

2024 Montana Spring Wheat Variety Performance Evaluations

MONTANA COUNTIES



SPRING WHEAT VARIETY PERFORMANCE SUMMARY IN MONTANA

J. Cook, H. Heo, L. Wright, M. Wong, D. Nash, D. Holen, J. Jensen, M. Larson, K. McVey, Q. Khan, J. Eberly, J. Hammontree, P.F. Lamb, E. Haney, C. Chen, F. Crutcher, C. Kowatch, C¹). Cook, D¹). Gray, D²). Clark, T²). Schafer, X³). Chen, M⁴). Rouse, J⁵). Fiedler, M⁶). Pumphrey, and Z⁷). Liu

¹ 2nd Nature Research, LLC, MT

² Nutrien Ag Solutions, MT

³ USDA-ARS, Pullman, WA

⁴ USDA-ARS, St. Paul, MN

⁵USDA-ARS, Fargo, ND

⁶ WSU, Pullman, WA

⁷ NDSU, Fargo, ND

INTRODUCTION

The agronomic characteristics of spring wheat varieties evaluated by the Montana Agricultural Experiment Station are compared in this publication with other varieties commonly grown in the state. The objective of this summary is to help farmers select the varieties which will perform best in their area. Data from 2021-2024 is provided for each of the testing sites. Data for varieties grown in previous years can be found on this website:

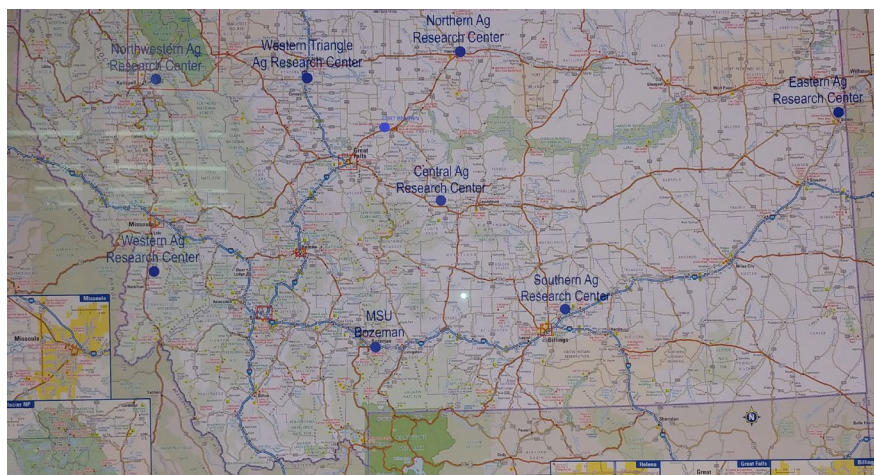
<http://plantsciences.montana.edu/crops/index.html>.

The map on the cover shows the districts in the state for purposes of reference for specific areas of adaptation. A brief description is given which may include a variety's particular advantages or disadvantages. The information was extracted from data collected and analyzed from the Advanced Spring Wheat nursery. These reports are prepared by research personnel of the Montana Agricultural Experiment Station.

VARIETY TESTING PROCEDURES

Locations

Advanced Spring Wheat yield trial (AYT) was planted at 10 locations (12 environments); Bozeman (rainfed and irrigated), Conrad (WTARC : rainfed), Fort Benton (Nutrien: rainfed), Havre (NARC : rainfed), Hingham (2nd Nature Seeds: rainfed), Huntley (SARC : rainfed), Kalispell (NWARC : high rainfall), Moccasin (CARC : rainfed), Sidney (EARC: rainfed and irrigated) and Williston (NDSU: rainfed).



Experimental Design and Data Collection

Varieties, currently recommended, widely grown, or recently released are evaluated for agronomic performance in the Advanced Spring Wheat nursery. Also evaluated in these nurseries are experimental breeding lines tested against the check varieties

Agronomic data collected throughout the growing season includes heading date, plant height, lodging, disease and insect reactions. Experimental plots are harvested with small plot combines. The grain is weighed for yield and test weight.

One trait important to wheat growers is resistance to the wheat stem sawfly. The major mode of resistance is a solid versus hollow stemmed variety. To evaluate this trait, we cut several stems of each variety and score them on a scale of 1=hollow, 2=2/5 solid, 3=3/5 solid, 4=4/5 solid and 5=solid. The cuts are made in the center of each internode, so there are 5 scores per stem. The five scores are added up to get a total number ranging from 5=very hollow up to 25=very solid.

Entries are submitted to the Cereal Quality Lab at MSU, Bozeman for protein, milling, and baking quality evaluation as needed.

Data is analyzed and summarized for each location and overall comparisons are made to determine which varieties and/or experimental lines look promising for Montana producers. When sufficient data is collected and analyzed, promising experimental lines are submitted to the MAES wheat variety release committee.

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ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
MT 1939	MT Carlson	<u>55.6</u>	63.1	68.1	56.1	59.6	60.2	60.1	60.4	14.5	14.3	14.1	14.3
MT 1809	MT Dutton	<u>55.3</u>	<u>63.6</u>	68.7	56.2	58.9	59.5	59.6	59.5	14.7	14.4	14.1	14.4
PI 690450	DAGMAR	54.8	<u>62.4</u>	68.4	56.6	60.2	60.6	60.6	60.6	15.1	14.8	14.7	15.2
MT 2030	MT Ubet	54.6	<u>63.0</u>	68.3	57.3	59.7	60.2	60.1	60.3	14.6	14.4	14.2	14.6
LIMAGR 211	LCS ASCENT	54.0	<u>62.4</u>	68.0	57.8	<u>60.9</u>	<u>61.1</u>	61.1	61.4	14.2	13.8	13.7	14.0
PI 642366	VIDA	53.7	<u>61.7</u>	66.1	54.7	59.2	59.5	59.6	59.7	14.4	14.2	14.1	14.1
MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTO	53.5	<u>62.1</u>	67.0	57.0	59.5	60.1	59.9	60.1	14.4	14.1	14.0	14.2
BZ 917-277	ROCKER	53.2	<u>61.2</u>	65.5	54.3	60.3	60.6	60.6	60.6	14.7	14.4	14.2	14.4
MT 2049	LANNING/MT 1415	52.9	59.8	63.8	53.7	59.3	60.0	60.4	60.8	14.6	14.3	14.0	14.2
PI 679964	NS PRESSER CLP	52.1	59.0	63.2	52.7	58.4	58.6	58.9	59.1	14.4	14.1	14.1	14.1
PI 699957	MT SIDNEY	51.8	59.4	65.2	54.0	59.7	60.5	60.3	60.2	14.7	14.3	14.1	14.5
PI 676978	LANNING	51.8	59.9	65.5	53.7	59.2	59.9	59.9	59.9	15.2	15.0	14.8	15.3
AGRIPR 161	SY ROCKFORD	51.0	58.7	64.4	51.6	58.5	59.3	59.2	58.9	14.6	14.2	14.0	14.6
PI 660981	DUCLAIR	50.1	58.3	63.4	52.4	58.5	59.2	59.0	59.1	14.9	14.5	14.4	14.6
SYN 182	SY Longmire	49.8	57.4	63.0	52.0	60.0	60.3	60.4	60.8	15.0	14.8	14.5	14.6
ND 695	REEDER	49.4	56.5	61.3	49.0	59.5	59.9	60.0	59.8	14.9	14.7	14.6	14.8
WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	49.1	55.9	60.2	49.8	59.1	59.8	59.5	59.4	15.1	14.9	14.6	15.0
BZ 92413R	WB GUNNISON	49.0	55.6	59.7	48.1	59.8	60.1	60.2	59.8	14.3	14.0	13.9	14.3
SYN 212	AP Gunsmoke	48.5	56.0	62.2	50.2	59.3	59.9	60.0	60.0	15.7	15.4	15.1	15.5
PI 574642	McNEAL	47.9	55.8	60.1	48.8	58.6	59.1	59.1	58.9	15.0	14.7	14.6	14.8
AGRIPR 141	SY INGMAR	47.7	54.7	59.4	50.7	59.9	60.7	60.5	60.7	15.3	14.8	14.7	14.8
SYN 211	AP Smith	47.2	54.4	59.9	48.3	59.6	60.3	60.1	60.3	15.3	14.9	14.7	14.9
MS 211	AAC Concord	46.0	52.0	56.4	44.3	58.9	59.5	59.5	59.3	15.2	15.0	14.8	15.1
CI 10003	THATCHER	38.3	44.2	47.2	40.6	57.3	58.5	58.4	58.3	15.1	14.8	14.6	14.7
MT 21104	MT 1451/MT 1866		60.4	64.5	54.3		60.5	60.3	60.4		14.2	14.1	14.2
MT 21074	MT 1525/MT 1348		60.1	65.0	52.2		60.6	60.6	60.3		14.8	14.7	14.9
MT 21176	DAGMAR//MT 1142/MT 1225			<u>69.2</u>	57.6			59.3	59.4			14.3	14.5
MT 21473	DAGMAR/LANNING			69.0	57.9			59.9	60.0			14.4	14.9
MT 21186	DAGMAR//MT 1142/MT 1225			68.7	55.5			59.2	59.1			14.5	14.7
MT 21487	Dagmar/BC1-80			68.5	56.8			60.3	60.4			14.5	14.8
MT 21484	Dagmar/BC1-52			68.0	56.1			60.6	60.6			14.5	14.8
MT 21485	Dagmar/BC1-80			67.0	54.9			59.4	59.2			14.7	14.9
MT 21220	DAGMAR/MT 1716			66.9	53.8			59.8	59.9			14.5	14.7
MT 21224	DAGMAR/CAP 197-3			66.9	54.5			60.5	60.3			14.4	14.7
MT 21174	DAGMAR//MT 1142/MT 1225			66.3	54.8			60.1	60.4			14.8	14.9

2021-2024 OVERALL AVERAGE OF GRAIN YIELD, TEST WEIGHT AND PROTEIN CONTENT FOR THE ADVANCED SPRING WHEAT NURSERY GROWN UNDER RAIN-FED CONDITION (BOZEMAN, HUNTLEY, MOCCASIN, FORT BENTON, HAVRE, SIDNEY-DRY, CONRAD, WILLISTON, HINGHAM) (CONT.)

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
LIMAGR 231	LCS BOOM			64.3	52.8			61.6	62.0			14.3	14.8
NDHRS14-0134-C03	ND Stampede			64.0	51.3			59.0	59.1			14.6	15.0
MT 22324	DAGMAR//MT 1053/MT 1172				59.3				60.7				14.4
MT 22205	LANNING/MT0945/MT 1807				57.8				60.0				14.9
MT 22182	DAGMAR/MT 1617				57.2				58.8				14.7
MT 22073	LANNING/MT 1806				56.9				59.5				15.2
MT 22270	LANNING/MT 1853				56.4				60.4				14.5
MT 22102	LANNING*1/MT1103				55.7				59.7				15.3
MT 22151	MT 1866/MT 1767				55.3				59.6				14.1
MT 22099	LANNING//MT1338/MT1103				55.2				60.4				14.8
MT 22083	DAGMAR/MT 1866				55.0				61.8				14.6
MT 22345	DAGMAR/MN14105-7				55.0				58.7				14.3
MT 22184	DAGMAR/MT 1617				54.6				61.3				14.8
MT 22177	DAGMAR/WA 8283				54.5				61.1				14.4
MT 22179	DAGMAR/MT 1617				54.1				59.6				14.7
MT 22204	DAGMAR//MT1338/IDO1202S				54.1				60.2				14.8
MS 241	MS Nova				53.8				60.9				14.7
MT 22361	MT 1867//Patwin515/MN-11394-6				53.7				59.3				14.7
MT 22093	LANNING//MT1338/MT1103				53.0				60.1				14.9
WF 242	CP3119A				53.0				55.8				13.5
MT 22071	DAGMAR//MT1338/SD3997				52.9				58.2				14.5
MT 22072	LANNING/MT 1806				52.9				60.5				14.5
SYN 241	AP Elevate				51.6				60.1				15.1
LIMAGR 201	LCS BUSTER				51.0				57.1				13.3
CHS 241	Allegiant 811 HRS				50.7				60.1				14.4
MS 242	MS Charger				50.2				59.5				13.6
WF 241	CP3055				49.7				55.4				14.6
MT 22172	DAGMAR/WA 8283				49.6				60.7				14.8
CHS 242	Allegiant 6284 HRS				48.2				60.6				14.6
	MEAN	50.7	58.4	64.4	53.3	59.3	59.9	59.9	59.8	14.8	14.5	14.4	14.6
	C.V.	5.8	6.1	6.5	8.4	0.9	0.8	0.9	1.5	2.0	2.2	2.3	3.4
	F-VALUE(ID)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	LSD(0.05)	2.7	3.5	3.9	4.4	0.5	0.5	0.5	0.8	0.3	0.3	0.3	0.5

bold : highest or earliest value within a column, bold : equal value to highest or earliest value within a column based LSD(0.05)

2021-2024 OVERALL AVERAGE OF GRAIN YIELD, TEST WEIGHT AND PROTEIN CONTENT FOR THE ADVANCED SPRING WHEAT NURSERY GROWN UNDER IRRIGATED / HIGH RAINFALL CONDITION (KALISPELL, BOZEMAN-IRRIGATED, SIDNEY-IRRIGATED)

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTO	101.9	110.6	118.5	113.8	62.7	62.2	61.5	62.5	11.8	12.5	12.8	12.4
MT 1939	MT Carlson	101.4	111.3	119.2	105.9	62.4	62.5	62.1	62.5	12.5	13.0	13.1	12.8
PI 699957	MT SIDNEY	100.4	108.9	122.1	102.4	63.0	62.7	62.2	63.0	12.3	12.9	12.7	12.3
LIMAGR 211	LCS ASCENT	99.7	112.4	122.1	106.6	63.2	63.2	62.6	63.2	12.2	12.7	12.8	12.2
PI 690450	DAGMAR	99.7	110.8	121.4	107.0	62.9	62.8	62.4	63.0	13.2	13.9	14.0	13.3
MT 1809	MT Dutton	99.6	110.6	122.0	105.8	62.1	61.5	61.4	62.2	12.6	13.5	13.4	13.2
SYN 182	SY Longmire	97.7	106.5	113.4	105.3	63.5	63.3	63.3	63.7	12.7	13.3	13.4	13.1
MT 2049	LANNING/MT 1415	97.5	104.6	114.7	102.5	62.2	62.2	62.2	62.9	13.0	13.5	13.5	13.2
MT 2030	MT Ubet	97.2	106.9	114.2	103.1	62.0	62.2	61.8	62.5	12.9	13.6	13.6	13.4
PI 679964	NS PRESSER CLP	96.1	99.6	107.2	102.3	61.7	60.6	60.4	61.3	12.1	12.9	12.9	12.6
BZ 917-277	ROCKER	95.9	104.5	110.3	101.6	63.1	62.7	62.4	63.1	12.5	13.2	13.3	12.9
SYN 212	AP Gunsmoke	94.7	105.2	111.3	100.3	62.6	62.5	62.4	62.9	12.9	13.7	13.6	13.1
PI 660981	DUCLAIR	94.6	106.2	110.9	99.5	61.7	61.8	61.6	61.8	12.6	13.1	13.3	13.1
PI 642366	VIDA	94.5	103.1	113.0	101.7	62.5	61.7	61.4	62.3	12.3	13.1	13.2	13.0
ND 695	REEDER	93.5	99.2	109.0	99.2	63.2	62.7	62.6	63.3	13.0	13.7	13.8	13.8
SYN 211	AP Smith	93.4	100.7	110.2	98.2	63.2	63.1	62.9	63.0	13.3	13.6	13.7	13.7
WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	92.1	103.5	110.6	101.8	62.3	62.3	61.7	62.5	12.6	13.1	13.3	13.0
PI 676978	LANNING	92.0	101.7	111.6	99.0	62.1	62.5	62.5	62.9	13.4	14.0	14.0	14.1
AGRIPR 161	SY ROCKFORD	91.9	102.2	107.6	90.2	61.5	61.5	61.0	61.7	12.5	12.8	12.7	12.4
BZ 92413R	WB GUNNISON	90.3	98.7	106.7	95.1	63.1	62.8	62.8	62.8	12.4	12.9	13.0	13.1
AGRIPR 141	SY INGMAR	89.6	98.6	105.1	97.3	63.7	63.5	63.4	63.7	13.4	13.9	14.1	13.9
PI 574642	McNEAL	89.0	94.4	101.7	97.1	62.1	62.1	62.2	62.1	12.7	13.3	13.2	12.7
MS 211	AAC Concord	83.5	92.2	99.8	89.6	62.0	62.0	61.7	61.9	13.3	14.0	14.0	13.7
CI 10003	THATCHER	81.1	83.8	92.2	90.5	62.0	61.8	61.7	61.9	12.9	13.6	13.5	13.4
MT 21104	MT 1451/MT 1866		110.6	116.5	98.1		63.0	62.6	63.1		12.9	13.0	12.7
MT 21074	MT 1525/MT 1348		104.4	113.5	97.5		62.8	62.7	63.0		13.9	14.0	13.6
MT 21186	DAGMAR//MT 1142/MT 1225			123.4	105.7			61.6	61.9			13.4	13.0
MT 21220	DAGMAR/MT 1716			122.3	112.1			62.3	62.8			13.2	12.9
MT 21487	Dagmar/BC1-80			120.7	110.6			62.5	62.9			13.5	13.2
MT 21224	DAGMAR/CAP 197-3			119.3	109.1			62.6	63.2			13.5	13.1
MT 21484	Dagmar/BC1-52			117.8	105.6			62.7	63.1			13.8	13.4
MT 21473	DAGMAR/LANNING			116.8	104.3			62.2	62.2			13.7	13.4
MT 21176	DAGMAR//MT 1142/MT 1225			116.8	109.0			61.2	61.8			13.1	12.5
MT 21485	Dagmar/BC1-80			116.1	95.3			61.5	62.0			13.8	13.7
NDHRS14-0134-C03	ND Stampede			115.7	96.3			62.0	62.9			12.8	12.6

2021-2024 OVERALL AVERAGE OF GRAIN YIELD, TEST WEIGHT AND PROTEIN CONTENT FOR THE ADVANCED SPRING WHEAT NURSERY GROWN UNDER IRRIGATION / HIGH RAINFALL CONDITION (KALISPELL, BOZEMAN-IRRI, SIDNEY-IRRI) (CONT.)

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
MT 21174	DAGMAR//MT 1142/MT 1225			115.5	104.8			61.9	62.5			13.3	13.2
LIMAGR 231	LCS BOOM			112.6	98.1			64.1	64.2			13.6	13.4
WF 241	CP3055				117.8				60.9				11.7
MS 242	MS Charger				113.0				62.7				11.2
MT 22345	DAGMAR/MN14105-7				112.3				61.8				12.8
MT 22177	DAGMAR/WA 8283				111.3				63.9				12.8
MT 22324	DAGMAR//MT 1053/MT 1172				111.0				63.0				13.0
MT 22182	DAGMAR/MT 1617				110.2				61.6				12.8
MT 22151	MT 1866/MT 1767				109.4				62.6				12.5
LIMAGR 201	LCS BUSTER				107.9				60.9				10.9
MT 22361	MT 1867//Patwin515/MN-11394-6				105.6				63.2				12.9
MT 22205	LANNING/MT0945/MT 1807				104.3				62.2				13.4
MT 22184	DAGMAR/MT 1617				104.1				63.7				13.7
MT 22270	LANNING/MT 1853				103.6				62.6				13.2
MT 22071	DAGMAR//MT1338/SD3997				102.6				61.4				13.3
CHS 241	Allegiant 811 HRS				101.9				63.5				12.4
MS 241	MS Nova				101.7				63.6				13.1
MT 22179	DAGMAR/MT 1617				100.6				61.9				13.3
WF 242	CP3119A				100.1				59.1				11.8
SYN 241	AP Elevate				99.7				63.0				13.3
MT 22093	LANNING//MT1338/MT1103				99.1				62.6				14.3
MT 22073	LANNING/MT 1806				98.5				62.1				13.7
MT 22172	DAGMAR/WA 8283				97.9				63.4				13.9
MT 22072	LANNING/MT 1806				96.1				62.5				13.0
MT 22204	DAGMAR//MT1338/IDO1202S				96.0				62.2				13.9
MT 22099	LANNING//MT1338/MT1103				95.5				62.6				13.2
MT 22083	DAGMAR/MT 1866				95.1				63.7				13.2
MT 22102	LANNING*1/MT1103				93.0				62.6				13.5
CHS 242	Allegiant 6284 HRS				92.5				63.3				13.4
	MEAN	94.5	103.5	113.6	102.2	62.5	62.4	62.2	62.6	12.7	13.3	13.4	13.0
	C.V.	4.7	5.0	5.7	5.7	0.6	0.7	0.9	0.9	2.8	2.5	3.1	3.8
	F-VALUE(ID)	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001
	LSD(0.05)	9.1	8.4	10.5	11.6	0.8	0.8	0.9	0.9	0.7	0.6	0.7	0.8

bold : highest or earliest value within a column, **bold** : equal value to highest or earliest value within a column based LSD(0.05)

**2021-2024 OVERALL AVERAGE OF GRAIN YIELD, TEST WEIGHT AND PROTEIN CONTENT
FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA (COMBINED)
(BOZEMAN, HUNTLEY, MOCCASIN, FORT BENTON, HAVRE, SIDNEY-DRY, CONRAD, WILLISTON, HINGHAM, KALISPELL, BOZEMAN-IRRI, SIDNEY-IRRI)**

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
MT 1939	MT Carlson	<u>63.9</u>	76.2	80.9	66.0	60.1	60.9	60.6	60.9	14.1	13.9	13.9	13.9
MT 1809	MT Dutton	63.4	<u>76.4</u>	82.0	66.1	59.5	60.1	60.0	60.2	14.3	14.1	13.9	14.1
PI 690450	DAGMAR	62.9	75.6	81.6	66.6	60.7	61.3	61.1	61.2	14.7	14.5	14.5	14.7
MT 2030	MT Ubet	62.4	75.0	79.8	66.4	60.1	60.8	60.6	60.8	14.3	14.2	14.1	14.3
LIMAGR 211	LCS ASCENT	62.3	76.0	81.6	67.6	<u>61.3</u>	<u>61.7</u>	61.5	61.8	13.8	13.5	13.4	13.5
MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTO	62.3	75.3	79.9	68.4	60.1	60.7	60.3	60.7	13.9	13.6	13.7	13.7
PI 642366	VIDA	61.1	73.0	77.9	64.1	59.8	60.1	60.0	60.4	14.0	13.9	13.9	13.8
BZ 917-277	ROCKER	61.0	73.0	76.7	63.7	60.8	61.2	61.0	61.2	14.3	14.0	14.0	14.0
MT 2049	LANNING/MT 1415	61.0	72.0	76.6	63.4	59.8	60.7	60.9	61.3	14.3	14.1	13.9	14.0
PI 699957	MT SIDNEY	60.6	72.9	79.5	63.7	60.3	61.2	60.8	60.9	14.2	13.9	13.8	13.9
PI 679964	NS PRESSER CLP	60.1	70.1	74.2	62.6	59.0	59.2	59.2	59.7	14.0	13.8	13.8	13.7
PI 676978	LANNING	59.1	71.3	77.0	62.8	59.7	60.7	60.6	60.6	14.9	14.7	14.6	<u>15.0</u>
SYN 182	SY Longmire	58.5	70.8	75.6	62.7	60.6	61.2	61.1	61.5	14.6	14.4	14.2	14.3
AGRIPR 161	SY ROCKFORD	58.4	70.5	75.2	59.3	59.1	60.0	59.7	59.6	14.2	13.8	13.7	14.0
PI 660981	DUCLAIR	58.2	71.4	75.3	61.8	59.1	60.0	59.7	59.8	14.5	14.1	14.1	14.2
ND 695	REEDER	57.4	68.1	73.2	59.0	60.2	60.7	60.6	60.7	14.6	14.4	14.4	14.5
WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	57.0	68.9	72.8	60.2	59.7	60.6	60.1	60.2	14.7	14.4	14.3	14.5
SYN 212	AP Gunsmoke	56.9	69.4	74.4	60.2	59.9	60.6	60.6	60.8	<u>15.2</u>	<u>14.9</u>	<u>14.7</u>	14.9
BZ 92413R	WB GUNNISON	56.5	67.4	71.4	57.5	60.4	60.9	60.8	60.5	13.9	13.7	13.7	14.0
SYN 211	AP Smith	55.6	67.0	72.4	58.2	60.2	61.1	60.8	61.0	14.9	14.6	14.5	14.6
PI 574642	McNEAL	55.4	66.3	70.5	58.4	59.2	60.0	59.8	59.7	14.6	14.3	14.3	14.3
AGRIPR 141	SY INGMAR	55.3	66.7	70.9	60.0	60.6	61.5	61.2	61.4	14.9	14.6	14.6	14.6
MS 211	AAC Concord	52.8	63.0	67.2	53.4	59.4	60.3	60.0	59.9	14.8	14.7	14.6	14.7
CI 10003	THATCHER	46.1	55.0	58.5	50.6	58.2	59.5	59.2	59.2	14.7	14.5	14.4	14.4
MT 21104	MT 1451/MT 1866		74.1	77.5	63.0		61.2	60.9	61.1		13.9	13.8	13.8
MT 21074	MT 1525/MT 1348		72.2	77.1	61.2		61.3	61.1	60.9		14.6	14.5	14.6
MT 21186	DAGMAR//MT 1142/MT 1225			<u>82.3</u>	65.6			59.8	59.8			14.2	14.2
MT 21487	Dagmar/BC1-80			81.6	67.6			60.8	61.1			14.2	14.4
MT 21176	DAGMAR//MT 1142/MT 1225			81.1	67.9			59.8	60.0			14.0	14.0
MT 21473	DAGMAR/LANNING			81.0	67.2			60.5	60.5			14.2	14.5
MT 21220	DAGMAR/MT 1716			80.8	65.5			60.5	60.6			14.2	14.3
MT 21484	Dagmar/BC1-52			80.4	66.0			61.2	61.2			14.3	14.5
MT 21224	DAGMAR/CAP 197-3			80.0	65.4			61.0	61.1			14.2	14.3
MT 21485	Dagmar/BC1-80			79.3	63.0			59.9	59.9			14.5	14.6
MT 21174	DAGMAR//MT 1142/MT 1225			78.6	64.8			60.6	61.0			14.4	14.5

2021-2024 OVERALL AVERAGE OF GRAIN YIELD, TEST WEIGHT AND PROTEIN CONTENT
FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA (COMBINED)

(BOZEMAN, HUNTLEY, MOCCASIN, FORT BENTON, HAVRE, SIDNEY-DRY, CONRAD, WILLISTON, HINGHAM, KALISPELL, BOZEMAN-IRRI, SIDNEY-IRRI) (CONT.)

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
NDHRS14-0134-C03	ND Stampede			76.9	60.3			59.8	60.1			14.1	14.4
LIMAGR 231	LCS BOOM			76.4	61.9			62.2	62.5			14.1	14.4
MT 22324	DAGMAR//MT 1053/MT 1172				69.6				61.3				14.0
MT 22182	DAGMAR/MT 1617				67.8				59.5				14.2
MT 22205	LANNING/MT0945/MT 1807				67.1				60.5				14.6
MT 22345	DAGMAR/MN14105-7				66.5				59.5				14.0
MT 22151	MT 1866/MT 1767				66.2				60.4				13.7
MT 22177	DAGMAR/WA 8283				65.9				61.8				14.0
MT 22270	LANNING/MT 1853				65.8				61.0				14.2
MT 22073	LANNING/MT 1806				65.2				60.1				14.8
MT 22184	DAGMAR/MT 1617				64.5				61.9				14.5
MT 22361	MT 1867//Patwin515/MN-11394-6				64.1				60.3				14.2
MS 241	MS Nova				63.4				61.6				14.3
MT 22179	DAGMAR/MT 1617				63.4				60.2				14.4
WF 241	CP3055				63.3				56.8				13.9
MT 22099	LANNING//MT1338/MT1103				63.3				60.9				14.4
MT 22102	LANNING*1/MT1103				63.2				60.4				14.9
MT 22083	DAGMAR/MT 1866				63.0				62.3				14.3
MT 22071	DAGMAR//MT1338/SD3997				62.9				59.0				14.2
MS 242	MS Charger				62.8				60.3				13.0
MT 22204	DAGMAR//MT1338/IDO1202S				62.4				60.7				14.6
WF 242	CP3119A				62.4				56.7				13.1
LIMAGR 201	LCS BUSTER				62.4				58.1				12.7
MT 22093	LANNING//MT1338/MT1103				62.2				60.7				14.7
MT 22072	LANNING/MT 1806				61.6				61.0				14.1
SYN 241	AP Elevate				61.2				60.8				14.6
CHS 241	Allegiant 811 HRS				60.9				60.9				13.9
MT 22172	DAGMAR/WA 8283				59.3				61.4				14.6
CHS 242	Allegiant 6284 HRS				57.1				61.3				14.3
	MEAN	58.7	70.7	76.7	63.1	59.9	60.7	60.5	60.5	14.4	14.2	14.2	14.2
	C.V.	5.4	5.8	6.2	7.9	0.9	0.8	0.9	1.4	2.1	2.3	2.5	3.6
	F-VALUE(ID)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	LSD(0.05)	2.7	3.5	3.8	4.4	0.5	0.4	0.5	0.7	0.3	0.3	0.3	0.4

bold : highest or earliest value within a column, **bold** : equal value to highest or earliest value within a column based LSD(0.05)

2021-2024 OVERALL AVERAGE OF HEADING DATE, PLANT HEIGHT AND STEM SOLIDNESS

FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA

(BOZEMAN, HUNTLEY, MOCCASIN, FORT BENTON, HAVRE, SIDNEY-DRY, CONRAD, WILLISTON, HINGHAM, KALISPELL, BOZEMAN-IRRI, SIDNEY-IRRI)

ID	VARIETY / PEDIGREE	HEADING DATE				PLANT HEIGHT				STEM SOLIDNESS (5-25)			
		(JULIAN)				(INCHES)				BOZEMAN ONLY			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
AGRIPR 141	SY INGMAR	178.2	179.0	177.9	177.3	27.8	29.4	30.4	30.4	9.0	9.5	10.5	9.7
AGRIPR 161	SY ROCKFORD	179.4	180.1	178.5	178.8	29.1	30.9	32.0	31.7	7.9	7.8	8.1	7.7
BZ 917-277	ROCKER	178.8	179.7	178.2	178.8	29.3	30.8	31.6	31.6	10.6	9.9	11.1	11.4
BZ 92413R	WB GUNNISON	177.6	178.4	176.7	177.1	27.7	29.3	30.2	30.1	11.4	11.2	10.6	11.2
CI 10003	THATCHER	180.3	181.0	178.7	178.5	37.4	39.7	41.5	40.5	7.2	7.6	8.3	8.5
LIMAGR 211	LCS ASCENT	174.9	175.3	173.7	174.2	29.0	30.6	31.6	31.2	6.8	6.7	7.1	7.0
MS 211	AAC Concord	179.1	180.0	178.4	179.1	33.4	35.6	37.5	36.5	20.8	19.7	20.4	20.5
MT 1809	MT Dutton	177.5	178.5	176.5	177.1	29.3	31.1	32.1	31.4	11.2	10.5	10.9	11.6
MT 1939	MT Carlson	176.5	177.2	175.6	175.9	28.8	30.4	31.3	31.2	17.9	17.3	16.9	17.4
MT 2030	MT Ubet	176.7	177.3	175.8	175.5	28.7	30.5	31.7	31.3	12.7	12.0	12.5	12.6
MT 2049	LANNING/MT 1415	174.8	174.9	173.0	173.4	28.3	29.9	31.3	31.4	11.8	12.4	14.2	14.2
MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTO	176.2	176.7	175.2	175.4	28.8	30.4	31.5	30.8	13.2	12.0	11.8	11.3
ND 695	REEDER	177.9	178.7	176.9	177.0	30.4	32.4	33.8	33.2	7.7	7.7	8.5	9.1
PI 574642	McNEAL	179.1	180.0	178.6	179.0	30.4	32.2	33.4	32.6	8.0	7.9	8.5	8.9
PI 642366	VIDA	178.2	179.1	177.1	177.4	29.7	31.4	32.5	32.0	13.0	12.5	13.3	13.4
PI 660981	DUCLAIR	175.7	176.3	174.7	175.0	29.4	31.1	32.2	31.9	19.9	19.9	20.7	21.8
PI 676978	LANNING	176.1	176.7	175.3	174.1	28.4	30.3	31.5	31.0	8.1	8.3	8.7	9.2
PI 679964	NS PRESSER CLP	180.2	181.2	179.5	179.2	30.9	32.7	33.7	33.2	7.5	7.6	7.8	7.9
PI 690450	DAGMAR	175.5	176.0	174.5	175.0	29.9	31.7	32.9	32.4	18.4	18.0	18.8	21.3
PI 699957	MT SIDNEY	176.1	176.3	174.4	174.1	29.3	30.4	31.8	31.0	9.3	8.6	9.1	9.3
SYN 182	SY Longmire	177.2	177.9	176.5	177.1	28.1	29.5	30.5	30.5	20.9	20.8	21.0	21.5
SYN 211	AP Smith	178.6	179.3	177.8	178.2	26.2	27.4	28.6	28.4	10.1	10.6	10.8	9.8
SYN 212	AP Gunsmoke	177.0	177.7	176.4	176.5	28.0	29.7	31.0	30.7	7.9	8.1	8.1	8.7
WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	177.8	178.6	177.0	177.1	28.5	30.1	30.9	30.9	22.4	22.0	22.7	23.5
MT 21074	MT 1525/MT 1348		179.5	178.1	178.5		30.6	31.7	31.6		15.7	16.0	16.9
MT 21104	MT 1451/MT 1866		178.2	176.9	177.0		30.6	31.7	31.6		13.6	15.5	15.1
LIMAGR 231	LCS BOOM			173.2	173.2			30.8	30.2			8.0	8.0
MT 21174	DAGMAR//MT 1142/MT 1225			174.9	175.3			34.0	33.4			17.5	19.8
MT 21176	DAGMAR//MT 1142/MT 1225			177.0	177.3			32.8	32.4			15.6	15.8
MT 21186	DAGMAR//MT 1142/MT 1225			176.0	176.4			32.7	32.0			17.5	17.8
MT 21220	DAGMAR/MT 1716			177.0	177.4			32.2	31.6			16.8	15.9
MT 21224	DAGMAR/CAP 197-3			175.7	176.0			33.8	33.7			18.0	18.6
MT 21473	DAGMAR/LANNING			176.1	175.8			32.4	32.1			14.8	14.6
MT 21484	Dagmar/BC1-52			175.0	175.6			32.8	32.6			15.6	16.3
MT 21485	Dagmar/BC1-80			174.4	174.8			33.2	32.7			14.1	14.2

2021-2024 OVERALL AVERAGE OF HEADING DATE, PLANT HEIGHT AND STEM SOLIDNESS

FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA

(BOZEMAN, HUNTLEY, MOCCASIN, FORT BENTON, HAVRE, SIDNEY-DRY, CONRAD, WILLISTON, HINGHAM, KALISPELL, BOZEMAN-IRRI, SIDNEY-IRRI) (CONT.)

ID	VARIETY / PEDIGREE	HEADING DATE				PLANT HEIGHT				STEM SOLIDNESS (5-25)			
		(JULIAN)				(INCHES)				BOZEMAN ONLY			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
MT 21487	Dagmar/BC1-80			175.5	175.7			33.1	32.7			13.7	13.7
NDHRS14-0134-C03	ND Stampede			175.2	175.7			32.2	31.5			8.6	8.3
CHS 241	Allegiant 811 HRS				178.5				29.9				9.9
CHS 242	Allegiant 6284 HRS				176.2				26.9				7.1
LIMAGR 201	LCS BUSTER				182.3				32.0				17.1
MS 241	MS Nova				174.8				31.2				7.6
MS 242	MS Charger				176.3				30.1				8.3
MT 22071	DAGMAR//MT1338/SD3997				178.2				32.5				17.2
MT 22072	LANNING/MT 1806				174.3				31.1				15.3
MT 22073	LANNING/MT 1806				174.6				30.5				10.8
MT 22083	DAGMAR/MT 1866				173.2				31.5				14.7
MT 22093	LANNING//MT1338/MT1103				173.4				30.0				9.9
MT 22099	LANNING//MT1338/MT1103				172.9				29.5				9.6
MT 22102	LANNING*1/MT1103				173.9				30.8				7.0
MT 22151	MT 1866/MT 1767				176.0				32.2				18.9
MT 22172	DAGMAR/WA 8283				176.2				33.0				8.5
MT 22177	DAGMAR/WA 8283				176.2				33.6				9.3
MT 22179	DAGMAR/MT 1617				173.7				31.5				17.8
MT 22182	DAGMAR/MT 1617				174.3				32.1				17.1
MT 22184	DAGMAR/MT 1617				174.5				31.8				15.8
MT 22204	DAGMAR//MT1338/IDO1202S				174.7				30.6				15.0
MT 22205	LANNING/MT0945/MT 1807				174.1				29.9				10.9
MT 22270	LANNING/MT 1853				176.2				31.2				16.8
MT 22324	DAGMAR//MT 1053/MT 1172				174.4				31.4				15.6
MT 22345	DAGMAR/MN14105-7				177.1				31.3				14.0
MT 22361	MT 1867//Patwin515/MN-11394-6				177.7				32.7				11.2
SYN 241	AP Elevate				178.0				29.1				9.5
WF 241	CP3055				183.0				32.2				16.6
WF 242	CP3119A				184.2				32.8				15.6
	MEAN	177.5	178.2	176.3	176.4	29.5	31.1	32.4	31.6	12.2	12.2	13.3	13.3
	C.V.	0.3	0.3	0.4	0.5	2.7	2.8	2.8	3.7	11.0	9.9	7.6	16.5
	F-VALUE(ID)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	LSD(0.05)	0.6	0.6	0.6	1.0	0.7	0.8	0.8	0.9	1.9	2.0	2.0	3.6

bold : highest or earliest value within a column, **bold** : equal value to highest or earliest value within a column based LSD(0.05)

2021-2024 ADVANCED SPRING WHEAT NURSERY, BOZEMAN (DRY) : YIELD, TEST WEIGHT AND PROTEIN

ID	VARIETY / PEDIGREE	YIELD			TEST WEIGHT				PROTEIN			
		(BU/AC)			(LB/BU)				(%)			
		2021-2023	2022-2023	2023	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
MT 2030	MT Ubet	96.1	112.3	133.1	60.8	61.3	61.2	60.7	15.0	15.0	14.9	14.8
MT 1939	MT Carlson	95.5	110.3	131.7	61.2	61.4	61.3	61.1	14.7	14.8	14.7	14.9
MT 1809	MT Dutton	95.4	112.5	133.9	59.5	59.8	60.1	59.7	14.9	14.8	14.5	14.8
LIMAGR 211	LCS ASCENT	95.2	113.8	138.4	61.6	62.1	62.3	61.2	14.3	14.1	13.9	14.2
MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	94.8	110.9	134.1	60.8	60.9	60.9	60.7	14.5	14.4	14.2	14.9
BZ 917-277	ROCKER	92.1	109.2	129.9	60.6	60.7	60.5	60.1	15.0	15.0	14.9	15.2
AGRIPR 161	SY ROCKFORD	91.9	108.7	129.1	59.6	60.1	60.2	58.7	14.3	14.1	13.8	14.7
MT 2049	LANNING/MT 1415	91.2	105.8	124.6	59.9	60.4	60.5	60.4	14.7	14.7	14.4	14.6
PI 690450	DAGMAR	91.2	105.4	127.0	61.4	61.5	61.8	61.0	15.4	15.2	15.0	15.4
PI 660981	DUCLAIR	90.2	109.0	132.2	59.4	59.7	59.7	58.9	14.7	14.7	14.8	15.1
PI 699957	MT SIDNEY	90.2	103.2	128.8	60.5	60.8	60.8	60.6	14.7	14.7	14.4	14.7
PI 642366	VIDA	89.8	104.4	122.1	59.6	59.5	59.2	58.9	14.5	14.7	14.8	14.8
PI 676978	LANNING	88.3	103.4	126.3	60.4	60.7	60.7	59.9	15.5	15.5	15.2	15.5
ND 695	REEDER	86.5	101.7	125.9	60.5	60.4	60.5	59.3	15.3	15.4	15.2	16.0
PI 679964	NS PRESSER CLP	85.8	99.4	117.0	58.4	58.3	58.2	58.6	15.0	14.9	14.8	14.6
SYN 182	SY Longmire	85.3	101.6	123.2	60.5	60.6	60.6	59.9	14.9	14.8	14.8	15.2
WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	85.0	99.3	120.3	60.6	60.9	61.1	60.3	14.9	14.9	14.7	15.3
SYN 212	AP Gunsmoke	84.4	100.0	122.1	59.3	59.7	59.9	59.0	15.7	15.7	15.6	16.4
SYN 211	AP Smith	83.5	97.8	120.8	60.0	60.4	60.4	59.7	15.4	15.3	15.2	15.8
AGRIPR 141	SY INGMAR	82.8	97.0	112.4	60.4	60.6	60.3	60.1	15.4	15.3	15.4	15.4
BZ 92413R	WB GUNNISON	80.2	94.5	109.6	60.5	60.5	60.4	58.9	14.4	14.4	14.4	15.3
MS 211	AAC Concord	76.6	89.1	110.0	60.0	60.6	60.8	60.3	15.8	15.8	15.5	15.8
PI 574642	McNEAL	75.8	88.8	106.4	59.0	59.2	59.3	57.8	15.5	15.7	15.4	15.3
CI 10003	THATCHER	62.0	71.4	83.9	59.2	59.7	60.0	59.9	15.7	15.7	15.4	15.5
MT 21074	MT 1525/MT 1348		107.9	129.7		61.7	61.9	60.9		15.5	15.4	15.6
MT 21104	MT 1451/MT 1866		107.9	124.9		60.9	60.6	60.9		14.6	14.6	14.4
MT 21176	DAGMAR//MT 1142/MT 1225			139.5			60.0	59.5			14.7	15.2
MT 21487	Dagmar/BC1-80			137.8			60.6	59.2			15.3	16.0
MT 21186	DAGMAR//MT 1142/MT 1225			135.7			60.4	59.0			15.0	15.4
NDHRS14-0134	ND Stampede			134.5			59.2	57.7			15.2	16.0
MT 21224	DAGMAR/CAP 197-3			132.5			61.5	60.0			14.9	15.7
MT 21220	DAGMAR/MT 1716			131.8			60.3	59.9			15.0	15.2
MT 21174	DAGMAR//MT 1142/MT 1225			131.0			61.1	61.1			15.1	15.1
MT 21484	Dagmar/BC1-52			130.3			61.9	60.6			14.6	15.5
MT 21485	Dagmar/BC1-80			128.7			59.5	58.8			15.7	16.1

2021-2024 ADVANCED SPRING WHEAT NURSERY, BOZEMAN (DRY) : YIELD, TEST WEIGHT AND PROTEIN (CONT.)

