A1049-24 (January 2025)

North Dakota
Barley, Oat and Rye

Variety Trial Results for 2024 and Selection Guide

Clair Keene, Rich Horsley, Mike McMullen, Andrew Friskop, Thomas Baldwin, and Sepehr Naraghi (NDSU Main Station); Kristin Simons (Carrington Research Extension Center); Glenn Martin (Dickinson REC); John Rickertsen (Hettinger REC); Leandro Bortolon, Austin Kraklau and Jayden Hansen (North Central REC, Minot); Justin Jacobs (Williston REC); and Bryan Hanson (Langdon REC).

Barley, oat and rye varieties currently grown in North Dakota are described in this publication. When selecting a variety, consider the following characteristics: yield potential in your area, test weight, straw strength, plant height, susceptibility to disease and maturity. In 2024, barley was planted on an estimated 370,000 acres in North Dakota, down 54% from 690,000 acres in 2023; statewide barley yield was estimated at 74 bushels per acre. Untimely rains on ripe barley in mid-August in the central and eastern portions of the state caused widespread pre-harvest sprouting and hurt many growers' ability to market their crop. Oat was planted on 280,000 acres in 2024, the same number reported as in 2023. Oat yield was estimated at 98 bushels per acre, up substantially from 76 bushels per ac in 2023. Rye acres were estimated at 84,000 in 2024, down from 96,000 acres reported in 2023. Readers are advised to keep in mind that cereal rye acres are somewhat uncertain as surveys may not capture all acres planted because of its frequent use as a cover crop or forage instead of grain.

Selecting barley varieties with good quality is important to maintain market recognition. Because malting barley usually is purchased on an identity-preserved basis, producers are encouraged to determine which barley varieties are acceptable to potential buyers. Use data that summarize several years and locations to select a high-yielding and high-quality variety. Additional data from county sites are available at *https://vt.ag.ndsu.edu* and from each Research Extension Center.

Yield is reported on a 14.5%, 14% and 14% moisture basis for barley, oats and rye, respectively. Protein is reported on a 0% moisture basis for all crops in this report. 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 these statistical analyses and apply only to the numbers in the column in which they appear. Differences between two varieties exceeding the LSD value mean that with 90% confidence (LSD probability 0.10), the higher-yielding variety has a significant yield advantage.

The abbreviation NS is used to indicate that no statistical difference occurs between 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 could not be attributed to differences in the varieties.

NDSU | EXTENSION NDSU | NORTH DAKOTA AGRICULTURAL EXPERIMENT STATION

Fargo, North Dakota

Presentation of data for the entries tested does not imply approval or endorsement by the authors or agencies conducting the test. North Dakota State University approves the reproduction of any table in this publication only if no portion is deleted, appropriate footnotes are given and the order of the data is not rearranged.

List of Tables

Table 1. 2024 North Dakota barley variety descriptions.

Variety	Use[1]	Origin[2]	Year Released	Awn[3] Type	Rachilla Hair[4] Length	Aleurone Color	Height (inch)	Days to Head	Straw[5] Strength	Reaction to Disease[6]			
										Stem Rust	Spot-form Net Blotch	Spot Blotch	Net Blotch
Six-rowed													
ND Treasure	F	ND	2023	S	S	White	30	60	2	NA	NA	3	8
Tradition	M/F	BARI	2003	S	L	White	33	59	3	8	6	3	7
Two-rowed													
AAC Connect	M/F	AAFC	2017	R	L	White	30	64	5	4	5	4	5
AAC Synergy	M/F	AAFC	2015	R	L	White	30	62	5	4	3	4	4
ABI Cardinal	M/F	BARI	2019	R	S	White	31	65	5	NA	NA	4	6
Brewski	M	ND	2021	S	L	White	30	61	4	NA	NA	4	4
CDC Fraser	M/F	CDC	2016	R	L	White	30	66	2	NA	NA	4	4
CDC Prairie	**M**	**CDC**	**2021**	**R**	**L**	**White**	**31**	**64**	**4**	**NA**	**NA**	**5**	**NA**
Conlon[7]	M/F	ND	1996	S	L	White	30	57	5	8	4	6	3
Explorer	M	Secobra	NA	R	L	White	26	62	3	NA	NA	8	4
ND Genesis	M/F	ND	2015	S	L	White	32	60	3	8	4	4	6
Pinnacle	M/F	ND	2006	S	L	White	31	59	3	8	4	4	6

