL	R	No	x	x	--	--
Dyna-Gro	DG 760TM	TF	R	No	x	x	--	--
Dyna-Gro	DG 761TM	TF	R	No	x	x	--	--
Integra	7361RC	TF	R	Yes	x	x	x	x
Meridian	CS2600 CR-T	TF	R	Yes	x	x	x	--
Meridian	CS3000 TF	TF	R	Yes	x	--	--	--
Nuseed	NC155 TF	TF	R	No	x	x	--	--
Nuseed	NC401 TF	TF	R	No	x	x	x	x
Nuseed	NC471 TF	TF	R	No	x	x	x	--
Nuseed	NC527CR TF	TF	R	Yes	x	--	x	--
Pioneer	45CM39	RR	R	Yes	x	x	--	--
Star	Star 402 RR	RR	R	No	--	x	--	--
Star	StarFlex	TF	R	No	x	x	x	x

<sup>1</sup>Hybrids are traditional oil type, RR = Roundup Ready, TF = Roundup Ready TruFlex and LL = Liberty Link.

<sup>2</sup>Blackleg rating provided by company, R = Resistant.

<sup>3</sup>Hybrid Clubroot resistance rating provided by company.

**Table 6. 2021 Canola - Roundup Ready - Langdon - Authors, B. Hanson, L. Henry and J. Faul.**

Company/ Brand	Hybrid	Days to Flower (DAP) <sup>2</sup>	Flower Duration (days)	Days to Maturity (DAP) <sup>2</sup>	Plant Height (inch)	Cover <sup>1</sup> (%)	Oil Content (%)	Seed Yield	
								2020	2021
BrettYoung	BY 6204TF	43	16	83	38	93	42.6	2,870	1,646
BrettYoung	BY 6207TF	44	18	86	41	83	43.8	--	1,826
BrettYoung	BY 6211TF	41	18	82	34	85	41.0	--	1,262
Croplan	CP9978TF	40	18	82	34	80	41.9	3,543	1,313
Dekalb	DKTF96SC	44	17	84	37	87	42.0	2,830	1,531
Dekalb	DKTF99SC	41	18	82	35	90	42.9	--	1,793
Dekalb	DKTFLL21SC	39	19	79	34	91	43.0	--	1,438
Dyna-Gro	DG 760TM	41	18	83	37	81	42.3	3,307	1,412
Dyna-Gro	DG 761TM	42	17	82	35	82	43.6	3,013	1,322
Integra	7361RC	41	18	82	35	85	42.8	3,249	1,676
Meridian	CS2600 CR-T	39	19	80	34	76	43.9	3,325	1,367
Meridian	CS3000 TF	38	19	81	32	81	43.4	--	1,484
Nuseed	NC155 TF	40	19	82	32	84	40.9	--	1,224
Nuseed	NC401 TF	40	19	82	34	93	43.5	3,552	1,668
Nuseed	NC471 TF	42	17	84	35	89	42.4	--	1,438
Nuseed	NC527CR TF	41	18	84	34	93	43.3	--	1,700
Pioneer	45CM39	41	16	81	35	90	46.3	3,159	1,880
Star	StarFlex	41	17	82	36	88	43.4	3,076	1,519
Mean		41	18	82	35	86	42.9	3,192	1,528
CV %		1.4	3.4	0.8	4.2	4.1	0.7	8.4	8.0
LSD 0.05		0.5	0.5	0.6	1.4	3.4	0.3	384	123
LSD 0.10		0.4	0.5	0.5	1.1	2.8	0.2	320	103

Trial was planted on May 24 and harvested on Aug. 31.

<sup>1</sup>Cover - visual rating of percent area of plot covered by plant growth. This is a measure of stand and vigor.

Plants were at 5- to 6-leaf stage.

<sup>2</sup>DAP = Days after planting.