ID	VARIETY / PEDIGREE	YIELD			TEST WEIGHT				PROTEIN			
		(BU/AC)			(LB/BU)				(%)			
		2021-2023	2022-2023	2023	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
LIMAGR 231	LCS BOOM			127.8			62.8	61.9			14.8	15.1
MT 21473	DAGMAR/LANNING			126.3			60.6	60.3			15.1	15.3
MT 22083	DAGMAR/MT 1866							62.1				14.7
MT 22184	DAGMAR/MT 1617							61.4				15.2
MS 241	MS Nova							61.3				14.9
MT 22177	DAGMAR/WA 8283							61.0				15.2
MT 22172	DAGMAR/WA 8283							60.9				15.5
CHS 242	Allegiant 6284 HRS							60.5				15.4
MT 22324	DAGMAR//MT 1053/MT 1172							60.4				14.7
MT 22072	LANNING/MT 1806							60.3				15.2
MT 22151	MT 1866/MT 1767							60.3				14.4
MT 22099	LANNING//MT1338/MT1103							60.1				15.0
MT 22179	DAGMAR/MT 1617							60.0				14.9
MT 22361	MT 1867//Patwin515/MN-11394-6							60.0				14.9
MT 22204	DAGMAR//MT1338/IDO1202S							59.8				15.3
MT 22093	LANNING//MT1338/MT1103							59.5				15.7
MS 242	MS Charger							59.4				13.4
CHS 241	Allegiant 811 HRS							59.3				14.7
MT 22073	LANNING/MT 1806							59.3				16.1
MT 22102	LANNING*1/MT1103							59.1				15.4
MT 22270	LANNING/MT 1853							59.0				15.2
MT 22345	DAGMAR/MN14105-7							59.0				14.8
MT 22182	DAGMAR/MT 1617							59.0				14.6
MT 22205	LANNING/MT0945/MT 1807							58.3				15.2
SYN 241	AP Elevate							58.3				15.8
LIMAGR 201	LCS BUSTER							57.5				12.9
MT 22071	DAGMAR//MT1338/SD3997							57.5				15.2
WF 241	CP3055							56.9				14.2
WF 242	CP3119A							56.5				13.6
	MEAN	87.1	102.5	125.8	60.1	60.5	60.6	59.7	15.0	15.0	14.9	15.1
	C.V.	5.5	4.4	.	1.0	1.0	1.2	1 rep	2.6	2.6	3.0	1 rep
	PROBABILITY (ID)	<0.001	<0.001	.	<0.001	<0.001	<0.001	1 rep	<0.001	<0.001	<0.05	1 rep
	LSD(0.05)	7.8	9.2	.	0.9	1.0	1.5	1 rep	0.5	0.6	0.9	1 rep

The yield was held out due to hail in 2024

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021-2024 ADVANCED SPRING WHEAT NURSERY, CONRAD (DRY) : YIELD, TEST WEIGHT AND PROTEIN

ID	VARIETY / PEDIGREE	YIELD			TEST WEIGHT			PROTEIN		
		(BU/AC)			(LB/BU)			(%)		
		2021, 2023-2024	2023-2024	2024	2021, 2023-2024	2023-2024	2024	2021, 2023-2024	2023-2024	2024
MT 1939	MT Carlson	<u>49.6</u>	<u>46.1</u>	31.7	59.0	58.5	58.0	13.8	14.0	13.8
PI 690450	DAGMAR	<u>47.6</u>	<u>46.3</u>	<u>33.6</u>	<u>59.8</u>	59.3	59.1	<u>14.7</u>	14.8	15.2
PI 679964	NS PRESSER CLP	<u>45.5</u>	<u>43.5</u>	<u>33.9</u>	58.3	57.4	58.5	13.8	14.4	14.6
LIMAGR 211	LCS ASCENT	<u>45.4</u>	41.4	29.0	<u>60.1</u>	<u>59.6</u>	<u>59.7</u>	14.1	14.3	14.8
MT 1809	MT Dutton	<u>45.0</u>	<u>45.8</u>	<u>32.6</u>	58.5	58.0	57.1	13.8	14.2	15.1
BZ 92413R	WB GUNNISON	<u>45.0</u>	<u>44.7</u>	31.2	<u>60.0</u>	59.2	58.9	13.4	13.9	14.0
BZ 917-277	ROCKER	<u>44.8</u>	<u>45.0</u>	<u>32.7</u>	<u>60.5</u>	<u>60.2</u>	<u>60.4</u>	13.9	14.1	14.6
MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	<u>44.3</u>	41.1	31.6	59.2	58.5	58.9	13.7	13.7	14.0
MT 2030	MT Ubet	<u>44.1</u>	42.2	26.9	58.9	58.5	58.3	14.1	14.7	15.0
MT 2049	LANNING/MT 1415	43.2	41.5	30.7	58.5	58.4	58.7	14.3	14.3	14.8
WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	43.2	40.2	<u>32.8</u>	57.9	57.0	56.8	14.3	14.6	14.3
PI 676978	LANNING	43.1	42.0	27.9	58.4	57.9	57.9	14.4	15.2	<u>16.2</u>
AGRIPR 161	SY ROCKFORD	42.7	40.8	23.8	58.4	58.0	57.0	14.2	14.5	15.2
PI 699957	MT SIDNEY	42.5	40.5	27.1	59.0	58.5	57.9	14.3	14.7	15.2
SYN 182	SY Longmire	42.4	41.8	29.0	<u>60.1</u>	<u>59.6</u>	<u>59.8</u>	14.1	14.5	15.4
ND 695	REEDER	42.3	40.6	29.2	59.1	58.3	57.7	14.3	14.9	15.4
PI 642366	VIDA	42.1	40.8	31.1	58.6	57.6	58.0	14.0	14.6	14.4
SYN 212	AP Gunsmoke	40.4	40.5	27.5	59.4	59.1	59.2	<u>15.3</u>	<u>15.6</u>	15.7
PI 660981	DUCLAIR	40.2	41.2	30.3	57.7	56.9	56.4	<u>14.5</u>	14.8	15.0
MS 211	AAC Concord	40.0	39.7	30.2	57.9	57.4	57.1	14.1	14.6	14.5
AGRIPR 141	SY INGMAR	38.8	38.3	27.5	59.4	58.8	59.3	<u>15.0</u>	15.3	16.0
SYN 211	AP Smith	38.3	39.1	27.9	58.8	58.2	58.3	<u>14.8</u>	15.0	15.4
PI 574642	McNEAL	37.8	38.5	28.1	58.2	57.2	57.9	13.9	14.5	14.5
CI 10003	THATCHER	31.6	27.5	22.3	57.0	56.3	56.1	14.1	14.7	14.1
MT 21473	DAGMAR/LANNING		<u>49.1</u>	<u>34.0</u>		58.6	58.1		14.8	15.3
MT 21484	Dagmar/BC1-52		<u>48.9</u>	<u>34.3</u>		<u>59.7</u>	59.1		14.6	15.1
MT 21487	Dagmar/BC1-80		<u>47.8</u>	<u>36.0</u>		59.2	59.5		14.6	14.9
MT 21176	DAGMAR//MT 1142/MT 1225		<u>46.7</u>	<u>33.1</u>		58.1	57.4		14.3	14.8
MT 21186	DAGMAR//MT 1142/MT 1225		<u>46.5</u>	31.6		57.9	57.4		14.6	15.2
MT 21174	DAGMAR//MT 1142/MT 1225		<u>45.7</u>	<u>34.3</u>		59.3	59.1		14.6	14.9
MT 21224	DAGMAR/CAP 197-3		<u>45.3</u>	<u>34.4</u>		58.6	58.4		14.5	14.4
MT 21485	Dagmar/BC1-80		<u>45.3</u>	29.5		58.0	57.0		15.2	15.3
MT 21074	MT 1525/MT 1348		<u>44.7</u>	<u>34.3</u>		59.5	<u>59.6</u>		15.0	14.5
LIMAGR 231	LCS BOOM		<u>42.3</u>	27.2		<u>60.9</u>	<u>60.6</u>		14.9	15.7
MT 21104	MT 1451/MT 1866		41.4	27.7		57.9	58.5		15.0	14.9

2021-2024 ADVANCED SPRING WHEAT NURSERY, CONRAD (DRY) : YIELD, TEST WEIGHT AND PROTEIN (CONT.)

ID	VARIETY / PEDIGREE	YIELD			TEST WEIGHT			PROTEIN		
		(BU/AC)			(LB/BU)			(%)		
		2021, 2023-2024	2023-2024	2024	2021, 2023-2024	2023-2024	2024	2021, 2023-2024	2023-2024	2024
MT 21220	DAGMAR/MT 1716		40.2	29.3		58.4	58.9		15.2	15.3
NDHRS14-0134-	ND Stampede		39.1	27.3		56.1	56.4		15.0	15.4
WF 241	CP3055			35.3			54.8			14.1
WF 242	CP3119A			34.9			54.2			13.0
MT 22324	DAGMAR//MT 1053/MT 1172			34.4			59.0			14.6
MT 22151	MT 1866/MT 1767			34.2			56.6			14.1
MT 22071	DAGMAR//MT1338/SD3997			34.1			57.2			14.1
MT 22205	LANNING//MT0945/MT 1807			32.8			58.7			15.9
MT 22179	DAGMAR/MT 1617			32.4			56.7			15.3
MT 22345	DAGMAR/MN14105-7			32.1			57.7			15.0
MT 22204	DAGMAR//MT1338/IDO1202S			31.5			57.6			14.8
MS 241	MS Nova			31.3			59.3			15.0
MT 22093	LANNING//MT1338/MT1103			31.3			57.7			15.3
MT 22072	LANNING/MT 1806			31.2			59.4			15.3
MT 22182	DAGMAR/MT 1617			30.8			56.3			14.9
MT 22073	LANNING/MT 1806			30.7			57.1			15.8
MT 22177	DAGMAR/WA 8283			30.6			60.2			14.0
MT 22184	DAGMAR/MT 1617			30.6			59.3			15.0
LIMAGR 201	LCS BUSTER			30.3			55.9			13.1
MT 22270	LANNING/MT 1853			28.5			58.6			15.2
MT 22083	DAGMAR/MT 1866			28.4			60.2			15.5
MT 22361	MT 1867//Patwin515/MN-11394-6			28.3			57.6			15.0
SYN 241	AP Elevate			28.1			58.4			15.7
CHS 241	Allegiant 811 HRS			27.9			59.5			15.0
MS 242	MS Charger			27.0			57.9			14.5
CHS 242	Allegiant 6284 HRS			26.7			58.8			14.1
MT 22102	LANNING*1/MT1103			26.7			58.1			16.5
MT 22172	DAGMAR/WA 8283			24.9			58.5			14.6
MT 22099	LANNING//MT1338/MT1103			24.4			57.8			15.8
	MEAN	42.5	42.5	30.3	58.9	58.4	58.1	14.2	14.6	14.9
	C.V.	8.6	8.1	8.5	1.1	1.2	1.2	3.7	3.7	2.3
	PROBABILITY (ID)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.05	ns	<0.001
	LSD(0.05)	6.0	6.9	3.8	1.1	1.4	1.1	0.9	-	0.5

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021-2024 ADVANCED SPRING WHEAT NURSERY, FORT BENTON (DRY) : YIELD, TEST WEIGHT AND PROTEIN

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT			PROTEIN			
		(BU/AC)				(LB/BU)			(%)			
		2021-2024	2022-2024	2023-2024	2024	2021, 2023-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
BZ 917-277	ROCKER	49.2	51.3	61.2	49.8	60.1	60.9	61.7	15.1	14.9	14.6	15.3
PI 642366	VIDA	48.9	52.0	61.8	46.6	59.7	60.5	61.4	14.7	14.5	14.3	14.8
MT 1939	MT Carlson	48.5	51.2	59.2	47.7	58.6	59.5	60.4	15.0	14.7	14.5	14.8
MT 2030	MT Ubet	48.1	50.0	59.4	45.7	60.0	60.7	61.4	15.3	15.1	14.6	15.7
MT 1809	MT Dutton	47.6	49.5	58.5	48.4	58.6	59.1	59.7	15.3	15.1	14.9	15.9
MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	46.6	51.3	59.7	43.3	57.9	60.3	60.6	14.5	14.2	14.1	15.1
PI 679964	NS PRESSER CLP	46.1	48.8	59.0	46.5	58.5	60.0	61.3	14.7	14.5	14.3	14.9
MT 2049	LANNING/MT 1415	46.0	48.1	56.1	52.0	59.5	60.6	61.4	15.0	14.8	14.3	15.1
BZ 92413R	WB GUNNISON	45.8	48.6	57.4	49.0	58.9	60.4	61.2	14.4	14.0	13.7	14.2
PI 690450	DAGMAR	45.7	47.8	55.8	47.0	59.6	60.5	61.6	15.5	15.4	15.2	16.0
PI 676978	LANNING	45.3	48.6	58.7	43.7	58.6	59.8	60.8	16.1	16.0	15.5	16.3
SYN 182	SY Longmire	45.1	48.0	57.2	45.6	60.1	61.0	61.8	15.8	15.6	15.0	16.4
PI 660981	DUCLAIR	45.1	47.1	55.4	47.7	57.8	59.1	59.4	14.9	14.5	14.4	15.2
WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	43.5	45.7	52.7	40.3	58.0	59.1	59.6	15.7	15.5	15.2	15.7
PI 699957	MT SIDNEY	43.4	46.1	57.0	43.4	58.4	60.3	60.8	15.4	15.2	14.8	15.7
LIMAGR 211	LCS ASCENT	42.1	43.7	53.1	45.1	61.1	61.6	62.9	14.2	14.0	13.7	14.6
MS 211	AAC Concord	41.9	43.3	50.7	42.7	57.8	58.6	58.9	15.5	15.3	15.2	15.6
ND 695	REEDER	40.9	42.7	51.2	37.6	59.0	60.0	60.9	15.5	15.3	15.0	15.4
PI 574642	McNEAL	40.8	42.8	49.9	40.5	57.9	59.2	59.9	15.2	15.0	14.7	15.6
SYN 212	AP Gunsmoke	39.8	41.4	50.0	38.6	59.4	60.4	61.6	16.5	16.2	15.6	16.0
AGRIPR 141	SY INGMAR	38.6	40.3	48.9	36.6	58.6	60.3	61.3	15.8	15.5	15.2	15.9
SYN 211	AP Smith	38.2	39.4	48.1	37.5	59.0	60.7	61.3	15.6	15.3	14.9	15.3
AGRIPR 161	SY ROCKFORD	37.6	39.8	48.8	38.9	56.4	58.7	59.2	15.2	14.9	14.4	15.6
CI 10003	THATCHER	32.4	34.3	41.6	36.3	52.6	57.4	58.1	15.3	15.0	14.6	15.1
MT 21074	MT 1525/MT 1348		50.6	60.0	52.1		60.6	61.4		15.6	14.8	15.4
MT 21104	MT 1451/MT 1866		47.7	56.5	45.0		60.6	61.5		15.0	14.3	15.0
MT 21473	DAGMAR/LANNING			60.6	53.9		59.8	60.9			15.2	16.0
MT 21186	DAGMAR//MT 1142/MT 1225			60.1	49.9		59.3	59.9			14.9	15.6
MT 21220	DAGMAR/MT 1716			59.6	52.9		60.0	61.0			15.0	15.4
MT 21176	DAGMAR//MT 1142/MT 1225			59.2	49.6		59.4	60.4			14.7	15.0
MT 21485	Dagmar/BC1-80			58.1	50.1		59.5	60.0			15.1	16.0
MT 21484	Dagmar/BC1-52			57.2	51.1		60.7	61.5			15.1	16.1
MT 21487	Dagmar/BC1-80			55.1	45.7		60.4	61.3			14.5	15.5
MT 21224	DAGMAR/CAP 197-3			53.1	43.8		59.9	60.8			14.9	15.4
NDHRS14-0134-	ND Stampede			51.6	44.9		58.3	59.7			14.5	15.5

2021-2024 ADVANCED SPRING WHEAT NURSERY, FORT BENTON (DRY) : YIELD, TEST WEIGHT AND PROTEIN (CONT.)

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT			PROTEIN			
		(BU/AC)				(LB/BU)			(%)			
		2021-2024	2022-2024	2023-2024	2024	2021, 2023-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
MT 21174	DAGMAR//MT 1142/MT 1225			50.2	43.4		60.1	60.8			15.3	16.1
LIMAGR 231	LCS BOOM			48.1	42.9		61.3	63.1			14.7	15.5
MT 22182	DAGMAR/MT 1617				55.0			59.3				15.3
MT 22151	MT 1866/MT 1767				54.7			59.4				15.3
MT 22324	DAGMAR//MT 1053/MT 1172				52.8			62.1				15.3
WF 242	CP3119A				52.1			56.0				13.7
LIMAGR 201	LCS BUSTER				50.8			58.3				13.8
MT 22270	LANNING/MT 1853				49.9			61.3				15.8
MT 22071	DAGMAR//MT1338/SD3997				49.8			59.6				14.9
WF 241	CP3055				49.2			54.4				15.4
MT 22205	LANNING/MT0945/MT 1807				49.0			61.3				16.0
MT 22177	DAGMAR/WA 8283				48.4			62.3				15.2
MT 22172	DAGMAR/WA 8283				48.0			60.8				15.3
MS 241	MS Nova				46.9			62.3				15.4
MT 22073	LANNING/MT 1806				46.4			60.2				16.8
MT 22204	DAGMAR//MT1338/IDO1202S				45.3			59.9				15.8
MT 22361	MT 1867//Patwin515/MN-11394-6				44.7			60.0				15.3
MT 22072	LANNING/MT 1806				44.6			61.3				15.7
MT 22093	LANNING//MT1338/MT1103				44.5			60.5				16.4
MT 22099	LANNING//MT1338/MT1103				44.2			62.0				15.4
MT 22345	DAGMAR/MN14105-7				44.1			58.2				15.3
MT 22184	DAGMAR/MT 1617				43.6			61.7				15.4
MT 22083	DAGMAR/MT 1866				42.4			62.4				16.1
MT 22179	DAGMAR/MT 1617				42.3			59.5				16.3
CHS 241	Allegiant 811 HRS				41.6			61.1				15.2
SYN 241	AP Elevate				39.8			60.7				16.3
CHS 242	Allegiant 6284 HRS				39.4			60.4				14.8
MT 22102	LANNING*1/MT1103				36.7			60.2				16.2
MS 242	MS Charger				33.6			61.1				14.3
	MEAN	43.6	46.2	55.1	45.6	58.6	59.9	60.6	15.2	15.0	14.7	15.5
	C.V.	7.4	7.4	7.7	9.7	2.7	0.8	1.0	2.3	2.7	2.6	2.4
	PROBABILITY (ID)	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.001
	LSD(0.05)	4.6	5.6	8.6	6.7	2.6	0.9	0.9	0.5	0.7	0.8	0.6

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021-2024 ADVANCED SPRING WHEAT NURSERY, HAVRE (DRY) : YIELD, TEST WEIGHT AND PROTEIN

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
PI 690450	DAGMAR	<u>45.8</u>	<u>52.6</u>	<u>56.7</u>	58.5	59.0	58.8	58.6	58.6	15.9	15.7	15.8	15.6
MT 1939	MT Carlson	44.5	51.4	56.0	63.2	57.6	57.6	57.2	58.0	15.6	15.5	15.7	15.5
MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	44.0	50.7	55.2	63.1	58.6	58.5	57.8	58.5	15.3	15.0	15.2	14.3
MT 1809	MT Dutton	44.0	49.4	52.5	56.0	57.5	57.1	56.9	57.0	15.7	15.6	15.8	15.1
BZ 92413R	WB GUNNISON	43.7	48.7	54.7	54.3	58.6	58.6	58.2	57.9	15.0	14.8	15.0	14.9
LIMAGR 211	LCS ASCENT	43.7	50.9	55.7	63.7	<u>59.8</u>	<u>59.4</u>	59.1	60.1	15.0	14.8	15.1	14.7
AGRIPR 161	SY ROCKFORD	43.6	50.2	<u>56.9</u>	58.5	57.1	57.1	56.2	56.5	15.8	15.6	15.7	15.1
PI 642366	VIDA	43.6	49.6	53.3	59.1	57.6	57.4	56.9	57.3	15.3	15.3	15.5	14.4
BZ 917-277	ROCKER	43.4	48.2	49.5	56.1	58.5	58.3	57.8	58.5	15.9	15.9	16.3	14.6
MT 2049	LANNING/MT 1415	43.2	48.8	53.1	57.3	58.0	58.3	58.9	59.4	15.3	15.0	15.0	14.7
MT 2030	MT Ubet	42.7	49.4	52.9	62.8	57.7	57.2	57.1	58.7	15.6	15.6	16.0	15.4
PI 676978	LANNING	41.4	47.8	54.1	58.6	57.2	56.9	56.7	58.1	16.1	16.0	16.3	15.9
PI 679964	NS PRESSER CLP	40.4	45.1	47.4	57.7	56.4	55.8	55.3	56.1	15.6	15.7	16.0	14.0
WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	40.4	45.7	49.4	52.4	58.1	58.3	58.0	57.9	16.1	15.9	15.9	15.9
AGRIPR 141	SY INGMAR	40.2	45.8	49.9	58.4	58.4	58.1	57.2	58.8	16.0	15.8	16.1	15.3
SYN 212	AP Gunsmoke	40.0	45.5	50.3	57.7	57.6	57.7	57.4	57.4	16.4	16.4	16.2	15.9
PI 699957	MT SIDNEY	39.8	45.4	49.7	58.8	58.8	59.1	58.6	58.8	15.9	15.7	15.9	15.2
ND 695	REEDER	39.6	45.7	49.2	51.7	57.8	57.7	57.2	58.2	15.9	15.8	16.1	15.3
PI 660981	DUCLAIR	39.5	45.4	48.3	55.1	56.4	56.2	55.4	57.5	16.3	16.1	16.5	15.3
PI 574642	McNEAL	38.9	44.8	48.9	50.4	56.8	56.5	56.0	56.9	15.9	15.8	16.1	15.3
SYN 211	AP Smith	38.4	43.8	45.8	55.1	58.0	57.8	57.1	58.5	16.1	16.0	16.5	15.4
SYN 182	SY Longmire	38.2	43.4	46.7	53.7	57.8	57.3	56.3	58.2	16.4	16.4	<u>16.8</u>	15.3
MS 211	AAC Concord	36.6	39.9	42.5	40.4	57.2	57.2	56.5	55.6	16.4	16.4	16.7	16.4
CI 10003	THATCHER	31.5	36.6	40.3	42.6	55.6	55.6	54.9	54.4	<u>16.4</u>	16.3	16.6	16.1
MT 21074	MT 1525/MT 1348		49.5	53.0	57.4		59.1	58.8	59.0		<u>16.5</u>	16.7	15.8
MT 21104	MT 1451/MT 1866		49.5	53.6	58.6		58.6	58.5	58.5		15.4	15.3	14.7
MT 21484	Dagmar/BC1-52			55.6	60.0			57.9	58.5			16.2	15.4
MT 21186	DAGMAR//MT 1142/MT 1225			55.5	60.1			56.2	56.3			16.1	15.6
MT 21174	DAGMAR//MT 1142/MT 1225			55.4	60.1			57.4	57.6			16.7	16.0
MT 21473	DAGMAR/LANNING			55.3	60.1			57.1	57.6			15.7	15.3
MT 21487	Dagmar/BC1-80			55.1	63.5			58.0	58.7			16.0	15.2
MT 21485	Dagmar/BC1-80			55.0	59.5			56.7	57.4			16.3	15.7
MT 21176	DAGMAR//MT 1142/MT 1225			53.2	61.8			56.1	56.6			16.4	15.1
MT 21224	DAGMAR/CAP 197-3			52.5	56.1			58.2	58.4			15.8	15.2
NDHRS14-0134	ND Stampede			52.4	57.7			56.6	57.0			16.4	15.9

2021-2024 ADVANCED SPRING WHEAT NURSERY, HAVRE (DRY) : YIELD, TEST WEIGHT AND PROTEIN (CONT.)

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
MT 21220	DAGMAR/MT 1716			52.2	58.8			57.2	57.4			16.4	15.6
LIMAGR 231	LCS BOOM			51.5	57.1			59.3	61.2			15.4	15.2
MT 22324	DAGMAR//MT 1053/MT 1172				67.7				59.3				14.9
MT 22205	LANNING/MT0945/MT 1807				65.1				58.5				15.0
MT 22270	LANNING/MT 1853				64.6				58.7				14.8
MT 22102	LANNING*1/MT1103				63.3				57.7				15.6
MT 22099	LANNING//MT1338/MT1103				62.5				59.0				15.5
MT 22072	LANNING/MT 1806				62.5				59.3				15.4
MT 22182	DAGMAR/MT 1617				61.9				56.3				15.1
MT 22345	DAGMAR/MN14105-7				61.8				56.2				14.8
SYN 241	AP Elevate				61.0				58.0				15.8
CHS 241	Allegiant 811 HRS				60.9				59.2				15.1
MT 22204	DAGMAR//MT1338/IDO1202S				60.3				58.0				15.5
MT 22184	DAGMAR/MT 1617				60.0				60.2				15.4
MT 22073	LANNING/MT 1806				58.6				57.7				15.8
MS 241	MS Nova				58.1				59.2				14.8
MT 22083	DAGMAR/MT 1866				57.7				60.6				15.1
MT 22093	LANNING//MT1338/MT1103				56.8				58.6				16.1
MT 22361	MT 1867//Patwin515/MN-11394-6				56.7				57.2				15.5
MT 22179	DAGMAR/MT 1617				56.5				57.8				15.3
MT 22151	MT 1866/MT 1767				55.7				57.8				14.7
MT 22177	DAGMAR/WA 8283				55.4				59.6				14.8
MS 242	MS Charger				55.1				58.1				14.0
CHS 242	Allegiant 6284 HRS				54.8				58.9				15.8
MT 22071	DAGMAR//MT1338/SD3997				52.7				55.6				15.4
MT 22172	DAGMAR/WA 8283				48.9				58.5				15.6
LIMAGR 201	LCS BUSTER				45.7				52.8				14.8
WF 242	CP3119A				43.0				53.2				14.6
WF 241	CP3055				42.5				50.9				17.6
	MEAN	41.1	47.1	51.8	57.3	57.8	57.7	57.2	57.8	15.8	15.7	16.0	15.3
	C.V.	9.2	8.4	7.9	6.8	1.6	1.7	1.7	1.1	3.2	3.5	3.8	3.7
	PROBABILITY (ID)	<0.001	<0.01	<0.05	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.01	ns	<0.001
	LSD(0.05)	5.3	6.4	8.6	5.9	1.3	1.6	1.9	0.8	0.7	0.9	-	0.6

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021-2024 ADVANCED SPRING WHEAT NURSERY, HINGHAM (DRY) : YIELD, TEST WEIGHT AND PROTEIN

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
PI 642366	VIDA	<u>37.8</u>	40.9	47.1	34.6	60.7	61.2	61.8	60.1	13.0	13.0	11.8	12.7
BZ 92413R	WB GUNNISON	37.5	<u>42.3</u>	46.0	31.2	61.2	61.6	62.4	60.8	13.0	12.4	11.6	12.9
MT 1809	MT Dutton	37.1	41.2	44.6	29.7	60.3	60.8	61.6	59.4	13.9	13.5	12.4	13.8
MT 2030	MT Ubet	36.6	40.4	<u>48.1</u>	34.1	61.1	61.6	62.2	60.5	13.7	13.3	12.4	14.0
MT 1939	MT Carlson	36.0	40.9	44.5	30.9	60.8	61.3	61.9	60.2	13.4	13.0	12.5	13.7
MS 211	AAC Concord	35.6	39.5	44.7	29.7	60.1	60.7	61.5	59.1	13.4	12.9	12.1	13.5
PI 574642	McNEAL	35.5	41.1	47.4	33.7	60.1	60.7	61.3	58.9	14.0	13.3	12.2	13.6
PI 679964	NS PRESSER CLP	35.4	39.7	42.8	34.9	60.5	61.1	61.9	60.1	12.8	12.4	11.2	12.5
MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	34.8	40.9	46.1	30.4	61.1	61.6	62.0	61.6	13.7	13.2	12.8	13.7
LIMAGR 211	LCS ASCENT	34.7	38.3	45.8	35.9	<u>61.9</u>	62.3	62.6	61.8	13.3	12.7	12.3	14.2
MT 2049	LANNING/MT 1415	34.5	38.2	44.0	30.9	60.5	61.4	62.4	60.9	13.9	13.4	12.3	13.1
PI 660981	DUCLAIR	34.3	38.5	44.3	33.9	60.1	60.7	61.5	59.3	13.9	13.6	12.4	13.6
ND 695	REEDER	34.0	37.8	42.4	29.3	61.0	61.5	62.1	60.1	13.6	13.2	12.5	13.4
BZ 917-277	ROCKER	33.7	39.1	42.0	32.7	61.7	62.3	62.8	62.1	13.0	12.2	11.7	12.8
PI 690450	DAGMAR	33.5	37.8	42.3	29.9	61.0	61.6	62.4	61.1	14.3	13.7	12.9	14.4
WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	33.1	37.0	42.5	28.2	60.5	61.2	61.9	60.2	14.3	13.8	12.9	14.3
PI 699957	MT SIDNEY	32.7	36.8	40.7	29.8	61.2	61.8	62.4	61.0	13.7	13.4	12.4	13.4
SYN 182	SY Longmire	32.6	36.2	42.3	28.6	61.8	62.4	<u>63.3</u>	62.2	14.1	13.7	12.7	14.0
AGRIPR 141	SY INGMAR	31.4	35.4	41.9	27.2	<u>61.9</u>	<u>62.5</u>	63.2	61.4	14.3	13.8	13.0	14.6
PI 676978	LANNING	31.4	36.6	41.4	29.0	60.6	61.2	61.9	59.8	14.7	13.9	13.4	<u>15.8</u>
CI 10003	THATCHER	31.0	35.7	41.8	29.0	60.0	60.6	61.2	58.8	13.2	13.0	12.4	13.5
AGRIPR 161	SY ROCKFORD	28.9	32.9	38.2	27.4	59.8	60.3	61.1	58.6	13.9	13.5	12.7	14.1
SYN 211	AP Smith	28.5	33.5	38.1	20.0	61.5	61.9	62.7	61.5	14.5	13.8	13.3	14.8
SYN 212	AP Gunsmoke	28.4	32.9	40.5	24.5	60.6	61.3	62.0	61.3	15.2	14.6	13.6	15.1
MT 21074	MT 1525/MT 1348		37.7	42.3	29.6		61.5	62.2	61.5		13.4	12.8	14.0
MT 21104	MT 1451/MT 1866		37.1	42.8	32.0		61.8	62.4	60.7		13.4	12.7	14.5
MT 21473	DAGMAR/LANNING			46.9	33.9			61.3	59.9			12.5	14.3
MT 21176	DAGMAR//MT 1142/MT 1225			46.2	32.9			62.0	59.8			12.3	13.8
LIMAGR 231	LCS BOOM			45.2	29.8			62.6	<u>62.3</u>			12.9	14.9
MT 21220	DAGMAR/MT 1716			44.8	27.9			61.9	60.8			12.5	13.8
MT 21485	Dagmar/BC1-80			44.3	29.1			61.4	59.9			12.9	14.2
MT 21487	Dagmar/BC1-80			43.8	31.4			61.7	60.5			12.3	13.8
MT 21186	DAGMAR//MT 1142/MT 1225			43.6	29.7			61.3	59.8			12.2	13.0
NDHRS14-0134-	ND Stampede			43.2	30.8			61.1	58.7			13.0	14.8
MT 21484	Dagmar/BC1-52			43.1	34.5			62.1	60.3			13.1	14.4

2021-2024 ADVANCED SPRING WHEAT NURSERY, HINGHAM (DRY) : YIELD, TEST WEIGHT AND PROTEIN (CONT.)

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
MT 21224	DAGMAR/CAP 197-3			42.7	31.6			62.0	60.4			12.4	13.8
MT 21174	DAGMAR//MT 1142/MT 1225			42.2	26.0			62.3	61.1			12.6	13.8
WF 242	CP3119A				36.9				54.5				12.1
MT 22345	DAGMAR/MN14105-7				36.8				59.2				13.7
WF 241	CP3055				35.9				56.9				11.9
MT 22099	LANNING//MT1338/MT1103				35.1				60.5				14.9
MT 22102	LANNING*1/MT1103				33.9				59.8				15.2
MT 22361	MT 1867//Patwin515/MN-11394-6				33.0				59.4				14.2
MT 22177	DAGMAR/WA 8283				32.8				61.2				13.2
MT 22083	DAGMAR/MT 1866				32.6				60.8				14.8
LIMAGR 201	LCS BUSTER				32.3				57.3				12.2
MT 22071	DAGMAR//MT1338/SD3997				31.4				59.6				13.1
MT 22182	DAGMAR/MT 1617				30.1				58.7				14.5
MT 22072	LANNING/MT 1806				29.9				62.0				13.7
MT 22270	LANNING/MT 1853				29.7				60.8				13.0
MT 22151	MT 1866/MT 1767				29.6				59.1				13.8
MT 22205	LANNING/MT0945/MT 1807				29.5				60.0				15.7
CHS 241	Allegiant 811 HRS				29.1				61.3				14.3
MS 241	MS Nova				28.9				61.6				14.9
MT 22204	DAGMAR//MT1338/IDO1202S				28.7				60.7				14.7
MT 22093	LANNING//MT1338/MT1103				28.4				60.5				13.6
MT 22073	LANNING/MT 1806				28.1				60.9				14.3
MT 22324	DAGMAR//MT 1053/MT 1172				27.7				61.1				14.0
MT 22179	DAGMAR/MT 1617				26.2				59.7				14.7
MS 242	MS Charger				26.0				60.2				13.5
CHS 242	Allegiant 6284 HRS				26.0				61.3				13.9
MT 22184	DAGMAR/MT 1617				25.7				61.5				14.6
SYN 241	AP Elevate				25.1				60.9				15.0
MT 22172	DAGMAR/WA 8283				22.1				60.5				14.4
	MEAN	33.7	38.0	43.5	30.3	60.8	61.4	62.0	60.3	13.8	13.3	12.5	13.9
	C.V.	9.2	8.6	7.5	12.8	0.9	1.1	1.3	1.0	4.2	4.2	3.9	1 rep
	PROBABILITY (ID)	<0.001	<0.05	ns	<0.001	<0.001	<0.01	ns	<0.001	<0.001	<0.001	<0.05	1 rep
	LSD(0.05)	4.4	6.6	-	5.8	0.8	1.7	-	0.9	0.8	1.0	1.0	1 rep

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021-2024 ADVANCED SPRING WHEAT NURSERY, HUNTLEY (DRY) : YIELD, TEST WEIGHT AND PROTEIN

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
MT 1939	MT Carlson	73.6	81.3	93.4	90.4	59.3	59.8	59.4	61.0	14.3	13.6	14.2	14.0
MT 1809	MT Dutton	72.7	82.9	94.5	87.9	58.3	59.0	58.5	59.1	14.8	13.9	14.4	14.7
PI 690450	DAGMAR	72.5	81.9	96.9	87.4	59.6	60.0	59.2	60.0	15.2	14.4	15.2	15.4
PI 642366	VIDA	71.4	80.9	92.9	84.5	59.2	59.8	59.1	59.3	14.4	13.6	14.2	14.4
PI 699957	MT SIDNEY	71.3	81.6	94.9	89.3	59.9	60.4	59.9	60.7	14.0	13.1	13.8	13.8
BZ 917-277	ROCKER	70.8	80.6	92.2	82.3	60.0	60.0	58.9	58.1	14.4	13.5	14.1	14.5
SYN 182	SY Longmire	70.4	79.3	91.6	83.0	59.6	60.5	59.9	59.8	14.8	13.9	14.4	14.5
MT 2030	MT Ubet	70.2	79.8	93.1	87.6	59.5	59.8	59.4	60.1	14.7	13.8	14.5	14.8
MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	69.2	78.9	88.2	87.8	58.5	58.9	57.5	57.6	13.9	13.0	14.2	14.1
PI 660981	DUCLAIR	69.0	76.3	86.4	82.6	58.3	59.1	58.6	59.2	14.4	13.5	14.2	14.6
MT 2049	LANNING/MT 1415	68.6	74.6	84.8	84.0	58.7	59.3	59.1	59.8	14.7	14.1	14.2	13.9
AGRIPR 161	SY ROCKFORD	68.4	77.5	92.5	80.7	58.0	58.4	57.6	57.8	14.5	13.6	14.1	14.5
LIMAGR 211	LCS ASCENT	68.2	78.8	91.1	86.4	60.2	60.4	59.8	61.2	14.1	13.1	13.6	13.6
PI 676978	LANNING	68.0	75.4	88.0	83.7	58.8	59.5	59.4	60.3	15.3	14.7	15.4	15.2
PI 679964	NS PRESSER CLP	67.5	77.2	88.4	79.6	58.2	58.7	58.1	58.3	14.4	13.5	14.3	14.4
WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	66.2	75.1	83.7	78.8	58.9	59.2	58.7	59.6	14.7	13.9	14.3	14.7
SYN 212	AP Gunsmoke	65.9	75.3	86.5	78.0	59.3	60.3	59.7	59.9	15.6	14.5	15.3	15.6
SYN 211	AP Smith	65.2	74.7	86.6	77.0	59.0	60.2	59.4	59.2	15.1	14.3	14.6	15.0
PI 574642	McNEAL	64.3	74.1	84.1	73.2	58.9	59.4	58.8	58.9	15.1	14.0	15.2	15.8
ND 695	REEDER	63.4	70.7	79.4	68.7	59.1	59.4	58.7	58.0	15.0	14.3	15.3	15.8
AGRIPR 141	SY INGMAR	62.8	70.3	80.4	80.3	59.2	60.4	59.6	59.2	15.3	14.2	14.8	14.9
BZ 92413R	WB GUNNISON	60.6	68.1	72.5	67.9	59.5	60.3	59.4	59.5	14.2	13.2	13.9	14.7
MS 211	AAC Concord	55.6	62.0	67.4	62.9	59.0	59.1	58.9	59.9	15.4	14.6	15.5	15.7
CI 10003	THATCHER	48.8	55.8	61.7	59.0	57.5	57.7	57.9	57.8	14.8	13.8	14.9	15.3
MT 21074	MT 1525/MT 1348		80.3	90.4	79.2		60.0	59.2	59.5		14.3	15.1	15.7
MT 21104	MT 1451/MT 1866		79.2	91.2	88.4		59.5	58.3	57.5		13.4	13.9	14.0
MT 21176	DAGMAR//MT 1142/MT 1225			100.5	94.7			57.9	58.3			14.3	14.5
MT 21186	DAGMAR//MT 1142/MT 1225			98.3	88.5			58.2	59.1			14.9	14.6
MT 21487	Dagmar/BC1-80			96.4	89.5			59.5	60.5			14.9	15.0
MT 21473	DAGMAR/LANNING			95.8	89.5			59.7	60.7			14.3	15.1
MT 21485	Dagmar/BC1-80			95.7	86.2			58.6	59.5			15.0	14.5
MT 21220	DAGMAR/MT 1716			95.6	85.2			58.4	57.6			13.9	14.9
MT 21484	Dagmar/BC1-52			95.3	82.6			59.5	60.3			14.3	14.1
MT 21174	DAGMAR//MT 1142/MT 1225			95.1	84.8			58.5	59.0			14.9	15.0
MT 21224	DAGMAR/CAP 197-3			92.4	83.6			59.4	60.0			14.3	14.9

2021-2024 ADVANCED SPRING WHEAT NURSERY, HUNTLEY (DRY) : YIELD, TEST WEIGHT AND PROTEIN (CONT.)

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
NDHRS14-0134- LIMAGR 231	ND Stampede LCS BOOM			92.1 88.3	83.6 83.2			58.8 61.1	58.8 62.4			14.8 14.4	15.2 14.4
MT 22205	LANNING//MT0945//MT 1807				94.6				59.5				14.3
MT 22324	DAGMAR//MT 1053//MT 1172				93.3				60.1				14.6
MT 22345	DAGMAR//MN14105-7				92.6				57.3				14.3
MT 22093	LANNING//MT1338//MT1103				89.9				60.2				15.2
MT 22179	DAGMAR//MT 1617				89.9				59.0				14.5
MT 22270	LANNING//MT 1853				88.7				60.3				14.6
MT 22182	DAGMAR//MT 1617				87.7				57.6				15.0
MT 22073	LANNING//MT 1806				87.6				56.3				15.3
MT 22184	DAGMAR//MT 1617				87.6				61.8				15.1
MT 22151	MT 1866//MT 1767				86.3				59.2				14.2
MT 22072	LANNING//MT 1806				86.2				59.8				14.2
MS 242	MS Charger				85.8				58.0				13.2
MT 22102	LANNING*1//MT1103				85.4				59.7				15.2
MT 22099	LANNING//MT1338//MT1103				84.8				60.0				14.3
MT 22204	DAGMAR//MT1338//IDO1202S				84.5				60.4				14.7
MT 22361	MT 1867//Patwin515//MN-11394-6				84.1				57.1				14.8
MT 22177	DAGMAR//WA 8283				83.8				60.6				14.4
MT 22083	DAGMAR//MT 1866				82.9				61.3				14.4
LIMAGR 201	LCS BUSTER				82.9				56.7				13.2
MT 22071	DAGMAR//MT1338//SD3997				81.7				55.0				14.9
SYN 241	AP Elevate				79.6				59.6				14.8
MS 241	MS Nova				79.5				60.1				14.8
CHS 242	Allegiant 6284 HRS				79.1				60.0				15.0
CHS 241	Allegiant 811 HRS				78.1				57.5				14.3
WF 241	CP3055				77.6				54.3				14.7
WF 242	CP3119A				75.2				55.0				13.6
MT 22172	DAGMAR//WA 8283				72.4				59.9				15.0
	MEAN	66.9	75.9	89.1	83.2	59.0	59.6	59.0	59.1	14.7	13.8	14.5	14.7
	C.V.	8.2	7.6	5.3	6.8	1.5	1.4	1.5	2.9	3.5	3.8	3.2	2.9
	PROBABILITY (ID)	<0.001	<0.001	<0.001	<0.001	<0.05	<0.05	ns	<0.001	<0.001	<0.01	<0.01	<0.001
	LSD(0.05)	7.7	9.4	9.6	8.5	1.3	1.4	-	2.7	0.7	0.9	1.0	0.7

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021-2024 ADVANCED SPRING WHEAT NURSERY, MOCCASIN (DRY) : YIELD, TEST WEIGHT AND PROTEIN

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
PI 690450	DAGMAR	<u>36.1</u>	<u>40.4</u>	<u>41.1</u>	<u>35.0</u>	57.3	57.5	59.7	57.9	15.6	15.0	14.2	15.2
MT 2030	MT Ubet	<u>35.3</u>	<u>38.1</u>	<u>38.7</u>	<u>34.5</u>	56.9	57.4	58.9	58.0	15.2	14.7	13.9	14.3
MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	<u>35.3</u>	<u>37.8</u>	<u>39.6</u>	<u>36.1</u>	57.0	57.2	59.0	58.8	15.4	14.9	14.2	14.9
MT 2049	LANNING/MT 1415	<u>34.2</u>	<u>35.4</u>	<u>34.9</u>	26.6	57.1	57.8	60.1	60.0	15.2	14.7	14.2	14.8
PI 642366	VIDA	<u>33.8</u>	<u>37.1</u>	<u>38.2</u>	<u>35.7</u>	56.5	56.8	58.8	59.4	15.4	14.8	14.2	14.2
LIMAGR 211	LCS ASCENT	<u>33.6</u>	<u>35.5</u>	<u>36.0</u>	<u>33.9</u>	<u>58.3</u>	<u>58.3</u>	59.9	58.7	15.0	14.5	13.6	13.9
MT 1939	MT Carlson	<u>33.1</u>	<u>35.0</u>	<u>35.1</u>	26.4	57.4	58.1	<u>60.5</u>	61.2	15.3	14.6	13.9	14.4
PI 679964	NS PRESSER CLP	<u>32.4</u>	<u>34.4</u>	33.8	<u>31.7</u>	56.7	57.3	<u>58.8</u>	60.5	15.3	14.6	14.1	14.7
PI 699957	MT SIDNEY	<u>32.2</u>	<u>34.4</u>	<u>35.7</u>	<u>31.7</u>	57.3	57.6	59.2	58.4	15.7	14.9	14.1	14.8
MT 1809	MT Dutton	<u>31.9</u>	<u>34.1</u>	34.5	28.3	56.7	57.4	59.5	60.2	15.2	14.5	13.4	13.5
PI 676978	LANNING	<u>31.8</u>	<u>34.4</u>	32.1	28.2	57.0	57.7	59.4	58.6	15.5	14.8	14.1	14.3
PI 574642	McNEAL	<u>31.7</u>	33.7	33.1	29.5	57.0	57.1	58.6	59.2	15.7	15.2	14.8	14.6
AGRIPR 161	SY ROCKFORD	<u>31.6</u>	32.9	34.2	29.3	56.5	57.0	59.0	60.0	15.6	15.0	14.0	14.5
BZ 917-277	ROCKER	<u>31.5</u>	33.9	31.8	27.6	58.3	58.3	60.0	60.0	15.6	15.0	14.5	14.5
PI 660981	DUCLAIR	<u>31.1</u>	34.0	34.6	<u>32.5</u>	56.7	57.4	58.8	60.1	15.9	15.4	14.8	14.6
MS 211	AAC Concord	29.5	31.6	29.3	22.3	57.1	57.5	59.7	60.7	15.7	14.9	13.9	13.2
ND 695	REEDER	29.4	31.6	32.4	28.5	57.6	57.9	60.0	60.1	15.6	14.9	14.1	13.5
WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	28.4	30.0	31.8	<u>31.7</u>	56.4	56.7	58.4	57.6	16.1	15.6	14.3	14.6
BZ 92413R	WB GUNNISON	28.0	30.0	30.0	29.6	56.7	56.7	58.5	59.2	15.9	15.6	<u>15.1</u>	<u>15.3</u>
SYN 212	AP Gunsmoke	27.2	28.4	32.3	27.1	56.9	57.5	59.5	60.6	<u>16.8</u>	<u>16.2</u>	14.6	13.9
SYN 211	AP Smith	27.0	28.0	31.3	25.5	57.3	57.8	59.7	60.0	16.2	15.5	14.1	13.5
AGRIPR 141	SY INGMAR	26.1	27.3	32.9	25.5	57.3	58.0	59.9	60.5	16.5	15.7	13.9	13.2
CI 10003	THATCHER	24.8	26.7	26.2	22.6	56.4	57.0	58.7	60.4	16.1	15.5	14.5	13.6
SYN 182	SY Longmire	24.6	24.9	28.3	23.4	57.2	57.3	58.9	59.3	16.4	15.8	14.2	13.4
MT 21074	MT 1525/MT 1348		<u>34.4</u>	<u>35.7</u>	<u>32.7</u>		58.2	60.2	58.9		15.2	14.1	14.2
MT 21104	MT 1451/MT 1866		33.9	<u>34.9</u>	27.2		58.0	60.2	60.8		14.8	13.8	13.9
MT 21174	DAGMAR//MT 1142/MT 1225			<u>39.7</u>	<u>38.7</u>			59.8	60.2			15.0	14.9
MT 21484	Dagmar/BC1-52			<u>39.5</u>	<u>34.0</u>			<u>60.5</u>	60.4			13.8	14.3
MT 21485	Dagmar/BC1-80			<u>39.3</u>	<u>34.1</u>			58.4	57.5			13.8	14.4
MT 21487	Dagmar/BC1-80			<u>37.6</u>	<u>32.2</u>			60.1	61.0			14.5	14.9
MT 21473	DAGMAR/LANNING			<u>37.3</u>	<u>32.1</u>			59.2	59.1			14.5	14.8
MT 21224	DAGMAR/CAP 197-3			<u>37.2</u>	<u>31.7</u>			59.7	58.8			14.2	14.6
MT 21186	DAGMAR//MT 1142/MT 1225			<u>37.1</u>	<u>32.9</u>			58.8	59.2			14.1	14.3
MT 21176	DAGMAR//MT 1142/MT 1225			<u>35.0</u>	<u>35.3</u>			59.2	60.6			14.1	13.7
MT 21220	DAGMAR/MT 1716			<u>34.9</u>	30.4			59.7	61.0			14.1	14.0

2021-2024 ADVANCED SPRING WHEAT NURSERY, MOCCASIN (DRY) : YIELD, TEST WEIGHT AND PROTEIN (CONT.)