Bolded varieties were tested for the first time this year, so some ratings may change as new data become available.

[1]M = malting; F = feed.

[2]BARI = Busch Agricultural Resources Inc.; CDC = Crop Development Centre, University of Saskatchewan; ND = North Dakota State University
AAFC = Agriculture and Agri-Food Canada; Secobra = Secobra Recherches France

[3]R = rough; S = smooth.

[4]L = long S = short.

[5]Straw Strength scores from 1-9, with 1 = strongest and 9 = weakest.

[6]Disease reaction scores from 1-9, with 1 = resistant and 9 = very susceptible, NA – not available.

[7]Lower DON accumulations than other varieties tested.

Table 2. Yield and test weight of barley varieties at three locations in eastern North Dakota, 2022-2024.

	Fargo			Carrington[1]			Langdon			Avg. eastern N.D.		
	Test	Yield		Test	Yield		Test	Yield		Test	Yield	
Variety	Wt.	2024	3 Yr.	Wt.	2024	3 Yr.	Wt.	2024	3 Yr.	Wt.	2024	3 Yr.
	(lb/bu)	-----(bu/a)-----		(lb/bu)	-----(bu/a)-----		(lb/bu)	-----(bu/a)-----		(lb/bu)	-----(bu/a)-----	
Six-rowed												
ND Treasure	--	106.9	114.9	47.6	120.5	105.1	45.6	98.3	107.8	46.6	108.5	109.2
Tradition	--	99.8	107.2	48.9	114.5	90.0	46.6	87.7	98.9	47.7	100.7	98.7
Two-rowed												
AAC Connect	--	--	--	50.3	102.3	89.2	48.4	91.5	100.2	49.4	96.9	94.7
AAC Synergy	--	104.3	108.4	51.0	108.0	88.7	48.0	89.0	102.4	49.5	100.4	99.8
ABI Cardinal	--	91.4	98.3	48.8	98.0	92.6	47.8	83.9	98.9	48.3	91.1	96.6
Brewski	--	98.2	101.9	51.8	115.0	98.0	--	--	--	--	106.6	100.0
CDC Fraser	--	93.4	94.9	50.4	109.4	95.1	46.9	92.1	103.6	48.7	98.3	97.8
CDC Prairie	--	99.4	--	51.2	104.0	--	48.5	84.8	--	49.8	96.1	--
Conlon	--	91.8	92.0	51.7	90.1	74.3	--	--	--	51.7	90.9	83.2
Explorer	--	92.6	94.7	49.5	105.6	89.0	46.7	87.8	98.5	48.1	95.3	94.1
ND Genesis	--	105.5	113.7	51.4	117.1	100.0	--	--	--	51.4	111.3	106.8
Pinnacle	--	100.9	102.8	50.9	108.0	86.9	--	--	--	50.9	104.4	94.9
Mean	--	103.8	103.6	48.7	108.5	91.7	46.8	86.7	101.5	49.3	100.0	97.8
CV %	--	5.1	--	1.2	6.3	--	1.0	6.3	--	--	4.0	--
LSD 0.10	--	6.8	--	0.7	8.1	--	0.6	6.5	--	--	5.6	--

Table 3. Plump and protein of barley varieties at three locations in eastern North Dakota, 2024.

