

RAY

PEDIGREE ▶ YELLOWSTONE*2 / 98X168E1



A true Dual Purpose hard red winter wheat that is winter hardy, late maturing, tall, awnless, and a delicious option for livestock feed. Compared to Willow Creek, Ray has similar forage yield and quality with a higher leaf-to-stem ratio, and superior grain yield. Compared to bread wheats, Ray has average to above average yield, good test weight and protein, very low PPO, and good milling and baking characteristics. A good option for grazing, hay, and haylage or harvesting for grain. Licensed by CWRP from Montana Agricultural Experiment Station. **PVP protected, to be sold by variety name only as a class of certified seed.**



CHARACTERISTICS

MATURITY **LATE**
HEIGHT **TALL**
COLEOPTILE LENGTH **MEDIUM-SHORT**

YIELD



DROUGHT TOLERANCE



MILLING QUALITY



BAKING QUALITY



STRAW STRENGTH



TEST WEIGHT



PROTEIN



DRY FORAGE ANALYSIS



SCAN TO SEE
PERFORMANCE DATA



MANAGEMENT NOTES

- Harvest from late boot to milk stage to maximize tonnage and forage quality.
- Plant where sawfly pressure is highest to kill larvae when crimped or chopped
- Use as a trap crop along field edges to capture sawfly

RATING SCALE

POOR
 FAIR
 GOOD
 VERY GOOD
 EXCELLENT

2025 Dryland Winter Forage Variety Performance Trials at Akron, Burlington, and Orchard

Akron		Forage Harvest				Grain Harvest				Forage Quality ^a									
Brand/Source	Variety	Forage Species ^b	Dry Matter		Harvest Date ^c	Test		Plant Height		Dry									
			Yield	Moisture		Yield	Weight			RFQ	CP	Matter	aNDFom	NDFD30	TDN	NEL	NEG	Milk/Ton	
			ton/ac	% at harvest		lb/ac	lb/bu	percent	in				percent			Mcal/cwt		lb/ton	
Montana State Univ.	MTF1435	W	5.7	66	29-May	2730	50.5	15	40	114	12.6	93.6	55	59	59	61	34	2578	
KWS Cereals	PROGAS	H. Rye	5.3	68	12-May	5097	49.8	11	48	115	14.2	94.1	57	60	60	62	36	2655	
PlainsGold	Ray	W	5.3	62	29-May	3312	51.3	14	34	130	13.0	93.7	52	62	62	64	37	2791	
PlainsGold	Whistler	W	5.3	66	21-May	4508	55.0	13	36	136	12.8	93.9	49	61	62	64	38	2848	
PlainsGold	Amplify SF	W	5.2	66	21-May	3059	54.0	13	33	138	13.9	93.3	49	62	63	65	39	2871	
KWS Cereals	AVIATOR	H. Rye	5.0	69	12-May	4768	49.9	9	51	112	13.3	93.5	58	59	59	61	34	2592	
Oklahoma Genetics, Inc	Big Country	W	5.0	64	21-May	2790	54.8	14	31	159	12.6	94.4	48	66	64	66	40	3085	
Montana State Univ.	MT Cash	W	4.7	65	29-May	2763	54.2	15	43	124	13.2	93.4	53	60	61	63	36	2744	
Oklahoma Genetics, Inc	OK Corral	W	4.3	64	21-May	3884	52.5	12	28	141	12.5	93.5	48	61	63	65	38	2893	
Montana State Univ.	Willow Creek	W	4.2	62	2-Jun	1621	53.9	-	40	127	13.7	93.8	52	60	61	62	36	2736	
Average			5.0	65	22-May	3453	52.6	13	39	130	13.2	94	52	61	62	63	37	2779	
LSD (0.30) ^d			0.40			175	0.9												
LSD (0.05) ^d			0.70			345	1.7												
Coefficient of Variation (CV)			6.6			4.8	1.1												