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
NDHRS14-0134- LIMAGR 231	ND Stampede LCS BOOM			34.2 30.7	26.7 23.1			60.0 60.5	61.0 59.3			14.3 13.4	14.6 13.3
MT 22073	LANNING/MT 1806				35.2				61.0				13.6
MT 22324	DAGMAR//MT 1053/MT 1172				34.8				59.8				14.1
MT 22072	LANNING/MT 1806				34.7				59.2				13.6
MT 22083	DAGMAR/MT 1866				33.4				60.7				13.9
MT 22204	DAGMAR//MT1338/IDO1202S				33.0				61.4				13.1
MT 22172	DAGMAR/WA 8283				32.8				60.6				13.5
MT 22182	DAGMAR/MT 1617				32.5				60.2				15.1
MT 22071	DAGMAR//MT1338/SD3997				32.3				60.2				13.9
MT 22179	DAGMAR/MT 1617				32.0				60.8				14.0
MT 22205	LANNING/MT0945/MT 1807				31.9				60.3				14.8
MT 22099	LANNING//MT1338/MT1103				31.1				59.9				14.1
WF 242	CP3119A				30.6				59.4				13.8
MT 22270	LANNING/MT 1853				29.3				60.4				13.8
CHS 241	Allegiant 811 HRS				29.0				59.9				13.9
MT 22345	DAGMAR/MN14105-7				28.5				60.8				13.2
MT 22177	DAGMAR/WA 8283				28.4				59.5				14.1
LIMAGR 201	LCS BUSTER				28.3				60.1				13.7
MT 22361	MT 1867//Patwin515/MN-11394-6				27.7				60.8				13.8
MT 22102	LANNING*1/MT1103				27.6				59.2				13.8
CHS 242	Allegiant 6284 HRS				26.6				60.7				13.5
MT 22151	MT 1866/MT 1767				26.6				60.6				14.0
WF 241	CP3055				26.2				59.3				15.2
MT 22184	DAGMAR/MT 1617				26.0				60.0				13.9
SYN 241	AP Elevate				25.8				61.1				13.6
MT 22093	LANNING//MT1338/MT1103				25.4				59.2				14.4
MS 241	MS Nova				25.1				59.7				14.3
MS 242	MS Charger				21.2				59.4				14.1
	MEAN	30.8	33.0	34.6	29.8	57.1	57.5	59.4	59.9	15.7	15.1	14.2	14.1
	C.V.	11.9	11.8	9.3	18.3	1.8	1.8	2.2	3.3	4.8	5.6	4.8	6.3
	PROBABILITY (ID)	<0.001	<0.01	<0.01	<0.05	ns	ns	ns	ns	ns	ns	ns	ns
	LSD(0.05)	5.2	6.4	6.5	7.2	-	-	-	-	-	-	-	-

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021-2024 ADVANCED SPRING WHEAT NURSERY, SIDNEY (DRY) : YIELD, TEST WEIGHT AND PROTEIN

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
MT 2030	MT Ubet	70.9	76.5	87.9	83.4	62.4	63.5	63.5	65.2	13.0	12.7	12.6	13.1
MT 1809	MT Dutton	70.0	76.0	87.3	85.1	61.6	62.6	62.9	64.7	13.4	12.9	12.7	13.0
PI 690450	DAGMAR	68.7	72.2	83.7	77.7	63.2	63.6	63.7	65.4	14.1	14.1	14.1	14.1
MT 1939	MT Carlson	68.6	73.1	85.2	82.2	62.8	63.9	63.8	65.1	13.3	13.1	13.1	13.2
LIMAGR 211	LCS ASCENT	68.4	73.3	85.2	80.3	64.0	64.4	64.2	66.2	12.9	12.6	12.4	12.1
PI 642366	VIDA	67.4	72.2	83.4	80.0	62.0	62.7	63.2	64.9	13.0	12.7	12.7	13.1
PI 676978	LANNING	66.9	72.9	85.0	79.5	62.3	63.6	63.9	65.3	14.0	13.7	13.8	13.9
PI 679964	NS PRESSER CLP	66.9	70.6	80.7	74.3	60.5	61.4	62.1	63.4	13.1	12.7	12.8	12.3
PI 699957	MT SIDNEY	66.8	72.3	84.3	81.7	62.5	63.8	63.6	65.5	13.4	12.9	12.7	13.3
MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	66.3	70.7	82.7	83.2	62.2	63.1	63.3	65.0	13.3	13.0	13.0	12.7
MT 2049	LANNING/MT 1415	66.0	69.5	79.6	76.3	61.9	63.1	63.5	65.9	13.3	13.0	12.8	12.8
AGRIPR 161	SY ROCKFORD	65.2	69.8	81.5	79.6	61.4	62.7	62.6	64.3	13.3	12.6	12.4	12.9
BZ 917-277	ROCKER	64.8	69.0	80.1	78.3	62.9	63.7	64.1	64.9	13.7	13.4	13.3	13.3
SYN 212	AP Gunsmoke	64.8	70.2	82.2	77.2	61.8	62.7	62.7	63.6	14.2	13.8	13.9	14.5
ND 695	REEDER	63.2	67.6	77.6	75.6	62.3	63.2	63.4	65.0	13.8	13.4	13.5	13.4
SYN 211	AP Smith	62.4	67.1	77.9	72.5	62.3	63.4	63.3	64.7	14.2	13.8	13.8	14.0
PI 574642	McNEAL	61.6	68.2	80.3	78.0	60.8	61.9	62.0	62.5	14.2	13.7	13.7	13.6
SYN 182	SY Longmire	60.6	66.4	78.1	74.7	62.9	63.9	64.0	65.5	13.6	13.2	13.0	13.2
WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	59.6	64.1	73.9	68.8	62.2	62.9	62.8	64.7	14.3	14.0	14.2	14.8
AGRIPR 141	SY INGMAR	59.6	63.0	73.2	74.5	63.4	64.5	64.6	65.8	14.0	13.8	13.7	13.5
PI 660981	DUCLAIR	57.0	62.3	73.8	70.1	61.2	62.3	62.6	64.0	13.6	13.1	12.9	13.6
BZ 92413R	WB GUNNISON	56.8	61.2	71.2	65.0	62.6	63.4	63.5	64.3	13.3	12.9	12.7	13.1
MS 211	AAC Concord	55.8	60.3	70.8	66.0	61.8	62.6	62.7	63.7	14.4	13.9	13.9	14.4
CI 10003	THATCHER	47.5	51.0	61.4	62.1	60.1	61.2	61.6	62.7	14.4	13.7	13.4	13.9
MT 21104	MT 1451/MT 1866		70.1	78.2	76.2		63.9	63.9	66.0		12.7	12.7	12.8
MT 21074	MT 1525/MT 1348		64.4	73.9	64.7		63.6	63.9	64.1		13.4	13.3	13.9
MT 21220	DAGMAR/MT 1716			86.4	81.5			63.4	64.8			13.3	14.0
MT 21487	Dagmar/BC1-80			86.2	81.3			63.5	65.0			13.2	12.7
MT 21473	DAGMAR/LANNING			84.6	80.7			63.2	64.4			13.1	13.2
MT 21224	DAGMAR/CAP 197-3			84.1	81.0			63.4	65.2			13.8	13.4
MT 21186	DAGMAR//MT 1142/MT 1225			83.7	79.4			62.2	63.6			13.3	13.3
MT 21484	Dagmar/BC1-52			83.2	78.7			63.8	65.3			13.3	13.5
MT 21176	DAGMAR//MT 1142/MT 1225			82.8	80.0			62.4	64.3			13.3	13.4
MT 21485	Dagmar/BC1-80			81.8	78.5			63.2	65.1			13.2	13.0
LIMAGR 231	LCS BOOM			80.4	74.5			64.1	65.4			13.4	13.8

2021-2024 ADVANCED SPRING WHEAT NURSERY, SIDNEY (DRY) : YIELD, TEST WEIGHT AND PROTEIN (CONT.)

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
MT 21174	DAGMAR//MT 1142/MT 1225			79.5	77.0			63.1	64.9			13.7	13.7
NDHRS14-0134-	ND Stampede			78.8	70.5			62.6	64.8			12.9	12.9
MT 22324	DAGMAR//MT 1053/MT 1172				90.2				65.9				12.8
MT 22073	LANNING/MT 1806				85.2				64.1				13.6
MT 22184	DAGMAR/MT 1617				85.1				66.4				13.9
MS 242	MS Charger				83.2				64.8				11.2
MT 22177	DAGMAR/WA 8283				83.2				65.4				13.6
MT 22270	LANNING/MT 1853				82.9				65.7				13.6
MT 22361	MT 1867//Patwin515/MN-11394-6				82.9				63.9				13.8
MT 22102	LANNING*1/MT1103				82.7				64.7				14.8
MT 22182	DAGMAR/MT 1617				81.5				64.3				12.8
MS 241	MS Nova				81.1				65.3				13.4
MT 22205	LANNING/MT0945/MT 1807				80.9				64.8				12.9
MT 22071	DAGMAR//MT1338/SD3997				80.7				64.2				13.5
MT 22151	MT 1866/MT 1767				79.5				64.9				12.7
MT 22083	DAGMAR/MT 1866				79.4				66.3				13.0
SYN 241	AP Elevate				79.0				65.0				13.7
MT 22204	DAGMAR//MT1338/IDO1202S				78.7				65.5				13.9
MT 22099	LANNING//MT1338/MT1103				78.4				65.1				13.4
LIMAGR 201	LCS BUSTER				78.2				61.4				11.7
MT 22172	DAGMAR/WA 8283				77.8				65.2				13.8
WF 242	CP3119A				77.4				58.4				12.6
MT 22345	DAGMAR/MN14105-7				76.4				64.0				13.0
MT 22072	LANNING/MT 1806				75.4				64.7				12.8
MT 22093	LANNING//MT1338/MT1103				74.8				65.7				12.9
MT 22179	DAGMAR/MT 1617				74.7				64.8				13.0
CHS 242	Allegiant 6284 HRS				73.4				65.2				13.1
CHS 241	Allegiant 811 HRS				71.7				64.4				12.8
WF 241	CP3055				66.9				58.6				13.5
	MEAN	63.6	68.2	80.3	77.7	62.1	63.1	63.2	64.6	13.7	13.3	13.2	13.3
	C.V.	4.3	4.4	3.9	7.4	1.1	1.0	1.0	0.8	3.2	2.9	3.6	7.9
	PROBABILITY (ID)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.05	<0.001
	LSD(0.05)	3.9	4.9	6.3	7.2	1.0	1.1	1.3	0.6	0.6	0.6	1.0	0.9

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021-2024 ADVANCED SPRING WHEAT NURSERY, WILLISTON (DRY) : YIELD, TEST WEIGHT AND PROTEIN

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
LIMAGR 211	LCS ASCENT	<u>54.5</u>	<u>64.8</u>	65.7	88.3	<u>61.1</u>	60.7	60.9	60.4	14.5	14.3	14.0	13.5
MT 1809	MT Dutton	54.1	<u>63.4</u>	<u>66.7</u>	81.4	59.3	59.5	59.5	58.9	15.0	14.5	14.4	13.8
PI 690450	DAGMAR	51.9	60.9	65.5	83.3	60.8	<u>61.0</u>	60.5	60.7	15.1	14.7	15.1	15.1
MT 1939	MT Carlson	50.9	61.4	61.9	76.0	59.4	59.5	58.8	58.7	15.0	14.7	14.4	14.3
PI 676978	LANNING	49.8	60.0	61.7	79.0	59.6	59.9	59.5	58.3	15.3	15.0	14.7	14.7
SYN 182	SY Longmire	49.4	59.1	57.8	78.2	60.1	59.8	60.3	60.5	15.3	15.0	15.2	14.3
MT 2049	LANNING/MT 1415	49.1	57.7	56.0	71.6	59.7	59.9	60.4	60.3	14.9	14.7	14.5	14.2
AGRIPR 161	SY ROCKFORD	49.0	57.4	57.6	74.4	59.4	59.7	59.8	58.4	14.7	14.5	14.7	14.5
AGRIPR 141	SY INGMAR	48.9	58.6	57.1	75.5	60.8	60.8	60.6	59.6	15.2	14.6	14.9	14.8
BZ 917-277	ROCKER	48.9	58.4	58.1	74.5	60.5	60.6	59.8	59.3	15.3	14.9	14.7	14.5
PI 679964	NS PRESSER CLP	48.5	56.6	55.8	62.6	57.9	57.6	57.9	55.5	14.8	14.8	14.7	14.5
PI 642366	VIDA	48.3	56.5	55.6	65.9	59.1	58.8	58.9	58.2	15.0	14.6	14.6	14.3
MT 2030	MT Ubet	47.8	57.3	59.2	83.0	60.0	60.7	59.8	59.6	14.9	14.9	14.6	14.6
PI 699957	MT SIDNEY	47.4	55.3	55.6	70.5	60.0	59.9	59.5	58.3	14.9	14.4	14.5	14.3
MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	45.8	55.8	56.4	80.5	60.2	60.2	59.9	58.9	15.3	14.7	14.6	13.7
SYN 212	AP Gunsmoke	45.8	54.0	55.0	70.6	59.7	59.8	59.2	57.7	15.8	15.6	<u>15.6</u>	16.0
ND 695	REEDER	45.2	53.8	52.7	71.0	59.1	59.0	59.8	58.6	15.3	14.9	14.8	14.8
PI 574642	McNEAL	44.9	52.9	52.6	56.9	58.7	59.2	59.1	57.9	15.3	15.0	15.0	15.1
PI 660981	DUCLAIR	44.8	53.6	54.2	66.6	59.0	59.2	58.4	57.1	15.8	15.4	15.0	14.7
SYN 211	AP Smith	43.7	50.7	51.0	70.6	60.4	60.5	59.5	59.7	15.5	15.4	15.3	15.0
BZ 92413R	WB GUNNISON	43.2	51.3	51.1	56.8	60.0	59.8	59.6	57.4	14.9	14.6	14.5	14.5
WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	42.9	50.3	47.7	65.1	59.7	59.5	58.7	57.8	15.8	15.5	15.5	15.0
MS 211	AAC Concord	42.1	50.4	52.1	60.5	58.9	59.1	59.1	58.2	<u>15.9</u>	<u>15.8</u>	<u>15.6</u>	<u>16.4</u>
CI 10003	THATCHER	34.8	42.2	40.7	50.7	57.6	58.0	57.7	56.2	15.8	15.1	15.3	15.2
MT 21104	MT 1451/MT 1866		57.6	56.6	78.9		60.8	60.1	59.2		14.3	14.3	13.8
MT 21074	MT 1525/MT 1348		55.6	55.1	67.4		60.1	59.3	57.4		14.8	15.3	15.3
MT 21473	DAGMAR/LANNING			65.0	79.3			59.7	59.0			14.5	14.9
LIMAGR 231	LCS BOOM			64.8	84.5			<u>61.9</u>	61.4			14.7	14.9
MT 21224	DAGMAR/CAP 197-3			62.5	73.9			61.4	61.1			15.2	15.0
MT 21176	DAGMAR//MT 1142/MT 1225			59.7	73.4			58.8	57.5			14.7	14.7
MT 21484	Dagmar/BC1-52			58.8	73.3			59.7	59.0			15.2	15.2
MT 21174	DAGMAR//MT 1142/MT 1225			57.6	74.1			59.5	60.0			15.3	14.8
MT 21186	DAGMAR//MT 1142/MT 1225			57.5	72.2			58.6	57.6			15.0	15.0
MT 21487	Dagmar/BC1-80			57.1	74.9			59.7	58.2			14.9	14.8
MT 21220	DAGMAR/MT 1716			57.0	64.7			59.2	57.3			14.8	14.5

2021-2024 ADVANCED SPRING WHEAT NURSERY, WILLISTON (DRY) : YIELD, TEST WEIGHT AND PROTEIN (CONT.)

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
MT 21485	Dagmar/BC1-80			55.0	72.3			59.1	57.9			15.3	15.1
NDHRS14-0134-	ND Stampede			50.2	69.0			58.4	57.9			14.9	15.1
MT 22102	LANNING*1/MT1103				89.3				59.0				15.1
MT 22083	DAGMAR/MT 1866				83.4				62.1				14.2
MT 22073	LANNING/MT 1806				83.2				58.6				15.1
MT 22099	LANNING//MT1338/MT1103				81.1				59.0				14.6
MS 241	MS Nova				79.6				59.7				15.0
MT 22179	DAGMAR/MT 1617				78.6				58.1				14.4
MT 22205	LANNING/MT0945/MT 1807				78.3				58.2				14.7
MT 22182	DAGMAR/MT 1617				78.0				57.2				14.6
MT 22184	DAGMAR/MT 1617				78.0				59.8				14.4
MT 22270	LANNING/MT 1853				77.5				58.9				14.6
MT 22151	MT 1866/MT 1767				76.1				58.6				14.1
SYN 241	AP Elevate				74.3				59.1				15.2
WF 242	CP3119A				73.8				55.2				14.8
MT 22177	DAGMAR/WA 8283				73.6				59.8				15.4
MT 22093	LANNING//MT1338/MT1103				73.2				59.1				14.3
MT 22324	DAGMAR//MT 1053/MT 1172				73.1				58.2				14.3
MT 22361	MT 1867//Patwin515/MN-11394-6				72.2				58.1				14.7
MT 22204	DAGMAR//MT1338/IDO1202S				70.4				58.9				15.2
MT 22172	DAGMAR/WA 8283				70.2				61.5				15.4
MS 242	MS Charger				69.8				56.3				13.8
MT 22345	DAGMAR/MN14105-7				67.8				56.1				14.8
CHS 241	Allegiant 811 HRS				67.3				58.5				14.6
WF 241	CP3055				64.0				52.8				15.2
MT 22071	DAGMAR//MT1338/SD3997				60.8				54.8				15.1
CHS 242	Allegiant 6284 HRS				59.6				59.4				15.5
LIMAGR 201	LCS BUSTER				59.3				54.1				14.1
MT 22072	LANNING/MT 1806				58.8				58.5				14.5
	MEAN	47.1	56.0	56.9	72.5	59.6	59.7	59.5	58.4	15.2	14.9	14.8	14.7
	C.V.	11.4	10.9	12.2	9.1	1.7	1.8	1.6	1.8	3.6	3.5	3.2	5.0
	PROBABILITY (ID)	<0.01	<0.05	ns	<0.001	<0.001	<0.05	<0.05	<0.001	<0.01	<0.05	ns	<0.001
	LSD(0.05)	7.6	10.0	-	10.2	1.5	1.8	1.9	1.5	0.8	0.9	-	0.7

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021-2024 ADVANCED SPRING WHEAT NURSERY, BOZEMAN (IRRI) : YIELD, TEST WEIGHT AND PROTEIN

ID	VARIETY / PEDIGREE	YIELD		TEST WEIGHT			PROTEIN		
		(BU/AC)		(LB/BU)			(%)		
		2022-2023	2023	2022-2024	2023-2024	2024	2022-2024	2023-2024	2024
LIMAGR 211	LCS ASCENT	128.5	140.6	62.4	62.0	61.9	13.7	13.5	13.1
MT 21104	MT 1451/MT 1866	125.8	130.3	61.8	61.4	61.5	14.4	14.4	14.2
MT 1809	MT Dutton	124.0	136.1	59.8	59.7	60.4	14.9	14.6	14.2
MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	122.6	127.4	60.6	59.8	61.0	13.9	14.2	14.0
MT 1939	MT Carlson	122.3	131.2	61.7	61.4	61.5	14.3	14.1	13.8
MT 21074	MT 1525/MT 1348	122.1	136.9	61.8	62.0	61.3	15.3	15.1	14.9
PI 699957	MT SIDNEY	119.5	137.1	61.5	61.2	61.8	14.2	13.8	13.6
MT 2030	MT Ubet	119.5	129.1	61.6	61.2	61.5	14.9	14.6	14.2
PI 690450	DAGMAR	119.4	133.0	61.9	61.6	61.6	14.9	14.5	14.1
AGRIPR 161	SY ROCKFORD	118.8	126.4	60.6	60.5	60.4	13.6	13.5	13.4
PI 660981	DUCLAIR	117.9	122.9	61.1	61.3	60.6	14.3	14.4	14.4
MT 2049	LANNING/MT 1415	117.3	127.4	61.0	60.9	61.0	14.8	14.7	14.8
SYN 182	SY Longmire	114.5	119.0	62.0	62.3	61.9	14.3	14.3	14.1
SYN 212	AP Gunsmoke	114.4	118.4	61.1	61.2	61.5	14.8	14.5	14.1
PI 642366	VIDA	114.2	121.9	59.7	59.2	60.5	14.4	14.4	14.1
BZ 917-277	ROCKER	114.2	118.3	61.3	61.0	61.0	14.7	14.5	14.4
WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	114.2	119.4	61.4	61.3	61.6	14.3	14.1	14.0
PI 676978	LANNING	111.8	122.1	61.8	62.1	61.7	14.9	14.5	14.4
BZ 92413R	WB GUNNISON	109.4	117.0	61.9	62.2	61.7	13.8	13.8	13.9
SYN 211	AP Smith	108.3	121.0	61.9	61.8	60.7	14.6	14.4	14.2
AGRIPR 141	SY INGMAR	107.4	115.5	62.0	62.2	61.6	14.8	14.6	14.6
ND 695	REEDER	104.4	111.8	60.8	60.7	61.4	15.1	14.9	15.0
PI 679964	NS PRESSER CLP	104.2	105.7	58.3	58.0	59.4	14.6	14.4	14.3
MS 211	AAC Concord	98.8	110.0	61.0	61.1	60.9	15.5	15.2	15.0
PI 574642	McNEAL	96.9	100.0	61.0	61.8	59.8	15.2	14.7	14.1
CI 10003	THATCHER	82.4	88.8	60.3	60.7	60.5	15.4	15.0	14.8
MT 21186	DAGMAR//MT 1142/MT 1225		138.0		61.8	60.8		14.6	14.7
NDHRS14-0134-	ND Stampede		134.7		61.1	61.3		14.6	14.8
MT 21224	DAGMAR/CAP 197-3		134.1		61.8	61.9		14.2	14.2
MT 21485	Dagmar/BC1-80		132.1		60.7	60.1		15.4	15.6
MT 21487	Dagmar/BC1-80		131.7		61.7	61.3		14.9	14.9
MT 21220	DAGMAR/MT 1716		127.3		61.3	61.2		14.5	14.4
MT 21174	DAGMAR//MT 1142/MT 1225		126.3		61.0	61.0		14.4	14.1
MT 21484	Dagmar/BC1-52		122.5		62.0	61.4		15.1	15.3
LIMAGR 231	LCS BOOM		121.4		64.1	63.3		14.3	14.4

2021-2024 ADVANCED SPRING WHEAT NURSERY, BOZEMAN (IRRI) : YIELD, TEST WEIGHT AND PROTEIN (CONT.)

ID	VARIETY / PEDIGREE	YIELD		TEST WEIGHT			PROTEIN		
		(BU/AC)		(LB/BU)			%		
		2022-2023	2023	2022-2024	2023-2024	2024	2022-2024	2023-2024	2024
MT 21473	DAGMAR/LANNING		121.1		61.3	60.4		14.5	14.3
MT 21176	DAGMAR//MT 1142/MT 1225		120.3		60.0	60.7		14.1	13.5
CHS 241	Allegiant 811 HRS					62.1			12.8
CHS 242	Allegiant 6284 HRS					62.0			14.0
LIMAGR 201	LCS BUSTER					59.2			12.1
MS 241	MS Nova					62.3			13.9
MS 242	MS Charger					61.6			12.2
MT 22071	DAGMAR//MT1338/SD3997					59.7			14.4
MT 22072	LANNING/MT 1806					61.1			15.0
MT 22073	LANNING/MT 1806					60.8			15.1
MT 22083	DAGMAR/MT 1866					62.3			14.2
MT 22093	LANNING//MT1338/MT1103					61.3			15.2
MT 22099	LANNING//MT1338/MT1103					61.0			14.4
MT 22102	LANNING*1/MT1103					61.3			13.8
MT 22151	MT 1866/MT 1767					61.0			13.7
MT 22172	DAGMAR/WA 8283					62.0			14.7
MT 22177	DAGMAR/WA 8283					62.3			14.1
MT 22179	DAGMAR/MT 1617					60.3			14.3
MT 22182	DAGMAR/MT 1617					60.6			13.9
MT 22184	DAGMAR/MT 1617					62.2			15.2
MT 22204	DAGMAR//MT1338/IDO1202S					60.8			15.0
MT 22205	LANNING/MT0945/MT 1807					60.6			15.1
MT 22270	LANNING/MT 1853					60.6			14.7
MT 22324	DAGMAR//MT 1053/MT 1172					61.2			14.1
MT 22345	DAGMAR/MN14105-7					59.9			14.4
MT 22361	MT 1867//Patwin515/MN-11394-6					61.7			14.0
SYN 241	AP Elevate					60.8			14.2
WF 241	CP3055					59.3			13.3
WF 242	CP3119A					58.2			12.9
	MEAN	113.5	123.7	61.2	61.2	61.1	14.6	14.4	14.2
	C.V.	5.0	.	1.6	1.6	1 rep	2.5	2.1	1 rep
	PROBABILITY (ID)	<0.001	.	<0.01	<0.05	1 rep	<0.001	<0.001	1 rep
	LSD(0.05)	11.6	.	1.6	2.0	1 rep	0.6	0.6	1 rep

The yield was held out due to hail in 2024

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021-2024 ADVANCED SPRING WHEAT NURSERY, KALISPELL (WET) : YIELD, TEST WEIGHT AND PROTEIN

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
MT 2063	MT 1572/MT1133//CHOTEAU/YELLO	<u>110.1</u>	<u>108.2</u>	<u>119.4</u>	<u>117.7</u>	61.8	62.4	61.6	61.4	10.5	10.4	10.8	10.2
MT 1939	MT Carlson	<u>107.6</u>	<u>106.7</u>	<u>113.7</u>	104.4	61.5	62.2	61.6	60.8	11.1	11.0	11.2	10.8
PI 699957	MT SIDNEY	<u>104.7</u>	<u>101.7</u>	<u>111.8</u>	99.7	61.8	62.3	61.4	61.5	11.0	10.9	11.1	10.4
MT 1809	MT Dutton	<u>101.3</u>	<u>99.9</u>	<u>112.3</u>	101.9	61.0	61.5	61.1	61.3	11.1	11.4	11.7	11.3
PI 690450	DAGMAR	<u>100.9</u>	<u>106.5</u>	<u>115.4</u>	106.8	61.7	62.4	61.7	61.8	11.5	11.8	12.3	11.3
LIMAGR 211	LCS ASCENT	<u>100.4</u>	<u>100.2</u>	<u>110.0</u>	102.0	61.7	62.3	61.5	61.3	10.9	11.1	11.5	10.6
MT 2049	LANNING/MT 1415	99.7	94.4	106.7	98.9	60.9	61.7	61.7	61.7	11.7	11.4	11.7	11.3
BZ 92413R	WB GUNNISON	97.0	97.3	106.9	97.3	<u>62.3</u>	<u>62.8</u>	<u>62.6</u>	62.2	11.2	11.4	11.9	12.1
SYN 182	SY Longmire	96.8	96.6	104.3	98.0	<u>62.9</u>	<u>63.4</u>	<u>63.2</u>	<u>63.3</u>	11.3	11.6	12.1	11.8
PI 679964	NS PRESSER CLP	96.6	93.1	104.1	100.6	60.7	61.2	60.5	60.8	10.8	10.6	11.0	10.5
PI 660981	DUCLAIR	95.5	96.7	98.5	93.3	61.0	61.6	61.1	61.0	11.1	11.2	11.6	10.9
MT 2030	MT Ubet	94.3	91.7	96.7	95.1	60.5	61.1	60.5	60.4	11.5	11.6	12.1	11.7
SYN 211	AP Smith	94.1	92.7	99.8	93.2	<u>62.3</u>	<u>62.9</u>	<u>62.5</u>	62.5	<u>12.5</u>	<u>12.4</u>	<u>13.0</u>	<u>13.0</u>
BZ 917-277	ROCKER	92.9	91.1	96.6	97.9	<u>62.4</u>	<u>62.9</u>	<u>62.6</u>	<u>63.4</u>	11.2	11.3	11.8	11.0
PI 642366	VIDA	92.8	92.0	103.3	97.7	61.4	62.0	61.4	61.4	10.9	11.0	11.5	10.9
ND 695	REEDER	92.6	91.7	104.4	97.3	<u>62.5</u>	<u>62.9</u>	<u>62.8</u>	63.2	11.7	11.9	12.3	11.8
WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	91.6	94.0	102.1	99.9	61.1	61.7	60.6	60.8	11.3	11.5	12.1	11.2
AGRIPR 161	SY ROCKFORD	91.2	87.3	89.5	86.9	60.3	61.0	60.2	60.6	11.4	11.3	11.6	11.2
SYN 212	AP Gunsmoke	91.1	91.6	97.3	88.6	61.6	62.4	<u>62.3</u>	62.1	11.2	11.5	11.8	11.0
PI 676978	LANNING	90.7	89.2	100.7	92.3	61.4	62.0	61.7	61.6	<u>11.9</u>	<u>12.2</u>	<u>12.7</u>	<u>12.6</u>
AGRIPR 141	SY INGMAR	88.5	88.5	94.2	90.4	<u>62.9</u>	<u>63.4</u>	<u>63.2</u>	<u>63.4</u>	<u>12.4</u>	<u>12.7</u>	13.4	<u>13.0</u>
PI 574642	McNEAL	85.8	83.8	93.2	86.3	61.7	62.2	62.0	62.1	10.9	10.9	11.0	10.5
MS 211	AAC Concord	85.1	87.0	93.1	84.6	60.9	61.6	61.2	60.6	11.3	11.6	11.8	10.8
CI 10003	THATCHER	82.9	81.3	94.2	91.4	61.1	61.8	61.4	61.0	11.4	11.3	11.6	11.3
MT 21104	MT 1451/MT 1866		<u>100.0</u>	105.7	93.5		<u>62.6</u>	62.1	61.9		10.8	11.1	10.8
MT 21074	MT 1525/MT 1348		94.9	101.4	101.9		<u>63.1</u>	<u>62.8</u>	63.2		11.8	12.2	11.7
MT 21186	DAGMAR//MT 1142/MT 1225			<u>115.8</u>	104.5			60.6	60.5			11.1	10.5
MT 21220	DAGMAR/MT 1716			<u>115.2</u>	105.9			62.1	61.8			11.5	10.6
MT 21224	DAGMAR/CAP 197-3			<u>109.7</u>	109.2			<u>62.3</u>	62.7			12.0	11.1
MT 21487	Dagmar/BC1-80			<u>109.0</u>	107.5			61.5	61.5			11.2	10.5
MT 21484	Dagmar/BC1-52			<u>108.8</u>	98.1			62.0	62.0			11.4	10.7
MT 21473	DAGMAR/LANNING			<u>108.6</u>	96.6			61.7	61.3			12.1	11.4
MT 21174	DAGMAR//MT 1142/MT 1225			<u>107.7</u>	105.8			61.5	61.7			11.5	11.3
MT 21176	DAGMAR//MT 1142/MT 1225			107.5	100.2			60.4	60.3			11.1	10.2
MT 21485	Dagmar/BC1-80			103.4	88.6			60.4	60.4			11.6	11.0

2021-2024 ADVANCED SPRING WHEAT NURSERY, KALISPELL (WET) : YIELD, TEST WEIGHT AND PROTEIN (CONT.)

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
LIMAGR 231	LCS BOOM			101.5	88.6			63.1	62.5			12.2	11.6
NDHRS14-0134-	ND Stampede			94.7	90.6			60.9	61.6			10.8	10.5
WF 241	CP3055				125.3				60.8				9.8
MT 22177	DAGMAR/WA 8283				112.6				63.6				10.2
MT 22324	DAGMAR//MT 1053/MT 1172				110.6				62.2				10.7
LIMAGR 201	LCS BUSTER				110.1				60.7				9.5
MS 242	MS Charger				108.8				61.2				10.2
MT 22345	DAGMAR/MN14105-7				108.6				61.1				10.7
MT 22151	MT 1866/MT 1767				108.1				61.3				10.7
MT 22270	LANNING/MT 1853				104.3				61.9				11.0
MT 22182	DAGMAR/MT 1617				103.4				60.3				10.9
MT 22361	MT 1867//Patwin515/MN-11394-6				102.9				62.9				10.8
MT 22184	DAGMAR/MT 1617				102.4				62.5				11.4
MT 22205	LANNING/MT0945/MT 1807				101.4				61.0				10.6
WF 242	CP3119A				100.9				58.9				10.5
MT 22179	DAGMAR/MT 1617				99.5				60.7				11.5
MT 22172	DAGMAR/WA 8283				99.5				62.8				12.2
MT 22093	LANNING//MT1338/MT1103				98.6				61.0				12.4
CHS 241	Allegiant 811 HRS				95.1				62.4				11.4
MT 22071	DAGMAR//MT1338/SD3997				94.7				60.1				11.4
MT 22073	LANNING/MT 1806				93.8				60.6				11.6
MT 22072	LANNING/MT 1806				93.3				61.1				10.4
MT 22083	DAGMAR/MT 1866				93.3				62.6				11.0
MS 241	MS Nova				93.2				62.4				11.3
MT 22204	DAGMAR//MT1338/IDO1202S				91.4				60.3				12.1
MT 22099	LANNING//MT1338/MT1103				89.5				61.2				11.1
CHS 242	Allegiant 6284 HRS				88.9				62.2				12.3
SYN 241	AP Elevate				88.0				62.4				11.6
MT 22102	LANNING*1/MT1103				79.6				61.0				11.7
	MEAN	95.2	94.5	104.2	98.6	61.5	62.2	61.6	61.6	11.3	11.4	11.7	11.1
	C.V.	7.3	7.0	5.6	7.7	0.9	0.9	0.8	0.4	4.4	3.4	3.4	3.9
	PROBABILITY (ID)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	LSD(0.05)	9.8	10.8	11.9	11.6	0.8	1.0	1.0	0.4	0.7	0.6	0.8	0.5

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2021-2024 ADVANCED SPRING WHEAT NURSERY, SIDNEY (IRRI) : YIELD, TEST WEIGHT AND PROTEIN

ID	VARIETY / PEDIGREE	YIELD				TEST WEIGHT				PROTEIN			
		(BU/AC)				(LB/BU)				(%)			
		2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024	2021-2024	2022-2024	2023-2024	2024
MT 2030	MT Ubet	100.0	109.6	116.9	111.1	63.5	63.8	63.7	65.6	14.3	14.2	14.2	14.3
LIMAGR 211	LCS ASCENT	99.0	108.4	115.8	111.1	64.7	64.8	64.3	66.4	13.4	13.4	13.4	12.9
BZ 917-277	ROCKER	98.9	108.2	116.0	105.2	63.8	63.8	63.5	64.9	13.7	13.6	13.5	13.4
SYN 182	SY Longmire	98.5	108.5	116.8	112.5	64.1	64.5	64.3	66.0	14.0	13.9	13.8	13.4
PI 690450	DAGMAR	98.5	106.6	115.7	107.2	64.0	64.2	63.9	65.6	14.9	14.9	15.2	14.5
SYN 212	AP Gunsmoke	98.3	109.7	118.1	112.0	63.5	63.9	63.7	65.2	14.6	14.7	14.4	14.1
MT 1809	MT Dutton	97.9	107.8	117.7	109.7	63.2	63.3	63.4	64.8	14.1	14.1	13.9	14.0
PI 642366	VIDA	96.2	103.2	113.9	105.7	63.5	63.5	63.6	65.0	13.7	13.9	13.8	13.9
PI 699957	MT SIDNEY	96.1	105.6	117.4	105.0	64.1	64.4	64.0	65.6	13.6	13.6	13.2	12.8
PI 679964	NS PRESSER CLP	95.5	101.6	111.8	103.9	62.7	62.4	62.7	63.8	13.3	13.4	13.2	13.1
MT 1939	MT Carlson	95.2	104.9	112.6	107.3	63.2	63.7	63.3	65.1	13.9	13.8	13.9	13.8
MT 2049	LANNING/MT 1415	95.2	102.1	110.0	106.1	63.5	63.9	64.1	66.1	14.3	14.2	14.1	13.6
ND 695	REEDER	94.3	101.4	110.9	101.1	63.9	64.3	64.2	65.3	14.3	14.1	14.1	14.5
PI 660981	DUCLAIR	93.7	104.1	111.2	105.7	62.4	62.8	62.4	63.9	14.0	13.8	13.8	13.9
MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	93.6	101.0	108.6	109.8	63.6	63.6	63.2	65.2	13.1	13.2	13.4	12.9
PI 676978	LANNING	93.3	104.0	112.1	105.6	62.7	63.6	63.6	65.3	14.9	14.8	14.9	15.4
SYN 211	AP Smith	92.7	101.2	109.7	103.1	64.0	64.4	64.3	65.7	14.1	13.9	13.7	13.8
WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	92.6	102.2	110.3	103.7	63.5	63.8	63.3	65.2	13.9	13.6	13.7	13.7
AGRIPR 161	SY ROCKFORD	92.6	100.6	107.0	93.5	62.7	62.8	62.3	64.2	13.6	13.4	13.0	12.7
PI 574642	McNEAL	92.1	102.4	111.9	107.8	62.5	63.0	62.7	64.3	14.4	13.9	13.9	13.6
AGRIPR 141	SY INGMAR	90.7	99.8	105.5	104.1	64.5	65.0	64.7	66.1	14.4	14.2	14.3	14.1
BZ 92413R	WB GUNNISON	83.6	89.5	96.1	92.8	63.8	63.7	63.7	64.5	13.5	13.4	13.3	13.4
MS 211	AAC Concord	81.8	90.7	96.4	94.5	63.1	63.3	62.9	64.2	15.2	15.0	14.9	15.2
CI 10003	THATCHER	79.3	87.6	93.6	89.6	62.8	63.2	62.9	64.1	14.4	14.2	14.0	14.2
MT 21104	MT 1451/MT 1866		106.0	113.5	102.7		64.5	64.4	66.0		13.6	13.5	13.1
MT 21074	MT 1525/MT 1348		96.3	102.3	93.1		63.6	63.2	64.4		14.5	14.6	14.1
MT 21220	DAGMAR/MT 1716			124.5	118.3			63.6	65.3			13.7	13.8
MT 21176	DAGMAR//MT 1142/MT 1225			122.5	117.8			63.2	64.5			14.0	13.9
MT 21484	Dagmar/BC1-52			122.1	113.0			64.2	65.9			14.8	14.3
MT 21487	Dagmar/BC1-80			121.5	113.7			64.2	66.0			14.5	14.1
MT 21473	DAGMAR/LANNING			120.8	112.0			63.7	64.8			14.4	14.5
DHRS14-0134-C0	ND Stampede			117.8	101.9			64.0	65.7			13.1	12.6
MT 21186	DAGMAR//MT 1142/MT 1225			116.3	106.8			62.5	64.3			14.4	13.7
LIMAGR 231	LCS BOOM			115.0	107.6			65.0	66.7			14.3	14.2
MT 21224	DAGMAR/CAP 197-3			114.0	108.9			63.8	65.0			14.2	13.9

2021-2024 ADVANCED SPRING WHEAT NURSERY, SIDNEY (IRRI) : YIELD, TEST WEIGHT AND PROTEIN (CONT.)