	Fargo		Carrington[1]		Langdon		Avg. eastern N.D.	
Variety	Plump	Protein	Plump	Protein	Plump	Protein	Plump	Protein
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Six-rowed								
ND Treasure	91.0	11.9	94.0	11.4	99.3	10.6	94.8	11.3
Tradition	82.7	11.7	92.0	12.6	98.9	10.8	91.2	11.7
Two-rowed								
AAC Connect	--	--	90.5	11.8	99.1	10.9	94.8	11.3
AAC Synergy	87.8	12.6	94.3	11.2	99.2	10.4	93.8	11.4
ABI Cardinal	88.1	12.5	91.5	11.8	99.1	10.5	92.9	11.6
Brewski	94.2	11.7	93.8	11.0	--	--	94.0	11.4
CDC Fraser	92.5	12.3	96.3	11.3	99.1	10.9	96.0	11.5
CDC Prairie	87.2	12.0	93.0	11.6	98.4	10.7	92.9	11.4
Conlon	95.0	12.5	96.5	11.9	--	--	95.8	12.2
Explorer	94.3	11.4	94.0	10.8	99.0	9.8	95.8	10.6
ND Genesis	94.6	10.3	96.0	10.8	--	--	95.3	10.6
Pinnacle	94.2	10.4	96.3	10.8	--	--	95.2	10.6
Mean	90.7	11.4	93.1	39.1	99.1	10.3	94.4	11.3
CV %	--	--	2.2	12.1	0.3	4.2	--	--
LSD 0.10	--	--	2.4	5.6	0.3	0.5	--	--

[1]Carrington 2024 data is for the irrigated barley variety trial.

Table 4. Yield and test weight of barley varieties at four locations in western North Dakota, 2022-2024.

	Dickinson			Hettinger			Minot			Williston			Avg. western N.D.		
	Test	Yield		Test	Yield		Test	Yield		Test	Yield		Test	Yield	
Variety	Wt.	2024	3 Yr.	Wt.	2024	3 Yr.	Wt.	2024	3 Yr.	Wt.	2024	3 Yr.	Wt.	2024	3 Yr.
	(lb/bu)	---(bu/a)---		(lb/bu)	---(bu/a)---		(lb/bu)	---(bu/a)---		(lb/bu)	---(bu/a)---		(lb/bu)	---(bu/a)---	
Six-rowed															
ND Treasure	47.2	91.1	57.4	47.8	82.5	107.7	44.6	78.0	--	44.0	62.5	--	45.9	78.5	82.6
Tradition	48.8	87.8	55.9	47.5	80.6	99.3	46.7	66.2	84.0	47.2	86.3	50.1	47.6	80.2	72.3
Two-rowed															
AAC Connect	46.0	75.2	48.4	47.0	76.7	97.7	47.8	74.8	84.0	45.7	75.1	--	46.6	75.5	76.7
AAC Synergy	47.9	79.3	51.9	47.8	83.7	107.3	47.7	79.1	86.4	45.5	81.9	--	47.2	81.0	81.9
ABI Cardinal	45.0	73.5	50.0	47.7	85.6	101.3	47.6	78.4	86.3	45.6	92.3	--	46.5	82.5	79.2
Brewski	49.6	90.6	60.5	47.1	87.0	108.1	46.6	70.5	80.0	46.9	62.4	--	47.5	77.6	82.8
CDC Fraser	44.5	72.4	48.2	46.9	54.9	94.0	46.9	66.4	77.7	44.4	80.0	45.9	45.7	68.4	66.4
CDC Prairie	45.6	67.4	--	45.8	81.6	--	48.0	82.6	--	--	--	--	46.4	77.2	--
Conlon	--	--	--	48.5	75.4	88.3	48.8	75.2	83.2	50.9	75.6	41.6	49.4	75.4	71.0
Explorer	48.4	89.5	57.7	46.6	76.4	101.9	46.3	59.2	78.4	46.7	77.1	50.2	47.0	75.5	72.1
ND Genesis	50.2	88.3	59.4	47.9	89.5	108.6	48.0	76.6	78.7	49.2	52.6	45.1	48.8	76.7	72.9
Pinnacle	--	--	--	46.2	80.4	87.4	48.5	74.5	84.0	47.5	96.4	--	47.4	83.8	85.7
Mean	47.9	84.2	54.4	47.2	79.6	99.4	47.3	73.3	82.3	46.7	76.6	46.6	47.2	77.7	76.7
CV %	0.7	7.4	--	1.4	8.4	--	1.9	7.1	--	2.3	6.9	--	2.7	13.1	--
LSD 0.10	0.3	5.8	--	0.6	6.2	--	1.2	7.1	--	1.5	7.7	--	1.5	NS	--