**Table 7. 2021 Canola - Irrigated - Roundup Ready - Williston - Authors, J. Jacobs, A. Turnquist and T. Tjelde.**

Company/ Brand	Hybrid	Days to Flower (DAP) <sup>1</sup>	Flower Duration (days)	Days to Maturity (DAP) <sup>1</sup>	Plant Lodge (0-9) <sup>2</sup>	Test Weight (lb/bu)	Seed Yield	
							2020	2021
Brett Young	BY6211TF	48	17	95	1.5	52.3	--	3,255
Croplan	CP9978TF	49	16	95	2.3	51.9	2,612	3,130
Integra	7361RC	50	18	95	2.0	51.8	--	2,831
Nuseed	NC401 TF	50	17	98	2.3	52.6	--	2,376
Star	StarFlex	50	16	96	2.0	52.2	2,308	2,338
Mean		49	17	96	2.0	52.2	2,460	2,786
CV %		2.6	9.8	1.1	45.9	0.6	10.5	11.8
LSD 0.05		1.9	NS	1.6	NS	0.5	NS	507
LSD 0.10		1.6	NS	1.3	NS	0.4	306	415

Trial was planted on May 13 and harvested on Aug. 30. Previous crop: spring wheat.

<sup>1</sup>DAP = Days after planting.

<sup>2</sup>Lodging: 0 = none, 9 = lying flat on the ground.

**Table 8. 2021 Canola - TruFlex, Liberty Link and Clearfield - Langdon - Authors, B. Hanson, L. Henry and J. Faul.**

Company/ Brand	Hybrid	Type <sup>1</sup>	Days to	Flower	Days to	Plant	Oil Content	Seed Yield		
			Flower (DAP) <sup>3</sup>	Duration (days)	Maturity (DAP) <sup>3</sup>	Height (inch)		Cover <sup>2</sup> (%)	2020	2021
BASF	L233P	LL	41	17	79	36	75	42.1	3,565	1,436
BASF	L234PC	LL	41	17	80	37	78	42.4	3,195	1,371
BASF	L255PC	LL	46	14	84	38	73	43.3	2,961	1,200
BASF	L340PC	LL	44	17	82	36	74	41.3	3,414	1,351
BASF	L343PC	LL	44	16	83	37	75	43.4	--	1,641
BASF	L345PC	LL	44	16	82	40	83	42.3	3,135	1,512
BASF	LR344PC	TFLL	42	16	83	36	79	42.8	3,020	1,485
Croplan	CP7130LL	LL	43	17	82	37	78	43.5	--	1,238
Croplan	CP7144LL	LL	43	18	83	39	75	43.2	--	1,421
Dekalb	DKLL82SC	LL	41	19	82	36	75	43.2	3,169	812
Dekalb	DKTFLL21SC	TFLL	41	18	80	35	70	43.2	3,327	978
Dekalb	H19W94354	LL	42	19	82	37	70	43.7	--	964
Dyna-Gro	DG 200CL	CL	47	15	87	42	83	40.8	2,644	1,518
Meridian	CS2700 CL	CL	48	16	87	44	69	42.5	2,722	1,696
Meridian	CS4000 LL	LL	43	18	84	36	67	42.4	3,321	1,076
Pioneer	P505MSL	LL	43	17	83	36	74	42.1	--	1,216
Pioneer	P506ML	LL	42	18	82	37	72	44.1	--	1,037
Mean			43	17	83	38	75	42.7	3,134	1,291
CV %			1.7	4.5	0.9	4	7	1.0	8.2	17.6
LSD 0.05			0.6	0.7	0.7	1	5	0.4	331	204
LSD 0.10			0.5	0.6	0.6	1	4	0.3	277	172

Trial was planted on May 25 and harvested on Sept. 1.

<sup>1</sup>LL = Liberty Link, CL = Clearfield System, and TF = Roundup Ready TruFlex.

<sup>2</sup>Cover - visual rating of percent area of plot covered by plant growth. This is a measure of stand and vigor. Plants were at 5- to 6-leaf stage.

<sup>3</sup>DAP = Days after planting.

**Table 9. 2021 Canola - Irrigated - Liberty Link - Williston - Authors, J. Jacobs, A. Turnquist and T. Tjelde.**

Company/ Brand	Hybrid	Days to	Flower	Days to	Plant	Test	Yield 2021
		Flower (DAP) <sup>1</sup>	Duration (days)	Maturity (DAP) <sup>1</sup>	Lodge (0-9) <sup>2</sup>	Weight (lb/bu)	
BASF	L233P	50	16	96	1.5	51.6	2,679
BASF	L340PC	52	15	96	1.5	51.2	2,955
BASF	L345PC	53	15	97	2.3	51.6	2,975
BASF	LR344PC	53	14	96	1.8	51.8	2,573
Mean		52	15	96	1.8	51.6	2,795
CV %		1.7	8.4	0.6	50.4	0.2	7.6
LSD 0.05		1.4	NS	1.0	NS	0.2	338
LSD 0.10		1.2	1.6	0.8	NS	0.2	274

Trial was planted on May 13 and harvested on Aug. 30. Previous crop: spring wheat.