ID	VARIETY / PEDIGREE	YIELD (BU/AC)				TEST WEIGHT (LB/BU)				PROTEIN (%)			
		2021- 2024	2022- 2024	2023- 2024	2024	2021- 2024	2022- 2024	2023- 2024	2024	2021- 2024	2022- 2024	2023- 2024	2024
MT 21485	Dagmar/BC1-80			112.9	102.0			63.4	65.5			14.5	14.5
MT 21174	DAGMAR//MT 1142/MT 1225			112.4	103.7			63.3	64.9			13.9	14.2
MS 242	MS Charger				117.1				65.4				11.2
MT 22182	DAGMAR/MT 1617				117.0				63.9				13.7
MT 22345	DAGMAR/MN14105-7				116.0				64.4				13.4
MT 22324	DAGMAR//MT 1053/MT 1172				111.4				65.7				14.2
SYN 241	AP Elevate				111.4				65.7				14.0
MT 22151	MT 1866/MT 1767				110.7				65.6				13.0
MT 22071	DAGMAR//MT1338/SD3997				110.4				64.3				14.0
MS 241	MS Nova				110.2				66.0				14.1
WF 241	CP3055				110.2				62.6				11.9
MT 22177	DAGMAR/WA 8283				110.0				65.9				14.0
CHS 241	Allegiant 811 HRS				108.6				65.9				13.1
MT 22361	MT 1867//Patwin515/MN-11394-6				108.3				65.1				13.8
MT 22205	LANNING/MT0945/MT 1807				107.1				64.9				14.5
MT 22102	LANNING*1/MT1103				106.3				65.4				14.9
MT 22184	DAGMAR/MT 1617				105.8				66.4				14.5
LIMAGR 201	LCS BUSTER				105.7				62.9				11.0
MT 22073	LANNING/MT 1806				103.1				64.9				14.5
MT 22270	LANNING/MT 1853				102.8				65.3				13.8
MT 22179	DAGMAR/MT 1617				101.6				64.8				14.1
MT 22099	LANNING//MT1338/MT1103				101.4				65.5				14.1
MT 22204	DAGMAR//MT1338/IDO1202S				100.5				65.4				14.5
MT 22093	LANNING//MT1338/MT1103				99.5				65.5				15.3
WF 242	CP3119A				99.2				60.3				12.1
MT 22072	LANNING/MT 1806				98.9				65.4				13.7
MT 22083	DAGMAR/MT 1866				96.8				66.2				14.5
MT 22172	DAGMAR/WA 8283				96.3				65.3				14.7
CHS 242	Allegiant 6284 HRS				96.1				65.7				13.8
	MEAN	93.7	102.4	112.7	105.8	63.5	63.8	63.6	65.1	14.1	14.0	14	13.8
	C.V.	4.9	4.3	4.3	3.4	1.0	0.8	0.7	0.4	3.1	3.0	3.1	2.5
	PROBABILITY (ID)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	LSD(0.05)	6.5	7.2	9.9	5.6	0.9	0.8	0.9	0.4	0.6	0.7	0.9	0.5

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

**2024 OVERALL AGRONOMIC SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY GROWN UNDER RAIN-FED CONDITION
(HUNTLEY, MOCCASIN, FORT BENTON, HAVRE, SIDNEY-DRY, CONRAD, WILLISTON, HINGHAM)**

ENTRY	ID	VARIETY / PEDIGREE	YIELD		TEST		PROTEIN		HEADING		PLANT	
			(BU/AC)	RANK	WEIGHT (LB/BU)	RANK	(%)	RANK	DATE (JULIAN)	RANK	HEIGHT (IN.)	RANK
46	MT 22324	DAGMAR//MT 1053/MT 1172	59.3	1	60.7	11	14.4	50	173.7	14	30.5	31
26	MT 21473	DAGMAR/LANNING	57.9	2	60.0	34	14.9	15	174.9	25	31.2	15
51	LIMAGR 211	LCS ASCENT	57.8	3	61.4	3	14.0	61	173.4	9	30.2	38
44	MT 22205	LANNING/MT0945/MT 1807	57.8	4	60.0	35	14.9	10	173.3	8	29.1	56
23	MT 21176	DAGMAR//MT 1142/MT 1225	57.6	5	59.4	48	14.5	45	176.6	47	31.0	20
17	MT 2030	MT Ubet	57.3	6	60.3	25	14.6	38	174.8	24	30.4	34
41	MT 22182	DAGMAR/MT 1617	57.2	7	58.8	58	14.7	34	173.7	13	30.9	21
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTO	57.0	8	60.1	32	14.2	57	174.7	22	29.8	48
32	MT 22073	LANNING/MT 1806	56.9	9	59.5	45	15.2	5	174.1	17	29.5	51
29	MT 21487	Dagmar/BC1-80	56.8	10	60.4	17	14.8	26	175.3	31	31.4	13
12	PI 690450	DAGMAR	56.6	11	60.6	12	15.2	4	174.4	21	31.1	17
45	MT 22270	LANNING/MT 1853	56.4	12	60.4	20	14.5	42	175.6	36	30.5	28
15	MT 1809	MT Dutton	56.2	13	59.5	44	14.4	49	175.9	41	30.2	39
16	MT 1939	MT Carlson	56.1	14	60.4	19	14.3	54	175.2	29	30.1	41
27	MT 21484	Dagmar/BC1-52	56.1	15	60.6	15	14.8	18	175.2	27	31.4	14
36	MT 22102	LANNING*1/MT1103	55.7	16	59.7	41	15.3	3	173.4	10	29.8	47
24	MT 21186	DAGMAR//MT 1142/MT 1225	55.5	17	59.1	55	14.7	33	175.6	35	30.8	23
37	MT 22151	MT 1866/MT 1767	55.3	18	59.6	42	14.1	58	175.2	30	31.0	18
35	MT 22099	LANNING//MT1338/MT1103	55.2	19	60.4	22	14.8	21	171.9	1	28.4	61
33	MT 22083	DAGMAR/MT 1866	55.0	20	61.8	2	14.6	36	172.4	4	30.7	25
47	MT 22345	DAGMAR/MN14105-7	55.0	21	58.7	59	14.3	53	176.3	44	29.9	45
28	MT 21485	Dagmar/BC1-80	54.9	22	59.2	51	14.9	13	174.0	15	31.6	10
22	MT 21174	DAGMAR//MT 1142/MT 1225	54.8	23	60.4	18	14.9	12	174.7	23	31.9	5
8	PI 642366	VIDA	54.7	24	59.7	40	14.1	59	176.8	49	30.8	22
42	MT 22184	DAGMAR/MT 1617	54.6	25	61.3	4	14.8	24	174.0	16	30.4	33
39	MT 22177	DAGMAR/WA 8283	54.5	26	61.1	5	14.4	47	175.6	37	32.3	4
50	MT 21224	DAGMAR/CAP 197-3	54.5	27	60.3	23	14.7	29	175.2	28	32.3	3
3	BZ 917-277	ROCKER	54.3	28	60.6	14	14.4	51	177.8	56	30.1	40
21	MT 21104	MT 1451/MT 1866	54.3	29	60.4	21	14.2	56	175.8	39	30.6	27
40	MT 22179	DAGMAR/MT 1617	54.1	30	59.6	43	14.7	30	172.8	6	30.5	30
43	MT 22204	DAGMAR//MT1338//IDO1202S	54.1	31	60.2	27	14.8	22	174.2	20	29.6	49
14	PI 699957	MT SIDNEY	54.0	32	60.2	28	14.5	44	173.1	7	29.9	46
25	MT 21220	DAGMAR/MT 1716	53.8	33	59.9	37	14.7	27	176.8	48	30.5	29
54	MS 241	MS Nova	53.8	34	60.9	6	14.7	28	174.2	19	30.0	44
10	PI 676978	LANNING	53.7	35	59.9	36	15.3	2	173.5	11	30.1	43

**2024 OVERALL AGRONOMIC SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY GROWN UNDER RAIN-FED CONDITION
(HUNTLEY, MOCCASIN, FORT BENTON, HAVRE, SIDNEY-DRY, CONRAD, WILLISTON, HINGHAM) (CONT.)**

ENTRY	ID	VARIETY / PEDIGREE	YIELD		TEST		PROTEIN		HEADING		PLANT	
			(BU/AC)	RANK	WEIGHT (LB/BU)	RANK	(%)	RANK	DATE (JULIAN)	RANK	HEIGHT (IN.)	RANK
48	MT 22361	MT 1867//Patwin515/MN-11394-6	53.7	36	59.3	49	14.7	32	176.9	50	31.8	8
18	MT 2049	LANNING/MT 1415	53.7	37	60.8	8	14.2	55	172.2	2	30.4	36
34	MT 22093	LANNING//MT1338/MT1103	53.0	38	60.1	30	14.9	16	172.8	5	28.9	60
62	WF 242	CP3119A	53.0	39	55.8	63	13.5	63	183.1	64	31.6	9
30	MT 22071	DAGMAR//MT1338/SD3997	52.9	40	58.2	61	14.5	46	177.4	53	31.1	16
31	MT 22072	LANNING/MT 1806	52.9	41	60.5	16	14.5	43	173.6	12	30.3	37
52	LIMAGR 231	LCS BOOM	52.8	42	62.0	1	14.8	25	172.4	3	29.0	59
11	PI 679964	NS PRESSER CLP	52.7	43	59.1	52	14.1	60	178.4	60	31.8	6
9	PI 660981	DUCLAIR	52.4	44	59.1	54	14.6	39	174.2	18	30.8	24
20	MT 21074	MT 1525/MT 1348	52.2	45	60.3	26	14.9	11	177.8	55	30.1	42
57	SYN 182	SY Longmire	52.0	46	60.8	7	14.6	37	176.3	45	29.5	52
58	SYN 241	AP Elevate	51.6	47	60.1	29	15.1	6	177.4	52	28.2	62
2	AGRIPR 161	SY ROCKFORD	51.6	48	58.9	56	14.6	41	178.0	58	30.5	32
49	NDHRS14-0134	ND Stampede	51.3	49	59.1	53	15.0	8	175.1	26	30.4	35
53	LIMAGR 201	LCS BUSTER	51.0	50	57.1	62	13.3	64	181.4	62	30.6	26
63	CHS 241	Allegiant 811 HRS	50.7	51	60.1	31	14.4	48	177.8	57	29.0	58
1	AGRIPR 141	SY INGMAR	50.7	52	60.7	10	14.8	17	176.3	43	29.1	54
55	MS 242	MS Charger	50.2	53	59.5	46	13.6	62	175.4	32	29.1	57
60	SYN 212	AP Gunsmoke	50.2	54	60.0	33	15.5	1	175.8	38	29.5	53
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	49.8	55	59.4	47	15.0	9	176.2	42	29.5	50
61	WF 241	CP3055	49.7	56	55.4	64	14.6	35	181.7	63	31.0	19
38	MT 22172	DAGMAR/WA 8283	49.6	57	60.7	9	14.8	20	175.6	34	31.8	7
6	ND 695	REEDER	49.0	58	59.8	39	14.8	23	176.3	46	31.5	12
7	PI 574642	McNEAL	48.8	59	58.9	57	14.8	19	178.2	59	31.5	11
59	SYN 211	AP Smith	48.3	60	60.3	24	14.9	14	177.3	51	27.3	63
64	CHS 242	Allegiant 6284 HRS	48.2	61	60.6	13	14.6	40	175.4	33	26.2	64
4	BZ 92413R	WB GUNNISON	48.1	62	59.8	38	14.3	52	175.9	40	29.1	55
56	MS 211	AAC Concord	44.3	63	59.3	50	15.1	7	178.4	61	34.9	2
5	CI 10003	THATCHER	40.6	64	58.3	60	14.7	31	177.5	54	38.2	1
AVERAGE			53.3		59.8		14.6		175.6		30.5	
C.V.			8.4		1.5		3.4		0.6		3.7	
PROBABILITY(LINE)			<0.001		<0.001		<0.001		<0.001		<0.001	
LSD(0.05)			4.4		0.8		0.5		1.3		1.1	

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

**2024 OVERALL AGRONOMIC SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY GROWN UNDER IRRI / HIGH RAINFALL CONDITION
(KALISPELL, SIDNEY-IRRI)**

ENTRY	ID	VARIETY / PEDIGREE	YIELD		TEST		PROTEIN		HEADING		PLANT	
			(BU/AC)	RANK	WEIGHT (LB/BU)	RANK	(%)	RANK	DATE (JULIAN)	RANK	HEIGHT (IN.)	RANK
61	WF 241	CP3055	117.8	1	60.9	63	11.7	62	186.1	63	36.0	18
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTO	113.8	2	62.5	37	12.4	58	177.3	25	33.9	48
55	MS 242	MS Charger	113.0	3	62.7	31	11.2	63	178.6	38	33.3	53
47	MT 22345	DAGMAR/MN14105-7	112.3	4	61.8	57	12.8	46	179.3	45	35.4	27
25	MT 21220	DAGMAR/MT 1716	112.1	5	62.8	30	12.9	44	179.1	43	34.9	30
39	MT 22177	DAGMAR/WA 8283	111.3	6	63.9	2	12.8	49	177.6	29	37.6	6
46	MT 22324	DAGMAR//MT 1053/MT 1172	111.0	7	63.0	18	13.0	39	176.0	11	34.0	45
29	MT 21487	Dagmar/BC1-80	110.6	8	62.9	24	13.2	29	176.8	23	36.6	9
41	MT 22182	DAGMAR/MT 1617	110.2	9	61.6	59	12.8	47	175.9	9	35.8	21
37	MT 22151	MT 1866/MT 1767	109.4	10	62.6	32	12.5	55	178.1	34	35.8	22
50	MT 21224	DAGMAR/CAP 197-3	109.1	11	63.2	13	13.1	35	178.2	35	37.8	5
23	MT 21176	DAGMAR//MT 1142/MT 1225	109.0	12	61.8	55	12.5	54	179.0	41	36.6	8
53	LIMAGR 201	LCS BUSTER	107.9	13	60.9	62	10.9	64	184.7	62	36.3	14
12	PI 690450	DAGMAR	107.0	14	63.0	19	13.3	21	176.5	17	36.4	13
51	LIMAGR 211	LCS ASCENT	106.6	15	63.2	14	12.2	60	176.1	15	34.1	42
16	MT 1939	MT Carlson	105.9	16	62.5	42	12.8	48	177.5	28	34.4	39
15	MT 1809	MT Dutton	105.8	17	62.2	44	13.2	31	180.0	48	34.8	34
24	MT 21186	DAGMAR//MT 1142/MT 1225	105.7	18	61.9	53	13.0	42	178.4	37	35.5	25
48	MT 22361	MT 1867//Patwin515/MN-11394-6	105.6	19	63.2	12	12.9	45	179.8	47	35.5	26
27	MT 21484	Dagmar/BC1-52	105.6	20	63.1	16	13.4	14	176.6	19	36.1	16
57	SYN 182	SY Longmire	105.3	21	63.7	3	13.1	33	179.0	42	33.3	54
22	MT 21174	DAGMAR//MT 1142/MT 1225	104.8	22	62.5	38	13.2	28	176.6	20	37.9	4
26	MT 21473	DAGMAR/LANNING	104.3	23	62.2	46	13.4	19	178.0	32	34.8	32
44	MT 22205	LANNING/MT0945/MT 1807	104.3	24	62.2	45	13.4	18	176.1	13	32.2	61
42	MT 22184	DAGMAR/MT 1617	104.1	25	63.7	4	13.7	8	175.8	7	35.7	23
45	MT 22270	LANNING/MT 1853	103.6	26	62.6	33	13.2	30	177.8	31	33.1	57
17	MT 2030	MT Ubet	103.1	27	62.5	41	13.4	17	177.3	26	33.9	47
30	MT 22071	DAGMAR//MT1338/SD3997	102.6	28	61.4	60	13.3	24	180.3	53	36.6	10
18	MT 2049	LANNING/MT 1415	102.5	29	62.9	26	13.2	26	176.3	16	34.4	38
14	PI 699957	MT SIDNEY	102.4	30	63.0	23	12.3	59	176.8	22	34.2	41
11	PI 679964	NS PRESSER CLP	102.3	31	61.3	61	12.6	53	181.3	61	37.2	7
63	CHS 241	Allegiant 811 HRS	101.9	32	63.5	8	12.4	56	180.2	52	32.4	60
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	101.8	33	62.5	39	13.0	40	179.2	44	34.8	33
8	PI 642366	VIDA	101.7	34	62.3	43	13.0	41	178.9	40	35.4	28
54	MS 241	MS Nova	101.7	35	63.6	7	13.1	34	176.5	18	34.7	36

**2024 OVERALL AGRONOMIC SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY GROWN UNDER IRRI / HIGH RAINFALL CONDITION
(KALISPELL, SIDNEY-IRRI) (CONT.)**

ENTRY	ID	VARIETY / PEDIGREE	YIELD		TEST		PROTEIN		HEADING		PLANT	
			(BU/AC)	RANK	WEIGHT (LB/BU)	RANK	(%)	RANK	DATE (JULIAN)	RANK	HEIGHT (IN.)	RANK
3	BZ 917-277	ROCKER	101.6	36	63.1	17	12.9	43	181.3	60	35.9	20
40	MT 22179	DAGMAR/MT 1617	100.6	37	61.9	51	13.3	22	176.1	14	34.5	37
60	SYN 212	AP Gunsmoke	100.3	38	62.9	25	13.1	36	178.3	36	34.1	44
62	WF 242	CP3119A	100.1	39	59.1	64	11.8	61	186.9	64	36.5	12
58	SYN 241	AP Elevate	99.7	40	63.0	21	13.3	23	179.7	46	31.8	63
9	PI 660981	DUCLAIR	99.5	41	61.8	56	13.1	37	177.3	24	35.2	29
6	ND 695	REEDER	99.2	42	63.3	10	13.8	6	178.8	39	38.1	3
34	MT 22093	LANNING//MT1338/MT1103	99.1	43	62.6	34	14.3	1	174.8	1	33.2	56
10	PI 676978	LANNING	99.0	44	62.9	27	14.1	2	175.7	6	34.0	46
32	MT 22073	LANNING/MT 1806	98.5	45	62.1	48	13.7	7	176.1	12	33.3	55
59	SYN 211	AP Smith	98.2	46	63.0	22	13.7	10	180.5	55	31.9	62
21	MT 21104	MT 1451/MT 1866	98.1	47	63.1	15	12.7	51	180.0	51	34.8	35
52	LIMAGR 231	LCS BOOM	98.1	48	64.2	1	13.4	16	175.4	4	34.1	43
38	MT 22172	DAGMAR/WA 8283	97.9	49	63.4	9	13.9	4	177.8	30	36.5	11
20	MT 21074	MT 1525/MT 1348	97.5	50	63.0	20	13.6	12	180.4	54	36.1	15
1	AGRIPR 141	SY INGMAR	97.3	51	63.7	5	13.9	3	180.0	50	34.3	40
7	PI 574642	McNEAL	97.1	52	62.1	49	12.7	50	180.9	58	35.9	19
49	NDHRS14-0134	ND Stampede	96.3	53	62.9	28	12.6	52	177.4	27	34.9	31
31	MT 22072	LANNING/MT 1806	96.1	54	62.5	40	13.0	38	176.0	10	33.4	52
43	MT 22204	DAGMAR//MT1338/IDO1202S	96.0	55	62.2	47	13.9	5	175.9	8	33.7	51
35	MT 22099	LANNING//MT1338/MT1103	95.5	56	62.6	35	13.2	27	175.4	5	32.7	59
28	MT 21485	Dagmar/BC1-80	95.3	57	62.0	50	13.7	9	176.7	21	36.1	17
4	BZ 92413R	WB GUNNISON	95.1	58	62.8	29	13.1	32	180.0	49	32.9	58
33	MT 22083	DAGMAR/MT 1866	95.1	59	63.7	6	13.2	25	175.3	3	33.8	50
36	MT 22102	LANNING*1/MT1103	93.0	60	62.6	36	13.5	13	175.1	2	33.8	49
64	CHS 242	Allegiant 6284 HRS	92.5	61	63.3	11	13.4	20	178.1	33	29.1	64
5	CI 10003	THATCHER	90.5	62	61.9	54	13.4	15	181.0	59	47.3	1
2	AGRIPR 161	SY ROCKFORD	90.2	63	61.7	58	12.4	57	180.7	57	35.6	24
56	MS 211	AAC Concord	89.6	64	61.9	52	13.7	11	180.7	56	41.1	2
AVERAGE			102.2		62.6		13		178.3		35.1	
C.V.			5.7		0.9		3.8		0.5		2.9	
PROBABILITY(LINE)			<0.001		<0.001		<0.001		<0.001		<0.001	
LSD(0.05)			11.6		0.9		0.8		1.7		1.6	

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OVERALL AGRONOMIC SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA

ENTRY	ID	VARIETY / PEDIGREE	YIELD		TEST		PROTEIN		HEADING		PLANT	
			(BU/AC)	RANK	WEIGHT (LB/BU)	RANK	(%)	RANK	DATE (JULIAN)	RANK	HEIGHT (IN.)	RANK
46	MT 22324	DAGMAR//MT 1053/MT 1172	<u>69.6</u>	1	61.3	12	14.0	46	174.4	14	31.4	37
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTO	68.4	2	60.7	33	13.7	59	175.4	23	30.8	49
23	MT 21176	DAGMAR//MT 1142/MT 1225	67.9	3	60.0	50	14.0	49	177.3	46	32.4	17
41	MT 22182	DAGMAR/MT 1617	67.8	4	59.5	59	14.2	39	174.3	13	32.1	20
29	MT 21487	Dagmar/BC1-80	67.6	5	61.1	17	14.4	26	175.7	26	32.7	11
51	LIMAGR 211	LCS ASCENT	67.6	6	61.8	4	13.5	61	174.2	11	31.2	41
26	MT 21473	DAGMAR/LANNING	67.2	7	60.5	38	14.5	16	175.8	28	32.1	21
44	MT 22205	LANNING/MT0945/MT 1807	67.1	8	60.5	39	14.6	14	174.1	8	29.9	59
12	PI 690450	DAGMAR	66.6	9	61.2	14	14.7	7	175.0	20	32.4	16
47	MT 22345	DAGMAR/MN14105-7	66.5	10	59.5	58	14.0	51	177.1	45	31.3	38
17	MT 2030	MT Ubet	66.4	11	60.8	28	14.3	28	175.5	24	31.3	39
37	MT 22151	MT 1866/MT 1767	66.2	12	60.4	42	13.7	58	176.0	31	32.2	19
15	MT 1809	MT Dutton	66.1	13	60.2	45	14.1	43	177.1	44	31.4	36
16	MT 1939	MT Carlson	66.0	14	60.9	24	13.9	54	175.9	29	31.2	40
27	MT 21484	Dagmar/BC1-52	66.0	15	61.2	15	14.5	20	175.6	25	32.6	14
39	MT 22177	DAGMAR/WA 8283	65.9	16	61.8	5	14.0	47	176.2	32	33.6	4
45	MT 22270	LANNING/MT 1853	65.8	17	61.0	21	14.2	40	176.2	35	31.2	42
24	MT 21186	DAGMAR//MT 1142/MT 1225	65.6	18	59.8	53	14.2	37	176.4	37	32.0	22
25	MT 21220	DAGMAR/MT 1716	65.5	19	60.6	36	14.3	32	177.4	49	31.6	30
50	MT 21224	DAGMAR/CAP 197-3	65.4	20	61.1	18	14.3	31	176.0	30	33.7	3
32	MT 22073	LANNING/MT 1806	65.2	21	60.1	48	14.8	4	174.6	16	30.5	53
22	MT 21174	DAGMAR//MT 1142/MT 1225	64.8	22	61.0	22	14.5	19	175.3	22	33.4	5
42	MT 22184	DAGMAR/MT 1617	64.5	23	61.9	3	14.5	18	174.5	15	31.8	26
8	PI 642366	VIDA	64.1	24	60.4	41	13.8	57	177.4	48	32.0	24
48	MT 22361	MT 1867//Patwin515/MN-11394-6	64.1	25	60.3	43	14.2	38	177.7	50	32.7	10
3	BZ 917-277	ROCKER	63.7	26	61.2	13	14.0	48	178.8	57	31.6	31
14	PI 699957	MT SIDNEY	63.7	27	60.9	27	13.9	52	174.1	10	31.0	46
18	MT 2049	LANNING/MT 1415	63.4	28	61.3	10	14.0	50	173.4	5	31.4	35
54	MS 241	MS Nova	63.4	29	61.6	6	14.3	29	174.8	19	31.2	43
40	MT 22179	DAGMAR/MT 1617	63.4	30	60.2	46	14.4	27	173.7	6	31.5	34
61	WF 241	CP3055	63.3	31	56.8	63	13.9	55	183.0	63	32.2	18
35	MT 22099	LANNING//MT1338/MT1103	63.3	32	60.9	25	14.4	25	<u>172.9</u>	1	29.5	61
36	MT 22102	LANNING*1/MT1103	63.2	33	60.4	40	14.9	3	173.9	7	30.8	48
33	MT 22083	DAGMAR/MT 1866	63.0	34	62.3	2	14.3	33	173.2	3	31.5	33
21	MT 21104	MT 1451/MT 1866	63.0	35	61.1	16	13.8	56	177.0	40	31.6	28

2024 OVERALL AGRONOMIC SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA (CONT.)

ENTRY	ID	VARIETY / PEDIGREE	YIELD		TEST		PROTEIN		HEADING		PLANT	
			(BU/AC)	RANK	WEIGHT (LB/BU)	RANK	(%)	RANK	DATE (JULIAN)	RANK	HEIGHT (IN.)	RANK
28	MT 21485	Dagmar/BC1-80	63.0	36	59.9	52	14.6	9	174.8	18	32.7	12
30	MT 22071	DAGMAR//MT1338/SD3997	62.9	37	59.0	61	14.2	41	178.2	52	32.5	15
55	MS 242	MS Charger	62.8	38	60.3	44	13.0	63	176.3	36	30.1	56
10	PI 676978	LANNING	62.8	39	60.6	35	15.0	1	174.1	9	31.0	45
57	SYN 182	SY Longmire	62.7	40	61.5	7	14.3	35	177.1	43	30.5	52
11	PI 679964	NS PRESSER CLP	62.6	41	59.7	55	13.7	60	179.2	61	33.2	7
43	MT 22204	DAGMAR//MT1338/IDO1202S	62.4	42	60.7	32	14.6	15	174.7	17	30.6	51
62	WF 242	CP3119A	62.4	43	56.7	64	13.1	62	184.2	64	32.8	9
53	LIMAGR 201	LCS BUSTER	62.4	44	58.1	62	12.7	64	182.3	62	32.0	23
34	MT 22093	LANNING//MT1338/MT1103	62.2	45	60.7	31	14.7	5	173.4	4	30.0	58
52	LIMAGR 231	LCS BOOM	61.9	46	62.5	1	14.4	23	173.2	2	30.2	55
9	PI 660981	DUCLAIR	61.8	47	59.8	54	14.2	36	175.0	21	31.9	25
31	MT 22072	LANNING/MT 1806	61.6	48	61.0	19	14.1	42	174.3	12	31.1	44
20	MT 21074	MT 1525/MT 1348	61.2	49	60.9	23	14.6	12	178.5	56	31.6	29
58	SYN 241	AP Elevate	61.2	50	60.8	29	14.6	8	178.0	51	29.1	62
63	CHS 241	Allegiant 811 HRS	60.9	51	60.9	26	13.9	53	178.5	54	29.9	60
49	NDHRS14-0134	ND Stampede	60.3	52	60.1	49	14.4	22	175.7	27	31.5	32
60	SYN 212	AP Gunsmoke	60.2	53	60.8	30	14.9	2	176.5	38	30.7	50
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	60.2	54	60.2	47	14.5	21	177.1	42	30.9	47
1	AGRIPR 141	SY INGMAR	60.0	55	61.4	8	14.6	10	177.3	47	30.4	54
2	AGRIPR 161	SY ROCKFORD	59.3	56	59.6	57	14.0	44	178.8	58	31.7	27
38	MT 22172	DAGMAR/WA 8283	59.3	57	61.4	9	14.6	13	176.2	33	33.0	8
6	ND 695	REEDER	59.0	58	60.7	34	14.5	17	177.0	39	33.2	6
7	PI 574642	McNEAL	58.4	59	59.7	56	14.3	30	179.0	59	32.6	13
59	SYN 211	AP Smith	58.2	60	61.0	20	14.6	11	178.2	53	28.4	63
4	BZ 92413R	WB GUNNISON	57.5	61	60.5	37	14.0	45	177.1	41	30.1	57
64	CHS 242	Allegiant 6284 HRS	57.1	62	61.3	11	14.3	34	176.2	34	26.9	64
56	MS 211	AAC Concord	53.4	63	59.9	51	14.7	6	179.1	60	36.5	2
5	CI 10003	THATCHER	50.6	64	59.2	60	14.4	24	178.5	55	40.5	1
AVERAGE			63.1		60.5		14.2		176.4		31.6	
C.V.			7.9		1.4		3.6		0.5		3.7	
PROBABILITY(LINE)			<0.001		<0.001		<0.001		<0.001		<0.001	
LSD(0.05)			4.4		0.7		0.4		1.0		0.9	

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 GRAIN YIELD (BU/AC) SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA

ENTRY	ID	VARIETY / PEDIGREE	CONRAD	FORT BENTON	HAVRE	HINGHAM	HUNTLEY	MOCCA SIN	SIDNEY (DRY)	WILLI STON	KALI SPELL	SIDNEY (IRRI)	MEAN	RANK
46	MT 22324	DAGMAR//MT 1053/MT 1172	34.4	52.8	67.7	27.7	93.3	34.8	90.2	73.1	110.6	111.4	69.6	1
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTON	31.6	43.3	63.1	30.4	87.8	36.1	83.2	80.5	117.7	109.8	68.4	2
23	MT 21176	DAGMAR//MT 1142/MT 1225	33.1	49.6	61.8	32.9	94.7	35.3	80.0	73.4	100.2	117.8	67.9	3
41	MT 22182	DAGMAR/MT 1617	30.8	55.0	61.9	30.1	87.7	32.5	81.5	78.0	103.4	117.0	67.8	4
29	MT 21487	Dagmar/BC1-80	36.0	45.7	63.5	31.4	89.5	32.2	81.3	74.9	107.5	113.7	67.6	5
51	LIMAGR 211	LCS ASCENT	29.0	45.1	63.7	35.9	86.4	33.9	80.3	88.3	102.0	111.1	67.6	6
26	MT 21473	DAGMAR/LANNING	34.0	53.9	60.1	33.9	89.5	32.1	80.7	79.3	96.6	112.0	67.2	7
44	MT 22205	LANNING/MT0945/MT 1807	32.8	49.0	65.1	29.5	94.6	31.9	80.9	78.3	101.4	107.1	67.1	8
12	PI 690450	DAGMAR	33.6	47.0	58.5	29.9	87.4	35.0	77.7	83.3	106.8	107.2	66.6	9
47	MT 22345	DAGMAR/MN14105-7	32.1	44.1	61.8	36.8	92.6	28.5	76.4	67.8	108.6	116.0	66.5	10
17	MT 2030	MT Ubet	26.9	45.7	62.8	34.1	87.6	34.5	83.4	83.0	95.1	111.1	66.4	11
37	MT 22151	MT 1866/MT 1767	34.2	54.7	55.7	29.6	86.3	26.6	79.5	76.1	108.1	110.7	66.2	12
15	MT 1809	MT Dutton	32.6	48.4	56.0	29.7	87.9	28.3	85.1	81.4	101.9	109.7	66.1	13
16	MT 1939	MT Carlson	31.7	47.7	63.2	30.9	90.4	26.4	82.2	76.0	104.4	107.3	66.0	14
27	MT 21484	Dagmar/BC1-52	34.3	51.1	60.0	34.5	82.6	34.0	78.7	73.3	98.1	113.0	66.0	15
39	MT 22177	DAGMAR/WA 8283	30.6	48.4	55.4	32.8	83.8	28.4	83.2	73.6	112.6	110.0	65.9	16
45	MT 22270	LANNING/MT 1853	28.5	49.9	64.6	29.7	88.7	29.3	82.9	77.5	104.3	102.8	65.8	17
24	MT 21186	DAGMAR//MT 1142/MT 1225	31.6	49.9	60.1	29.7	88.5	32.9	79.4	72.2	104.5	106.8	65.6	18
25	MT 21220	DAGMAR/MT 1716	29.3	52.9	58.8	27.9	85.2	30.4	81.5	64.7	105.9	118.3	65.5	19
50	MT 21224	DAGMAR/CAP 197-3	34.4	43.8	56.1	31.6	83.6	31.7	81.0	73.9	109.2	108.9	65.4	20
32	MT 22073	LANNING/MT 1806	30.7	46.4	58.6	28.1	87.6	35.2	85.2	83.2	93.8	103.1	65.2	21
22	MT 21174	DAGMAR//MT 1142/MT 1225	34.3	43.4	60.1	26.0	84.8	38.7	77.0	74.1	105.8	103.7	64.8	22
42	MT 22184	DAGMAR/MT 1617	30.6	43.6	60.0	25.7	87.6	26.0	85.1	78.0	102.4	105.8	64.5	23
8	PI 642366	VIDA	31.1	46.6	59.1	34.6	84.5	35.7	80.0	65.9	97.7	105.7	64.1	24
48	MT 22361	MT 1867//Patwin515/MN-11394-6	28.3	44.7	56.7	33.0	84.1	27.7	82.9	72.2	102.9	108.3	64.1	25
3	BZ 917-277	ROCKER	32.7	49.8	56.1	32.7	82.3	27.6	78.3	74.5	97.9	105.2	63.7	26
14	PI 699957	MT SIDNEY	27.1	43.4	58.8	29.8	89.3	31.7	81.7	70.5	99.7	105.0	63.7	27
18	MT 2049	LANNING/MT 1415	30.7	52.0	57.3	30.9	84.0	26.6	76.3	71.6	98.9	106.1	63.4	28
54	MS 241	MS Nova	31.3	46.9	58.1	28.9	79.5	25.1	81.1	79.6	93.2	110.2	63.4	29
40	MT 22179	DAGMAR/MT 1617	32.4	42.3	56.5	26.2	89.9	32.0	74.7	78.6	99.5	101.6	63.4	30
61	WF 241	CP3055	35.3	49.2	42.5	35.9	77.6	26.2	66.9	64.0	125.3	110.2	63.3	31
35	MT 22099	LANNING//MT1338/MT1103	24.4	44.2	62.5	35.1	84.8	31.1	78.4	81.1	89.5	101.4	63.3	32
36	MT 22102	LANNING*1/MT1103	26.7	36.7	63.3	33.9	85.4	27.6	82.7	89.3	79.6	106.3	63.2	33
33	MT 22083	DAGMAR/MT 1866	28.4	42.4	57.7	32.6	82.9	33.4	79.4	83.4	93.3	96.8	63.0	34
21	MT 21104	MT 1451/MT 1866	27.7	45.0	58.6	32.0	88.4	27.2	76.2	78.9	93.5	102.7	63.0	35

2024 GRAIN YIELD (BU/AC) SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA (CONT.)

ENTRY	ID	VARIETY / PEDIGREE	CONRAD	FORT BENTON	HAVRE	HINGHAM	HUNTLEY	MOCCA SIN	SIDNEY (DRY)	WILLI STON	KALI SPELL	SIDNEY (IRRI)	MEAN	RANK
28	MT 21485	Dagmar/BC1-80	29.5	50.1	59.5	29.1	86.2	34.1	78.5	72.3	88.6	102.0	63.0	36
30	MT 22071	DAGMAR//MT1338/SD3997	34.1	49.8	52.7	31.4	81.7	32.3	80.7	60.8	94.7	110.4	62.9	37
55	MS 242	MS Charger	27.0	33.6	55.1	26.0	85.8	21.2	83.2	69.8	108.8	117.1	62.8	38
10	PI 676978	LANNING	27.9	43.7	58.6	29.0	83.7	28.2	79.5	79.0	92.3	105.6	62.8	39
57	SYN 182	SY Longmire	29.0	45.6	53.7	28.6	83.0	23.4	74.7	78.2	98.0	112.5	62.7	40
11	PI 679964	NS PRESSER CLP	33.9	46.5	57.7	34.9	79.6	31.7	74.3	62.6	100.6	103.9	62.6	41
43	MT 22204	DAGMAR//MT1338/IDO1202S	31.5	45.3	60.3	28.7	84.5	33.0	78.7	70.4	91.4	100.5	62.4	42
62	WF 242	CP3119A	34.9	52.1	43.0	36.9	75.2	30.6	77.4	73.8	100.9	99.2	62.4	43
53	LIMAGR 201	LCS BUSTER	30.3	50.8	45.7	32.3	82.9	28.3	78.2	59.3	110.1	105.7	62.4	44
34	MT 22093	LANNING//MT1338/MT1103	31.3	44.5	56.8	28.4	89.9	25.4	74.8	73.2	98.6	99.5	62.2	45
52	LIMAGR 231	LCS BOOM	27.2	42.9	57.1	29.8	83.2	23.1	74.5	84.5	88.6	107.6	61.9	46
9	PI 660981	DUCLAIR	30.3	47.7	55.1	33.9	82.6	32.5	70.1	66.6	93.3	105.7	61.8	47
31	MT 22072	LANNING/MT 1806	31.2	44.6	62.5	29.9	86.2	34.7	75.4	58.8	93.3	98.9	61.6	48
20	MT 21074	MT 1525/MT 1348	34.3	52.1	57.4	29.6	79.2	32.7	64.7	67.4	101.9	93.1	61.2	49
58	SYN 241	AP Elevate	28.1	39.8	61.0	25.1	79.6	25.8	79.0	74.3	88.0	111.4	61.2	50
63	CHS 241	Allegiant 811 HRS	27.9	41.6	60.9	29.1	78.1	29.0	71.7	67.3	95.1	108.6	60.9	51
49	<small>NDHRS14-0134-C03</small>	ND Stampede	27.3	44.9	57.7	30.8	83.6	26.7	70.5	69.0	90.6	101.9	60.3	52
60	SYN 212	AP Gunsmoke	27.5	38.6	57.7	24.5	78.0	27.1	77.2	70.6	88.6	112.0	60.2	53
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	32.8	40.3	52.4	28.2	78.8	31.7	68.8	65.1	99.9	103.7	60.2	54
1	AGRIPR 141	SY INGMAR	27.5	36.6	58.4	27.2	80.3	25.5	74.5	75.5	90.4	104.1	60.0	55
2	AGRIPR 161	SY ROCKFORD	23.8	38.9	58.5	27.4	80.7	29.3	79.6	74.4	86.9	93.5	59.3	56
38	MT 22172	DAGMAR/WA 8283	24.9	48.0	48.9	22.1	72.4	32.8	77.8	70.2	99.5	96.3	59.3	57
6	ND 695	REEDER	29.2	37.6	51.7	29.3	68.7	28.5	75.6	71.0	97.3	101.1	59.0	58
7	PI 574642	McNEAL	28.1	40.5	50.4	33.7	73.2	29.5	78.0	56.9	86.3	107.8	58.4	59
59	SYN 211	AP Smith	27.9	37.5	55.1	20.0	77.0	25.5	72.5	70.6	93.2	103.1	58.2	60
4	BZ 92413R	WB GUNNISON	31.2	49.0	54.3	31.2	67.9	29.6	65.0	56.8	97.3	92.8	57.5	61
64	CHS 242	Allegiant 6284 HRS	26.7	39.4	54.8	26.0	79.1	26.6	73.4	59.6	88.9	96.1	57.1	62
56	MS 211	AAC Concord	30.2	42.7	40.4	29.7	62.9	22.3	66.0	60.5	84.6	94.5	53.4	63
5	CI 10003	THATCHER	22.3	36.3	42.6	29.0	59.0	22.6	62.1	50.7	91.4	89.6	50.6	64
MEAN			30.3	45.6	57.3	30.3	83.2	29.8	77.7	72.5	98.6	105.8	63.1	
C.V.			8.5	9.7	6.8	12.8	6.8	18.3	7.4	9.1	7.7	3.4	7.9	
PROBABILITY (ID)			<0.001	<0.001	<0.00	<0.001	<0.001	<0.05	<0.001	<0.00	<0.00	<0.001	<0.001	
LSD(0.05)			3.8	6.7	5.9	5.8	8.5	7.2	7.2	10.2	11.6	5.6	4.4	

Yield data was held out in bozeman due to hail damage

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 TEST WEIGHT (LB/BU) SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA

ENTRY	ID	VARIETY / PEDIGREE	BOZE MAN (DRY)	CONRAD	FORT BENTON	HAVRE	HING HAM	HUNTL EY	MOCCA SIN	SIDNEY (DRY)	WILLI STON	BOZEM AN (IRRI)	KALI SPELL	SIDNEY (IRRI)	MEAN	RANK
52	LIMAGR 231	LCS BOOM	61.9	60.6	63.1	61.2	62.3	62.4	59.3	65.4	61.4	63.3	62.5	66.7	62.5	1
33	MT 22083	DAGMAR/MT 1866	62.1	60.2	62.4	60.6	60.8	61.3	60.7	66.3	62.1	62.3	62.6	66.2	62.3	2
42	MT 22184	DAGMAR/MT 1617	61.4	59.3	61.7	60.2	61.5	61.8	60.0	66.4	59.8	62.2	62.5	66.4	61.9	3
51	LIMAGR 211	LCS ASCENT	61.2	59.7	62.9	60.1	61.8	61.2	58.7	66.2	60.4	61.9	61.3	66.4	61.8	4
39	MT 22177	DAGMAR/WA 8283	61.0	60.2	62.3	59.6	61.2	60.6	59.5	65.4	59.8	62.3	63.6	65.9	61.8	5
54	MS 241	MS Nova	61.3	59.3	62.3	59.2	61.6	60.1	59.7	65.3	59.7	62.3	62.4	66.0	61.6	6
57	SYN 182	SY Longmire	59.9	59.8	61.8	58.2	62.2	59.8	59.3	65.5	60.5	61.9	63.3	66.0	61.5	7
1	AGRIPR 141	SY INGMAR	60.1	59.3	61.3	58.8	61.4	59.2	60.5	65.8	59.6	61.6	63.4	66.1	61.4	8
38	MT 22172	DAGMAR/WA 8283	60.9	58.5	60.8	58.5	60.5	59.9	60.6	65.2	61.5	62.0	62.8	65.3	61.4	9
18	MT 2049	LANNING/MT 1415	60.4	58.7	61.4	59.4	60.9	59.8	60.0	65.9	60.3	61.0	61.7	66.1	61.3	10
64	CHS 242	Allegiant 6284 HRS	60.5	58.8	60.4	58.9	61.3	60.0	60.7	65.2	59.4	62.0	62.2	65.7	61.3	11
46	MT 22324	DAGMAR//MT 1053/MT 1172	60.4	59.0	62.1	59.3	61.1	60.1	59.8	65.9	58.2	61.2	62.2	65.7	61.3	12
3	BZ 917-277	ROCKER	60.1	60.4	61.7	58.5	62.1	58.1	60.0	64.9	59.3	61.0	63.4	64.9	61.2	13
12	PI 690450	DAGMAR	61.0	59.1	61.6	58.6	61.1	60.0	57.9	65.4	60.7	61.6	61.8	65.6	61.2	14
27	MT 21484	Dagmar/BC1-52	60.6	59.1	61.5	58.5	60.3	60.3	60.4	65.3	59.0	61.4	62.0	65.9	61.2	15
21	MT 21104	MT 1451/MT 1866	60.9	58.5	61.5	58.5	60.7	57.5	60.8	66.0	59.2	61.5	61.9	66.0	61.1	16
29	MT 21487	Dagmar/BC1-80	59.2	59.5	61.3	58.7	60.5	60.5	61.0	65.0	58.2	61.3	61.5	66.0	61.1	17
50	MT 21224	DAGMAR/CAP 197-3	60.0	58.4	60.8	58.4	60.4	60.0	58.8	65.2	61.1	61.9	62.7	65.0	61.1	18
31	MT 22072	LANNING/MT 1806	60.3	59.4	61.3	59.3	62.0	59.8	59.2	64.7	58.5	61.1	61.1	65.4	61.0	19
59	SYN 211	AP Smith	59.7	58.3	61.3	58.5	61.5	59.2	60.0	64.7	59.7	60.7	62.5	65.7	61.0	20
45	MT 22270	LANNING/MT 1853	59.0	58.6	61.3	58.7	60.8	60.3	60.4	65.7	58.9	60.6	61.9	65.3	61.0	21
22	MT 21174	DAGMAR//MT 1142/MT 1225	61.1	59.1	60.8	57.6	61.1	59.0	60.2	64.9	60.0	61.0	61.7	64.9	61.0	22
20	MT 21074	MT 1525/MT 1348	60.9	59.6	61.4	59.0	61.5	59.5	58.9	64.1	57.4	61.3	63.2	64.4	60.9	23
16	MT 1939	MT Carlson	61.1	58.0	60.4	58.0	60.2	61.0	61.2	65.1	58.7	61.5	60.8	65.1	60.9	24
35	MT 22099	LANNING//MT1338/MT1103	60.1	57.8	62.0	59.0	60.5	60.0	59.9	65.1	59.0	61.0	61.2	65.5	60.9	25
63	CHS 241	Allegiant 811 HRS	59.3	59.5	61.1	59.2	61.3	57.5	59.9	64.4	58.5	62.1	62.4	65.9	60.9	26
14	PI 699957	MT SIDNEY	60.6	57.9	60.8	58.8	61.0	60.7	58.4	65.5	58.3	61.8	61.5	65.6	60.9	27
17	MT 2030	MT Ubet	60.7	58.3	61.4	58.7	60.5	60.1	58.0	65.2	59.6	61.5	60.4	65.6	60.8	28
58	SYN 241	AP Elevate	58.3	58.4	60.7	58.0	60.9	59.6	61.1	65.0	59.1	60.8	62.4	65.7	60.8	29
60	SYN 212	AP Gunsmoke	59.0	59.2	61.6	57.4	61.3	59.9	60.6	63.6	57.7	61.5	62.1	65.2	60.8	30
34	MT 22093	LANNING//MT1338/MT1103	59.5	57.7	60.5	58.6	60.5	60.2	59.2	65.7	59.1	61.3	61.0	65.5	60.7	31
43	MT 22204	DAGMAR//MT1338/IDO1202S	59.8	57.6	59.9	58.0	60.7	60.4	61.4	65.5	58.9	60.8	60.3	65.4	60.7	32
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTC	60.7	58.9	60.6	58.5	61.6	57.6	58.8	65.0	58.9	61.0	61.4	65.2	60.7	33
6	ND 695	REEDER	59.3	57.7	60.9	58.2	60.1	58.0	60.1	65.0	58.6	61.4	63.2	65.3	60.7	34
10	PI 676978	LANNING	59.9	57.9	60.8	58.1	59.8	60.3	58.6	65.3	58.3	61.7	61.6	65.3	60.6	35