Table 5. Plump and protein of barley varieties at four locations in western North Dakota, 2024.

	Dickinson		Hettinger		Minot		Williston	Avg. western N.D.	
Variety	Plump	Protein	Plump	Protein	Plump	Protein	Protein	Plump	Protein
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Six-rowed									
ND Treasure	86.2	12.5	78.3	11.6	99.7	12.4	12.0	88.1	12.1
Tradition	86.3	13.7	83.2	11.8	99.4	12.8	12.7	89.7	12.8
Two-rowed									
AAC Connect	52.9	14.5	69.2	11.9	99.6	12.4	12.9	73.9	12.9
AAC Synergy	81.8	13.3	82.4	11.3	99.5	12.5	12.1	87.9	12.3
ABI Cardinal	71.6	14.3	88.4	12.9	99.5	12.2	12.2	86.5	12.9
Brewski	85.8	11.8	90.6	11.9	99.4	12.1	11.6	91.9	11.8
CDC Fraser	57.6	14.2	81.7	11.8	99.6	11.9	12.2	79.7	12.5
CDC Prairie	52.1	15.2	86.5	12.2	99.7	12.3	--	79.4	13.2
Conlon	--	--	92.0	12.5	99.7	12.7	13.0	95.8	12.7
Explorer	88.5	12.5	88.6	11.5	99.6	12.1	11.9	92.2	12.0
ND Genesis	86.6	11.9	88.6	10.7	99.6	12.6	11.2	91.6	11.6
Pinnacle	--	--	87.7	11.0	99.2	12.4	10.8	93.4	11.4
Mean	79.9	12.8	85.8	11.4	99.5	12.3	12.1	87.5	12.4
CV %	4.2	3.2	4.6	6.1	0.2	7.5	5.1	--	--
LSD 0.10	3.1	0.4	3.7	0.6	0.3	1.3	0.8	--	--

Table 6. 2024 North Dakota oat variety descriptions.

Variety	Origin[1]	Year Released	Grain Color	Height (inch)	Days to Heading[2]	Straw Strength	Reaction to Diseases[3]			Test Weight	Protein[4]
							Stem Rust	Crown Rust[3]	Barley Y.Dwf		
AAC Douglas	AAFC	2019	White	40	60	V. Strong	6	8	5	Good	M
Beach	ND	2004	White	41	60	Med.strong	6	8	6	V.good	M
CDC Endure	Sask.	2020	White	41	63	V. Strong	8	5	NA	Good	M
CS Camden	Meridian	2016	White	37	62	V. Strong	8	8	4	Good	M
Deon	MN	2013	Yellow	42	64	Med. strong	6	4	2	V.good	M
HiFi	ND	2001	White	42	62	Med. strong	4	8	2	Good	M
Jury	ND	2012	White	45	60	Med. weak	1	8	4	V.good	M
Killdeer	ND	2000	White	38	60	Med. strong	8	8	4	Good	M
Leggett	AAFC	2005	White	40	62	Med. strong	4	6	8	Good	M
MN-Pearl	MN	2019	White	41	62	V. Strong	6	8	4	Good	M/L
ND Carson	**ND**	**2023**	**White**	**41**	**63**	**V. Strong**	**1**	**6**	**NA**	**Good**	**M**
ND Heart	ND	2020	White	42	60	Strong	3	7	4	Good	H
ND Spilde	**ND**	**2023**	**White**	**43**	**61**	**Med. strong**	**1**	**3**	**NA**	**Good**	**M**
Newburg	ND	2011	White	40	64	Medium	1	8	4	Good	M
Otana	MT	1977	White	43	63	Med.weak	8	8	8	Good	M/L
Paul[5]	ND	1994	Hull-less	43	66	Strong	1	8	2	V.good	H
Rockford	ND	2008	White	43	62	V. Strong	6	8	4	V.good	M
SD Buffalo	SD	2021	White	42	60	Strong	4	8	4	V.good	M
SD Momentum	**SD**	**2023**	**White**	**47**	**64**	**Medium**	**NA**	**3**	**4**	**V.good**	**M**
SD Titan	**SD**	**2023**	**White**	**46**	**61**	**Med. strong**	**NA**	**2**	**4**	**V.good**	**M/H**