<sup>1</sup>DAP = Days after planting.

<sup>2</sup>Lodging: 0 = none, 9 = lying flat on the ground.

**Table 10. 2021 Canola - Liberty Link - Minot - Authors, E. Eriksmoen, A. Kraklau and J. Hansen.**

Company/ Brand	Hybrid	Days to Flower (DAP) <sup>2</sup>	Flower Duration (days)	Days to Maturity (DAP) <sup>2</sup>	Plant Height (inch)	Oil Content (%)	Yield <sup>1</sup>	
							2020	2021
							-----lb/a-----	
BASF	L233P	45	23	78	32	37.3	2,172	633
BASF	L234PC	46	22	79	33	37.2	2,109	661
BASF	L255PC	48	20	80	33	38.9	1,538	840
BASF	L340PC	45	24	80	34	36.9	--	690
BASF	L343PC	44	24	79	36	37.7	--	834
BASF	L345PC	46	25	81	34	36.8	1,911	851
BASF	LR344PC	44	23	79	34	39.4	--	1,018
Croplan	CP7130LL	48	22	80	32	37.6	--	528
Croplan	CP7144LL	46	23	80	33	37.9	--	732
Dekalb	DKLL82SC	43	24	77	28	38.6	1,838	773
Dekalb	DKTFLL21SC	44	23	77	29	38.7	2,304	620
Meridian	CS4000 LL	47	25	81	34	37.4	2,838	434
Pioneer	P505MSL	47	23	80	37	35.9	--	695
Pioneer	P506ML	47	22	78	33	38.2	--	691
Mean		46	23	79	33	37.7	2,101	714
CV %		3.9	7.8	1.4	10.0	2.8	4.6	35.6
LSD 0.05		NS	NS	2	5	1.8	162	415
LSD 0.10		3	3	2	4	1.5	134	345

Trial was planted on May 11 and harvested on Aug. 13.

<sup>1</sup>The 2021 trial sustained extreme heat and drought stress. Data from 2021 should be viewed with caution.

<sup>2</sup>DAP = Days after planting.



**Table 11. 2021 Canola - Roundup Ready - Minot - Authors, E. Eriksmoen, A. Kraklau and J. Hansen.**

Company/ Brand	Hybrid	Days to Flower (DAP) <sup>2</sup>	Flower Duration (days)	Days to Maturity (DAP) <sup>2</sup>	Plant Height (inch)	Oil Content (%)	Yield <sup>1</sup> 2021 (lb/a)
BASF	LR344PC	45	24	78	32	38.6	718
BrettYoung	BY 6204TF	48	23	81	31	36.4	731
BrettYoung	BY 6207TF	50	23	83	34	39.3	455
BrettYoung	BY 6211TF	47	23	78	30	35.8	603
Croplan	CP9978TF	44	28	81	31	35.6	598
Dekalb	DKTF91SC	44	24	77	29	36.7	609
Dekalb	DKTF96SC	47	24	81	33	37.1	704
Dekalb	DKTFLL21SC	43	25	77	30	37.0	545
Dyna-Gro	DG 760TM	45	25	80	31	37.7	742
Dyna-Gro	DG 761TM	44	26	80	31	39.0	895
Integra	7361RC	47	23	80	31	36.2	584
Meridian	CS2600 CR-T	44	24	79	29	37.7	828
Nuseed	NC155 TF	44	28	80	30	34.9	738
Nuseed	NC401 TF	47	24	81	33	37.6	714
Nuseed	NC471 TF	46	25	81	34	38.6	727
Pioneer	45CM39	46	22	80	31	40.1	863
Star	Star 402 RR	43	27	80	31	39.5	783
Star	StarFlex	44	27	78	34	37.6	650
Mean		45	25	80	31	37.5	694
CV %		2.2	4.1	1.1	7.0	2.0	21.8
LSD 0.05		2	2	1	4	1.2	NS
LSD 0.10		1	1	1	3	1.0	212

Trial was planted on May 11 and harvested on Aug. 13.