2024 TEST WEIGHT (LB/BU) SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA (CONT.)

ENTRY	ID	VARIETY / PEDIGREE	BOZE MAN (DRY)	CONRAD	FORT BENTON	HAVRE	HING HAM	HUNTL EY	MOCCA SIN	SIDNEY (DRY)	WILLI STON	BOZEM AN (IRRI)	KALI SPELL	SIDNEY (IRRI)	MEAN	RANK
25	MT 21220	DAGMAR/MT 1716	59.9	58.9	61.0	57.4	60.8	57.6	61.0	64.8	57.3	61.2	61.8	65.3	60.6	36
4	BZ 92413R	WB GUNNISON	58.9	58.9	61.2	57.9	60.8	59.5	59.2	64.3	57.4	61.7	62.2	64.5	60.5	37
26	MT 21473	DAGMAR/LANNING	60.3	58.1	60.9	57.6	59.9	60.7	59.1	64.4	59.0	60.4	61.3	64.8	60.5	38
44	MT 22205	LANNING/MT0945/MT 1807	58.3	58.7	61.3	58.5	60.0	59.5	60.3	64.8	58.2	60.6	61.0	64.9	60.5	39
36	MT 22102	LANNING*1/MT1103	59.1	58.1	60.2	57.7	59.8	59.7	59.2	64.7	59.0	61.3	61.0	65.4	60.4	40
8	PI 642366	VIDA	58.9	58.0	61.4	57.3	60.1	59.3	59.4	64.9	58.2	60.5	61.4	65.0	60.4	41
37	MT 22151	MT 1866/MT 1767	60.3	56.6	59.4	57.8	59.1	59.2	60.6	64.9	58.6	61.0	61.3	65.6	60.4	42
48	MT 22361	MT 1867//Patwin515/MN-11394-6	60.0	57.6	60.0	57.2	59.4	57.1	60.8	63.9	58.1	61.7	62.9	65.1	60.3	43
55	MS 242	MS Charger	59.4	57.9	61.1	58.1	60.2	58.0	59.4	64.8	56.3	61.6	61.2	65.4	60.3	44
15	MT 1809	MT Dutton	59.7	57.1	59.7	57.0	59.4	59.1	60.2	64.7	58.9	60.4	61.3	64.8	60.2	45
40	MT 22179	DAGMAR/MT 1617	60.0	56.7	59.5	57.8	59.7	59.0	60.8	64.8	58.1	60.3	60.7	64.8	60.2	46
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	60.3	56.8	59.6	57.9	60.2	59.6	57.6	64.7	57.8	61.6	60.8	65.2	60.2	47
32	MT 22073	LANNING/MT 1806	59.3	57.1	60.2	57.7	60.9	56.3	61.0	64.1	58.6	60.8	60.6	64.9	60.1	48
49	NDHRS14-0134	ND Stampede	57.7	56.4	59.7	57.0	58.7	58.8	61.0	64.8	57.9	61.3	61.6	65.7	60.1	49
23	MT 21176	DAGMAR//MT 1142/MT 1225	59.5	57.4	60.4	56.6	59.8	58.3	60.6	64.3	57.5	60.7	60.3	64.5	60.0	50
56	MS 211	AAC Concord	60.3	57.1	58.9	55.6	59.1	59.9	60.7	63.7	58.2	60.9	60.6	64.2	59.9	51
28	MT 21485	Dagmar/BC1-80	58.8	57.0	60.0	57.4	59.9	59.5	57.5	65.1	57.9	60.1	60.4	65.5	59.9	52
24	MT 21186	DAGMAR//MT 1142/MT 1225	59.0	57.4	59.9	56.3	59.8	59.1	59.2	63.6	57.6	60.8	60.5	64.3	59.8	53
9	PI 660981	DUCLAIR	58.9	56.4	59.4	57.5	59.3	59.2	60.1	64.0	57.1	60.6	61.0	63.9	59.8	54
11	PI 679964	NS PRESSER CLP	58.6	58.5	61.3	56.1	60.1	58.3	60.5	63.4	55.5	59.4	60.8	63.8	59.7	55
7	PI 574642	McNEAL	57.8	57.9	59.9	56.9	58.9	58.9	59.2	62.5	57.9	59.8	62.1	64.3	59.7	56
2	AGRIPR 161	SY ROCKFORD	58.7	57.0	59.2	56.5	58.6	57.8	60.0	64.3	58.4	60.4	60.6	64.2	59.6	57
47	MT 22345	DAGMAR/MN14105-7	59.0	57.7	58.2	56.2	59.2	57.3	60.8	64.0	56.1	59.9	61.1	64.4	59.5	58
41	MT 22182	DAGMAR/MT 1617	59.0	56.3	59.3	56.3	58.7	57.6	60.2	64.3	57.2	60.6	60.3	63.9	59.5	59
5	CI 10003	THATCHER	59.9	56.1	58.1	54.4	58.8	57.8	60.4	62.7	56.2	60.5	61.0	64.1	59.2	60
30	MT 22071	DAGMAR//MT1338/SD3997	57.5	57.2	59.6	55.6	59.6	55.0	60.2	64.2	54.8	59.7	60.1	64.3	59.0	61
53	LIMAGR 201	LCS BUSTER	57.5	55.9	58.3	52.8	57.3	56.7	60.1	61.4	54.1	59.2	60.7	62.9	58.1	62
61	WF 241	CP3055	56.9	54.8	54.4	50.9	56.9	54.3	59.3	58.6	52.8	59.3	60.8	62.6	56.8	63
62	WF 242	CP3119A	56.5	54.2	56.0	53.2	54.5	55.0	59.4	58.4	55.2	58.2	58.9	60.3	56.7	64
MEAN			59.7	58.1	60.6	57.8	60.3	59.1	59.9	64.6	58.4	61.1	61.6	65.1	60.5	
C.V.			1 rep 1.2	1.0	1.1	1.1	1.0	2.9	3.3	0.8	1.8	1 rep 0.4	0.4	1.4		
PROBABILITY (ID)			1 rep <0.001	<0.001	<0.001	<0.001	<0.001	<0.001	ns	<0.001	<0.001	1 rep <0.001	<0.001	<0.001	<0.001	
LSD(0.05)			1 rep 1.1	0.9	0.8	0.8	0.9	2.7	-	0.6	1.5	1 rep 0.4	0.4	0.4	0.7	

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 GRAIN PROTEIN (%) SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA

ENTRY	ID	VARIETY / PEDIGREE	BOZE MAN (DRY)	CONRAD	FORT BENTON	HAVRE	HING HAM	HUNTLEY	MOCCA SIN	SIDNEY (DRY)	WILLI STON	BOZEMAN (IRRI)	KALI SPELL	SIDNEY (IRRI)	MEAN	RANK
10	PI 676978	LANNING	15.5	16.2	16.3	15.9	15.8	15.2	14.3	13.9	14.7	14.4	12.6	15.4	15.0	1
60	SYN 212	AP Gunsmoke	16.4	15.7	16.0	15.9	15.1	15.6	13.9	14.5	16.0	14.1	11.0	14.1	14.9	2
36	MT 22102	LANNING*1/MT1103	15.4	16.5	16.2	15.6	15.2	15.2	13.8	14.8	15.1	13.8	11.7	14.9	14.9	3
32	MT 22073	LANNING/MT 1806	16.1	15.8	16.8	15.8	14.3	15.3	13.6	13.6	15.1	15.1	11.6	14.5	14.8	4
34	MT 22093	LANNING//MT1338/MT1103	15.7	15.3	16.4	16.1	13.6	15.2	14.4	12.9	14.3	15.2	12.4	15.3	14.7	5
56	MS 211	AAC Concord	15.8	14.5	15.6	16.4	13.5	15.7	13.2	14.4	16.4	15.0	10.8	15.2	14.7	6
12	PI 690450	DAGMAR	15.4	15.2	16.0	15.6	14.4	15.4	15.2	14.1	15.1	14.1	11.3	14.5	14.7	7
58	SYN 241	AP Elevate	15.8	15.7	16.3	15.8	15.0	14.8	13.6	13.7	15.2	14.2	11.6	14.0	14.6	8
28	MT 21485	Dagmar/BC1-80	16.1	15.3	16.0	15.7	14.2	14.5	14.4	13.0	15.1	15.6	11.0	14.5	14.6	9
1	AGRIPR 141	SY INGMAR	15.4	16.0	15.9	15.3	14.6	14.9	13.2	13.5	14.8	14.6	13.0	14.1	14.6	10
59	SYN 211	AP Smith	15.8	15.4	15.3	15.4	14.8	15.0	13.5	14.0	15.0	14.2	13.0	13.8	14.6	11
20	MT 21074	MT 1525/MT 1348	15.6	14.5	15.4	15.8	14.0	15.7	14.2	13.9	15.3	14.9	11.7	14.1	14.6	12
38	MT 22172	DAGMAR/WA 8283	15.5	14.6	15.3	15.6	14.4	15.0	13.5	13.8	15.4	14.7	12.2	14.7	14.6	13
44	MT 22205	LANNING/MT0945/MT 1807	15.2	15.9	16.0	15.0	15.7	14.3	14.8	12.9	14.7	15.1	10.6	14.5	14.6	14
43	MT 22204	DAGMAR//MT1338/IDO1202S	15.3	14.8	15.8	15.5	14.7	14.7	13.1	13.9	15.2	15.0	12.1	14.5	14.6	15
26	MT 21473	DAGMAR/LANNING	15.3	15.3	16.0	15.3	14.3	15.1	14.8	13.2	14.9	14.3	11.4	14.5	14.5	16
6	ND 695	REEDER	16.0	15.4	15.4	15.3	13.4	15.8	13.5	13.4	14.8	15.0	11.8	14.5	14.5	17
42	MT 22184	DAGMAR/MT 1617	15.2	15.0	15.4	15.4	14.6	15.1	13.9	13.9	14.4	15.2	11.4	14.5	14.5	18
22	MT 21174	DAGMAR//MT 1142/MT 1225	15.1	14.9	16.1	16.0	13.8	15.0	14.9	13.7	14.8	14.1	11.3	14.2	14.5	19
27	MT 21484	Dagmar/BC1-52	15.5	15.1	16.1	15.4	14.4	14.1	14.3	13.5	15.2	15.3	10.7	14.3	14.5	20
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	15.3	14.3	15.7	15.9	14.3	14.7	14.6	14.8	15.0	14.0	11.2	13.7	14.5	21
49	NDHRS14-013	ND Stampede	16.0	15.4	15.5	15.9	14.8	15.2	14.6	12.9	15.1	14.8	10.5	12.6	14.4	22
52	LIMAGR 231	LCS BOOM	15.1	15.7	15.5	15.2	14.9	14.4	13.3	13.8	14.9	14.4	11.6	14.2	14.4	23
5	CI 10003	THATCHER	15.5	14.1	15.1	16.1	13.5	15.3	13.6	13.9	15.2	14.8	11.3	14.2	14.4	24
35	MT 22099	LANNING//MT1338/MT1103	15.0	15.8	15.4	15.5	14.9	14.3	14.1	13.4	14.6	14.4	11.1	14.1	14.4	25
29	MT 21487	Dagmar/BC1-80	16.0	14.9	15.5	15.2	13.8	15.0	14.9	12.7	14.8	14.9	10.5	14.1	14.4	26
40	MT 22179	DAGMAR/MT 1617	14.9	15.3	16.3	15.3	14.7	14.5	14.0	13.0	14.4	14.3	11.5	14.1	14.4	27
17	MT 2030	MT Ubet	14.8	15.0	15.7	15.4	14.0	14.8	14.3	13.1	14.6	14.2	11.7	14.3	14.3	28
54	MS 241	MS Nova	14.9	15.0	15.4	14.8	14.9	14.8	14.3	13.4	15.0	13.9	11.3	14.1	14.3	29
7	PI 574642	McNEAL	15.3	14.5	15.6	15.3	13.6	15.8	14.6	13.6	15.1	14.1	10.5	13.6	14.3	30
50	MT 21224	DAGMAR/CAP 197-3	15.7	14.4	15.4	15.2	13.8	14.9	14.6	13.4	15.0	14.2	11.1	13.9	14.3	31
25	MT 21220	DAGMAR/MT 1716	15.2	15.3	15.4	15.6	13.8	14.9	14.0	14.0	14.5	14.4	10.6	13.8	14.3	32
33	MT 22083	DAGMAR/MT 1866	14.7	15.5	16.1	15.1	14.8	14.4	13.9	13.0	14.2	14.2	11.0	14.5	14.3	33
64	CHS 242	Allegiant 6284 HRS	15.4	14.1	14.8	15.8	13.9	15.0	13.5	13.1	15.5	14.0	12.3	13.8	14.3	34
57	SYN 182	SY Longmire	15.2	15.4	16.4	15.3	14.0	14.5	13.4	13.2	14.3	14.1	11.8	13.4	14.3	35

2024 GRAIN PROTEIN (%) SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA (CONT.)

ENTRY	ID	VARIETY / PEDIGREE	BOZE MAN (DRY)	CONRAD	FORT BENTON	HAVRE	HING HAM	HUNTLEY	MOCCA SIN	SIDNEY (DRY)	WILLI STON	BOZEMAN (IRRI)	KALI SPELL	SIDNEY (IRRI)	MEAN	RANK
9	PI 660981	DUCLAIR	15.1	15.0	15.2	15.3	13.6	14.6	14.6	13.6	14.7	14.4	10.9	13.9	14.2	36
24	MT 21186	DAGMAR//MT 1142/MT 1225	15.4	15.2	15.6	15.6	13.0	14.6	14.3	13.3	15.0	14.7	10.5	13.7	14.2	37
48	MT 22361	MT 1867//Patwin515/MN-11394	14.9	15.0	15.3	15.5	14.2	14.8	13.8	13.8	14.7	14.0	10.8	13.8	14.2	38
41	MT 22182	DAGMAR/MT 1617	14.6	14.9	15.3	15.1	14.5	15.0	15.1	12.8	14.6	13.9	10.9	13.7	14.2	39
45	MT 22270	LANNING/MT 1853	15.2	15.2	15.8	14.8	13.0	14.6	13.8	13.6	14.6	14.7	11.0	13.8	14.2	40
30	MT 22071	DAGMAR//MT1338/SD3997	15.2	14.1	14.9	15.4	13.1	14.9	13.9	13.5	15.1	14.4	11.4	14.0	14.2	41
31	MT 22072	LANNING/MT 1806	15.2	15.3	15.7	15.4	13.7	14.2	13.6	12.8	14.5	15.0	10.4	13.7	14.1	42
15	MT 1809	MT Dutton	14.8	15.1	15.9	15.1	13.8	14.7	13.5	13.0	13.8	14.2	11.3	14.0	14.1	43
2	AGRIPR 161	SY ROCKFORD	14.7	15.2	15.6	15.1	14.1	14.5	14.5	12.9	14.5	13.4	11.2	12.7	14.0	44
4	BZ 92413R	WB GUNNISON	15.3	14.0	14.2	14.9	12.9	14.7	15.3	13.1	14.5	13.9	12.1	13.4	14.0	45
46	MT 22324	DAGMAR//MT 1053/MT 1172	14.7	14.6	15.3	14.9	14.0	14.6	14.1	12.8	14.3	14.1	10.7	14.2	14.0	46
39	MT 22177	DAGMAR/WA 8283	15.2	14.0	15.2	14.8	13.2	14.4	14.1	13.6	15.4	14.1	10.2	14.0	14.0	47
3	BZ 917-277	ROCKER	15.2	14.6	15.3	14.6	12.8	14.5	14.5	13.3	14.5	14.4	11.0	13.4	14.0	48
23	MT 21176	DAGMAR//MT 1142/MT 1225	15.2	14.8	15.0	15.1	13.8	14.5	13.7	13.4	14.7	13.5	10.2	13.9	14.0	49
18	MT 2049	LANNING/MT 1415	14.6	14.8	15.1	14.7	13.1	13.9	14.8	12.8	14.2	14.8	11.3	13.6	14.0	50
47	MT 22345	DAGMAR/MN14105-7	14.8	15.0	15.3	14.8	13.7	14.3	13.2	13.0	14.8	14.4	10.7	13.4	14.0	51
14	PI 699957	MT SIDNEY	14.7	15.2	15.7	15.2	13.4	13.8	14.8	13.3	14.3	13.6	10.4	12.8	13.9	52
63	CHS 241	Allegiant 811 HRS	14.7	15.0	15.2	15.1	14.3	14.3	13.9	12.8	14.6	12.8	11.4	13.1	13.9	53
16	MT 1939	MT Carlson	14.9	13.8	14.8	15.5	13.7	14.0	14.4	13.2	14.3	13.8	10.8	13.8	13.9	54
61	WF 241	CP3055	14.2	14.1	15.4	17.6	11.9	14.7	15.2	13.5	15.2	13.3	9.8	11.9	13.9	55
21	MT 21104	MT 1451/MT 1866	14.4	14.9	15.0	14.7	14.5	14.0	13.9	12.8	13.8	14.2	10.8	13.1	13.8	56
8	PI 642366	VIDA	14.8	14.4	14.8	14.4	12.7	14.4	14.2	13.1	14.3	14.1	10.9	13.9	13.8	57
37	MT 22151	MT 1866/MT 1767	14.4	14.1	15.3	14.7	13.8	14.2	14.0	12.7	14.1	13.7	10.7	13.0	13.7	58
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	14.9	14.0	15.1	14.3	13.7	14.1	14.9	12.7	13.7	14.0	10.2	12.9	13.7	59
11	PI 679964	NS PRESSER CLP	14.6	14.6	14.9	14.0	12.5	14.4	14.7	12.3	14.5	14.3	10.5	13.1	13.7	60
51	LIMAGR 211	LCS ASCENT	14.2	14.8	14.6	14.7	14.2	13.6	13.9	12.1	13.5	13.1	10.6	12.9	13.5	61
62	WF 242	CP3119A	13.6	13.0	13.7	14.6	12.1	13.6	13.8	12.6	14.8	12.9	10.5	12.1	13.1	62
55	MS 242	MS Charger	13.4	14.5	14.3	14.0	13.5	13.2	14.1	11.2	13.8	12.2	10.2	11.2	13.0	63
53	LIMAGR 201	LCS BUSTER	12.9	13.1	13.8	14.8	12.2	13.2	13.7	11.7	14.1	12.1	9.5	11.0	12.7	64
MEAN			15.1	14.9	15.5	15.3	13.9	14.7	14.1	13.3	14.7	14.2	11.1	13.8	14.2	
C.V.			1 rep	2.3	2.4	3.7	1 rep	2.9	6.3	7.9	5.0	1 rep	3.9	2.5	3.6	
PROBABILITY (ID)			1 rep	<0.001	<0.001	<0.001	1 rep	<0.001	ns	<0.001	<0.001	1 rep	<0.001	<0.001	<0.001	
LSD(0.05)			1.0	0.5	0.6	0.6	1.0	0.7	-	0.9	0.7	1 rep	0.5	0.5	0.4	

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 HEADING DATE (175=JUNE 24) SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA

ENTRY	ID	VARIETY / PEDIGREE	BOZEMAN (DRY)	HAVRE	HUNTLEY	SIDNEY (DRY)	WILLI STON	KALI SPELL	SIDNEY (IRRI)	MEAN	RANK
35	MT 22099	LANNING//MT1338/MT1103	177.3	174.9	164.0	165.9	177.4	183.0	167.7	172.9	1
52	LIMAGR 231	LCS BOOM	178.1	174.9	164.7	166.3	177.8	183.0	167.7	173.2	2
33	MT 22083	DAGMAR/MT 1866	178.2	174.3	165.0	167.1	177.4	182.9	167.7	173.2	3
34	MT 22093	LANNING//MT1338/MT1103	178.2	175.2	164.0	167.3	179.2	182.3	167.3	173.4	4
18	MT 2049	LANNING/MT 1415	177.1	174.6	164.3	166.4	178.8	184.9	167.7	173.4	5
40	MT 22179	DAGMAR/MT 1617	177.5	175.4	165.3	167.1	178.6	183.2	169.0	173.7	6
36	MT 22102	LANNING*1/MT1103	178.6	175.8	165.7	166.7	180.3	183.1	167.0	173.9	7
44	MT 22205	LANNING/MT0945/MT 1807	178.5	175.2	165.3	167.5	180.1	183.1	169.0	174.1	8
10	PI 676978	LANNING	178.4	175.9	165.0	167.0	181.2	183.3	168.0	174.1	9
14	PI 699957	MT SIDNEY	179.5	175.0	165.3	167.5	178.2	183.2	170.3	174.1	10
51	LIMAGR 211	LCS ASCENT	178.8	175.4	165.7	167.9	179.1	183.2	169.0	174.2	11
31	MT 22072	LANNING/MT 1806	178.2	175.6	165.0	166.8	182.5	183.0	169.0	174.3	12
41	MT 22182	DAGMAR/MT 1617	178.6	175.1	165.7	167.3	181.6	183.5	168.3	174.3	13
46	MT 22324	DAGMAR//MT 1053/MT 1172	179.3	175.2	166.0	168.3	179.7	183.0	169.0	174.4	14
42	MT 22184	DAGMAR/MT 1617	178.9	175.9	165.7	167.0	182.5	183.3	168.3	174.5	15
32	MT 22073	LANNING/MT 1806	179.3	175.9	165.3	168.2	181.6	183.4	168.7	174.6	16
43	MT 22204	DAGMAR//MT1338/IDO1202S	180.0	175.5	165.7	167.6	182.4	182.8	169.0	174.7	17
28	MT 21485	Dagmar/BC1-80	179.2	176.1	166.0	167.5	181.2	183.6	169.7	174.8	18
54	MS 241	MS Nova	179.1	176.6	166.0	168.4	180.9	183.2	169.7	174.8	19
12	PI 690450	DAGMAR	178.9	175.5	166.0	168.8	182.8	183.2	169.7	175.0	20
9	PI 660981	DUCLAIR	178.7	175.9	165.7	168.1	182.4	184.5	170.0	175.0	21
22	MT 21174	DAGMAR//MT 1142/MT 1225	180.7	176.5	166.7	168.5	181.2	183.2	170.0	175.3	22
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	179.4	176.9	166.0	168.7	182.5	183.8	170.7	175.4	23
17	MT 2030	MT Ubet	180.2	176.5	166.0	168.1	183.4	184.9	169.7	175.5	24
27	MT 21484	Dagmar/BC1-52	180.8	176.3	166.0	168.9	183.8	183.8	169.3	175.6	25
29	MT 21487	Dagmar/BC1-80	180.8	176.5	166.7	168.0	184.3	183.6	170.0	175.7	26
49	NDHRS14-0134-C	ND Stampede	180.2	176.5	166.0	168.6	184.0	185.1	169.7	175.7	27
26	MT 21473	DAGMAR/LANNING	180.5	175.9	166.0	169.0	183.1	184.9	171.0	175.8	28
16	MT 1939	MT Carlson	180.4	176.4	166.0	168.8	184.5	184.7	170.3	175.9	29
50	MT 21224	DAGMAR/CAP 197-3	181.0	176.5	166.0	168.7	183.6	185.7	170.7	176.0	30
37	MT 22151	MT 1866/MT 1767	180.6	177.0	167.7	169.0	181.8	185.2	171.0	176.0	31
39	MT 22177	DAGMAR/WA 8283	180.8	177.3	166.3	169.0	184.5	185.5	169.7	176.2	32
38	MT 22172	DAGMAR/WA 8283	180.7	176.3	166.0	169.2	185.6	185.5	170.0	176.2	33
64	CHS 242	Allegiant 6284 HRS	180.6	177.4	166.3	169.2	183.7	183.9	172.3	176.2	34
45	MT 22270	LANNING/MT 1853	180.8	177.4	166.0	168.2	185.5	184.6	171.0	176.2	35

2024 HEADING DATE (175=JUNE 24) SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA(CONT.)

ENTRY	ID	VARIETY / PEDIGREE	BOZEMAN (DRY)	HAVRE	HUNTLEY	SIDNEY (DRY)	WILLI STON	KALI SPELL	SIDNEY (IRRI)	MEAN	RANK
55	MS 242	MS Charger	180.2	177.7	167.0	168.5	183.7	185.8	171.3	176.3	36
24	MT 21186	DAGMAR//MT 1142/MT 1225	181.4	177.9	166.3	169.2	183.1	186.1	170.7	176.4	37
60	SYN 212	AP Gunsmoke	180.9	177.5	168.0	169.5	183.0	185.3	171.3	176.5	38
6	ND 695	REEDER	182.0	177.9	166.7	170.1	184.9	186.8	170.7	177.0	39
21	MT 21104	MT 1451/MT 1866	182.2	178.4	167.7	169.3	181.6	187.3	172.7	177.0	40
4	BZ 92413R	WB GUNNISON	181.4	177.8	166.3	169.0	185.0	188.2	171.7	177.1	41
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	182.0	178.7	167.0	170.0	183.3	185.7	172.7	177.1	42
57	SYN 182	SY Longmire	181.7	177.8	169.3	169.3	183.3	185.3	172.7	177.1	43
15	MT 1809	MT Dutton	181.8	178.3	166.3	169.4	183.8	187.2	172.7	177.1	44
47	MT 22345	DAGMAR/MN14105-7	181.4	178.3	166.7	169.4	185.5	187.6	171.0	177.1	45
23	MT 21176	DAGMAR//MT 1142/MT 1225	182.5	178.4	168.7	170.0	183.6	184.9	173.0	177.3	46
1	AGRIPR 141	SY INGMAR	182.4	177.2	168.7	169.7	183.3	187.0	173.0	177.3	47
8	PI 642366	VIDA	181.6	178.3	168.7	170.0	185.5	185.5	172.3	177.4	48
25	MT 21220	DAGMAR/MT 1716	181.2	178.4	169.3	169.2	185.9	185.1	173.0	177.4	49
48	MT 22361	MT 1867//Patwin515/MN-11394-6	182.5	178.0	169.3	169.3	185.2	186.2	173.3	177.7	50
58	SYN 241	AP Elevate	182.4	178.6	169.7	170.7	185.4	186.3	173.0	178.0	51
30	MT 22071	DAGMAR//MT1338/SD3997	182.8	178.6	169.3	170.2	185.9	186.5	174.0	178.2	52
59	SYN 211	AP Smith	183.1	179.4	169.0	170.7	184.4	187.6	173.3	178.2	53
63	CHS 241	Allegiant 811 HRS	183.2	179.0	170.0	171.3	185.5	187.1	173.3	178.5	54
5	CI 10003	THATCHER	184.3	178.3	170.0	171.2	183.7	188.0	174.0	178.5	55
20	MT 21074	MT 1525/MT 1348	183.0	180.4	170.0	171.3	184.1	187.5	173.3	178.5	56
3	BZ 917-277	ROCKER	183.1	179.2	169.3	171.6	185.6	188.3	174.3	178.8	57
2	AGRIPR 161	SY ROCKFORD	184.0	179.3	170.0	171.7	185.2	187.7	173.7	178.8	58
7	PI 574642	McNEAL	183.4	178.6	170.0	171.6	187.6	187.8	174.0	179.0	59
56	MS 211	AAC Concord	183.6	180.1	169.0	171.0	188.5	187.7	173.7	179.1	60
11	PI 679964	NS PRESSER CLP	184.9	181.3	170.0	169.6	186.1	188.3	174.3	179.2	61
53	LIMAGR 201	LCS BUSTER	187.8	183.8	170.0	172.9	192.4	191.6	177.7	182.3	62
61	WF 241	CP3055	188.9	185.1	169.7	175.1	189.9	191.9	180.3	183.0	63
62	WF 242	CP3119A	191.2	186.0	170.0	176.9	191.6	192.4	181.3	184.2	64
MEAN			181.1	177.4	167.0	169.1	183.3	185.4	171.2	176.4	
C.V.			0.3	0.5	0.4	0.5	0.8	0.7	0.5	0.5	
PROBABILITY (ID)			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
LSD(0.05)			0.8	1.3	1.0	1.3	2.0	1.9	1.4	1.0	

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 PLANT HEIGHT (INCHES) SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA

ENTRY	ID	VARIETY / PEDIGREE	BOZEMAN (DRY)	CONRAD	FORT BENTON	HAVRE	HINGHAM	HUNTLEY	MOCCASIN	SIDNEY (DRY)	WILLISTON	BOZEMAN (IRRI)	KALISPELL	SIDNEY (IRRI)	MEAN	RANK
5	CI 10003	THATCHER	<u>46.3</u>	<u>33.0</u>	<u>31.9</u>	<u>42.4</u>	<u>26.8</u>	<u>49.6</u>	<u>33.7</u>	<u>34.5</u>	<u>45.8</u>	<u>49.4</u>	<u>49.3</u>	<u>43.2</u>	<u>40.5</u>	1
56	MS 211	AAC Concord	39.7	<u>34.0</u>	<u>31.2</u>	37.4	<u>25.6</u>	42.4	30.7	31.8	41.5	43.4	40.9	39.1	36.5	2
50	MT 21224	DAGMAR/CAP 197-3	37.6	29.0	<u>29.9</u>	33.8	<u>25.6</u>	41.0	27.0	32.2	34.9	40.5	36.5	36.5	33.7	3
39	MT 22177	DAGMAR/WA 8283	35.7	29.3	<u>30.4</u>	32.7	<u>24.3</u>	39.6	28.3	<u>33.4</u>	36.7	40.4	36.7	35.8	33.6	4
22	MT 21174	DAGMAR//MT 1142/MT 1225	37.5	28.0	27.4	34.4	22.1	40.3	28.0	31.0	38.7	40.1	38.0	35.7	33.4	5
6	ND 695	REEDER	36.8	28.0	<u>29.9</u>	33.2	23.7	39.7	26.7	30.0	35.7	40.5	38.5	35.4	33.2	6
11	PI 679964	NS PRESSER CLP	36.1	29.7	<u>29.6</u>	34.7	23.6	39.8	26.0	30.6	36.5	39.6	35.6	36.3	33.2	7
38	MT 22172	DAGMAR/WA 8283	35.4	28.3	<u>30.7</u>	34.6	22.8	39.3	27.3	<u>33.0</u>	34.9	39.1	36.7	33.6	33.0	8
62	WF 242	CP3119A	36.8	28.0	<u>29.9</u>	33.4	<u>25.1</u>	37.2	28.3	30.6	35.0	40.3	35.0	34.1	32.8	9
48	MT 22361	MT 1867//Patwin515/MN-11394-6	36.2	29.3	<u>30.0</u>	33.5	<u>26.1</u>	38.3	26.3	31.2	35.4	38.4	35.3	32.7	32.7	10
29	MT 21487	Dagmar/BC1-80	36.7	27.3	28.7	32.7	22.1	40.5	26.3	31.4	36.9	39.6	36.1	34.1	32.7	11
28	MT 21485	Dagmar/BC1-80	37.0	27.7	29.4	32.1	23.6	41.4	26.7	30.6	35.5	39.6	35.3	33.3	32.7	12
7	PI 574642	McNEAL	35.4	28.3	28.5	34.3	<u>25.4</u>	38.5	26.7	30.9	35.9	38.8	35.8	33.1	32.6	13
27	MT 21484	Dagmar/BC1-52	37.1	28.7	29.4	31.7	24.1	40.1	26.7	30.0	34.7	39.3	35.8	33.1	32.6	14
30	MT 22071	DAGMAR//MT1338/SD3997	35.6	29.3	29.4	34.4	23.5	36.9	26.3	30.0	34.9	40.2	34.2	35.4	32.5	15
12	PI 690450	DAGMAR	35.8	28.7	<u>29.9</u>	32.6	22.7	39.5	25.0	30.3	35.2	39.5	34.9	34.7	32.4	16
23	MT 21176	DAGMAR//MT 1142/MT 1225	36.2	27.3	29.0	33.9	21.9	39.2	25.0	29.5	36.6	39.3	34.7	35.9	32.4	17
61	WF 241	CP3055	36.4	27.3	29.4	31.9	23.5	39.2	26.3	30.4	34.3	40.6	34.2	33.2	32.2	18
37	MT 22151	MT 1866/MT 1767	35.5	28.0	28.9	32.2	23.8	39.2	26.0	29.6	35.9	38.5	35.6	33.2	32.2	19
41	MT 22182	DAGMAR/MT 1617	36.1	26.0	<u>30.5</u>	31.8	21.3	37.8	27.7	30.9	36.1	38.9	35.4	33.0	32.1	20
26	MT 21473	DAGMAR/LANNING	34.9	28.0	<u>29.6</u>	32.5	<u>26.1</u>	38.7	25.7	30.9	34.1	38.1	32.4	34.0	32.1	21
24	MT 21186	DAGMAR//MT 1142/MT 1225	36.5	27.0	28.4	33.3	22.9	38.3	26.7	29.9	34.4	38.6	34.4	33.6	32.0	22
53	LIMAGR 201	LCS BUSTER	35.3	26.3	28.5	33.5	23.4	38.3	26.7	29.9	33.2	41.0	35.1	32.8	32.0	23
8	PI 642366	VIDA	34.6	27.7	<u>30.2</u>	32.9	23.1	38.1	26.7	29.4	34.9	37.3	34.5	34.3	32.0	24
9	PI 660981	DUCLAIR	35.1	28.7	<u>30.7</u>	32.0	<u>24.2</u>	37.5	26.3	30.0	32.8	37.9	33.9	33.9	31.9	25
42	MT 22184	DAGMAR/MT 1617	35.6	26.3	28.7	31.6	22.3	38.6	26.3	30.1	34.5	38.4	36.2	32.4	31.8	26
2	AGRIPR 161	SY ROCKFORD	34.4	27.0	27.4	32.6	24.0	35.7	27.7	31.4	33.9	38.5	35.4	32.8	31.7	27
21	MT 21104	MT 1451/MT 1866	35.0	28.3	28.6	33.4	<u>24.8</u>	37.6	25.3	28.5	33.5	36.4	35.3	32.6	31.6	28
20	MT 21074	MT 1525/MT 1348	34.1	27.3	<u>30.6</u>	32.0	22.7	37.3	26.0	27.5	33.3	38.3	35.5	34.5	31.6	29
25	MT 21220	DAGMAR/MT 1716	35.3	27.0	28.3	33.3	21.2	37.3	27.0	30.2	34.7	39.5	32.4	32.8	31.6	30
3	BZ 917-277	ROCKER	33.8	27.7	<u>29.6</u>	32.1	24.1	34.6	26.3	28.5	34.6	37.9	35.7	34.0	31.6	31
49	NDHRS14-0134-C03	ND Stampede	33.9	26.0	<u>29.6</u>	33.0	<u>24.8</u>	38.5	25.0	28.6	34.1	38.0	34.2	32.4	31.5	32
33	MT 22083	DAGMAR/MT 1866	35.4	27.3	29.3	32.9	24.0	37.7	26.3	29.6	33.9	35.5	34.4	31.5	31.5	33
40	MT 22179	DAGMAR/MT 1617	35.0	28.0	29.1	32.2	22.1	37.0	26.3	29.9	34.5	37.5	33.3	32.8	31.5	34
18	MT 2049	LANNING/MT 1415	35.8	27.0	28.6	31.0	23.4	39.1	25.3	29.4	33.7	35.5	34.9	32.8	31.4	35

2024 PLANT HEIGHT (INCHES) SUMMARY FOR THE ADVANCED SPRING WHEAT NURSERY GROWN ACROSS MONTANA (CONT.)

ENTRY	ID	VARIETY / PEDIGREE	BOZEMAN (DRY)	CONRAD	FORT BENTON	HAVRE	HINGHAM	HUNTLEY	MOCCASIN	SIDNEY (DRY)	WILLISTON	BOZEMAN (IRRI)	KALISPELL	SIDNEY (IRRI)	MEAN	RANK
15	MT 1809	MT Dutton	35.1	26.7	28.9	31.8	21.4	37.9	24.7	30.5	34.8	37.8	33.2	33.4	31.4	36
46	MT 22324	DAGMAR//MT 1053/MT 1172	35.4	26.7	29.1	31.7	22.0	36.7	25.7	31.4	35.4	37.8	33.5	30.8	31.4	37
47	MT 22345	DAGMAR/MN14105-7	35.0	28.0	28.7	31.7	22.8	37.7	25.3	27.9	32.4	38.1	34.4	33.8	31.3	38
17	MT 2030	MT Ubet	35.1	27.3	27.9	32.3	23.4	37.2	25.3	29.8	35.2	36.8	32.9	32.1	31.3	39
16	MT 1939	MT Carlson	34.3	27.0	28.8	31.6	24.0	36.7	25.3	29.3	34.1	36.5	34.0	32.6	31.2	40
51	LIMAGR 211	LCS ASCENT	35.2	25.7	28.5	31.7	23.0	38.8	25.0	29.9	34.1	37.6	33.2	31.5	31.2	41
45	MT 22270	LANNING/MT 1853	34.6	26.7	29.4	33.9	24.0	35.8	26.0	30.2	34.0	33.9	33.7	31.6	31.2	42
54	MS 241	MS Nova	34.5	26.3	28.6	32.2	20.6	38.3	24.7	30.1	34.5	37.7	33.5	32.8	31.2	43
31	MT 22072	LANNING/MT 1806	34.4	25.3	29.7	32.4	21.7	37.2	26.0	29.0	37.1	36.4	33.1	30.7	31.1	44
10	PI 676978	LANNING	33.4	25.3	29.6	33.8	23.4	36.9	24.7	30.2	33.2	37.0	33.7	31.2	31.0	45
14	PI 699957	MT SIDNEY	34.7	27.0	27.6	32.7	22.9	37.5	25.0	29.1	32.7	36.3	33.4	32.8	31.0	46
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	35.1	27.3	27.7	33.0	20.1	35.0	25.7	27.7	34.3	37.5	34.0	32.9	30.9	47
36	MT 22102	LANNING*1/MT1103	34.0	26.3	28.2	32.7	23.0	35.9	24.3	30.5	33.7	35.3	33.0	33.2	30.8	48
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	34.6	26.0	28.5	31.2	20.4	38.2	24.7	30.7	33.9	36.7	32.4	32.6	30.8	49
60	SYN 212	AP Gunsmoke	34.6	27.0	27.8	31.3	21.5	35.2	24.7	30.0	33.5	37.3	33.1	31.8	30.7	50
43	MT 22204	DAGMAR//MT1338/IDO1202S	35.3	27.3	28.9	30.1	20.2	36.6	25.7	29.2	33.0	37.1	32.8	31.2	30.6	51
57	SYN 182	SY Longmire	32.9	26.7	27.9	32.1	22.0	35.6	26.3	29.4	32.8	36.0	33.7	30.3	30.5	52
32	MT 22073	LANNING/MT 1806	35.0	26.3	26.8	30.2	20.9	37.6	25.0	30.3	33.6	36.8	31.7	31.4	30.5	53
1	AGRIPR 141	SY INGMAR	32.3	27.0	27.0	30.8	23.3	34.3	25.0	29.2	33.4	36.1	34.1	32.8	30.4	54
52	LIMAGR 231	LCS BOOM	33.5	25.3	27.6	29.9	21.8	37.6	22.7	29.7	32.6	36.5	33.3	32.4	30.2	55
55	MS 242	MS Charger	33.9	26.0	25.3	31.5	20.7	36.0	24.7	30.0	33.5	37.3	31.7	31.0	30.1	56
4	BZ 92413R	WB GUNNISON	32.9	27.0	27.0	31.1	25.0	32.9	25.0	28.1	33.2	35.3	33.7	29.8	30.1	57
34	MT 22093	LANNING//MT1338/MT1103	33.5	26.3	27.5	30.9	21.1	35.4	24.3	28.7	32.7	35.0	34.5	30.0	30.0	58
44	MT 22205	LANNING/MT0945/MT 1807	32.4	26.7	27.9	30.8	22.6	36.2	24.3	28.9	32.3	34.4	31.8	30.3	29.9	59
63	CHS 241	Allegiant 811 HRS	32.9	27.7	25.8	31.5	22.1	34.2	26.3	28.1	32.7	36.2	29.4	31.6	29.9	60
35	MT 22099	LANNING//MT1338/MT1103	34.2	23.7	27.7	30.0	22.2	35.2	23.3	28.3	31.4	34.8	33.8	29.6	29.5	61
58	SYN 241	AP Elevate	31.2	25.0	27.7	31.1	20.1	33.7	26.0	27.5	31.4	33.7	31.4	30.3	29.1	62
59	SYN 211	AP Smith	30.0	26.3	25.7	29.6	17.3	32.7	25.3	27.1	31.4	33.9	32.1	29.6	28.4	63
64	CHS 242	Allegiant 6284 HRS	30.0	25.0	26.1	26.6	18.3	30.0	24.7	27.1	28.0	31.2	28.5	27.7	26.9	64
MEAN			35.1	27	28.7	32.4	22.9	37.6	26.0	29.9	34.5	37.8	34.5	33.0	31.6	
C.V.			2.4	4.5	4.6	3.6	8.2	3.0	6.4	4.9	3.9	2.0	3.9	3.6	3.7	
PROBABILITY (ID)			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
LSD(0.05)			1.3	1.9	2.4	1.8	2.7	1.8	2.7	2.1	2.2	1.1	2.0	1.9	0.9	

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 ADVANCED SPRING WHEAT NURSERY, BOZEMAN (DRY)

ENTRY	ID	VARIETY / PEDIGREE	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)	STEM SOLIDNESS (5-25) ¹	GLD ² (days)
1	AGRIPR 141	SY INGMAR	60.1	15.4	182.4	32.3	9.7	31.5
2	AGRIPR 161	SY ROCKFORD	58.7	14.7	184.0	34.4	7.7	30.0
3	BZ 917-277	ROCKER	60.1	15.2	183.1	33.8	11.4	31.0
4	BZ 92413R	WB GUNNISON	58.9	15.3	181.4	32.9	11.2	28.5
5	CI 10003	THATCHER	59.9	15.5	184.3	46.3	8.5	29.5
6	ND 695	REEDER	59.3	16.0	182.0	36.8	9.1	31.5
7	PI 574642	McNEAL	57.8	15.3	183.4	35.4	8.9	28.5
8	PI 642366	VIDA	58.9	14.8	181.6	34.6	13.4	32.5
9	PI 660981	DUCLAIR	58.9	15.1	178.7	35.1	21.8	28.0
10	PI 676978	LANNING	59.9	15.5	178.4	33.4	9.2	29.0
11	PI 679964	NS PRESSER CLP	58.6	14.6	184.9	36.1	7.9	32.0
12	PI 690450	DAGMAR	61.0	15.4	178.9	35.8	21.3	31.5
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	60.3	15.3	182.0	35.1	23.5	32.0
14	PI 699957	MT SIDNEY	60.6	14.7	179.5	34.7	9.3	34.5
15	MT 1809	MT Dutton	59.7	14.8	181.8	35.1	11.6	33.5
16	MT 1939	MT Carlson	61.1	14.9	180.4	34.3	17.4	31.5
17	MT 2030	MT Ubet	60.7	14.8	180.2	35.1	12.6	29.5
18	MT 2049	LANNING/MT 1415	60.4	14.6	177.1	35.8	14.2	28.0
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWST	60.7	14.9	179.4	34.6	11.3	34.5
20	MT 21074	MT 1525/MT 1348	60.9	15.6	183.0	34.1	16.9	32.0
21	MT 21104	MT 1451/MT 1866	60.9	14.4	182.2	35.0	15.1	25.5
22	MT 21174	DAGMAR//MT 1142/MT 1225	61.1	15.1	180.7	37.5	19.8	33.0
23	MT 21176	DAGMAR//MT 1142/MT 1225	59.5	15.2	182.5	36.2	15.8	32.5
24	MT 21186	DAGMAR//MT 1142/MT 1225	59.0	15.4	181.4	36.5	17.8	27.5
25	MT 21220	DAGMAR/MT 1716	59.9	15.2	181.2	35.3	15.9	33.0
26	MT 21473	DAGMAR/LANNING	60.3	15.3	180.5	34.9	14.6	30.5
27	MT 21484	Dagmar/BC1-52	60.6	15.5	180.8	37.1	16.3	29.0
28	MT 21485	Dagmar/BC1-80	58.8	16.1	179.2	37.0	14.2	30.0
29	MT 21487	Dagmar/BC1-80	59.2	16.0	180.8	36.7	13.7	30.0
30	MT 22071	DAGMAR//MT1338/SD3997	57.5	15.2	182.8	35.6	17.2	32.0
31	MT 22072	LANNING/MT 1806	60.3	15.2	178.2	34.4	15.3	32.5
32	MT 22073	LANNING/MT 1806	59.3	16.1	179.3	35.0	10.8	29.0
33	MT 22083	DAGMAR/MT 1866	62.1	14.7	178.2	35.4	14.7	35.0
34	MT 22093	LANNING//MT1338/MT1103	59.5	15.7	178.2	33.5	9.9	33.0
35	MT 22099	LANNING//MT1338/MT1103	60.1	15.0	177.3	34.2	9.6	30.0
36	MT 22102	LANNING*1/MT1103	59.1	15.4	178.6	34.0	7.0	29.0
37	MT 22151	MT 1866/MT 1767	60.3	14.4	180.6	35.5	18.9	28.5
38	MT 22172	DAGMAR/WA 8283	60.9	15.5	180.7	35.4	8.5	34.0
39	MT 22177	DAGMAR/WA 8283	61.0	15.2	180.8	35.7	9.3	30.5
40	MT 22179	DAGMAR/MT 1617	60.0	14.9	177.5	35.0	17.8	33.5
41	MT 22182	DAGMAR/MT 1617	59.0	14.6	178.6	36.1	17.1	29.5