Bolded varieties were tested for the first time this year, so some ratings may change as new data become available.

[1]AAFC = Agriculture & Agri-Food Canada; MN = University of Minnesota; ND = North Dakota State University; SD = South Dakota State University; Sask. = University of Saskatchewan; MT = Montana State University.

[2]Days after planting.

[3]Disease reaction scores from 1-9, with 1 = resistant and 9 = very susceptible. NA - not available.

[4]H = high; M = medium; L = low.

[5]Hull-less variety.

Table 7. Yield and test weight of oat varieties at two locations in eastern North Dakota, 2022-2024.

	Casselton			Langdon			Average Eastern N.D.[1]		
	Test	Yield		Test	Yield		Test	Yield	
Variety	Wt.	2024 [3]	3 Yr.	Wt.	2024	3 Yr.	Wt.	2024	3 Yr.
	(lb/bu)	----(bu/a)----		(lb/bu)	---(bu/a)----		(lb/bu)	------(bu/a)-----	
AAC Douglas	27.7	47.2	90.4	34.5	144.6	162.7	31.1	95.9	126.5
Beach	38.2	76.7	84.8	41.2	153.3	144.4	39.7	115.0	114.6
CDC Endure	32.2	82.4	--	36.2	177.0	--	34.2	129.7	--
CS Camden	22.6	41.6	87.1	32.5	142.6	160.8	27.6	92.1	124.0
Deon	35.0	85.9	90.8	37.3	180.1	170.1	36.1	133.0	130.5
HiFi	27.9	31.0	66.0	37.5	166.8	162.9	32.7	98.9	114.4
Jury	30.1	61.0	85.0	36.3	183.9	168.8	33.2	122.4	126.9
Killdeer	25.8	39.9	74.9	35.5	170.7	162.7	30.6	105.3	118.8
Leggett	33.8	62.8	90.5	37.9	173.1	166.5	35.8	117.9	128.5
MN-Pearl	28.3	43.6	71.5	37.1	186.0	168.9	32.7	114.8	120.2
ND Carson	**30.3**	**83.4**	**--**	**37.3**	**187.7**	**180.2**	**33.8**	**135.6**	180.2
ND Heart	35.0	90.1	83.9	38.4	162.7	154.8	36.7	126.4	119.4
ND Spilde	**36.3**	**126.8**	**--**	**36.7**	**178.2**	**171.0**	**36.5**	**152.5**	171.0
Newburg	28.8	44.5	77.3	34.8	182.0	174.1	31.8	113.2	125.7
Otana	26.2	29.4	68.5	35.7	151.3	153.8	30.9	90.3	111.2
Paul[2]	42.7	60.3	60.1	43.5	115.0	110.7	43.1	87.6	85.4
Rockford	27.5	30.5	63.8	38.7	159.7	156.2	33.1	95.1	110.0
SD Buffalo	31.2	86.3	105.2	39.2	176.6	165.9	35.2	131.4	135.5
SD Momentum	**39.9**	**119.2**	**--**	**40.7**	**173.1**	**--**	**40.3**	**146.1**	--
SD Titan	**36.7**	**132.9**	**--**	**39.0**	**173.2**	**--**	**37.8**	**153.0**	--
Mean	31.9	66.5	80.0	38.3	167.1	160.8	34.7	117.8	126.0
CV %	4.8	13.3	--	1.3	6.4	--	--	--	--
LSD 0.10	1.7	13.1	--	0.6	12.6	--	--	--	--