Burlington		Forage Harvest				Grain Harvest				Forage Quality ^a									
Brand/Source	Variety	Forage Species ^b	Dry Matter		Harvest Growth Stage ^c	Test		Plant Height		Dry									
			Yield	Moisture		Yield	Weight			RFQ	CP	Matter	aNDFom	NDFD30	TDN	NEL	NEG	Milk/Ton	
			ton/ac	% at harvest		bu/ac	lb/bu	percent	in				percent			Mcal/cwt		lb/ton	
Montana State Univ.	MTF1435	W	5.9	53	Soft Dough	45.2	47.9	17	34	144	11.1	90.3	49	47	63	65	38	2969	
PlainsGold	Whistler	W	5.8	52	Soft Dough	71.4	54.3	15	32	141	10.1	88.4	48	52	63	65	38	2977	
PlainsGold	Ray	W	5.2	55	Milk	51.1	46.6	16	32	139	10.2	90.0	52	55	61	63	35	2905	
Oklahoma Genetics, Inc	Big Country	W	5.2	52	Soft Dough	47.4	53.8	16	31	150	12.7	90.1	46	50	63	65	39	3025	
Montana State Univ.	MT Cash	W	5.2	54	Soft Dough	41.5	53.3	17	42	131	10.5	89.4	52	44	62	63	36	2768	
PlainsGold	Amplify SF	W	4.8	50	Soft Dough	48.7	54.3	15	28	154	11.6	90.8	46	49	65	67	41	3111	
Oklahoma Genetics, Inc	OK Corral	W	4.5	50	Soft Dough	64.9	52.5	15	26	143	11.2	90.4	48	49	63	65	38	2930	
Montana State Univ.	Willow Creek	W	4.1	54	Milk	20.9	47.4	-	39	111	11.2	89.7	58	50	55	56	27	2359	
Average			5.1	52		48.9	51.3	16	33	139	11.1	90	50	50	62	63	36	2881	
LSD (0.30) ^d			0.4			2.3	0.9												
LSD (0.05) ^d			0.9			4.6	1.9												
Coefficient of Variation (CV)			6.7			5.0	1.2												

Orchard		Forage Harvest				Grain Harvest				Forage Quality ^a									
Brand/Source	Variety	Forage Species ^b	Dry Matter		Harvest Growth Stage ^c	Test		Plant Height		Dry									
			Yield	Moisture		Yield	Weight			RFQ	CP	Matter	aNDFom	NDFD30	TDN	NEL	NEG	Milk/Ton	
			ton/ac	% at harvest		bu/ac	lb/bu	percent	in				percent			Mcal/cwt		lb/ton	
Oklahoma Genetics, Inc	OK Corral	W	1.7	70	10.5	33.0	56.2	14	30	184	15.7	89.2	49	69	65	67	43	3393	
PlainsGold	Whistler	W	1.6	72	10.4	39.7	59.2	14	27	191	14.7	88.1	48	70	65	67	42	3327	
PlainsGold	Ray	W	1.5	72	10.2	29.0	55.5	16	34	180	16.5	89.4	48	70	66	68	44	3369	
Montana State Univ.	MTF1435	W	1.3	73	10.3	21.5	54.2	15	32	178	17.5	88.2	50	72	64	65	41	3322	
Oklahoma Genetics, Inc	Big Country	W	1.3	71	10.5	16.8	52.9	16	28	198	15.6	90.1	47	70	66	68	44	3493	
PlainsGold	Amplify SF	W	1.2	72	10.5	31.7	58.5	14	28	167	13.6	89.9	50	61	65	67	41	3185	
Montana State Univ.	MT Cash	W	1.2	74	10.1	25.5	55.5	17	38	170	16.9	89.4	48	68	64	66	42	3241	
Montana State Univ.	Willow Creek	W	0.9	74	9	24.6	54.1	16	35	154	20.6	88.1	45	64	63	65	42	3068	
Average			1.3	72	10.2	27.7	55.8	15	31	178	16.4	89	48	68	65	67	42	3300	
LSD (0.30) ^d			0.2			2.8	1.0												
LSD (0.05) ^d			0.5			5.5	1.9												
Coefficient of Variation (CV)			13.7			9.7	1.6												

^aAll forage quality analyses results are dry basis values. CP=crude protein; RFQ=relative feed quality; aNDFom=ash free neutral detergent fiber; NDFD30=neutral detergent fiber digestibility at 30 hours; TDN=total digestible nutrients using OARDC; NEL=net energy for lactation using OARDC; NEG=net energy gain using OARDC; and Milk/ton=predicted amount of milk produced per ton of dry matter calculated using MILK2013.

^bForage Species: H. Rye=Hybrid Rye and W=Wheat

^cThe harvest dates at Akron were targeted for the early heading growth stage of each entry. The harvest growth stages at Burlington and Orchard were the stage of each entry on the single harvest date of June 16. The Feekes scale rates the flag leaf fully emerged as stage 9, and boot to early heading as stages as 10.1 (boot) through 10.5 (head fully emerged).

^dIf the difference between two variety yields equals or exceeds the LSD value, the difference is significant. Farmers selecting a variety based on yield should use the LSD (0.30) to protect from false negative decisions. Companies or researchers may be interested in the LSD (0.05) to avoid false positive conclusions.

Trials were harvested for grain on July 9 (Burlington), July 10 (Akron), and July 17 (Orchard).

The data included in this table may not be republished without permission. Contact Sally Jones-Diamond (sally.jones@colostate.edu).