2024 ADVANCED SPRING WHEAT NURSERY, BOZEMAN (DRY) (CONT.)

ENTRY	ID	VARIETY / PEDIGREE	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)	STEM SOLIDNESS (5-25) ¹	GLD ² (days)
42	MT 22184	DAGMAR/MT 1617	61.4	15.2	178.9	35.6	15.8	27.0
43	MT 22204	DAGMAR//MT1338/IDO1202S	59.8	15.3	180.0	35.3	15.0	30.0
44	MT 22205	LANNING/MT0945/MT 1807	58.3	15.2	178.5	32.4	10.9	31.5
45	MT 22270	LANNING/MT 1853	59.0	15.2	180.8	34.6	16.8	29.5
46	MT 22324	DAGMAR//MT 1053/MT 1172	60.4	14.7	179.3	35.4	15.6	28.5
47	MT 22345	DAGMAR/MN14105-7	59.0	14.8	181.4	35.0	14.0	33.0
48	MT 22361	MT 1867//Patwin515/MN-11394-6	60.0	14.9	182.5	36.2	11.2	29.5
49	NDHRS14-0134-	ND Stampede	57.7	16.0	180.2	33.9	8.3	27.0
50	MT 21224	DAGMAR/CAP 197-3	60.0	15.7	181.0	37.6	18.6	30.0
51	LIMAGR 211	LCS ASCENT	61.2	14.2	178.8	35.2	7.0	35.5
52	LIMAGR 231	LCS BOOM	61.9	15.1	178.1	33.5	8.0	33.0
53	LIMAGR 201	LCS BUSTER	57.5	12.9	187.8	35.3	17.1	26.5
54	MS 241	MS Nova	61.3	14.9	179.1	34.5	7.6	33.5
55	MS 242	MS Charger	59.4	13.4	180.2	33.9	8.3	29.5
56	MS 211	AAC Concord	60.3	15.8	183.6	39.7	20.5	28.0
57	SYN 182	SY Longmire	59.9	15.2	181.7	32.9	21.5	23.5
58	SYN 241	AP Elevate	58.3	15.8	182.4	31.2	9.5	28.0
59	SYN 211	AP Smith	59.7	15.8	183.1	30.0	9.8	29.5
60	SYN 212	AP Gunsmoke	59.0	16.4	180.9	34.6	8.7	27.5
61	WF 241	CP3055	56.9	14.2	188.9	36.4	16.6	30.5
62	WF 242	CP3119A	56.5	13.6	191.2	36.8	15.6	28.5
63	CHS 241	Allegiant 811 HRS	59.3	14.7	183.2	32.9	9.9	29.5
64	CHS 242	Allegiant 6284 HRS	60.5	15.4	180.6	30.0	7.1	29.0
MEAN			59.7	15.1	181.1	35.1	13.3	30.4
C.V.			1 rep	1 rep	0.3	2.4	16.5	6.3
PROBABILITY (ID)			1 rep	1 rep	<0.001	<0.001	<0.001	<0.001
LSD(0.05)			1 rep	1 rep	0.8	1.3	3.6	3.7
LATTICE RE(%) ³			1 rep	1 rep	121.0	112.0	99	101

Yield data was held out due to hail damage

1) 5=hollow stem and 25=solid stem, 2) GLD=green leaf duration (stay-green)

3) Adjusted means provided for Lattice RE% values equal to or greater than 105%

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 ADVANCED SPRING WHEAT NURSERY, CONRAD (DRY), (Collaborator : Nutrien)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
29	MT 21487	Dagmar/BC1-80	<u>36.0</u>	59.5	14.9	27.3
61	WF 241	CP3055	35.3	54.8	14.1	27.3
62	WF 242	CP3119A	34.9	54.2	13.0	28.0
50	MT 21224	DAGMAR/CAP 197-3	34.4	58.4	14.4	29.0
46	MT 22324	DAGMAR//MT 1053/MT 1172	34.4	59.0	14.6	26.7
22	MT 21174	DAGMAR//MT 1142/MT 1225	34.3	59.1	14.9	28.0
27	MT 21484	Dagmar/BC1-52	34.3	59.1	15.1	28.7
20	MT 21074	MT 1525/MT 1348	34.3	59.6	14.5	27.3
37	MT 22151	MT 1866/MT 1767	34.2	56.6	14.1	28.0
30	MT 22071	DAGMAR//MT1338/SD3997	34.1	57.2	14.1	29.3
26	MT 21473	DAGMAR/LANNING	34.0	58.1	15.3	28.0
11	PI 679964	NS PRESSER CLP	33.9	58.5	14.6	29.7
12	PI 690450	DAGMAR	33.6	59.1	15.2	28.7
23	MT 21176	DAGMAR//MT 1142/MT 1225	33.1	57.4	14.8	27.3
44	MT 22205	LANNING/MT0945/MT 1807	32.8	58.7	15.9	26.7
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	32.8	56.8	14.3	27.3
3	BZ 917-277	ROCKER	32.7	60.4	14.6	27.7
15	MT 1809	MT Dutton	32.6	57.1	15.1	26.7
40	MT 22179	DAGMAR/MT 1617	32.4	56.7	15.3	28.0
47	MT 22345	DAGMAR/MN14105-7	32.1	57.7	15.0	28.0
16	MT 1939	MT Carlson	31.7	58.0	13.8	27.0
24	MT 21186	DAGMAR//MT 1142/MT 1225	31.6	57.4	15.2	27.0
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	31.6	58.9	14.0	26.0
43	MT 22204	DAGMAR//MT1338/IDO1202S	31.5	57.6	14.8	27.3
54	MS 241	MS Nova	31.3	59.3	15.0	26.3
34	MT 22093	LANNING//MT1338/MT1103	31.3	57.7	15.3	26.3
4	BZ 92413R	WB GUNNISON	31.2	58.9	14.0	27.0
31	MT 22072	LANNING/MT 1806	31.2	59.4	15.3	25.3
8	PI 642366	VIDA	31.1	58.0	14.4	27.7
41	MT 22182	DAGMAR/MT 1617	30.8	56.3	14.9	26.0
18	MT 2049	LANNING/MT 1415	30.7	58.7	14.8	27.0
32	MT 22073	LANNING/MT 1806	30.7	57.1	15.8	26.3
39	MT 22177	DAGMAR/WA 8283	30.6	60.2	14.0	29.3
42	MT 22184	DAGMAR/MT 1617	30.6	59.3	15.0	26.3
53	LIMAGR 201	LCS BUSTER	30.3	55.9	13.1	26.3
9	PI 660981	DUCLAIR	30.3	56.4	15.0	28.7
56	MS 211	AAC Concord	30.2	57.1	14.5	<u>34.0</u>
28	MT 21485	Dagmar/BC1-80	29.5	57.0	15.3	27.7
25	MT 21220	DAGMAR/MT 1716	29.3	58.9	15.3	27.0
6	ND 695	REEDER	29.2	57.7	15.4	28.0
57	SYN 182	SY Longmire	29.0	59.8	15.4	26.7
51	LIMAGR 211	LCS ASCENT	29.0	59.7	14.8	25.7

2024 ADVANCED SPRING WHEAT NURSERY, CONRAD (DRY), (Collaborator : Nutrien) (CONT.)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
45	MT 22270	LANNING/MT 1853	28.5	58.6	15.2	26.7
33	MT 22083	DAGMAR/MT 1866	28.4	60.2	15.5	27.3
48	MT 22361	MT 1867//Patwin515/MN-11394-6	28.3	57.6	15.0	29.3
7	PI 574642	McNEAL	28.1	57.9	14.5	28.3
58	SYN 241	AP Elevate	28.1	58.4	15.7	25.0
63	CHS 241	Allegiant 811 HRS	27.9	59.5	15.0	27.7
59	SYN 211	AP Smith	27.9	58.3	15.4	26.3
10	PI 676978	LANNING	27.9	57.9	16.2	25.3
21	MT 21104	MT 1451/MT 1866	27.7	58.5	14.9	28.3
1	AGRIPR 141	SY INGMAR	27.5	59.3	16.0	27.0
60	SYN 212	AP Gunsmoke	27.5	59.2	15.7	27.0
49	NDHRS14-0134-C	ND Stampede	27.3	56.4	15.4	26.0
52	LIMAGR 231	LCS BOOM	27.2	60.6	15.7	25.3
14	PI 699957	MT SIDNEY	27.1	57.9	15.2	27.0
55	MS 242	MS Charger	27.0	57.9	14.5	26.0
17	MT 2030	MT Ubet	26.9	58.3	15.0	27.3
64	CHS 242	Allegiant 6284 HRS	26.7	58.8	14.1	25.0
36	MT 22102	LANNING*1/MT1103	26.7	58.1	16.5	26.3
38	MT 22172	DAGMAR/WA 8283	24.9	58.5	14.6	28.3
35	MT 22099	LANNING//MT1338/MT1103	24.4	57.8	15.8	23.7
2	AGRIPR 161	SY ROCKFORD	23.8	57.0	15.2	27.0
5	CI 10003	THATCHER	22.3	56.1	14.1	33.0
MEAN			30.3	58.1	14.9	27.3
C.V.			8.5	1.2	2.3	4.5
PROBABILITY (ID)			<0.001	<0.001	<0.001	<0.001
LSD(0.05)			3.8	1.1	0.5	1.9
LATTICE RE(%) ¹			124.3	112.1	104.9	102.3

1) Adjusted means provided for Lattice RE% values equal to or greater than 105%

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 ADVANCED SPRING WHEAT NURSERY, FORT BENTON (DRY), (Collaborator : Nutrien)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	SAWFLY CUT (%)
41	MT 22182	DAGMAR/MT 1617	55.0	59.3	15.3	30.5	20.0
37	MT 22151	MT 1866/MT 1767	54.7	59.4	15.3	28.9	41.7
26	MT 21473	DAGMAR/LANNING	53.9	60.9	16.0	29.6	35.0
25	MT 21220	DAGMAR/MT 1716	52.9	61.0	15.4	28.3	26.7
46	MT 22324	DAGMAR//MT 1053/MT 1172	52.8	62.1	15.3	29.1	28.3
20	MT 21074	MT 1525/MT 1348	52.1	61.4	15.4	30.6	13.3
62	WF 242	CP3119A	52.1	56.0	13.7	29.9	10.0
18	MT 2049	LANNING/MT 1415	52.0	61.4	15.1	28.6	85.0
27	MT 21484	Dagmar/BC1-52	51.1	61.5	16.1	29.4	21.7
53	LIMAGR 201	LCS BUSTER	50.8	58.3	13.8	28.5	41.7
28	MT 21485	Dagmar/BC1-80	50.1	60.0	16.0	29.4	20.0
24	MT 21186	DAGMAR//MT 1142/MT 1225	49.9	59.9	15.6	28.4	20.0
45	MT 22270	LANNING/MT 1853	49.9	61.3	15.8	29.4	46.7
3	BZ 917-277	ROCKER	49.8	61.7	15.3	29.6	16.7
30	MT 22071	DAGMAR//MT1338/SD3997	49.8	59.6	14.9	29.4	16.7
23	MT 21176	DAGMAR//MT 1142/MT 1225	49.6	60.4	15.0	29.0	20.0
61	WF 241	CP3055	49.2	54.4	15.4	29.4	15.0
4	BZ 92413R	WB GUNNISON	49.0	61.2	14.2	27.0	15.0
44	MT 22205	LANNING/MT0945/MT 1807	49.0	61.3	16.0	27.9	30.0
15	MT 1809	MT Dutton	48.4	59.7	15.9	28.9	43.3
39	MT 22177	DAGMAR/WA 8283	48.4	62.3	15.2	30.4	15.0
38	MT 22172	DAGMAR/WA 8283	48.0	60.8	15.3	30.7	16.7
16	MT 1939	MT Carlson	47.7	60.4	14.8	28.8	38.3
9	PI 660981	DUCLAIR	47.7	59.4	15.2	30.7	26.7
12	PI 690450	DAGMAR	47.0	61.6	16.0	29.9	16.7
54	MS 241	MS Nova	46.9	62.3	15.4	28.6	55.0
8	PI 642366	VIDA	46.6	61.4	14.8	30.2	28.3
11	PI 679964	NS PRESSER CLP	46.5	61.3	14.9	29.6	36.7
32	MT 22073	LANNING/MT 1806	46.4	60.2	16.8	26.8	46.7
17	MT 2030	MT Ubet	45.7	61.4	15.7	27.9	88.3
29	MT 21487	Dagmar/BC1-80	45.7	61.3	15.5	28.7	25.0
57	SYN 182	SY Longmire	45.6	61.8	16.4	27.9	26.7
43	MT 22204	DAGMAR//MT1338/IDO1202S	45.3	59.9	15.8	28.9	51.7
51	LIMAGR 211	LCS ASCENT	45.1	62.9	14.6	28.5	53.3
21	MT 21104	MT 1451/MT 1866	45.0	61.5	15.0	28.6	51.7
49	NDHRS14-0134-C	ND Stampede	44.9	59.7	15.5	29.6	63.3
48	MT 22361	MT 1867//Patwin515/MN-11394-6	44.7	60.0	15.3	30.0	13.3
31	MT 22072	LANNING/MT 1806	44.6	61.3	15.7	29.7	28.3
34	MT 22093	LANNING//MT1338/MT1103	44.5	60.5	16.4	27.5	66.7
35	MT 22099	LANNING//MT1338/MT1103	44.2	62.0	15.4	27.7	60.0
47	MT 22345	DAGMAR/MN14105-7	44.1	58.2	15.3	28.7	66.7
50	MT 21224	DAGMAR/CAP 197-3	43.8	60.8	15.4	29.9	23.3

2024 ADVANCED SPRING WHEAT NURSERY, FORT BENTON (DRY), (Collaborator : Nutrien)(CONT.)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	SAWFLY CUT (%)
10	PI 676978	LANNING	43.7	60.8	16.3	29.6	61.7
42	MT 22184	DAGMAR/MT 1617	43.6	61.7	15.4	28.7	56.7
22	MT 21174	DAGMAR//MT 1142/MT 1225	43.4	60.8	16.1	27.4	16.7
14	PI 699957	MT SIDNEY	43.4	60.8	15.7	27.6	86.7
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	43.3	60.6	15.1	28.5	38.3
52	LIMAGR 231	LCS BOOM	42.9	63.1	15.5	27.6	68.3
56	MS 211	AAC Concord	42.7	58.9	15.6	31.2	18.3
33	MT 22083	DAGMAR/MT 1866	42.4	62.4	16.1	29.3	23.3
40	MT 22179	DAGMAR/MT 1617	42.3	59.5	16.3	29.1	70.0
63	CHS 241	Allegiant 811 HRS	41.6	61.1	15.2	25.8	50.0
7	PI 574642	McNEAL	40.5	59.9	15.6	28.5	58.3
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	40.3	59.6	15.7	27.7	10.0
58	SYN 241	AP Elevate	39.8	60.7	16.3	27.7	80.0
64	CHS 242	Allegiant 6284 HRS	39.4	60.4	14.8	26.1	55.0
2	AGRIPR 161	SY ROCKFORD	38.9	59.2	15.6	27.4	63.3
60	SYN 212	AP Gunsmoke	38.6	61.6	16.0	27.8	80.0
6	ND 695	REEDER	37.6	60.9	15.4	29.9	75.0
59	SYN 211	AP Smith	37.5	61.3	15.3	25.7	35.0
36	MT 22102	LANNING*1/MT1103	36.7	60.2	16.2	28.2	90.0
1	AGRIPR 141	SY INGMAR	36.6	61.3	15.9	27.0	65.0
5	CI 10003	THATCHER	36.3	58.1	15.1	31.9	48.3
55	MS 242	MS Charger	33.6	61.1	14.3	25.3	61.7
MEAN			45.6	60.6	15.5	28.7	41.8
C.V.			9.7	1.0	2.4	4.6	46.5
PROBABILITY (ID)			<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)			6.7	0.9	0.6	2.4	30.1
LATTICE RE(%) ¹			115.4	114.0	108.3	122.7	103.2

1) Adjusted means provided for Lattice RE% values equal to or greater than 105%

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 ADVANCED SPRING WHEAT NURSERY, HAVRE (DRY), (Collaborator:Peggy Lamb, NARC)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)	GLD ¹ (days)
46	MT 22324	DAGMAR//MT 1053/MT 1172	<u>67.7</u>	59.3	14.9	175.2	31.7	31.3
44	MT 22205	LANNING/MT0945/MT 1807	65.1	58.5	15.0	175.2	30.8	32.1
45	MT 22270	LANNING/MT 1853	64.6	58.7	14.8	177.4	33.9	30.8
51	LIMAGR 211	LCS ASCENT	63.7	60.1	14.7	175.4	31.7	30.9
29	MT 21487	Dagmar/BC1-80	63.5	58.7	15.2	176.5	32.7	29.8
36	MT 22102	LANNING*1/MT1103	63.3	57.7	15.6	175.8	32.7	32.6
16	MT 1939	MT Carlson	63.2	58.0	15.5	176.4	31.6	30.1
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	63.1	58.5	14.3	176.9	31.2	30.8
17	MT 2030	MT Ubet	62.8	58.7	15.4	176.5	32.3	31.9
35	MT 22099	LANNING//MT1338/MT1103	62.5	59.0	15.5	174.9	30.0	32.5
31	MT 22072	LANNING/MT 1806	62.5	59.3	15.4	175.6	32.4	32.1
41	MT 22182	DAGMAR/MT 1617	61.9	56.3	15.1	175.1	31.8	30.5
47	MT 22345	DAGMAR/MN14105-7	61.8	56.2	14.8	178.3	31.7	29.0
23	MT 21176	DAGMAR//MT 1142/MT 1225	61.8	56.6	15.1	178.4	33.9	29.6
58	SYN 241	AP Elevate	61.0	58.0	15.8	178.6	31.1	28.5
63	CHS 241	Allegiant 811 HRS	60.9	59.2	15.1	179.0	31.5	28.6
43	MT 22204	DAGMAR//MT1338/IDO1202S	60.3	58.0	15.5	175.5	30.1	31.6
24	MT 21186	DAGMAR//MT 1142/MT 1225	60.1	56.3	15.6	177.9	33.3	29.7
22	MT 21174	DAGMAR//MT 1142/MT 1225	60.1	57.6	16.0	176.5	34.4	31.5
26	MT 21473	DAGMAR/LANNING	60.1	57.6	15.3	175.9	32.5	31.6
42	MT 22184	DAGMAR/MT 1617	60.0	60.2	15.4	175.9	31.6	31.8
27	MT 21484	Dagmar/BC1-52	60.0	58.5	15.4	176.3	31.7	31.1
28	MT 21485	Dagmar/BC1-80	59.5	57.4	15.7	176.1	32.1	33.2
8	PI 642366	VIDA	59.1	57.3	14.4	178.3	32.9	29.8
14	PI 699957	MT SIDNEY	58.8	58.8	15.2	175.0	32.7	31.8
25	MT 21220	DAGMAR/MT 1716	58.8	57.4	15.6	178.4	33.3	29.2
10	PI 676978	LANNING	58.6	58.1	15.9	175.9	33.8	33.5
21	MT 21104	MT 1451/MT 1866	58.6	58.5	14.7	178.4	33.4	28.1
32	MT 22073	LANNING/MT 1806	58.6	57.7	15.8	175.9	30.2	30.4
2	AGRIPR 161	SY ROCKFORD	58.5	56.5	15.1	179.3	32.6	29.0
12	PI 690450	DAGMAR	58.5	58.6	15.6	175.5	32.6	32.8
1	AGRIPR 141	SY INGMAR	58.4	58.8	15.3	177.2	30.8	28.8
54	MS 241	MS Nova	58.1	59.2	14.8	176.6	32.2	29.2
11	PI 679964	NS PRESSER CLP	57.7	56.1	14.0	181.3	34.7	27.5
33	MT 22083	DAGMAR/MT 1866	57.7	60.6	15.1	174.3	32.9	33.8
49	HRS14-0134-C	ND Stampede	57.7	57.0	15.9	176.5	33.0	29.5
60	SYN 212	AP Gunsmoke	57.7	57.4	15.9	177.5	31.3	28.5
20	MT 21074	MT 1525/MT 1348	57.4	59.0	15.8	180.4	32.0	29.3
18	MT 2049	LANNING/MT 1415	57.3	59.4	14.7	174.6	31.0	30.9
52	LIMAGR 231	LCS BOOM	57.1	<u>61.2</u>	15.2	174.9	29.9	29.8
34	MT 22093	LANNING//MT1338/MT1103	56.8	58.6	16.1	175.2	30.9	32.6
48	MT 22361	MT 1867//Patwin515/MN-11394-6	56.7	57.2	15.5	178.0	33.5	29.5

2024 ADVANCED SPRING WHEAT NURSERY, HAVRE (DRY), (Collaborator:Peggy Lamb, NARC) (CONT.)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)	GLD ¹ (days)
40	MT 22179	DAGMAR/MT 1617	56.5	57.8	15.3	175.4	32.2	30.3
3	BZ 917-277	ROCKER	56.1	58.5	14.6	179.2	32.1	28.3
50	MT 21224	DAGMAR/CAP 197-3	56.1	58.4	15.2	176.5	33.8	32.2
15	MT 1809	MT Dutton	56.0	57.0	15.1	178.3	31.8	28.4
37	MT 22151	MT 1866/MT 1767	55.7	57.8	14.7	177.0	32.2	28.8
39	MT 22177	DAGMAR/WA 8283	55.4	59.6	14.8	177.3	32.7	30.2
9	PI 660981	DUCLAIR	55.1	57.5	15.3	175.9	32.0	29.8
59	SYN 211	AP Smith	55.1	58.5	15.4	179.4	29.6	28.0
55	MS 242	MS Charger	55.1	58.1	14.0	177.7	31.5	29.8
64	CHS 242	Allegiant 6284 HRS	54.8	58.9	15.8	177.4	26.6	29.7
4	BZ 92413R	WB GUNNISON	54.3	57.9	14.9	177.8	31.1	30.5
57	SYN 182	SY Longmire	53.7	58.2	15.3	177.8	32.1	28.5
30	MT 22071	DAGMAR//MT1338/SD3997	52.7	55.6	15.4	178.6	34.4	29.1
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	52.4	57.9	15.9	178.7	33.0	27.9
6	ND 695	REEDER	51.7	58.2	15.3	177.9	33.2	30.6
7	PI 574642	McNEAL	50.4	56.9	15.3	178.6	34.3	29.6
38	MT 22172	DAGMAR/WA 8283	48.9	58.5	15.6	176.3	34.6	34.7
53	LIMAGR 201	LCS BUSTER	45.7	52.8	14.8	183.8	33.5	24.4
62	WF 242	CP3119A	43.0	53.2	14.6	186.0	33.4	25.5
5	CI 10003	THATCHER	42.6	54.4	16.1	178.3	42.4	29.3
61	WF 241	CP3055	42.5	50.9	17.6	185.1	31.9	25.4
56	MS 211	AAC Concord	40.4	55.6	16.4	180.1	37.4	28.1
MEAN			57.3	57.8	15.3	177.4	32.4	30.1
C.V.			6.8	1.1	3.7	0.5	3.6	3.7
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)			5.9	0.8	0.6	1.3	1.8	1.6
LATTICE RE(%) ²			116.9	175.8	259.3	115.2	115.7	122.1

1) GLD=green leaf duration (stay-green)

2) Adjusted means provided for Lattice RE% values equal to or greater than 105%

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 ADVANCED SPRING WHEAT NURSERY, HINGHAM (DRY), (Collaborator : 2nd Nature Seeds)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
62	WF 242	CP3119A	36.9	54.5	12.1	25.1
47	MT 22345	DAGMAR/MN14105-7	36.8	59.2	13.7	22.8
61	WF 241	CP3055	35.9	56.9	11.9	23.5
51	LIMAGR 211	LCS ASCENT	35.9	61.8	14.2	23.0
35	MT 22099	LANNING//MT1338/MT1103	35.1	60.5	14.9	22.2
11	PI 679964	NS PRESSER CLP	34.9	60.1	12.5	23.6
8	PI 642366	VIDA	34.6	60.1	12.7	23.1
27	MT 21484	Dagmar/BC1-52	34.5	60.3	14.4	24.1
17	MT 2030	MT Ubet	34.1	60.5	14.0	23.4
9	PI 660981	DUCLAIR	33.9	59.3	13.6	24.2
26	MT 21473	DAGMAR/LANNING	33.9	59.9	14.3	26.1
36	MT 22102	LANNING*1/MT1103	33.9	59.8	15.2	23.0
7	PI 574642	McNEAL	33.7	58.9	13.6	25.4
48	MT 22361	MT 1867//Patwin515/MN-11394-6	33.0	59.4	14.2	26.1
23	MT 21176	DAGMAR//MT 1142/MT 1225	32.9	59.8	13.8	21.9
39	MT 22177	DAGMAR/WA 8283	32.8	61.2	13.2	24.3
3	BZ 917-277	ROCKER	32.7	62.1	12.8	24.1
33	MT 22083	DAGMAR/MT 1866	32.6	60.8	14.8	24.0
53	LIMAGR 201	LCS BUSTER	32.3	57.3	12.2	23.4
21	MT 21104	MT 1451/MT 1866	32.0	60.7	14.5	24.8
50	MT 21224	DAGMAR/CAP 197-3	31.6	60.4	13.8	25.6
30	MT 22071	DAGMAR//MT1338/SD3997	31.4	59.6	13.1	23.5
29	MT 21487	Dagmar/BC1-80	31.4	60.5	13.8	22.1
4	BZ 92413R	WB GUNNISON	31.2	60.8	12.9	25.0
16	MT 1939	MT Carlson	30.9	60.2	13.7	24.0
18	MT 2049	LANNING/MT 1415	30.9	60.9	13.1	23.4
49	NDHRS14-0134-C0	ND Stampede	30.8	58.7	14.8	24.8
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	30.4	61.6	13.7	20.4
41	MT 22182	DAGMAR/MT 1617	30.1	58.7	14.5	21.3
31	MT 22072	LANNING/MT 1806	29.9	62.0	13.7	21.7
12	PI 690450	DAGMAR	29.9	61.1	14.4	22.7
52	LIMAGR 231	LCS BOOM	29.8	62.3	14.9	21.8
14	PI 699957	MT SIDNEY	29.8	61.0	13.4	22.9
24	MT 21186	DAGMAR//MT 1142/MT 1225	29.7	59.8	13.0	22.9
45	MT 22270	LANNING/MT 1853	29.7	60.8	13.0	24.0
56	MS 211	AAC Concord	29.7	59.1	13.5	25.6
15	MT 1809	MT Dutton	29.7	59.4	13.8	21.4
20	MT 21074	MT 1525/MT 1348	29.6	61.5	14.0	22.7
37	MT 22151	MT 1866/MT 1767	29.6	59.1	13.8	23.8
44	MT 22205	LANNING/MT0945/MT 1807	29.5	60.0	15.7	22.6
6	ND 695	REEDER	29.3	60.1	13.4	23.7
28	MT 21485	Dagmar/BC1-80	29.1	59.9	14.2	23.6

2024 ADVANCED SPRING WHEAT NURSERY, HINGHAM (DRY), (Collaborator : 2nd Nature Seeds) (CONT.)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
63	CHS 241	Allegiant 811 HRS	29.1	61.3	14.3	22.1
5	CI 10003	THATCHER	29.0	58.8	13.5	26.8
10	PI 676978	LANNING	29.0	59.8	15.8	23.4
54	MS 241	MS Nova	28.9	61.6	14.9	20.6
43	MT 22204	DAGMAR//MT1338/IDO1202S	28.7	60.7	14.7	20.2
57	SYN 182	SY Longmire	28.6	62.2	14.0	22.0
34	MT 22093	LANNING//MT1338/MT1103	28.4	60.5	13.6	21.1
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	28.2	60.2	14.3	20.1
32	MT 22073	LANNING/MT 1806	28.1	60.9	14.3	20.9
25	MT 21220	DAGMAR/MT 1716	27.9	60.8	13.8	21.2
46	MT 22324	DAGMAR//MT 1053/MT 1172	27.7	61.1	14.0	22.0
2	AGRIPR 161	SY ROCKFORD	27.4	58.6	14.1	24.0
1	AGRIPR 141	SY INGMAR	27.2	61.4	14.6	23.3
40	MT 22179	DAGMAR/MT 1617	26.2	59.7	14.7	22.1
55	MS 242	MS Charger	26.0	60.2	13.5	20.7
64	CHS 242	Allegiant 6284 HRS	26.0	61.3	13.9	18.3
22	MT 21174	DAGMAR//MT 1142/MT 1225	26.0	61.1	13.8	22.1
42	MT 22184	DAGMAR/MT 1617	25.7	61.5	14.6	22.3
58	SYN 241	AP Elevate	25.1	60.9	15.0	20.1
60	SYN 212	AP Gunsmoke	24.5	61.3	15.1	21.5
38	MT 22172	DAGMAR/WA 8283	22.1	60.5	14.4	22.8
59	SYN 211	AP Smith	20.0	61.5	14.8	17.3
MEAN			30.3	60.3	13.9	22.9
C.V.			12.8	1.0	1 rep	8.2
PROBABILITY (ENTRY)			<0.001	<0.001	1 rep	<0.001
LSD(0.05)			5.8	0.9	1 rep	2.7
LATTICE RE(%) ¹⁾			117.7	110.6	1 rep	123.8

1) Adjusted means provided for Lattice RE% values equal to or greater than 105%

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 ADVANCED SPRING WHEAT NURSERY, HUNTLEY (DRY), (Collaborator:Kent McVay, SARC)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
23	MT 21176	DAGMAR//MT 1142/MT 1225	<u>94.7</u>	58.3	14.5	168.7	39.2
44	MT 22205	LANNING//MT0945/MT 1807	94.6	59.5	14.3	165.3	36.2
46	MT 22324	DAGMAR//MT 1053/MT 1172	93.3	60.1	14.6	166.0	36.7
47	MT 22345	DAGMAR/MN14105-7	92.6	57.3	14.3	166.7	37.7
16	MT 1939	MT Carlson	90.4	61.0	14.0	166.0	36.7
34	MT 22093	LANNING//MT1338/MT1103	89.9	60.2	15.2	164.0	35.4
40	MT 22179	DAGMAR/MT 1617	89.9	59.0	14.5	165.3	37.0
26	MT 21473	DAGMAR/LANNING	89.5	60.7	15.1	166.0	38.7
29	MT 21487	Dagmar/BC1-80	89.5	60.5	15.0	166.7	40.5
14	PI 699957	MT SIDNEY	89.3	60.7	13.8	165.3	37.5
45	MT 22270	LANNING/MT 1853	88.7	60.3	14.6	166.0	35.8
24	MT 21186	DAGMAR//MT 1142/MT 1225	88.5	59.1	14.6	166.3	38.3
21	MT 21104	MT 1451/MT 1866	88.4	57.5	14.0	167.7	37.6
15	MT 1809	MT Dutton	87.9	59.1	14.7	166.3	37.9
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	87.8	57.6	14.1	166.0	38.2
41	MT 22182	DAGMAR/MT 1617	87.7	57.6	15.0	165.7	37.8
32	MT 22073	LANNING/MT 1806	87.6	56.3	15.3	165.3	37.6
42	MT 22184	DAGMAR/MT 1617	87.6	61.8	15.1	165.7	38.6
17	MT 2030	MT Ubet	87.6	60.1	14.8	166.0	37.2
12	PI 690450	DAGMAR	87.4	60.0	15.4	166.0	39.5
51	LIMAGR 211	LCS ASCENT	86.4	61.2	13.6	165.7	38.8
37	MT 22151	MT 1866/MT 1767	86.3	59.2	14.2	167.7	39.2
28	MT 21485	Dagmar/BC1-80	86.2	59.5	14.5	166.0	41.4
31	MT 22072	LANNING/MT 1806	86.2	59.8	14.2	165.0	37.2
55	MS 242	MS Charger	85.8	58.0	13.2	167.0	36.0
36	MT 22102	LANNING*1/MT1103	85.4	59.7	15.2	165.7	35.9
25	MT 21220	DAGMAR/MT 1716	85.2	57.6	14.9	169.3	37.3
35	MT 22099	LANNING//MT1338/MT1103	84.8	60.0	14.3	164.0	35.2
22	MT 21174	DAGMAR//MT 1142/MT 1225	84.8	59.0	15.0	166.7	40.3
43	MT 22204	DAGMAR//MT1338/IDO1202S	84.5	60.4	14.7	165.7	36.6
8	PI 642366	VIDA	84.5	59.3	14.4	168.7	38.1
48	MT 22361	MT 1867//Patwin515/MN-11394-6	84.1	57.1	14.8	169.3	38.3
18	MT 2049	LANNING/MT 1415	84.0	59.8	13.9	164.3	39.1
39	MT 22177	DAGMAR/WA 8283	83.8	60.6	14.4	166.3	39.6
10	PI 676978	LANNING	83.7	60.3	15.2	165.0	36.9
49	NDHRS14-0134-C	ND Stampede	83.6	58.8	15.2	166.0	38.5
50	MT 21224	DAGMAR/CAP 197-3	83.6	60.0	14.9	166.0	41.0
52	LIMAGR 231	LCS BOOM	83.2	62.4	14.4	164.7	37.6
57	SYN 182	SY Longmire	83.0	59.8	14.5	169.3	35.6
33	MT 22083	DAGMAR/MT 1866	82.9	61.3	14.4	165.0	37.7
53	LIMAGR 201	LCS BUSTER	82.9	56.7	13.2	170.0	38.3
9	PI 660981	DUCLAIR	82.6	59.2	14.6	165.7	37.5

2024 ADVANCED SPRING WHEAT NURSERY, HUNTLEY (DRY), (Collaborator: Kent McVay, SARC) (CONT.)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
27	MT 21484	Dagmar/BC1-52	82.6	60.3	14.1	166.0	40.1
3	BZ 917-277	ROCKER	82.3	58.1	14.5	169.3	34.6
30	MT 22071	DAGMAR//MT1338/SD3997	81.7	55.0	14.9	169.3	36.9
2	AGRIPR 161	SY ROCKFORD	80.7	57.8	14.5	170.0	35.7
1	AGRIPR 141	SY INGMAR	80.3	59.2	14.9	168.7	34.3
58	SYN 241	AP Elevate	79.6	59.6	14.8	169.7	33.7
11	PI 679964	NS PRESSER CLP	79.6	58.3	14.4	170.0	39.8
54	MS 241	MS Nova	79.5	60.1	14.8	166.0	38.3
20	MT 21074	MT 1525/MT 1348	79.2	59.5	15.7	170.0	37.3
64	CHS 242	Allegiant 6284 HRS	79.1	60.0	15.0	166.3	30.0
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	78.8	59.6	14.7	167.0	35.0
63	CHS 241	Allegiant 811 HRS	78.1	57.5	14.3	170.0	34.2
60	SYN 212	AP Gunsmoke	78.0	59.9	15.6	168.0	35.2
61	WF 241	CP3055	77.6	54.3	14.7	169.7	39.2
59	SYN 211	AP Smith	77.0	59.2	15.0	169.0	32.7
62	WF 242	CP3119A	75.2	55.0	13.6	170.0	37.2
7	PI 574642	McNEAL	73.2	58.9	15.8	170.0	38.5
38	MT 22172	DAGMAR/WA 8283	72.4	59.9	15.0	166.0	39.3
6	ND 695	REEDER	68.7	58.0	15.8	166.7	39.7
4	BZ 92413R	WB GUNNISON	67.9	59.5	14.7	166.3	32.9
56	MS 211	AAC Concord	62.9	59.9	15.7	169.0	42.4
5	CI 10003	THATCHER	59.0	57.8	15.3	170.0	49.6
MEAN			83.2	59.1	14.7	167.0	37.6
C.V.			6.8	2.9	2.9	0.4	3.0
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)			8.5	2.7	0.7	1.0	1.8
LATTICE RE(%) ¹⁾			117.1	102.2	106.8	101.0	110.4

1) Adjusted means provided for Lattice RE% values equal to or greater than 105%

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 ADVANCED SPRING WHEAT NURSERY, MOCCASIN (DRY), (Collaborator : Jed Eberly, CARC)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
22	MT 21174	DAGMAR//MT 1142/MT 1225	<u>38.7</u>	60.2	14.9	28.0
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	36.1	58.8	14.9	24.7
8	PI 642366	VIDA	35.7	59.4	14.2	26.7
23	MT 21176	DAGMAR//MT 1142/MT 1225	35.3	60.6	13.7	25.0
32	MT 22073	LANNING/MT 1806	35.2	61.0	13.6	25.0
12	PI 690450	DAGMAR	35.0	57.9	15.2	25.0
46	MT 22324	DAGMAR//MT 1053/MT 1172	34.8	59.8	14.1	25.7
31	MT 22072	LANNING/MT 1806	34.7	59.2	13.6	26.0
17	MT 2030	MT Ubet	34.5	58.0	14.3	25.3
28	MT 21485	Dagmar/BC1-80	34.1	57.5	14.4	26.7
27	MT 21484	Dagmar/BC1-52	34.0	60.4	14.3	26.7
51	LIMAGR 211	LCS ASCENT	33.9	58.7	13.9	25.0
33	MT 22083	DAGMAR/MT 1866	33.4	60.7	13.9	26.3
43	MT 22204	DAGMAR//MT1338/IDO1202S	33.0	<u>61.4</u>	13.1	25.7
24	MT 21186	DAGMAR//MT 1142/MT 1225	32.9	59.2	14.3	26.7
38	MT 22172	DAGMAR/WA 8283	32.8	60.6	13.5	27.3
20	MT 21074	MT 1525/MT 1348	32.7	58.9	14.2	26.0
41	MT 22182	DAGMAR/MT 1617	32.5	60.2	15.1	27.7
9	PI 660981	DUCLAIR	32.5	60.1	14.6	26.3
30	MT 22071	DAGMAR//MT1338/SD3997	32.3	60.2	13.9	26.3
29	MT 21487	Dagmar/BC1-80	32.2	61.0	14.9	26.3
26	MT 21473	DAGMAR/LANNING	32.1	59.1	14.8	25.7
40	MT 22179	DAGMAR/MT 1617	32.0	60.8	14.0	26.3
44	MT 22205	LANNING/MT0945/MT 1807	31.9	60.3	14.8	24.3
50	MT 21224	DAGMAR/CAP 197-3	31.7	58.8	14.6	27.0
11	PI 679964	NS PRESSER CLP	31.7	60.5	14.7	26.0
14	PI 699957	MT SIDNEY	31.7	58.4	14.8	25.0
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	31.7	57.6	14.6	25.7
35	MT 22099	LANNING//MT1338/MT1103	31.1	59.9	14.1	23.3
62	WF 242	CP3119A	30.6	59.4	13.8	28.3
25	MT 21220	DAGMAR/MT 1716	30.4	61.0	14.0	27.0
4	BZ 92413R	WB GUNNISON	29.6	59.2	<u>15.3</u>	25.0
7	PI 574642	McNEAL	29.5	59.2	14.6	26.7
2	AGRIPR 161	SY ROCKFORD	29.3	60.0	14.5	27.7
45	MT 22270	LANNING/MT 1853	29.3	60.4	13.8	26.0
63	CHS 241	Allegiant 811 HRS	29.0	59.9	13.9	26.3
6	ND 695	REEDER	28.5	60.1	13.5	26.7
47	MT 22345	DAGMAR/MN14105-7	28.5	60.8	13.2	25.3
39	MT 22177	DAGMAR/WA 8283	28.4	59.5	14.1	28.3
15	MT 1809	MT Dutton	28.3	60.2	13.5	24.7
53	LIMAGR 201	LCS BUSTER	28.3	60.1	13.7	26.7

2024 ADVANCED SPRING WHEAT NURSERY, MOCCASIN (DRY), (Collaborator : Jed Eberly, CARC) (CONT.)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
10	PI 676978	LANNING	28.2	58.6	14.3	24.7
48	MT 22361	MT 1867//Patwin515/MN-11394-6	27.7	60.8	13.8	26.3
3	BZ 917-277	ROCKER	27.6	60.0	14.5	26.3
36	MT 22102	LANNING*1/MT1103	27.6	59.2	13.8	24.3
21	MT 21104	MT 1451/MT 1866	27.2	60.8	13.9	25.3
60	SYN 212	AP Gunsmoke	27.1	60.6	13.9	24.7
49	NDHRS14-0134-C	ND Stampede	26.7	61.0	14.6	25.0
18	MT 2049	LANNING/MT 1415	26.6	60.0	14.8	25.3
64	CHS 242	Allegiant 6284 HRS	26.6	60.7	13.5	24.7
37	MT 22151	MT 1866/MT 1767	26.6	60.6	14.0	26.0
16	MT 1939	MT Carlson	26.4	61.2	14.4	25.3
61	WF 241	CP3055	26.2	59.3	15.2	26.3
42	MT 22184	DAGMAR/MT 1617	26.0	60.0	13.9	26.3
58	SYN 241	AP Elevate	25.8	61.1	13.6	26.0
59	SYN 211	AP Smith	25.5	60.0	13.5	25.3
1	AGRIPR 141	SY INGMAR	25.5	60.5	13.2	25.0
34	MT 22093	LANNING//MT1338/MT1103	25.4	59.2	14.4	24.3
54	MS 241	MS Nova	25.1	59.7	14.3	24.7
57	SYN 182	SY Longmire	23.4	59.3	13.4	26.3
52	LIMAGR 231	LCS BOOM	23.1	59.3	13.3	22.7
5	CI 10003	THATCHER	22.6	60.4	13.6	33.7
56	MS 211	AAC Concord	22.3	60.7	13.2	30.7
55	MS 242	MS Charger	21.2	59.4	14.1	24.7
MEAN			29.8	59.9	14.1	26.0
C.V.			18.3	3.3	6.3	6.4
PROBABILITY (ENTRY)			<0.05	ns	ns	<0.001
LSD(0.05)			7.2	-	-	2.7
LATTICE RE(%) ¹⁾			152.9	94.2	97.3	100.7