[1]Carrington 2024 oat trial was not harvested due to late rains and heavy wind that lodged the whole trial.

[2]Hull-less variety. When comparing yield of hull-less oat with varieties with hulls, multiply the yield of the hull-less oats by 1.35 (the hull of a hulled kernel comprises approximately 35% of the weight).

[3] Yield and test weight in Casselton 2024 was highly correlated with crown rust susceptibility. The more susceptible the variety, the lower the yield and test weight. Varieties with good crown rust resistance had excellent yields, e.g., ND Spilde and SD Titan.

Table 8. Yield and test weight of oat varieties at four locations in western North Dakota, 2022-2024.

	Dickinson			Hettinger			Minot			Williston		Average Western N.D.		
	Test	Yield		Test	Yield		Test	Yield		Yield		Test	Yield	
Variety	Wt.	2024	3 Yr.	Wt.	2024	3 Yr.	Wt.	2024	3 Yr.	2024	3 Yr.	Wt.	2024	3 Yr.
	(lb/bu)	----(bu/a)----		(lb/bu)	----(bu/a)----		(lb/bu)	----(bu/a)----		----(bu/a)----		(lb/bu)	----(bu/a)----	
AAC Douglas	33.4	123.3	--	36.3	125.9	160.0	30.3	136.6	127.1	114.1	91.6	33.3	125.0	126.2
Beach	37.3	120.7	87.4	37.8	87.5	125.3	39.6	132.5	124.1	113.5	67.2	38.2	113.6	101.0
CDC Endure	32.8	131.4	--	34.5	104.6	--	34.8	103.9	--	107.7	--	34.0	111.9	--
CS Camden	33.0	125.0	100.5	33.4	122.1	150.6	28.6	119.9	--	102.5	72.3	31.7	117.4	107.8
Deon	34.6	119.8	90.2	35.3	101.4	132.6	35.7	145.7	134.5	93.5	62.6	35.2	115.1	105.0
HiFi	34.6	121.3	93.3	34.9	101.0	128.7	33.5	129.4	121.8	98.2	69.9	34.3	112.5	103.4
Jury	33.4	128.4	98.1	35.5	115.2	135.5	33.7	135.8	124.1	110.0	65.6	34.2	122.4	105.8
Killdeer	34.0	122.1	97.7	36.9	119.8	146.9	32.9	142.4	124.2	108.2	74.6	34.6	123.1	110.8
Leggett	34.6	116.3	94.5	36.1	107.8	135.6	44.0	135.0	130.4	103.1	59.8	38.2	115.5	105.1
MN-Pearl	33.4	117.9	--	35.4	94.5	137.6	38.6	118.0	127.3	99.9	--	35.8	107.6	132.5
ND Carson	**33.2**	**108.5**	**94.9**	**35.0**	**112.0**	**142.4**	**36.6**	**116.9**	**--**	**101.4**	**--**	**34.9**	**109.7**	**118.7**
ND Heart	35.7	112.2	87.2	37.2	97.1	124.6	35.5	106.7	108.6	99.5	66.2	36.1	103.9	96.6
ND Spilde	**32.9**	**138.3**	**96.9**	**33.2**	**117.3**	**142.9**	**35.4**	**157.0**	**--**	**79.4**	**--**	**33.8**	**123.0**	**119.9**
Newburg	32.5	127.5	101.4	34.2	114.7	140.8	33.8	135.3	118.7	83.9	55.5	33.5	115.3	104.1
Otana	34.6	127.6	88.9	35.7	113.4	137.7	33.4	117.4	112.1	96.3	74.3	34.5	113.7	103.2
Paul[1]	39.5	80.2	65.7	38.6	77.4	102.0	40.8	57.4	84.7	59.0	38.0	39.6	68.5	72.6
Rockford	36.0	122.5	90.5	37.1	106.3	134.5	35.1	122.9	117.0	96.1	64.5	36.0	112.0	101.6
SD Buffalo	35.1	113.9	--	37.6	116.0	139.4	39.6	110.3	118.9	123.4	86.1	37.5	115.9	114.8
SD Momentum	**36.2**	**114.7**	**--**	**38.6**	**107.8**	**--**	**44.7**	**103.6**	**--**	**85.8**	**--**	**39.8**	**103.0**	**--**
SD Titan	**35.9**	**115.1**	**--**	**37.3**	**116.6**	**--**	**40.0**	**152.2**	**--**	**99.7**	**--**	**37.7**	**120.9**	**--**
Mean	35.2	117.1	91.9	36.4	107.2	134.4	37.3	121.8	119.5	96.9	67.8	35.7	112.5	107.6
CV %	1.8	5.9	--	2.3	6.4	--	5.7	8.9	--	5.9	--	5.7	10.1	--
LSD 0.10	0.6	6.3	--	0.8	6.3	--	2.9	14.7	--	7.6	--	2.8	13.5	--