<sup>1</sup>The 2021 trial sustained extreme heat and drought stress. Data from 2021 should be viewed with caution.

<sup>2</sup>DAP = Days after planting.

**Table 12. 2021 Canola - Roundup Ready - Williston - Authors, G. Pradhan and C. Wahlstrom**

Company/ Brand	Hybrid	Days to Flower (DAP) <sup>2</sup>	Flower Duration (days)	Days to Maturity (DAP) <sup>2</sup>	Plant Height (inch)	Test Weight (lb/bu)	Seed Yield <sup>1</sup> 2021 (lb/a)
BASF	LR344PC	46	18	87	29	50.8	466
BrettYoung	BY 6211TF	41	23	83	28	51.6	589
Croplan	CP9978TF	40	24	84	29	51.0	589
Dekalb	DKTF91SC	39	24	83	27	50.9	606
Dekalb	DKTF99SC	41	22	83	25	52.3	710
Integra	7361RC	42	23	84	28	50.5	528
Meridian	CS2600 CR-T	40	22	84	25	50.7	650
Nuseed	NC401 TF	41	20	85	28	52.4	432
Nuseed	NC471 TF	43	18	85	30	50.7	375
Nuseed	NC527CR TF	41	21	82	26	50.9	446
Star	StarFlex	41	24	83	29	52.2	607
Mean		41	22	84	28	51.3	545
CV %		2.9	7.5	1.2	10.2	0.6	25.0
LSD 0.05		1.7	2.3	1.5	4.0	--	200
LSD 0.10		1.4	1.9	1.2	3.4	--	167

Trial was planted on May 11 and harvested on Aug. 13. Previous crop: soybean.

<sup>1</sup>The 2021 trial sustained extreme heat and drought stress. Data from 2021 should be viewed with caution.

<sup>2</sup>DAP = Days after planting.

**Table 13. 2021 Canola - Clearfield - Williston - Authors, G. Pradhan and C. Wahlstrom.**

Company/ Brand	Hybrid	Flower Duration (days)	Days to Maturity (DAP) <sup>2</sup>	Plant Height (inch)	Test Weight (lb/bu)	Seed Yield	
						2020 (lb/a)	2021 <sup>1</sup> (lb/a)
Meridian	CS2500 CL	20	82	32	52.3	1,086	746
Meridian	CS2700 CL	22	86	33	51.6	969	577
Mean		21	84	32	52.0	1,027	661
CV %		10.0	4.1	8.3	0.4	11.8	17.0
LSD 0.05		2.6	4.2	3.2	0.3	128	137
LSD 0.10		2.1	3.4	2.6	0.2	105	110

Trial was planted on May 11 and harvested on Aug. 13. Previous crop: soybean.

<sup>1</sup>The 2021 trial sustained extreme heat and drought stress. Data from 2021 should be viewed with caution.

<sup>2</sup>DAP = Days after planting.

**Table 14. 2021 Canola - Liberty Link - Williston - Authors, G. Pradhan and C. Wahlstrom.**

Company/ Brand	Hybrid	Days to Flower (DAP) <sup>2</sup>	Flower Duration (days)	Days to Maturity (DAP) <sup>2</sup>	Plant Height (inch)	Test Weight (lb/bu)	Seed Yield <sup>1</sup> 2021 (lb/a)
BASF	L233P	45	19	84	32	53.2	658
BASF	L340PC	45	19	86	33	53.1	777
BASF	L345PC	47	19	86	35	52.2	755
BASF	LR344PC	45	17	85	33	52.0	688
Croplan	CP7130LL	45	19	86	34	53.4	767
Croplan	CP7144LL	45	19	86	31	52.0	722
Meridian	CS4000 LL	43	21	86	34	52.7	713
Mean		45	19	85	33	52.7	726
CV %		2.4	9.3	1.2	9.1	0.4	15.6
LSD 0.05		1.6	2.6	1.6	4.5	0.3	NS
LSD 0.10		1.3	2.1	1.3	3.7	0.3	NS

Trial was planted on May 11 and harvested on Aug. 13. Previous crop: soybean.

<sup>1</sup>The 2021 trial sustained extreme heat and drought stress. Data from 2021 should be viewed with caution.

<sup>2</sup>DAP = Days after planting.

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