1) Adjusted means provided for Lattice RE% values equal to or greater than 105%

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 ADVANCED SPRING WHEAT NURSERY, SIDNEY (DRY), (Collaborator : Chengci Chen, EARC)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
46	MT 22324	DAGMAR//MT 1053/MT 1172	90.2	65.9	12.8	168.3	31.4
32	MT 22073	LANNING/MT 1806	85.2	64.1	13.6	168.2	30.3
15	MT 1809	MT Dutton	85.1	64.7	13.0	169.4	30.5
42	MT 22184	DAGMAR/MT 1617	85.1	66.4	13.9	167.0	30.1
17	MT 2030	MT Ubet	83.4	65.2	13.1	168.1	29.8
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	83.2	65.0	12.7	168.7	30.7
55	MS 242	MS Charger	83.2	64.8	11.2	168.5	30.0
39	MT 22177	DAGMAR/WA 8283	83.2	65.4	13.6	169.0	33.4
45	MT 22270	LANNING/MT 1853	82.9	65.7	13.6	168.2	30.2
48	MT 22361	MT 1867//Patwin515/MN-11394-6	82.9	63.9	13.8	169.3	31.2
36	MT 22102	LANNING*1/MT1103	82.7	64.7	14.8	166.7	30.5
16	MT 1939	MT Carlson	82.2	65.1	13.2	168.8	29.3
14	PI 699957	MT SIDNEY	81.7	65.5	13.3	167.5	29.1
41	MT 22182	DAGMAR/MT 1617	81.5	64.3	12.8	167.3	30.9
25	MT 21220	DAGMAR/MT 1716	81.5	64.8	14.0	169.2	30.2
29	MT 21487	Dagmar/BC1-80	81.3	65.0	12.7	168.0	31.4
54	MS 241	MS Nova	81.1	65.3	13.4	168.4	30.1
50	MT 21224	DAGMAR/CAP 197-3	81.0	65.2	13.4	168.7	32.2
44	MT 22205	LANNING/MT0945/MT 1807	80.9	64.8	12.9	167.5	28.9
26	MT 21473	DAGMAR/LANNING	80.7	64.4	13.2	169.0	30.9
30	MT 22071	DAGMAR//MT1338/SD3997	80.7	64.2	13.5	170.2	30.0
51	LIMAGR 211	LCS ASCENT	80.3	66.2	12.1	167.9	29.9
8	PI 642366	VIDA	80.0	64.9	13.1	170.0	29.4
23	MT 21176	DAGMAR//MT 1142/MT 1225	80.0	64.3	13.4	170.0	29.5
2	AGRIPR 161	SY ROCKFORD	79.6	64.3	12.9	171.7	31.4
37	MT 22151	MT 1866/MT 1767	79.5	64.9	12.7	169.0	29.6
10	PI 676978	LANNING	79.5	65.3	13.9	167.0	30.2
24	MT 21186	DAGMAR//MT 1142/MT 1225	79.4	63.6	13.3	169.2	29.9
33	MT 22083	DAGMAR/MT 1866	79.4	66.3	13.0	167.1	29.6
58	SYN 241	AP Elevate	79.0	65.0	13.7	170.7	27.5
43	MT 22204	DAGMAR//MT1338/IDO1202S	78.7	65.5	13.9	167.6	29.2
27	MT 21484	Dagmar/BC1-52	78.7	65.3	13.5	168.9	30.0
28	MT 21485	Dagmar/BC1-80	78.5	65.1	13.0	167.5	30.6
35	MT 22099	LANNING//MT1338/MT1103	78.4	65.1	13.4	165.9	28.3
3	BZ 917-277	ROCKER	78.3	64.9	13.3	171.6	28.5
53	LIMAGR 201	LCS BUSTER	78.2	61.4	11.7	172.9	29.9
7	PI 574642	McNEAL	78.0	62.5	13.6	171.6	30.9
38	MT 22172	DAGMAR/WA 8283	77.8	65.2	13.8	169.2	33.0
12	PI 690450	DAGMAR	77.7	65.4	14.1	168.8	30.3
62	WF 242	CP3119A	77.4	58.4	12.6	176.9	30.6
60	SYN 212	AP Gunsmoke	77.2	63.6	14.5	169.5	30.0
22	MT 21174	DAGMAR//MT 1142/MT 1225	77.0	64.9	13.7	168.5	31.0

2024 ADVANCED SPRING WHEAT NURSERY, SIDNEY (DRY), (Collaborator : Chengci Chen, EARC) (CONT.)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
47	MT 22345	DAGMAR/MN14105-7	76.4	64.0	13.0	169.4	27.9
18	MT 2049	LANNING/MT 1415	76.3	65.9	12.8	166.4	29.4
21	MT 21104	MT 1451/MT 1866	76.2	66.0	12.8	169.3	28.5
6	ND 695	REEDER	75.6	65.0	13.4	170.1	30.0
31	MT 22072	LANNING/MT 1806	75.4	64.7	12.8	166.8	29.0
34	MT 22093	LANNING//MT1338/MT1103	74.8	65.7	12.9	167.3	28.7
57	SYN 182	SY Longmire	74.7	65.5	13.2	169.3	29.4
40	MT 22179	DAGMAR/MT 1617	74.7	64.8	13.0	167.1	29.9
1	AGRIPR 141	SY INGMAR	74.5	65.8	13.5	169.7	29.2
52	LIMAGR 231	LCS BOOM	74.5	65.4	13.8	166.3	29.7
11	PI 679964	NS PRESSER CLP	74.3	63.4	12.3	169.6	30.6
64	CHS 242	Allegiant 6284 HRS	73.4	65.2	13.1	169.2	27.1
59	SYN 211	AP Smith	72.5	64.7	14.0	170.7	27.1
63	CHS 241	Allegiant 811 HRS	71.7	64.4	12.8	171.3	28.1
49	NDHRS14-0134-C	ND Stampede	70.5	64.8	12.9	168.6	28.6
9	PI 660981	DUCLAIR	70.1	64.0	13.6	168.1	30.0
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	68.8	64.7	14.8	170.0	27.7
61	WF 241	CP3055	66.9	58.6	13.5	175.1	30.4
56	MS 211	AAC Concord	66.0	63.7	14.4	171.0	31.8
4	BZ 92413R	WB GUNNISON	65.0	64.3	13.1	169.0	28.1
20	MT 21074	MT 1525/MT 1348	64.7	64.1	13.9	171.3	27.5
5	CI 10003	THATCHER	62.1	62.7	13.9	171.2	34.5
MEAN			77.7	64.6	13.3	169.1	29.9
C.V.			7.4	0.8	7.9	0.5	4.9
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)			7.2	0.6	0.9	1.3	2.1
LATTICE RE(%) ¹⁾			168.3	164.1	378.5	105.2	124.6

1) Adjusted means provided for Lattice RE% values equal to or greater than 105%

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 ADVANCED SPRING WHEAT NURSERY, WILLISTON (DRY), (Collaborator:Gautam Pradhan,NDSU)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
36	MT 22102	LANNING*1/MT1103	<u>89.3</u>	59.0	15.1	180.3	33.7
51	LIMAGR 211	LCS ASCENT	88.3	60.4	13.5	179.1	34.1
52	LIMAGR 231	LCS BOOM	84.5	61.4	14.9	177.8	32.6
33	MT 22083	DAGMAR/MT 1866	83.4	<u>62.1</u>	14.2	<u>177.4</u>	33.9
12	PI 690450	DAGMAR	83.3	60.7	15.1	182.8	35.2
32	MT 22073	LANNING/MT 1806	83.2	58.6	15.1	181.6	33.6
17	MT 2030	MT Ubet	83.0	59.6	14.6	183.4	35.2
15	MT 1809	MT Dutton	81.4	58.9	13.8	183.8	34.8
35	MT 22099	LANNING//MT1338/MT1103	81.1	59.0	14.6	<u>177.4</u>	31.4
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	80.5	58.9	13.7	182.5	33.9
54	MS 241	MS Nova	79.6	59.7	15.0	180.9	34.5
26	MT 21473	DAGMAR/LANNING	79.3	59.0	14.9	183.1	34.1
10	PI 676978	LANNING	79.0	58.3	14.7	181.2	33.2
21	MT 21104	MT 1451/MT 1866	78.9	59.2	13.8	181.6	33.5
40	MT 22179	DAGMAR/MT 1617	78.6	58.1	14.4	178.6	34.5
44	MT 22205	LANNING/MT0945/MT 1807	78.3	58.2	14.7	180.1	32.3
57	SYN 182	SY Longmire	78.2	60.5	14.3	183.3	32.8
41	MT 22182	DAGMAR/MT 1617	78.0	57.2	14.6	181.6	36.1
42	MT 22184	DAGMAR/MT 1617	78.0	59.8	14.4	182.5	34.5
45	MT 22270	LANNING/MT 1853	77.5	58.9	14.6	185.5	34.0
37	MT 22151	MT 1866/MT 1767	76.1	58.6	14.1	181.8	35.9
16	MT 1939	MT Carlson	76.0	58.7	14.3	184.5	34.1
1	AGRIPR 141	SY INGMAR	75.5	59.6	14.8	183.3	33.4
29	MT 21487	Dagmar/BC1-80	74.9	58.2	14.8	184.3	36.9
3	BZ 917-277	ROCKER	74.5	59.3	14.5	185.6	34.6
2	AGRIPR 161	SY ROCKFORD	74.4	58.4	14.5	185.2	33.9
58	SYN 241	AP Elevate	74.3	59.1	15.2	185.4	31.4
22	MT 21174	DAGMAR//MT 1142/MT 1225	74.1	60.0	14.8	181.2	38.7
50	MT 21224	DAGMAR/CAP 197-3	73.9	61.1	15.0	183.6	34.9
62	WF 242	CP3119A	73.8	55.2	14.8	191.6	35.0
39	MT 22177	DAGMAR/WA 8283	73.6	59.8	15.4	184.5	36.7
23	MT 21176	DAGMAR//MT 1142/MT 1225	73.4	57.5	14.7	183.6	36.6
27	MT 21484	Dagmar/BC1-52	73.3	59.0	15.2	183.8	34.7
34	MT 22093	LANNING//MT1338/MT1103	73.2	59.1	14.3	179.2	32.7
46	MT 22324	DAGMAR//MT 1053/MT 1172	73.1	58.2	14.3	179.7	35.4
28	MT 21485	Dagmar/BC1-80	72.3	57.9	15.1	181.2	35.5
24	MT 21186	DAGMAR//MT 1142/MT 1225	72.2	57.6	15.0	183.1	34.4
48	MT 22361	MT 1867//Patwin515/MN-11394-6	72.2	58.1	14.7	185.2	35.4
18	MT 2049	LANNING/MT 1415	71.6	60.3	14.2	178.8	33.7
6	ND 695	REEDER	71.0	58.6	14.8	184.9	35.7
60	SYN 212	AP Gunsmoke	70.6	57.7	16.0	183.0	33.5
59	SYN 211	AP Smith	70.6	59.7	15.0	184.4	31.4

2024 ADVANCED SPRING WHEAT NURSERY, WILLISTON (DRY), (Collaborator:Gautam Pradhan,NDSU) (CONT.)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
14	PI 699957	MT SIDNEY	70.5	58.3	14.3	178.2	32.7
43	MT 22204	DAGMAR//MT1338/IDO1202S	70.4	58.9	15.2	182.4	33.0
38	MT 22172	DAGMAR/WA 8283	70.2	61.5	15.4	185.6	34.9
55	MS 242	MS Charger	69.8	56.3	13.8	183.7	33.5
49	NDHRS14-0134-C	ND Stampede	69.0	57.9	15.1	184.0	34.1
47	MT 22345	DAGMAR/MN14105-7	67.8	56.1	14.8	185.5	32.4
20	MT 21074	MT 1525/MT 1348	67.4	57.4	15.3	184.1	33.3
63	CHS 241	Allegiant 811 HRS	67.3	58.5	14.6	185.5	32.7
9	PI 660981	DUCLAIR	66.6	57.1	14.7	182.4	32.8
8	PI 642366	VIDA	65.9	58.2	14.3	185.5	34.9
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	65.1	57.8	15.0	183.3	34.3
25	MT 21220	DAGMAR/MT 1716	64.7	57.3	14.5	185.9	34.7
61	WF 241	CP3055	64.0	52.8	15.2	189.9	34.3
11	PI 679964	NS PRESSER CLP	62.6	55.5	14.5	186.1	36.5
30	MT 22071	DAGMAR//MT1338/SD3997	60.8	54.8	15.1	185.9	34.9
56	MS 211	AAC Concord	60.5	58.2	16.4	188.5	41.5
64	CHS 242	Allegiant 6284 HRS	59.6	59.4	15.5	183.7	28.0
53	LIMAGR 201	LCS BUSTER	59.3	54.1	14.1	192.4	33.2
31	MT 22072	LANNING/MT 1806	58.8	58.5	14.5	182.5	37.1
7	PI 574642	McNEAL	56.9	57.9	15.1	187.6	35.9
4	BZ 92413R	WB GUNNISON	56.8	57.4	14.5	185.0	33.2
5	CI 10003	THATCHER	50.7	56.2	15.2	183.7	45.8
MEAN			72.5	58.4	14.7	183.3	34.5
C.V.			9.1	1.8	5.0	0.8	3.9
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)			10.2	1.5	0.7	2.0	2.2
LATTICE RE(%) ¹⁾			108.0	122.2	264.4	132.1	96.6

1) Adjusted means provided for Lattice RE% values equal to or greater than 105%

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 ADVANCED SPRING WHEAT NURSERY, BOZEMAN (IRRI)

ENTRY	ID	VARIETY / PEDIGREE	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
61	WF 241	CP3055	59.3	13.3	40.6
55	MS 242	MS Charger	61.6	12.2	37.3
46	MT 22324	DAGMAR//MT 1053/MT 1172	61.2	14.1	37.8
57	SYN 182	SY Longmire	61.9	14.1	36.0
53	LIMAGR 201	LCS BUSTER	59.2	12.1	41.0
47	MT 22345	DAGMAR/MN14105-7	59.9	14.4	38.1
50	MT 21224	DAGMAR/CAP 197-3	61.9	14.2	40.5
20	MT 21074	MT 1525/MT 1348	61.3	14.9	38.3
41	MT 22182	DAGMAR/MT 1617	60.6	13.9	38.9
23	MT 21176	DAGMAR//MT 1142/MT 1225	60.7	13.5	39.3
16	MT 1939	MT Carlson	61.5	13.8	36.5
9	PI 660981	DUCLAIR	60.6	14.4	37.9
39	MT 22177	DAGMAR/WA 8283	62.3	14.1	40.4
30	MT 22071	DAGMAR//MT1338/SD3997	59.7	14.4	40.2
51	LIMAGR 211	LCS ASCENT	61.9	13.1	37.6
25	MT 21220	DAGMAR/MT 1716	61.2	14.4	39.5
64	CHS 242	Allegiant 6284 HRS	62.0	14.0	31.2
31	MT 22072	LANNING/MT 1806	61.1	15.0	36.4
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	61.0	14.0	36.7
48	MT 22361	MT 1867//Patwin515/MN-11394-6	61.7	14.0	38.4
44	MT 22205	LANNING/MT0945/MT 1807	60.6	15.1	34.4
22	MT 21174	DAGMAR//MT 1142/MT 1225	61.0	14.1	40.1
4	BZ 92413R	WB GUNNISON	61.7	13.9	35.3
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	61.6	14.0	37.5
15	MT 1809	MT Dutton	60.4	14.2	37.8
59	SYN 211	AP Smith	60.7	14.2	33.9
58	SYN 241	AP Elevate	60.8	14.2	33.7
8	PI 642366	VIDA	60.5	14.1	37.3
27	MT 21484	Dagmar/BC1-52	61.4	15.3	39.3
3	BZ 917-277	ROCKER	61.0	14.4	37.9
21	MT 21104	MT 1451/MT 1866	61.5	14.2	36.4
32	MT 22073	LANNING/MT 1806	60.8	15.1	36.8
60	SYN 212	AP Gunsmoke	61.5	14.1	37.3
24	MT 21186	DAGMAR//MT 1142/MT 1225	60.8	14.7	38.6
52	LIMAGR 231	LCS BOOM	63.3	14.4	36.5
42	MT 22184	DAGMAR/MT 1617	62.2	15.2	38.4
54	MS 241	MS Nova	62.3	13.9	37.7
7	PI 574642	McNEAL	59.8	14.1	38.8
63	CHS 241	Allegiant 811 HRS	62.1	12.8	36.2
2	AGRIPR 161	SY ROCKFORD	60.4	13.4	38.5
35	MT 22099	LANNING//MT1338/MT1103	61.0	14.4	34.8

2024 ADVANCED SPRING WHEAT NURSERY, BOZEMAN (IRRI) (CONT.)

ENTRY	ID	VARIETY / PEDIGREE	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
29	MT 21487	Dagmar/BC1-80	61.3	14.9	39.6
11	PI 679964	NS PRESSER CLP	59.4	14.3	39.6
33	MT 22083	DAGMAR/MT 1866	62.3	14.2	35.5
37	MT 22151	MT 1866/MT 1767	61.0	13.7	38.5
12	PI 690450	DAGMAR	61.6	14.1	39.5
40	MT 22179	DAGMAR/MT 1617	60.3	14.3	37.5
43	MT 22204	DAGMAR//MT1338/IDO1202S	60.8	15.0	37.1
62	WF 242	CP3119A	58.2	12.9	40.3
1	AGRIPR 141	SY INGMAR	61.6	14.6	36.1
49	DHRS14-0134-C	ND Stampede	61.3	14.8	38.0
36	MT 22102	LANNING*1/MT1103	61.3	13.8	35.3
14	PI 699957	MT SIDNEY	61.8	13.6	36.3
6	ND 695	REEDER	61.4	15.0	40.5
17	MT 2030	MT Ubet	61.5	14.2	36.8
45	MT 22270	LANNING/MT 1853	60.6	14.7	33.9
28	MT 21485	Dagmar/BC1-80	60.1	15.6	39.6
34	MT 22093	LANNING//MT1338/MT1103	61.3	15.2	35.0
10	PI 676978	LANNING	61.7	14.4	37.0
18	MT 2049	LANNING/MT 1415	61.0	14.8	35.5
38	MT 22172	DAGMAR/WA 8283	62.0	14.7	39.1
26	MT 21473	DAGMAR/LANNING	60.4	14.3	38.1
56	MS 211	AAC Concord	60.9	15.0	43.4
5	CI 10003	THATCHER	60.5	14.8	49.4
MEAN			61.1	14.2	37.8
C.V.			1 rep	1 rep	2.0
PROBABILITY (ENTRY)			1 rep	1 rep	<0.001
LSD(0.05)			1 rep	1 rep	1.1
LATTICE RE(%) ¹			1 rep	1 rep	123.8

Yield data was held out due to hail damage

1) Adjusted means provided for Lattice RE% values equal to or greater than 105%

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 ADVANCED SPRING WHEAT NURSERY, KALISPELL (HIGH RAINFALL), (Collaborator:David Larson, NWARC)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)	TKW (g)	GLD ¹⁾ (DAYS)	LOD GING (%)
61	WF 241	CP3055	<u>125.3</u>	60.8	9.8	191.9	34.2	39.2	35.7	<u>0.0</u>
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWST	<u>117.7</u>	61.4	10.2	183.8	32.4	38.9	38.1	<u>0.0</u>
39	MT 22177	DAGMAR/WA 8283	112.6	<u>63.6</u>	10.2	185.5	36.7	38.8	36.2	4.7
46	MT 22324	DAGMAR//MT 1053/MT 1172	110.6	62.2	10.7	183.0	33.5	37.0	37.3	1.8
53	LIMAGR 201	LCS BUSTER	110.1	60.7	9.5	191.6	35.1	36.4	34.1	3.4
50	MT 21224	DAGMAR/CAP 197-3	109.2	62.7	11.1	185.7	36.5	39.1	35.5	0.4
55	MS 242	MS Charger	108.8	61.2	10.2	185.8	31.7	35.4	36.9	4.7
47	MT 22345	DAGMAR/MN14105-7	108.6	61.1	10.7	187.6	34.4	37.8	32.7	2.0
37	MT 22151	MT 1866/MT 1767	108.1	61.3	10.7	185.2	35.6	36.3	36.5	0.7
29	MT 21487	Dagmar/BC1-80	107.5	61.5	10.5	183.6	36.1	38.1	36.4	2.7
12	PI 690450	DAGMAR	106.8	61.8	11.3	183.2	34.9	40.4	36.9	2.1
25	MT 21220	DAGMAR/MT 1716	105.9	61.8	10.6	185.1	32.4	32.7	35.0	14.8
22	MT 21174	DAGMAR//MT 1142/MT 1225	105.8	61.7	11.3	183.2	38.0	38.7	<u>38.2</u>	<u>0.0</u>
24	MT 21186	DAGMAR//MT 1142/MT 1225	104.5	60.5	10.5	186.1	34.4	37.8	34.6	0.4
16	MT 1939	MT Carlson	104.4	60.8	10.8	184.7	34.0	39.5	35.4	4.7
45	MT 22270	LANNING/MT 1853	104.3	61.9	11.0	184.6	33.7	35.2	35.7	0.4
41	MT 22182	DAGMAR/MT 1617	103.4	60.3	10.9	183.5	35.4	34.6	36.4	13.0
48	MT 22361	MT 1867//Patwin515/MN-11394-6	102.9	62.9	10.8	186.2	35.3	36.3	36.7	2.8
42	MT 22184	DAGMAR/MT 1617	102.4	62.5	11.4	183.3	36.2	35.3	37.2	0.8
51	LIMAGR 211	LCS ASCENT	102.0	61.3	10.6	183.2	33.2	33.9	36.9	1.2
15	MT 1809	MT Dutton	101.9	61.3	11.3	187.2	33.2	39.2	33.7	2.1
20	MT 21074	MT 1525/MT 1348	101.9	63.2	11.7	187.5	35.5	38.7	34.1	<u>0.0</u>
44	MT 22205	LANNING/MT0945/MT 1807	101.4	61.0	10.6	183.1	31.8	37.6	36.8	3.4
62	WF 242	CP3119A	100.9	58.9	10.5	192.4	35.0	<u>42.7</u>	34.7	3.2
11	PI 679964	NS PRESSER CLP	100.6	60.8	10.5	188.3	35.6	37.3	34.9	<u>0.0</u>
23	MT 21176	DAGMAR//MT 1142/MT 1225	100.2	60.3	10.2	184.9	34.7	35.9	35.8	0.5
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	99.9	60.8	11.2	185.7	34.0	35.5	35.8	2.5
14	PI 699957	MT SIDNEY	99.7	61.5	10.4	183.2	33.4	30.5	38.0	3.3
40	MT 22179	DAGMAR/MT 1617	99.5	60.7	11.5	183.2	33.3	36.1	36.9	2.6
38	MT 22172	DAGMAR/WA 8283	99.5	62.8	12.2	185.5	36.7	40.9	36.2	3.6
18	MT 2049	LANNING/MT 1415	98.9	61.7	11.3	184.9	34.9	39.1	35.9	<u>0.0</u>
34	MT 22093	LANNING//MT1338/MT1103	98.6	61.0	12.4	<u>182.3</u>	34.5	36.5	<u>38.2</u>	19.5
27	MT 21484	Dagmar/BC1-52	98.1	62.0	10.7	183.8	35.8	40.0	36.9	<u>0.0</u>
57	SYN 182	SY Longmire	98.0	63.3	11.8	185.3	33.7	36.7	35.2	<u>0.0</u>
3	BZ 917-277	ROCKER	97.9	63.4	11.0	188.3	35.7	32.4	33.4	<u>0.0</u>
8	PI 642366	VIDA	97.7	61.4	10.9	185.5	34.5	37.6	35.6	<u>0.0</u>
6	ND 695	REEDER	97.3	63.2	11.8	186.8	38.5	38.9	34.6	0.8
4	BZ 92413R	WB GUNNISON	97.3	62.2	12.1	188.2	33.7	42.2	33.3	<u>0.0</u>
26	MT 21473	DAGMAR/LANNING	96.6	61.3	11.4	184.9	32.4	37.5	35.0	13.9
17	MT 2030	MT Ubet	95.1	60.4	11.7	184.9	32.9	39.3	35.0	37.8
63	CHS 241	Allegiant 811 HRS	95.1	62.4	11.4	187.1	29.4	40.2	33.8	0.7

2024 ADVANCED SPRING WHEAT NURSERY, KALISPELL (HIGH RAINFALL), (Collaborator:David Larson, NWARC) (CONT.)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	KERNEL WEIGHT (G)	TKW (g)	GLD ¹⁾ (DAYS)	LOD GING (%)
30	MT 22071	DAGMAR//MT1338/SD3997	94.7	60.1	11.4	186.5	34.2	35.8	34.2	0.3
32	MT 22073	LANNING/MT 1806	93.8	60.6	11.6	183.4	31.7	32.8	36.6	22.5
21	MT 21104	MT 1451/MT 1866	93.5	61.9	10.8	187.3	35.3	36.6	35.7	3.4
9	PI 660981	DUCLAIR	93.3	61.0	10.9	184.5	33.9	38.6	35.6	1.6
31	MT 22072	LANNING/MT 1806	93.3	61.1	10.4	183.0	33.1	38.2	37.4	0.3
33	MT 22083	DAGMAR/MT 1866	93.3	62.6	11.0	182.9	34.4	39.6	36.8	0.5
54	MS 241	MS Nova	93.2	62.4	11.3	183.2	33.5	32.9	36.8	10.3
59	SYN 211	AP Smith	93.2	62.5	13.0	187.6	32.1	35.6	33.9	4.4
10	PI 676978	LANNING	92.3	61.6	12.6	183.3	33.7	37.8	36.7	55.7
5	CI 10003	THATCHER	91.4	61.0	11.3	188.0	49.3	35.5	34.1	22.4
43	MT 22204	DAGMAR//MT1338/IDO1202S	91.4	60.3	12.1	182.8	32.8	37.4	37.1	0.6
49	NDHRS14-0134-	ND Stampede	90.6	61.6	10.5	185.1	34.2	36.6	35.4	0.1
1	AGRIPR 141	SY INGMAR	90.4	63.4	13.0	187.0	34.1	35.3	33.3	3.2
35	MT 22099	LANNING//MT1338/MT1103	89.5	61.2	11.1	183.0	33.8	37.0	36.9	6.6
64	CHS 242	Allegiant 6284 HRS	88.9	62.2	12.3	183.9	28.5	31.3	37.0	3.0
52	LIMAGR 231	LCS BOOM	88.6	62.5	11.6	183.0	33.3	37.0	37.2	8.4
60	SYN 212	AP Gunsmoke	88.6	62.1	11.0	185.3	33.1	35.8	34.8	0.0
28	MT 21485	Dagmar/BC1-80	88.6	60.4	11.0	183.6	35.3	39.6	36.4	19.8
58	SYN 241	AP Elevate	88.0	62.4	11.6	186.3	31.4	36.1	33.8	1.2
2	AGRIPR 161	SY ROCKFORD	86.9	60.6	11.2	187.7	35.4	36.4	33.6	61.9
7	PI 574642	McNEAL	86.3	62.1	10.5	187.8	35.8	37.3	32.8	89.7
56	MS 211	AAC Concord	84.6	60.6	10.8	187.7	40.9	39.3	33.8	0.4
36	MT 22102	LANNING*1/MT1103	79.6	61.0	11.7	183.1	33.0	38.8	36.9	72.6
MEAN			98.6	61.6	11.1	185.4	34.5	37.2	35.7	8.5
C.V.			7.7	0.4	3.9	0.7	3.9	3	4.6	144.1
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)			11.6	0.4	0.5	1.9	2.0	1.8	2.5	18.8
LATTICE RE(%) ²			112.1	135.1	178.0	116.7	120.6	101.5	112.8	105.7

1) GLD=green leaf duration (stay-green)

2) Adjusted means provided for Lattice RE% values equal to or greater than 105%

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 ADVANCED SPRING WHEAT NURSERY, SIDNEY (IRRI), (Collaborator : Chengci Chen, EARC)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
25	MT 21220	DAGMAR/MT 1716	118.3	65.3	13.8	173.0	32.8
23	MT 21176	DAGMAR//MT 1142/MT 1225	117.8	64.5	13.9	173.0	35.9
55	MS 242	MS Charger	117.1	65.4	11.2	171.3	31.0
41	MT 22182	DAGMAR/MT 1617	117.0	63.9	13.7	168.3	33.0
47	MT 22345	DAGMAR/MN14105-7	116.0	64.4	13.4	171.0	33.8
29	MT 21487	Dagmar/BC1-80	113.7	66.0	14.1	170.0	34.1
27	MT 21484	Dagmar/BC1-52	113.0	65.9	14.3	169.3	33.1
57	SYN 182	SY Longmire	112.5	66.0	13.4	172.7	30.3
60	SYN 212	AP Gunsmoke	112.0	65.2	14.1	171.3	31.8
26	MT 21473	DAGMAR/LANNING	112.0	64.8	14.5	171.0	34.0
46	MT 22324	DAGMAR//MT 1053/MT 1172	111.4	65.7	14.2	169.0	30.8
58	SYN 241	AP Elevate	111.4	65.7	14.0	173.0	30.3
17	MT 2030	MT Ubet	111.1	65.6	14.3	169.7	32.1
51	LIMAGR 211	LCS ASCENT	111.1	66.4	12.9	169.0	31.5
37	MT 22151	MT 1866/MT 1767	110.7	65.6	13.0	171.0	33.2
30	MT 22071	DAGMAR//MT1338/SD3997	110.4	64.3	14.0	174.0	35.4
54	MS 241	MS Nova	110.2	66.0	14.1	169.7	32.8
61	WF 241	CP3055	110.2	62.6	11.9	180.3	33.2
39	MT 22177	DAGMAR/WA 8283	110.0	65.9	14.0	169.7	35.8
19	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	109.8	65.2	12.9	170.7	32.6
15	MT 1809	MT Dutton	109.7	64.8	14.0	172.7	33.4
50	MT 21224	DAGMAR/CAP 197-3	108.9	65.0	13.9	170.7	36.5
63	CHS 241	Allegiant 811 HRS	108.6	65.9	13.1	173.3	31.6
48	MT 22361	MT 1867//Patwin515/MN-11394-6	108.3	65.1	13.8	173.3	32.7
7	PI 574642	McNEAL	107.8	64.3	13.6	174.0	33.1
52	LIMAGR 231	LCS BOOM	107.6	66.7	14.2	167.7	32.4
16	MT 1939	MT Carlson	107.3	65.1	13.8	170.3	32.6
12	PI 690450	DAGMAR	107.2	65.6	14.5	169.7	34.7
44	MT 22205	LANNING/MT0945/MT 1807	107.1	64.9	14.5	169.0	30.3
24	MT 21186	DAGMAR//MT 1142/MT 1225	106.8	64.3	13.7	170.7	33.6
36	MT 22102	LANNING*1/MT1103	106.3	65.4	14.9	167.0	33.2
18	MT 2049	LANNING/MT 1415	106.1	66.1	13.6	167.7	32.8
42	MT 22184	DAGMAR/MT 1617	105.8	66.4	14.5	168.3	32.4
8	PI 642366	VIDA	105.7	65.0	13.9	172.3	34.3
9	PI 660981	DUCLAIR	105.7	63.9	13.9	170.0	33.9
53	LIMAGR 201	LCS BUSTER	105.7	62.9	11.0	177.7	32.8
10	PI 676978	LANNING	105.6	65.3	15.4	168.0	31.2
3	BZ 917-277	ROCKER	105.2	64.9	13.4	174.3	34.0
14	PI 699957	MT SIDNEY	105.0	65.6	12.8	170.3	32.8
1	AGRIPR 141	SY INGMAR	104.1	66.1	14.1	173.0	32.8
11	PI 679964	NS PRESSER CLP	103.9	63.8	13.1	174.3	36.3
22	MT 21174	DAGMAR//MT 1142/MT 1225	103.7	64.9	14.2	170.0	35.7

2024 ADVANCED SPRING WHEAT NURSERY, SIDNEY (IRRI), (Collaborator : Chengci Chen, EARC) (CONT.)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
13	WB 9879 CLP	CHOTEAU*3/CHOTEAU/IMI8134	103.7	65.2	13.7	172.7	32.9
32	MT 22073	LANNING/MT 1806	103.1	64.9	14.5	168.7	31.4
59	SYN 211	AP Smith	103.1	65.7	13.8	173.3	29.6
45	MT 22270	LANNING/MT 1853	102.8	65.3	13.8	171.0	31.6
21	MT 21104	MT 1451/MT 1866	102.7	66.0	13.1	172.7	32.6
28	MT 21485	Dagmar/BC1-80	102.0	65.5	14.5	169.7	33.3
49	NDHRS14-0134-C	ND Stampede	101.9	65.7	12.6	169.7	32.4
40	MT 22179	DAGMAR/MT 1617	101.6	64.8	14.1	169.0	32.8
35	MT 22099	LANNING//MT1338/MT1103	101.4	65.5	14.1	167.7	29.6
6	ND 695	REEDER	101.1	65.3	14.5	170.7	35.4
43	MT 22204	DAGMAR//MT1338/IDO1202S	100.5	65.4	14.5	169.0	31.2
34	MT 22093	LANNING//MT1338/MT1103	99.5	65.5	15.3	167.3	30.0
62	WF 242	CP3119A	99.2	60.3	12.1	181.3	34.1
31	MT 22072	LANNING/MT 1806	98.9	65.4	13.7	169.0	30.7
33	MT 22083	DAGMAR/MT 1866	96.8	66.2	14.5	167.7	31.5
38	MT 22172	DAGMAR/WA 8283	96.3	65.3	14.7	170.0	33.6
64	CHS 242	Allegiant 6284 HRS	96.1	65.7	13.8	172.3	27.7
56	MS 211	AAC Concord	94.5	64.2	15.2	173.7	39.1
2	AGRIPR 161	SY ROCKFORD	93.5	64.2	12.7	173.7	32.8
20	MT 21074	MT 1525/MT 1348	93.1	64.4	14.1	173.3	34.5
4	BZ 92413R	WB GUNNISON	92.8	64.5	13.4	171.7	29.8
5	CI 10003	THATCHER	89.6	64.1	14.2	174.0	43.2
MEAN			105.8	65.1	13.8	171.2	33.0
C.V.			3.4	0.4	2.5	0.5	3.6
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)			5.6	0.4	0.5	1.4	1.9
LATTICE RE(%) ¹⁾			101.7	96.5	100.5	100.5	100.0

1) Adjusted means provided for Lattice RE% values equal to or greater than 105%

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

**2024 OVERALL AGRONOMIC SUMMARY FOR SPRING WHEAT OFF-STATION NURSERY GROWN UNDER
RAIN FED CONDITION ACROSS MONTANA**

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	GRAIN PROTEIN (%)	HEADING DATE (JULIAN)	HEIGHT (INCHES)	SAWFLY CUT (%)	FALLING NO.
24	MT 21473	44.3	58.1	15.0	165.6	28.5	9.9	372
15	MT CARLSON	44.1	58.7	14.3	165.3	27.3	15.2	364
16	MT UBET	44.1	58.5	14.5	165.5	27.3	21.9	332
25	MT 21484	43.7	59.0	14.7	164.6	28.2	6.5	383
14	MT DUTTON	43.3	57.5	14.8	167.0	27.7	16.7	395
12	DAGMAR	42.5	59.2	15.1	165.3	27.7	4.8	388
22	MT 21186	42.1	57.6	14.8	167.4	27.7	2.0	394
10	VIDA	42.0	58.5	14.3	167.4	27.5	11.4	373
23	MT 21220	41.2	58.1	14.9	167.7	27.1	8.6	413
18	MT 2063	41.1	58.9	14.2	165.1	26.8	12.0	364
21	MT 21174	40.3	58.7	15.2	165.7	27.8	3.9	422
8	LCS ASCENT	40.3	59.9	14.3	163.9	27.0	19.1	415
7	ROCKER	39.7	59.6	14.7	168.3	27.4	11.4	448
19	MT 21074	39.3	59.5	15.2	169.1	26.6	7.6	385
4	WB 9879CLP	39.1	58.4	15.0	168.3	27.0	4.3	402
13	MT SIDNEY	39.0	59.0	14.9	164.9	27.2	22.5	371
11	LANNING	38.9	58.2	15.1	164.1	26.9	24.9	389
17	MT 2049	38.6	59.0	14.3	164.0	27.0	13.7	381
20	MT 21104	38.2	58.7	14.6	168.3	27.2	10.6	342
9	REEDER	37.3	58.5	15.0	167.7	28.2	20.2	406
1	SY ROCKFORD	37.2	57.4	14.8	168.4	27.5	23.1	405
2	SY LONGMIRE	36.8	59.6	15.0	168.4	26.8	10.4	420
6	WB GUNNISON	35.9	58.8	14.4	167.3	26.6	8.3	437
5	WB 9668	35.8	59.1	16.2	164.0	24.5	8.1	394
3	AP SMITH	35.7	58.7	15.2	168.3	25.6	23.9	392
MEAN		40.0	58.7	14.8	166.5	27.2	12.8	391.0
C.V.		9.2	1.1	3.2	0.3	3.9	40.2	9.8
PROBABILITY (LINE)		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.05
LSD (0.05)		3.0	0.5	0.4	0.9	0.9	8.5	54.0
No. of environments		12	12	12	1	12	3	4

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

**2024 OVERALL AGRONOMIC SUMMARY FOR SPRING WHEAT OFF-STATION NURSERY GROWN UNDER IRRI
/ HIGH RAINFALL CONDITION ACROSS MONTANA**

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	GRAIN PROTEIN (%)	HEADING DATE (JULIAN)	HEIGHT (INCHES)
23	MT 21220	99.5	61.1	14.5	167.8	31.1
25	MT 21484	96.2	60.9	15.6	166.8	31.5
12	DAGMAR	92.9	60.9	15.3	168.4	31.9
16	MT UBET	92.7	60.5	15.6	168.0	30.6
22	MT 21186	92.6	59.4	15.0	169.9	31.0
15	MT CARLSON	91.2	59.9	14.3	169.5	32.8
7	ROCKER	90.6	62.0	15.0	168.2	31.2
14	MT DUTTON	89.3	59.9	15.1	169.8	31.4
10	VIDA	88.0	60.6	13.9	168.5	32.1
2	SY LONGMIRE	87.4	61.8	14.5	168.5	30.4
9	REEDER	87.3	61.6	14.8	168.9	32.9
3	AP SMITH	87.0	61.0	14.6	167.1	29.7
13	MT SIDNEY	86.8	60.8	13.9	167.9	30.8
11	LANNING	86.2	60.6	15.6	169.2	30.1
20	MT 21104	86.1	61.0	14.6	169.5	31.1
21	MT 21174	85.2	59.8	15.4	168.6	31.6
1	SY ROCKFORD	85.0	59.5	14.1	170.5	32.5
18	MT 2063	84.5	60.2	13.3	168.1	30.8
8	LCS ASCENT	84.0	61.1	14.2	168.5	30.0
17	MT 2049	83.9	61.0	14.7	167.1	30.5
6	WB GUNNISON	83.6	61.1	14.0	168.1	30.5
24	MT 21473	83.6	60.9	15.5	169.9	31.9
19	MT 21074	81.8	61.5	15.0	171.1	31.7
5	WB 9668	76.1	59.6	16.2	168.2	27.1
4	WB 9879CLP	75.2	59.4	15.5	170.4	31.5
MEAN		87.1	60.6	14.8	168.7	31.1
C.V.		12.0	0.7	5.2	0.7	4.4
PROBABILITY (LINE)		ns	<0.001	<0.01	ns	<0.05
LSD (0.05)		-	0.7	1.3	-	2.3
No. of environments		3	3	3	2	3

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OVERALL AGRONOMIC SUMMARY FOR SPRING WHEAT OFF-STATION NURSERY GROWN IN 15 ENVIRONMENTS, INCLUDING 12 DRYLAND AND 3 IRRIGATED ENVIRONMENTS ACROSS MONTANA

ENTRY	VARIETY / LINE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	GRAIN PROTEIN (%)	HEADING DATE (JULIAN)	HEIGHT (INCHES)	SAWFLY CUT (%)	FALLING NO.
25	MT 21484	54.2	59.4	14.9	166.0	28.9	6.5	383
16	MT UBET	53.8	58.9	14.7	167.1	27.9	21.9	332
15	MT CARLSON	53.5	58.9	14.3	168.1	28.4	15.2	364
23	MT 21220	52.9	58.7	14.8	167.7	27.9	8.6	413
12	DAGMAR	52.6	59.5	15.1	167.4	28.6	4.8	388
14	MT DUTTON	52.5	58.0	14.9	168.9	28.4	16.7	395
22	MT 21186	52.2	58.0	14.9	169.0	28.3	2.0	394
24	MT 21473	52.2	58.7	15.1	168.4	29.2	9.9	372
10	VIDA	51.2	58.9	14.2	168.1	28.4	11.4	373
7	ROCKER	49.9	60.1	14.8	168.2	28.2	11.4	448
18	MT 2063	49.8	59.1	14.0	167.1	27.6	12.0	364
21	MT 21174	49.3	58.9	15.2	167.6	28.6	3.9	422
8	LCS ASCENT	49.0	60.1	14.2	166.9	27.6	19.1	415
13	MT SIDNEY	48.6	59.4	14.7	166.9	27.9	22.5	371
11	LANNING	48.4	58.7	15.2	167.5	27.5	24.9	389
19	MT 21074	47.8	59.9	15.2	170.4	27.6	7.6	385
20	MT 21104	47.8	59.2	14.6	169.1	27.9	10.6	342
17	MT 2049	47.6	59.4	14.4	166.1	27.7	13.7	381
9	REEDER	47.3	59.1	15.0	168.5	29.1	20.2	406
2	SY LONGMIRE	46.9	60.0	14.9	168.4	27.5	10.4	420
1	SY ROCKFORD	46.8	57.8	14.6	169.8	28.5	23.1	405
4	WB 9879CLP	46.3	58.6	15.1	169.7	27.9	4.3	402
3	AP SMITH	45.9	59.1	15.1	167.5	26.4	23.9	392
6	WB GUNNISON	45.5	59.2	14.3	167.8	27.4	8.3	437
5	WB 9668	43.9	59.2	16.2	166.8	25.0	8.1	394
MEAN		49.4	59.1	14.8	168.0	27.9	12.8	391.0
C.V.		11.1	1.1	3.8	0.8	4.0	40.2	9.8
PROBABILITY (LINE)		<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.05
LSD (0.05)		3.9	0.5	0.4	2.1	0.8	8.5	54.0
No. of environments		15	15	15	3	15	3	4

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OFF-STATION : KALISPELL (HIGH RAINFALL) : 9905

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)	GLD ¹⁾ (DAYS)	LODGING (%)
10	PI 642366	VIDA	99.4	61.0	14.2	174.2	31.7	47.5	13.3
22	MT 21186	DAGMAR//MT 1142//MT 1225	91.2	59.7	14.4	173.7	27.2	47.1	1.7
12	PI 690450	DAGMAR	90.4	61.6	15.0	173.5	29.8	47.1	0.0
15	MT 1939	MT CARLSON	89.1	60.3	14.0	175.3	29.7	44.3	0.0
23	MT 21220	DAGMAR//MT SIDNEY	89.0	61.7	14.1	173.5	28.8	46.2	6.7
9	ND 695	REEDER	87.9	62.0	15.1	175.1	30.8	46.6	0.0
2	SYN 182	SY LONGMIRE	87.3	61.9	15.1	173.6	27.7	46.0	0.0
18	MT 2063	MT 1572//MT1133//CHOTEAU/YELLO	86.3	59.7	13.8	173.4	28.5	45.9	3.3
13	MT 1716	MT SIDNEY	85.7	61.1	14.0	174.0	28.5	44.7	36.7
19	MT 21074	MT 1525//MT 1348	81.8	61.5	14.3	175.8	30.3	46.2	1.7
20	MT 21104	MT 1451//MT 1866	81.1	61.5	13.8	173.3	28.5	47.0	0.0
25	MT 21484	Dagmar//BC1-52	78.6	61.8	15.0	172.8	31.0	48.7	1.7
17	MT 2049	LANNING//MT 1415	78.3	61.4	14.9	172.5	28.3	46.8	3.3
1	AGRIPR 161	SY ROCKFORD	77.7	60.2	14.0	175.3	29.8	45.0	3.3
21	MT 21174	DAGMAR//MT 1142//MT 1225	75.7	60.1	14.8	172.8	27.3	48.6	5.0
7	BZ 917-277	ROCKER	71.2	62.3	14.2	174.7	29.7	45.4	13.3
8	LIMAGR 211	LCS ASCENT	70.3	61.5	13.6	173.9	27.3	46.3	3.3
5	WB 222	WB 9668	69.4	59.7	16.1	173.7	24.3	46.8	0.0
11	PI 676978	LANNING	68.4	60.9	15.6	173.4	26.7	46.2	0.0
24	MT 21473	DAGMAR//LANNING	68.2	61.4	14.7	174.0	29.3	45.6	15.0
4	WB 9879CLP	WB 9879CLP	65.1	60.0	14.6	174.0	29.5	45.4	10.0
14	MT 1809	MT DUTTON	64.7	60.3	14.2	174.6	29.5	47.1	1.7
3	SYN 211	AP SMITH	63.6	60.9	14.8	173.8	28.5	46.1	0.0
6	BZ 92413R	WB GUNNISON	60.6	61.0	13.4	173.1	27.2	46.8	13.3
16	MT 2030	MT UBET	58.1	60.5	14.9	174.2	29.2	45.4	6.7
MEAN			77.6	61.0	14.5	173.9	28.8	46.3	5.6
C.V.			15.0	0.5	2.0	0.6	5.3	3	213
PROBABILITY (ID)			<0.05	<0.001	<0.001	ns	<0.001	<0.01	ns
LSD(0.05)			17.9	0.5	0.5	-	2.4	1.9	-