[1]Hull-less variety. When comparing yield of hull-less oat varieties with varieties with hulls, multiply the yield of the hull-less oats by 1.35 (the hull of a hulled kernel is approcimately 35% of the weight).

Table 9. 2024 North Dakota winter rye variety descriptions.

Variety	Origin[1]	Year Released	Height (inches)	Heading Date[3]	Straw Strength	Seed Color	Seed Size	Winter Hardiness
ND Dylan	ND	2016	47	155	Fair	Blue	Med.	V.good
ND Gardner[5]	ND	2019	47	151	Fair	Bl-grn.	Small	V.good
AC Hazlet	Canada	2006	45	155	Fair	Bl-grn.	Med.	Good
Danko	Poland	1976	44	155	Fair	Green	Med.	Poor
Aroostook	USDA	1981	45	156	Fair	Tan	Med.	V.good
Rymin	MN	1973	44	155	Fair	Grn-gray	Med.	Fair[4]
Spooner	WI	1993	47	154	Fair	Tan	Med.	Fair
SU Cossani[2]	**Germany**	**--**	**42**	**155**	**V. good**	**Tan-green**	**Small**	**Fair**
SU Perspectiv[2]	**Germany**	**2018**	**42**	**154**	**V. good**	**Tan-green**	**Med.**	**Good**
SU Karlsson[2]	**Germany**	**2024**	**42**	**155**	**V. good**	**Tan-green**	**Med.**	**V.good**
SU Performer[2]	**Germany**	**2024**	**42**	**156**	**V. good**	**Tan-green**	**Med.**	**V. good**
SU Bebop	**Germany**	**2024**	**44**	**156**	**Good**	**Tan-green**	**Med.**	**Good**
Receptor[2]	KWS	2022	41	156	Good	Grn-gray	Med.	Good
Serafino[2]	KWS	2019	42	156	V.good	Green	Large	Good
Tayo[2]	KWS	2020	41	157	V.good	Green	Large	Fair

Bolded varieties were tested for the first time this year, so ratings may change as new data become available.

[1]ND = North Dakota State University; WI = University of Wisconsin; MN = University of Minnesota; KWS = KWS Cereals, USA. SU = Saaten-Union

[2]Hybrid.

[3]Heading date in day of the year; for reference, 153 was June 1, 2024.

[4]Varieties with fair or poor winter hardiness should not be seeded in bare soil. Varieties rated as poor are not recommended for seeding in North Dakota.

[5]ND Gardner was developed primarily for use as a cover crop or forage-type rye.

Table 10. Yield and test weight of winter rye varieties at four locations in North Dakota, 2022-2024.

	Carrington			Hettinger			Langdon			Minot			Average		
	Test	Seed Yield		Test	Seed Yield		Test	Seed Yield		Test	Seed Yield		Test	Seed Yield	
Variety	Wt.	2024	2-yr.	Wt.	2024	3-Yr.	Wt.	2024	3-Yr.	Wt.	2024	3-yr.	Wt.	2024	3-yr.[1]
	(lb/bu)	---(bu/a)---		(lb/bu)	---(bu/a)---		(lb/bu)	---(bu/a)---		(lb/bu)	---(bu/a)---		(lb/bu)	---(bu/a)---	
ND Dylan	54.3	68.7	61.5	54.9	57.2	41.3	52.3	105.8	79.1	55.1	89.3	78.2	54.1	80.3	66.2
ND Gardner	53.7	60.3	55.6	54.5	42.8	38.4	51.7	82.5	61.7	53.6	68.8	61.5	53.4	63.6	53.9
AC Hazlet	55.1	69.8	64.3	55.2	56.0	47.4	53.3	99.7	80.9	55.5	93.2	82.6	54.8	79.7	70.3
Danko	55.3	73.7	64.5	56.3	60.9	53.5	54.4	115.8	83.1	55.8	86.5	66.4	55.4	84.2	67.7
Aroostook	55.3	68.6	55.8	55.3	58.2	40.8	53.1	93.7	64.7	55.9	88.4	67.4	54.9	77.2	57.6
Rymin	54.5	66.9	57.9	54.7	51.7	44.5	52.0	93.7	70.6	54.9	76.5	68.6	54.0	72.2	61.2
Spooner	54.1	59.2	52.5	54.9	45.1	41.6	51.7	85.6	63.3	53.7	66.3	63.6	53.6	64.0	56.2
SU Cossani	54.1	90.6	75.6	55.1	79.1	--	53.3	129.5	--	56.1	107.6	--	54.7	101.7	--
SU Perspectiv	53.3	87.6	76.1	55.5	85.7	--	53.1	142.8	--	56.0	115.2	--	54.5	107.8	--
SU Karlsson	55.0	94.2	--	55.0	75.4	--	53.9	140.4	--	57.1	108.5	--	55.3	104.6	--
SU Performer	54.2	98.7	81.8	54.9	77.8	--	52.4	137.8	--	56.0	109.8	--	54.4	106.0	--
SU Bebop	54.7	83.4	71.1	55.7	75.1	--	53.6	120.5	--	56.5	99.5	--	55.1	94.6	--
Receptor	55.3	112.4	96.4	--	--	--	54.3	143.4	110.9	57.1	109.4	102.4	55.6	121.7	--
Serafino	55.1	101.3	86.4	--	--	--	53.7	136.2	102.3	55.9	99.6	90.5	54.9	112.4	--
Tayo	53.0	94.8	85.2	--	--	--	52.9	129.7	100.8	53.7	100.8	93.6	53.2	108.4	--
Mean	54.2	86.5	70.3	55.2	63.7	43.9	53.0	124.4	81.8	55.4	98.8	77.5	54.5	91.9	61.9
CV %	1.2	9.6	--	0.7	6.1	--	0.8	6.0	--	2.1	5.6	--	1.0	6.3	--
LSD 0.10	0.8	9.8	--	0.4	4.0	--	0.5	8.9	--	1.6	7.6	--	0.6	6.8	--

[1]3-year average calculated from Hettinger, Langdon, and Minot only.

For more information on this and other topics, see www.ndsu.edu/extension

1.5M-1-25