1) GLD=green leaf duration (stay-green)

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OFF-STATION : HUNTLEY (DRY) : 9908

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
16	MT 2030	MT UBET	96.6	58.5	14.3	165.5	36.9
25	MT 21484	Dagmar/BC1-52	93.0	57.8	15.0	164.6	40.3
14	MT 1809	MT DUTTON	90.9	56.8	14.4	167.0	38.4
24	MT 21473	DAGMAR/LANNING	89.1	58.5	15.2	165.6	37.8
15	MT 1939	MT CARLSON	87.7	58.9	14.1	165.3	35.5
12	PI 690450	DAGMAR	86.0	57.9	15.4	165.3	38.1
22	MT 21186	DAGMAR//MT 1142/MT 1225	84.8	57.1	15.1	167.4	38.0
11	PI 676978	LANNING	82.4	57.1	15.2	164.1	36.3
23	MT 21220	DAGMAR/MT SIDNEY	82.4	57.3	14.8	167.7	35.5
8	LIMAGR 211	LCS ASCENT	82.1	58.7	13.8	163.9	38.8
18	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	80.1	56.9	14.0	165.1	38.3
13	MT 1716	MT SIDNEY	79.5	57.9	14.3	164.9	36.2
20	MT 21104	MT 1451/MT 1866	79.2	58.4	14.2	168.3	36.1
17	MT 2049	LANNING/MT 1415	79.1	58.6	14.1	164.0	38.5
21	MT 21174	DAGMAR//MT 1142/MT 1225	78.8	57.5	15.0	165.7	39.3
5	WB 222	WB 9668	78.0	57.5	15.6	164.0	31.6
10	PI 642366	VIDA	77.0	58.4	14.0	167.4	37.1
1	AGRIPR 161	SY ROCKFORD	75.0	56.7	14.1	168.4	35.2
7	BZ 917-277	ROCKER	74.7	58.4	14.7	168.3	34.8
3	SYN 211	AP SMITH	74.2	58.7	14.5	168.3	32.4
2	SYN 182	SY LONGMIRE	72.9	58.2	14.1	168.4	34.3
19	MT 21074	MT 1525/MT 1348	72.8	58.9	15.3	169.1	35.3
4	WB 9879CLP	WB 9879CLP	72.1	57.6	14.4	168.3	36.4
9	ND 695	REEDER	68.5	58.9	15.1	167.7	40.0
6	BZ 92413R	WB GUNNISON	61.2	59.1	14.0	167.3	33.2
MEAN			79.9	58.0	14.6	166.5	36.6
C.V.			4.6	1.5	1.6	0.3	3.6
PROBABILITY (ID)			<0.001	<0.05	<0.001	<0.001	<0.001
LSD(0.05)			5.9	1.4	0.4	0.9	2.0

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OFF-STATION : HUNTLEY (IRRI) : 9909

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	HEADING DATE (JULIAN)	PLANT HEIGHT (IN.)
25	MT 21484	Dagmar/BC1-52	102.2	60.4	16.8	160.7	26.6
16	MT 2030	MT UBET	98.2	60.8	16.3	161.7	27.7
23	MT 21220	DAGMAR/MT SIDNEY	97.1	61.3	15.8	162.0	28.7
6	BZ 92413R	WB GUNNISON	96.2	61.5	15.2	163.0	30.2
7	BZ 917-277	ROCKER	91.9	62.6	16.5	161.7	28.5
14	MT 1809	MT DUTTON	88.7	60.2	16.2	165.0	29.8
3	SYN 211	AP SMITH	88.6	61.6	15.2	160.3	26.9
11	PI 676978	LANNING	86.8	60.3	16.6	165.0	29.8
2	SYN 182	SY LONGMIRE	84.1	61.6	16.3	163.3	29.8
8	LIMAGR 211	LCS ASCENT	81.1	60.9	15.5	163.0	28.4
24	MT 21473	DAGMAR/LANNING	80.3	60.4	17.1	165.7	29.9
9	ND 695	REEDER	80.1	61.4	15.7	162.7	31.3
17	MT 2049	LANNING/MT 1415	80.0	60.6	16.1	161.7	28.7
12	PI 690450	DAGMAR	79.8	60.3	16.7	163.3	29.2
22	MT 21186	DAGMAR//MT 1142/MT 1225	79.1	58.7	17.2	166.0	29.9
15	MT 1939	MT CARLSON	76.5	59.2	16.6	163.7	33.9
13	MT 1716	MT SIDNEY	75.5	60.7	16.2	161.7	29.9
18	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	74.6	60.1	15.6	162.7	28.9
21	MT 21174	DAGMAR//MT 1142/MT 1225	73.9	59.6	17.5	164.3	29.4
1	AGRIPR 161	SY ROCKFORD	73.7	58.9	15.5	165.7	32.2
20	MT 21104	MT 1451/MT 1866	71.2	60.5	16.9	165.7	30.0
19	MT 21074	MT 1525/MT 1348	70.1	61.0	17.3	166.3	29.7
10	PI 642366	VIDA	68.5	60.2	16.0	162.7	29.1
5	WB 222	WB 9668	67.6	59.7	18.7	162.7	28.6
4	WB 9879CLP	WB 9879CLP	56.8	58.7	18.4	166.7	30.4
MEAN			80.9	60.5	16.5	163.5	29.5
C.V.			14.2	0.7	3.8	1.6	9.0
PROBABILITY (ID)			<0.05	<0.001	<0.001	ns	ns
LSD(0.05)			13.5	0.5	0.9	-	-

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OFF-STATION : CONRAD (DRY) : 9919

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	SAWFLY CUT (0-10)
24	MT 21473	DAGMAR/LANNING	53.0	57.8	15.6	32.0	1.0
25	MT 21484	Dagmar/BC1-52	49.0	58.4	15.1	29.3	0.7
7	BZ 917-277	ROCKER	48.9	59.8	14.9	31.3	1.0
14	MT 1809	MT DUTTON	48.0	56.5	15.8	29.7	1.0
16	MT 2030	MT UBET	47.5	58.2	15.9	31.0	2.7
4	WB 9879CLP	WB 9879CLP	46.7	57.9	15.9	30.7	0.3
22	MT 21186	DAGMAR//MT 1142/MT 1225	43.3	57.0	15.5	29.3	0.0
6	BZ 92413R	WB GUNNISON	42.2	56.9	15.0	27.7	1.0
15	MT 1939	MT CARLSON	41.9	58.1	15.0	29.3	1.3
12	PI 690450	DAGMAR	41.9	59.6	15.0	29.7	0.3
21	MT 21174	DAGMAR//MT 1142/MT 1225	41.9	58.0	16.1	30.3	0.7
10	PI 642366	VIDA	41.0	57.6	15.1	30.7	1.3
23	MT 21220	DAGMAR/MT SIDNEY	40.4	57.3	15.8	29.3	1.0
20	MT 21104	MT 1451/MT 1866	38.6	58.4	14.8	30.0	2.0
3	SYN 211	AP SMITH	37.3	58.6	16.2	29.7	2.3
8	LIMAGR 211	LCS ASCENT	37.0	60.4	14.7	27.3	2.0
18	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	35.9	59.5	15.5	27.0	1.3
9	ND 695	REEDER	35.9	57.5	15.7	30.7	2.7
19	MT 21074	MT 1525/MT 1348	35.8	58.6	16.2	27.3	1.0
11	PI 676978	LANNING	33.9	57.4	15.6	30.0	3.3
5	WB 222	WB 9668	33.5	59.8	17.1	26.3	1.0
2	SYN 182	SY LONGMIRE	33.1	59.0	15.5	29.7	1.3
17	MT 2049	LANNING/MT 1415	32.8	58.8	14.6	28.7	2.7
13	MT 1716	MT SIDNEY	32.0	59.2	16.0	28.7	2.7
1	AGRIPR 161	SY ROCKFORD	29.1	57.6	15.7	32.0	3.0
MEAN			40.0	58.3	15.5	29.5	1.5
C.V.			10.0	1.9	1 rep	4.1	38.9
PROBABILITY (ID)			<0.001	<0.01	1 rep	<0.001	<0.001
LSD(0.05)			6.2	1.7	1 rep	2.1	0.9

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OFF-STATION : TURNER (DRY) : 9951

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	SAWFLY CUT (%)	FALLING NO.
24	MT 21473	DAGMAR/LANNING	49.6	58.4	14.6	30.9	8.6	422
16	MT 2030	MT UBET	46.4	58.8	15.2	29.7	22.1	453
19	MT 21074	MT 1525/MT 1348	45.9	60.1	14.8	29.8	11.1	396
14	MT 1809	MT DUTTON	45.8	57.9	15.4	29.3	19.0	426
10	PI 642366	VIDA	45.1	59.6	14.3	28.3	7.1	403
23	MT 21220	DAGMAR/MT SIDNEY	44.9	58.9	14.4	29.7	7.2	437
25	MT 21484	Dagmar/BC1-52	44.1	59.8	14.8	30.7	6.4	423
17	MT 2049	LANNING/MT 1415	44.0	59.1	14.2	28.9	10.8	444
15	MT 1939	MT CARLSON	43.9	58.8	14.1	29.5	6.5	375
22	MT 21186	DAGMAR//MT 1142/MT 1225	43.9	58.2	14.3	29.6	0.1	426
8	LIMAGR 211	LCS ASCENT	43.9	60.2	14.4	28.9	8.8	453
7	BZ 917-277	ROCKER	43.8	59.9	14.2	29.3	10.0	453
18	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	43.7	59.5	13.8	27.3	6.7	406
12	PI 690450	DAGMAR	43.2	59.6	14.9	28.6	2.7	442
4	WB 9879CLP	WB 9879CLP	43.0	58.6	15.1	29.2	2.8	437
13	MT 1716	MT SIDNEY	42.1	59.8	14.7	29.3	14.7	432
21	MT 21174	DAGMAR//MT 1142/MT 1225	41.6	59.1	14.5	29.7	2.0	437
11	PI 676978	LANNING	41.0	58.8	15.0	30.1	18.4	410
6	BZ 92413R	WB GUNNISON	41.0	59.0	14.3	29.2	12.7	441
20	MT 21104	MT 1451/MT 1866	41.0	59.4	14.0	29.3	7.9	394
2	SYN 182	SY LONGMIRE	40.6	60.0	15.0	30.1	6.9	491
9	ND 695	REEDER	40.1	59.4	15.0	29.1	17.4	421
1	AGRIPR 161	SY ROCKFORD	38.6	58.5	14.7	31.5	23.6	449
5	WB 222	WB 9668	36.8	59.5	16.3	25.8	5.2	472
3	SYN 211	AP SMITH	34.3	59.8	15.6	28.0	22.7	435
MEAN			42.7	59.2	14.7	29.3	10.5	431
C.V.			7.3	0.6	3.6	2.8	33.4	3.3
PROBABILITY (ID)			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)			3.9	0.5	0.8	1.2	5.4	23

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

20243 OFF-STATION : CHESTER (DRY) : 9953

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	FALLING NO.
15	MT 1939	MT CARLSON	<u>38.0</u>	52.6	16.8	27.2	416
24	MT 21473	DAGMAR/LANNING	37.7	52.5	17.6	28.7	327
12	PI 690450	DAGMAR	37.3	54.2	17.0	27.8	462
18	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	35.9	53.5	16.7	25.5	420
14	MT 1809	MT DUTTON	35.8	51.8	17.9	26.3	434
16	MT 2030	MT UBET	35.7	53.3	17.2	25.9	331
23	MT 21220	DAGMAR/MT SIDNEY	35.1	52.7	18.2	27.7	442
25	MT 21484	Dagmar/BC1-52	34.9	54.0	17.2	27.1	432
10	PI 642366	VIDA	34.8	52.9	17.2	26.5	426
21	MT 21174	DAGMAR//MT 1142/MT 1225	34.8	54.0	17.9	27.7	<u>493</u>
11	PI 676978	LANNING	34.3	51.5	18.2	27.4	458
17	MT 2049	LANNING/MT 1415	33.7	54.3	16.5	27.3	405
3	SYN 211	AP SMITH	33.4	53.2	18.1	24.1	427
22	MT 21186	DAGMAR//MT 1142/MT 1225	33.3	52.2	17.7	<u>29.1</u>	412
13	MT 1716	MT SIDNEY	32.8	54.4	17.7	26.6	393
9	ND 695	REEDER	32.4	52.5	17.5	28.1	458
7	BZ 917-277	ROCKER	32.1	53.9	18.4	26.9	435
6	BZ 92413R	WB GUNNISON	32.0	52.9	17.2	25.6	488
1	AGRIPR 161	SY ROCKFORD	31.9	50.6	18.0	26.8	416
8	LIMAGR 211	LCS ASCENT	31.9	<u>55.2</u>	17.3	27.6	456
20	MT 21104	MT 1451/MT 1866	31.1	51.8	17.9	26.2	394
4	WB 9879CLP	WB 9879CLP	30.9	52.4	17.6	26.9	432
19	MT 21074	MT 1525/MT 1348	30.6	54.6	18.6	26.6	419
5	WB 222	WB 9668	29.3	54.6	<u>18.8</u>	23.9	430
2	SYN 182	SY LONGMIRE	28.0	54.7	18.0	26.1	447
MEAN			33.5	53.2	17.6	26.8	426
C.V.			6.2	1.1	1.7	2.7	8
PROBABILITY (ID)			<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)			3.2	0.8	0.5	1.3	57

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OFF-STATION : LORING (DRY) : 9955

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	SAWFLY CUT (%)	FALLING NO.
10	PI 642366	VIDA	52.2	57.8	14.1	30.7	17.5	426
22	MT 21186	DAGMAR//MT 1142/MT 1225	52.2	57.3	15.2	30.0	3.1	443
25	MT 21484	Dagmar/BC1-52	52.0	58.4	15.0	30.9	11.7	445
24	MT 21473	DAGMAR/LANNING	51.3	57.1	14.8	31.6	12.9	410
14	MT 1809	MT DUTTON	51.2	57.1	14.7	30.0	21.8	416
12	PI 690450	DAGMAR	50.9	58.7	15.0	30.8	8.7	444
18	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	49.2	58.6	14.4	28.8	21.4	407
23	MT 21220	DAGMAR/MT SIDNEY	48.9	58.2	15.2	29.3	9.7	436
17	MT 2049	LANNING/MT 1415	48.8	58.7	14.4	29.3	12.8	437
8	LIMAGR 211	LCS ASCENT	47.7	59.1	14.5	29.5	13.0	425
15	MT 1939	MT CARLSON	47.7	58.4	14.7	28.8	18.7	408
21	MT 21174	DAGMAR//MT 1142/MT 1225	47.5	58.4	15.2	30.8	5.5	427
20	MT 21104	MT 1451/MT 1866	46.7	58.2	14.6	30.0	15.2	403
4	WB 9879CLP	WB 9879CLP	46.3	57.6	15.4	30.0	8.5	440
7	BZ 917-277	ROCKER	45.8	59.4	14.6	30.9	16.0	454
19	MT 21074	MT 1525/MT 1348	45.7	59.1	15.0	28.7	10.5	407
13	MT 1716	MT SIDNEY	45.5	58.8	15.0	29.5	20.6	438
6	BZ 92413R	WB GUNNISON	45.1	58.4	14.8	29.7	11.1	453
9	ND 695	REEDER	44.6	58.2	15.1	30.8	22.0	428
2	SYN 182	SY LONGMIRE	44.4	59.5	15.1	29.8	17.8	477
16	MT 2030	MT UBET	40.3	58.4	14.5	26.8	21.5	429
5	WB 222	WB 9668	40.0	58.6	17.0	25.9	9.0	467
3	SYN 211	AP SMITH	39.8	58.9	15.5	28.5	24.0	438
11	PI 676978	LANNING	38.8	57.8	15.5	29.3	27.0	392
1	AGRIPR 161	SY ROCKFORD	38.5	57.6	14.6	28.4	18.2	434
MEAN			46.4	58.3	15.0	29.6	15.1	431
C.V.			6.8	0.5	1.9	3.7	31.4	2.6
PROBABILITY (ID)			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)			3.7	0.5	0.4	1.5	7.5	21

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OFF-STATION : LOMA (DRY) : 9957

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)	SAWFLY CUT (%)	FALLING NO.
15	MT 1939	MT CARLSON	44.6	53.3	15.6	28.7	20.3	258
24	MT 21473	DAGMAR/LANNING	39.8	53.3	16.4	29.1	8.1	329
25	MT 21484	Dagmar/BC1-52	39.0	55.1	16.0	28.8	1.4	231
19	MT 21074	MT 1525/MT 1348	38.4	54.0	16.9	28.8	1.2	319
10	PI 642366	VIDA	38.0	55.3	15.4	27.9	9.7	237
12	PI 690450	DAGMAR	37.9	55.1	16.3	27.9	3.1	205
4	WB 9879CLP	WB 9879CLP	37.2	52.7	16.4	27.9	1.5	300
16	MT 2030	MT UBET	37.0	54.1	15.9	28.4	22.1	116
11	PI 676978	LANNING	36.6	53.2	16.5	27.0	29.4	297
23	MT 21220	DAGMAR/MT SIDNEY	36.5	54.7	16.9	26.4	9.0	336
6	BZ 92413R	WB GUNNISON	35.9	55.3	15.5	28.2	1.0	367
21	MT 21174	DAGMAR//MT 1142/MT 1225	35.8	54.6	16.6	27.3	4.2	332
18	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	35.5	54.1	15.3	27.2	8.0	224
13	MT 1716	MT SIDNEY	35.2	55.1	16.2	28.8	32.3	221
8	LIMAGR 211	LCS ASCENT	35.1	56.0	15.4	26.7	35.6	325
9	ND 695	REEDER	35.0	53.7	16.3	29.6	21.1	317
22	MT 21186	DAGMAR//MT 1142/MT 1225	34.8	52.8	16.4	27.7	2.8	294
14	MT 1809	MT DUTTON	34.5	53.4	16.7	29.8	9.3	303
17	MT 2049	LANNING/MT 1415	33.9	55.1	15.8	26.6	17.4	237
7	BZ 917-277	ROCKER	33.7	54.9	16.1	28.3	8.3	449
2	SYN 182	SY LONGMIRE	33.6	55.9	16.4	26.4	6.6	265
5	WB 222	WB 9668	30.9	54.9	17.8	25.7	10.2	206
1	AGRIPR 161	SY ROCKFORD	26.6	52.1	16.2	25.2	27.6	322
20	MT 21104	MT 1451/MT 1866	26.5	54.3	16.2	27.3	8.6	176
3	SYN 211	AP SMITH	22.6	55.3	16.4	25.6	24.9	266
MEAN			35.0	54.3	16.2	27.7	12.8	277
C.V.			6.4	7.3	1.4	3.6	37.6	10.9
PROBABILITY (ID)			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LSD(0.05)			2.5	0.5	0.3	1.4	6.6	27

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OFF-STATION : MOCCASIN (DRY) : 9970

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
10	PI 642366	VIDA	<u>45.7</u>	61.6	12.0	24.7
1	AGRIPR 161	SY ROCKFORD	43.8	62.5	12.1	26.0
15	MT 1939	MT CARLSON	43.6	63.5	11.5	23.7
23	MT 21220	DAGMAR/MT SIDNEY	43.4	62.3	12.7	25.0
19	MT 21074	MT 1525/MT 1348	43.3	63.4	12.4	25.3
22	MT 21186	DAGMAR//MT 1142/MT 1225	42.5	62.0	12.0	25.0
18	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	41.5	63.2	11.6	24.7
16	MT 2030	MT UBET	41.3	62.2	11.6	26.3
14	MT 1809	MT DUTTON	39.3	60.6	12.4	24.7
13	MT 1716	MT SIDNEY	38.9	63.9	11.8	24.3
4	WB 9879CLP	WB 9879CLP	38.8	<u>64.0</u>	12.2	24.7
3	SYN 211	AP SMITH	38.6	62.2	13.3	25.3
8	LIMAGR 211	LCS ASCENT	38.6	63.6	11.7	25.0
11	PI 676978	LANNING	37.9	62.3	11.9	23.7
21	MT 21174	DAGMAR//MT 1142/MT 1225	37.0	62.4	12.8	26.0
24	MT 21473	DAGMAR/LANNING	36.8	61.5	12.3	<u>27.3</u>
12	PI 690450	DAGMAR	36.4	62.9	12.4	26.0
25	MT 21484	Dagmar/BC1-52	36.2	62.7	12.2	26.0
9	ND 695	REEDER	36.0	62.3	12.4	26.0
7	BZ 917-277	ROCKER	36.0	62.5	12.4	25.7
2	SYN 182	SY LONGMIRE	34.9	62.8	<u>13.5</u>	24.3
20	MT 21104	MT 1451/MT 1866	34.7	62.9	11.9	24.7
5	WB 222	WB 9668	32.1	63.4	<u>13.5</u>	21.7
6	BZ 92413R	WB GUNNISON	31.3	62.1	12.5	26.0
17	MT 2049	LANNING/MT 1415	29.5	62.4	11.8	24.0
MEAN			38.3	62.6	12.3	25.0
C.V.			19.4	1.2	5.0	6.6
PROBABILITY (ID)			ns	<0.001	<0.01	ns
LSD(0.05)			-	1.2	0.9	-

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OFF-STATION : DENTON (DRY) : 9971

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
16	MT 2030	MT UBET	<u>17.2</u>	54.8	13.9	20.3
12	PI 690450	DAGMAR	17.1	58.0	14.3	21.4
11	PI 676978	LANNING	17.0	56.6	14.0	21.0
15	MT 1939	MT CARLSON	16.9	56.9	13.6	21.2
25	MT 21484	Dagmar/BC1-52	16.0	56.2	14.5	<u>22.2</u>
23	MT 21220	DAGMAR/MT SIDNEY	15.6	56.0	13.9	21.6
6	BZ 92413R	WB GUNNISON	15.5	56.9	14.3	21.2
20	MT 21104	MT 1451/MT 1866	15.0	56.8	14.0	21.7
7	BZ 917-277	ROCKER	14.5	59.0	14.0	21.7
19	MT 21074	MT 1525/MT 1348	14.2	<u>59.1</u>	14.5	19.2
24	MT 21473	DAGMAR/LANNING	14.1	55.7	14.7	19.9
17	MT 2049	LANNING/MT 1415	13.7	56.3	13.3	21.9
1	AGRIPR 161	SY ROCKFORD	13.7	56.2	13.9	20.0
8	LIMAGR 211	LCS ASCENT	13.6	56.1	14.1	20.1
4	WB 9879CLP	WB 9879CLP	13.4	56.6	14.5	19.4
5	WB 222	WB 9668	13.3	57.8	14.3	20.5
14	MT 1809	MT DUTTON	13.3	55.2	14.6	20.4
22	MT 21186	DAGMAR//MT 1142/MT 1225	13.2	55.3	13.8	19.5
10	PI 642366	VIDA	13.2	56.9	13.8	20.2
2	SYN 182	SY LONGMIRE	13.0	58.4	14.1	21.3
3	SYN 211	AP SMITH	11.8	54.0	<u>15.1</u>	18.7
18	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	11.6	55.2	13.2	19.8
21	MT 21174	DAGMAR//MT 1142/MT 1225	11.4	56.9	14.2	20.2
13	MT 1716	MT SIDNEY	9.9	54.0	14.5	18.9
9	ND 695	REEDER	9.3	54.1	<u>15.1</u>	19.3
MEAN			13.9	56.4	14.2	20.5
C.V.			36.0	4.5	7.1	9.5
PROBABILITY (ID)			ns	ns	ns	ns
LSD(0.05)			-	-	-	-

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OFF-STATION : GERALDINE (DRY) : 9972

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
15	MT 1939	MT CARLSON	<u>55.1</u>	60.4	14.0	23.3
14	MT 1809	MT DUTTON	49.9	60.1	14.4	25.0
18	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	49.4	60.2	14.0	<u>26.0</u>
13	MT 1716	MT SIDNEY	47.7	60.7	14.8	25.3
4	WB 9879CLP	WB 9879CLP	47.1	59.7	14.7	23.0
22	MT 21186	DAGMAR//MT 1142/MT 1225	46.7	58.7	14.8	24.7
17	MT 2049	LANNING/MT 1415	46.6	60.4	14.6	24.3
21	MT 21174	DAGMAR//MT 1142/MT 1225	46.2	60.3	15.0	24.7
12	PI 690450	DAGMAR	45.9	60.5	15.1	24.0
8	LIMAGR 211	LCS ASCENT	45.8	61.5	14.2	24.0
25	MT 21484	Dagmar/BC1-52	45.6	60.7	14.9	25.0
20	MT 21104	MT 1451/MT 1866	44.6	60.5	14.8	23.3
16	MT 2030	MT UBET	44.1	60.2	15.3	24.7
11	PI 676978	LANNING	43.5	60.5	14.9	22.3
24	MT 21473	DAGMAR/LANNING	43.5	59.9	15.1	25.3
10	PI 642366	VIDA	43.4	59.7	14.6	23.7
23	MT 21220	DAGMAR/MT SIDNEY	43.1	59.3	14.8	24.3
3	SYN 211	AP SMITH	42.8	59.6	15.1	21.3
7	BZ 917-277	ROCKER	42.7	61.1	15.3	24.0
19	MT 21074	MT 1525/MT 1348	41.8	60.9	14.5	23.0
5	WB 222	WB 9668	41.5	60.4	16.6	22.0
9	ND 695	REEDER	40.9	61.4	14.3	25.3
1	AGRIPR 161	SY ROCKFORD	40.7	58.4	14.8	23.3
2	SYN 182	SY LONGMIRE	40.5	61.0	15.2	23.3
6	BZ 92413R	WB GUNNISON	38.6	60.0	14.7	22.7
MEAN			44.7	60.2	14.8	23.9
C.V.			9.6	1.1	3.4	5.6
PROBABILITY (ID)			<0.01	<0.001	<0.001	<0.01
LSD(0.05)			5.9	0.8	0.6	2.1

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OFF-STATION : JUDITH GAP (DRY) : 9976

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
12	PI 690450	DAGMAR	48.9	64.3	13.3	27.3
16	MT 2030	MT UBET	47.5	63.8	12.5	27.3
18	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	46.6	65.3	13.3	28.7
25	MT 21484	Dagmar/BC1-52	45.0	64.8	12.8	27.3
24	MT 21473	DAGMAR/LANNING	45.0	64.2	13.0	27.3
1	AGRIPR 161	SY ROCKFORD	43.3	63.6	12.5	28.0
13	MT 1716	MT SIDNEY	42.9	64.3	12.8	27.7
14	MT 1809	MT DUTTON	42.7	63.2	12.5	27.3
9	ND 695	REEDER	42.3	64.9	14.2	26.3
10	PI 642366	VIDA	41.4	63.6	13.6	27.3
17	MT 2049	LANNING/MT 1415	41.0	64.8	12.2	26.7
22	MT 21186	DAGMAR//MT 1142/MT 1225	40.8	63.4	12.4	27.0
23	MT 21220	DAGMAR/MT SIDNEY	40.5	63.9	13.3	25.3
8	LIMAGR 211	LCS ASCENT	39.4	65.5	11.7	26.0
21	MT 21174	DAGMAR//MT 1142/MT 1225	38.6	63.9	13.8	26.3
2	SYN 182	SY LONGMIRE	37.2	64.9	13.2	25.0
19	MT 21074	MT 1525/MT 1348	37.1	64.8	13.9	26.7
20	MT 21104	MT 1451/MT 1866	36.2	64.4	13.2	26.7
15	MT 1939	MT CARLSON	35.8	64.7	12.3	26.3
7	BZ 917-277	ROCKER	35.0	64.8	13.2	26.0
11	PI 676978	LANNING	34.2	64.0	13.3	25.3
5	WB 222	WB 9668	34.2	64.0	13.0	25.0
3	SYN 211	AP SMITH	33.8	64.5	13.3	25.0
4	WB 9879CLP	WB 9879CLP	29.8	64.8	12.8	26.7
6	BZ 92413R	WB GUNNISON	28.4	64.2	12.6	25.0
MEAN			39.5	64.4	13.0	26.5
C.V.			13.7	0.9	5.2	5.6
PROBABILITY (ID)			<0.001	<0.001	<0.01	ns
LSD(0.05)			9.0	0.8	1.1	-

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OFF-STATION : BILLINGS (DRY) : 9994

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
16	MT 2030	MT UBET	<u>34.0</u>	59.6	12.8	22.8
25	MT 21484	Dagmar/BC1-52	32.2	59.9	13.9	25.0
24	MT 21473	DAGMAR/LANNING	31.3	58.7	14.9	23.7
15	MT 1939	MT CARLSON	30.8	58.9	15.0	25.2
18	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	30.8	60.7	13.0	23.5
7	BZ 917-277	ROCKER	30.1	60.2	14.1	23.8
22	MT 21186	DAGMAR//MT 1142/MT 1225	29.7	58.2	15.7	24.3
21	MT 21174	DAGMAR//MT 1142/MT 1225	29.0	59.3	15.4	24.2
20	MT 21104	MT 1451/MT 1866	28.9	60.3	14.2	24.5
14	MT 1809	MT DUTTON	28.8	58.9	13.1	24.5
6	BZ 92413R	WB GUNNISON	28.5	60.5	13.2	24.2
17	MT 2049	LANNING/MT 1415	28.5	59.8	15.1	23.5
10	PI 642366	VIDA	28.0	58.6	12.5	25.2
19	MT 21074	MT 1525/MT 1348	27.7	59.6	15.1	23.2
11	PI 676978	LANNING	27.7	59.6	15.8	22.8
12	PI 690450	DAGMAR	27.6	58.6	16.5	23.5
4	WB 9879CLP	WB 9879CLP	27.6	59.2	15.4	23.3
3	SYN 211	AP SMITH	27.3	59.4	13.4	23.3
1	AGRIPR 161	SY ROCKFORD	27.2	56.5	15.5	<u>25.5</u>
8	LIMAGR 211	LCS ASCENT	27.1	61.2	14.8	23.7
9	ND 695	REEDER	27.0	59.8	13.7	23.7
13	MT 1716	MT SIDNEY	26.8	60.1	14.3	23.7
23	MT 21220	DAGMAR/MT SIDNEY	26.6	58.2	14.2	24.5
2	SYN 182	SY LONGMIRE	26.0	60.0	14.8	23.3
5	WB 222	WB 9668	23.3	59.6	17.4	21.3
MEAN			28.5	59.4	14.6	23.8
C.V.			6.0	1.6	7.3	5.2
PROBABILITY (ID)			<0.001	<0.001	<0.01	ns
LSD(0.05)			2.6	1.4	1.4	-

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OFF-STATION : BROADVIEW (DRY) : 9995

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
10	PI 642366	VIDA	43.9	59.4	14.5	28.0
15	MT 1939	MT CARLSON	43.7	59.7	14.4	28.3
16	MT 2030	MT UBET	41.8	60.2	14.6	27.3
21	MT 21174	DAGMAR//MT 1142/MT 1225	41.4	60.0	15.7	27.3
8	LIMAGR 211	LCS ASCENT	41.0	60.7	14.5	26.8
24	MT 21473	DAGMAR/LANNING	40.5	59.7	15.5	28.0
22	MT 21186	DAGMAR//MT 1142/MT 1225	40.1	59.4	15.1	27.8
7	BZ 917-277	ROCKER	39.3	61.3	14.6	26.2
11	PI 676978	LANNING	39.3	59.6	15.4	27.0
14	MT 1809	MT DUTTON	39.0	58.2	15.6	26.7
19	MT 21074	MT 1525/MT 1348	38.6	60.5	15.5	25.7
1	AGRIPR 161	SY ROCKFORD	38.1	58.6	14.9	28.0
25	MT 21484	Dagmar/BC1-52	37.8	60.1	15.2	26.0
2	SYN 182	SY LONGMIRE	37.1	60.9	15.0	27.7
5	WB 222	WB 9668	37.0	59.4	16.7	24.2
12	PI 690450	DAGMAR	37.0	60.5	15.9	27.8
23	MT 21220	DAGMAR/MT SIDNEY	36.8	58.6	15.0	26.0
4	WB 9879CLP	WB 9879CLP	36.8	59.1	15.2	25.7
20	MT 21104	MT 1451/MT 1866	36.2	59.4	15.1	26.0
9	ND 695	REEDER	35.1	58.8	16.0	29.0
13	MT 1716	MT SIDNEY	35.0	60.0	16.2	27.2
18	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	32.9	59.8	15.2	24.7
3	SYN 211	AP SMITH	32.3	59.6	15.6	25.2
6	BZ 92413R	WB GUNNISON	31.4	59.8	14.4	26.3
17	MT 2049	LANNING/MT 1415	31.1	59.9	15.2	24.5
MEAN			37.7	59.7	15.2	26.7
C.V.			12.5	1.6	3.2	5.4
PROBABILITY (ID)			ns	<0.001	<0.001	<0.01
LSD(0.05)			-	1.1	0.7	2.4

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OFF-STATION : HYSHAM (IRRI) : 9996

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
16	MT 2030	MT UBET	121.9	60.2	15.7	34.8
14	MT 1809	MT DUTTON	114.6	59.1	14.9	35.0
23	MT 21220	DAGMAR/MT SIDNEY	112.5	60.2	13.6	35.8
3	SYN 211	AP SMITH	108.7	60.5	13.7	33.6
7	BZ 917-277	ROCKER	108.6	61.0	14.2	35.5
12	PI 690450	DAGMAR	108.6	60.8	14.2	36.7
15	MT 1939	MT CARLSON	107.9	60.1	12.4	34.8
25	MT 21484	Dagmar/BC1-52	107.8	60.4	14.9	36.9
22	MT 21186	DAGMAR//MT 1142/MT 1225	107.5	59.7	13.4	35.9
20	MT 21104	MT 1451/MT 1866	106.0	61.0	13.0	34.9
21	MT 21174	DAGMAR//MT 1142/MT 1225	106.0	59.7	13.8	38.1
4	WB 9879CLP	WB 9879CLP	103.6	59.6	13.4	34.5
11	PI 676978	LANNING	103.5	60.7	14.6	33.9
1	AGRIPR 161	SY ROCKFORD	103.5	59.4	12.9	35.5
24	MT 21473	DAGMAR/LANNING	102.3	60.8	14.8	36.5
8	LIMAGR 211	LCS ASCENT	100.7	60.9	13.4	34.3
13	MT 1716	MT SIDNEY	99.2	60.5	11.6	33.9
10	PI 642366	VIDA	96.1	60.6	11.6	35.5
6	BZ 92413R	WB GUNNISON	94.0	60.8	13.4	34.0
9	ND 695	REEDER	94.0	61.4	13.6	36.6
17	MT 2049	LANNING/MT 1415	93.4	61.0	13.0	34.5
19	MT 21074	MT 1525/MT 1348	93.4	61.9	13.5	35.0
18	MT 2063	MT 1572/MT1133//CHOTEAU/YELLOWSTONE	92.5	60.7	10.6	35.0
5	WB 222	WB 9668	91.2	59.5	13.7	28.5
2	SYN 182	SY LONGMIRE	90.7	61.8	12.0	33.7
MEAN			102.7	60.5	13.4	34.9
C.V.			6.8	0.7	5.9	3.0
PROBABILITY (ID)			<0.01	<0.001	<0.001	<0.001
LSD(0.05)			9.1	0.6	1.1	1.6

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OFF-STATION : McCONE (DRY)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
14	MT 1809	MT DUTTON	<u>63.4</u>	63.3	15.6	32.2
8	LIMAGR 211	LCS ASCENT	61.5	64.3	14.0	30.3
15	MT 1939	MT CARLSON	60.6	64.7	14.5	31.4
23	MT 21220	DAGMAR/MT SIDNEY	58.8	64.1	15.4	32.3
10	PI 642366	VIDA	58.7	64.2	14.3	31.6
7	BZ 917-277	ROCKER	58.4	<u>65.6</u>	15.0	31.4
12	PI 690450	DAGMAR	56.2	64.5	15.7	31.0
24	MT 21473	DAGMAR/LANNING	55.6	63.8	15.7	31.6
16	MT 2030	MT UBET	55.2	65.0	14.9	30.6
13	MT 1716	MT SIDNEY	55.2	64.3	15.3	30.8
9	ND 695	REEDER	55.1	64.2	15.5	<u>33.8</u>
2	SYN 182	SY LONGMIRE	53.7	65.5	15.5	29.9
11	PI 676978	LANNING	51.4	64.2	15.7	31.8
4	WB 9879CLP	WB 9879CLP	51.4	64.1	15.2	31.0
17	MT 2049	LANNING/MT 1415	51.1	64.6	15.0	32.0
3	SYN 211	AP SMITH	49.1	63.5	<u>16.0</u>	27.7
MEAN			56.0	64.4	15.2	31.2
C.V.			7.9	0.5	1.7	3.6
PROBABILITY (ENTRY)			<0.05	<0.001	<0.001	<0.001
LSD(0.05)			7.4	0.6	0.4	1.9

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OFF-STATION : ROOSEVELT (DRY)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
12	PI 690450	DAGMAR	<u>42.5</u>	60.4	16.5	<u>27.3</u>
24	MT 21473	DAGMAR/LANNING	39.8	58.3	16.9	27.1
16	MT 2030	MT UBET	39.6	59.3	16.1	26.0
17	MT 2049	LANNING/MT 1415	38.8	60.9	15.7	25.7
15	MT 1939	MT CARLSON	38.3	59.5	15.9	25.3
10	PI 642366	VIDA	38.2	59.6	16.3	25.5
8	LIMAGR 211	LCS ASCENT	36.7	<u>61.0</u>	16.2	25.7
7	BZ 917-277	ROCKER	35.7	60.3	17.0	25.8
23	MT 21220	DAGMAR/MT SIDNEY	35.6	60.1	17.4	25.6
14	MT 1809	MT DUTTON	35.3	58.7	17.4	23.6
2	SYN 182	SY LONGMIRE	34.9	60.6	17.1	25.7
11	PI 676978	LANNING	34.8	57.8	17.4	25.8
4	WB 9879CLP	WB 9879CLP	34.2	60.3	17.1	24.9
13	MT 1716	MT SIDNEY	34.0	60.8	17.1	26.0
9	ND 695	REEDER	33.0	59.8	16.8	25.6
3	SYN 211	AP SMITH	31.7	60.3	<u>17.5</u>	25.5
MEAN			36.5	60.0	16.8	25.7
C.V.			5.9	0.8	1.5	5.4
PROBABILITY (ENTRY)			<0.001	<0.001	<0.001	ns
LSD(0.05)			3.6	0.8	0.4	-

bold : highest or earliest value within a column

bold : equal value to highest or earliest value within a column based LSD(0.05)

2024 OFF-STATION : SHERIRAN (DRY)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
14	MT 1809	MT DUTTON	<u>61.2</u>	61.6	12.4	33.4
24	MT 21473	DAGMAR/LANNING	61.1	59.5	13.4	<u>34.6</u>
16	MT 2030	MT UBET	59.6	61.0	13.0	32.4
11	PI 676978	LANNING	57.8	59.7	13.5	32.3
8	LIMAGR 211	LCS ASCENT	57.2	63.1	12.6	34.1
12	PI 690450	DAGMAR	56.7	61.3	13.4	34.0
10	PI 642366	VIDA	55.8	60.8	13.3	33.6
9	ND 695	REEDER	55.3	62.1	13.1	33.9
13	MT 1716	MT SIDNEY	54.8	62.5	12.6	32.3
7	BZ 917-277	ROCKER	54.2	<u>63.3</u>	12.3	33.3
15	MT 1939	MT CARLSON	52.5	60.7	12.9	32.2
17	MT 2049	LANNING/MT 1415	52.3	61.7	12.8	32.3
4	WB 9879CLP	WB 9879CLP	51.0	62.9	13.6	31.8
23	MT 21220	DAGMAR/MT SIDNEY	51.0	60.5	13.6	33.4
2	SYN 182	SY LONGMIRE	50.1	62.2	13.5	30.3
3	SYN 211	AP SMITH	48.3	61.2	<u>14.4</u>	28.5
MEAN			54.9	61.5	13.2	32.6
C.V.			5.9	1.3	5.0	3.3
PROBABILITY (ENTRY)			<0.001	<0.001	ns	<0.001
LSD(0.05)			5.4	1.3	-	1.8

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2024 OFF-STATION : VALLEY (DRY)

ENTRY	ID	VARIETY / PEDIGREE	YIELD (BU/AC)	TEST WEIGHT (LB/BU)	PROTEIN (%)	PLANT HEIGHT (IN.)
24	MT 21473	DAGMAR/LANNING	<u>45.6</u>	58.7	15.4	<u>30.0</u>
15	MT 1939	MT CARLSON	<u>45.6</u>	59.5	14.4	29.1
14	MT 1809	MT DUTTON	44.4	59.1	15.4	28.0
12	PI 690450	DAGMAR	44.1	60.9	15.7	27.5
8	LIMAGR 211	LCS ASCENT	43.6	<u>61.7</u>	14.7	28.4
16	MT 2030	MT UBET	42.9	59.0	15.2	28.5
23	MT 21220	DAGMAR/MT SIDNEY	42.1	59.3	15.5	29.5
10	PI 642366	VIDA	41.6	59.5	14.6	28.7
17	MT 2049	LANNING/MT 1415	41.4	61.1	15.0	26.9
13	MT 1716	MT SIDNEY	41.0	60.9	15.8	28.7
11	PI 676978	LANNING	40.1	58.9	15.1	27.0
7	BZ 917-277	ROCKER	39.5	59.7	15.8	27.3
4	WB 9879CLP	WB 9879CLP	38.1	60.5	16.1	27.8
3	SYN 211	AP SMITH	37.8	60.0	<u>16.4</u>	25.9
2	SYN 182	SY LONGMIRE	33.0	60.9	15.8	28.1
9	ND 695	REEDER	32.5	60.2	15.5	28.9
MEAN			40.8	60.0	15.4	28.1
C.V.			8.3	0.7	3.1	5.1
PROBABILITY (ENTRY)			<0.001	<0.001	<0.01	ns
LSD(0.05)			5.7	0.7	0.8	-

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bold : equal value to highest or earliest value within a column based LSD(0.05)

PLANT VARIETY PROTECTION (PVP)

The developer of a new distinct variety may obtain protection (essentially a patent) for that variety if he/she chooses to do so, provided the variety meets the requirements of the Plant Variety Protection Act of 1970. This Act permits the owner or developer of a variety to prohibit others from selling, sexually multiplying, using for propagation for seed, or using to produce a hybrid, seed of his/her variety.

Two options, for plant variety protection, are available to the developer of the variety. Under the first option, the developer of the variety or his/her agent may sell either certified or uncertified seed of the variety. If the developer of the variety has reason to believe that anyone is infringing on his/her rights, he/she may resort to civil action. The other option ("certification option") for protecting a variety utilizes the provision of Title V of the Federal Seed Act. A variety protected in this manner may be sold by variety name only as a class of certified seed. It is the responsibility of the seller to inform the buyer if the variety is protected. Each container of seed sold should be labeled with a tag indicating the type of protection which the owner has. Under the first option, the label will state: "Unauthorized Propagation Prohibited - U.S. Protected Variety." If the owner of the variety has chosen the other option for variety protection, the label will state, "Unauthorized Propagation Prohibited - To be Sold by Variety Name Only as a Class of Certified Seed - U.S. Protected Variety."

PLEASE NOTE: Varieties protected under the PVP act, as amended in 1994, can no longer can be sold without permission of the variety owner (the farmer exemption has been excluded)

A complete listing of all protected varieties is available in the "Official Journal of the Plant Variety Protection Office" which may be obtained upon request from:

Plant Variety Protection Office Warehouse Division, AMS U.S. Dept. of Agriculture National
Agricultural Library Beltsville, MD 20705

Phone: (301) 504-5518

Internet: <http://www.ams.usda.gov/science/pvpo/pvpindex.htm>

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