

Malting quality of two-row winter barley lines grown at four Ohio sites 2015–16.

Site	Variety	Kernel weight (mg)	on 6/64" (%)	Barley color (Agron)	Malt extract (%)	Wort color	Wort clarity	Barley protein	Wort protein	S/T (%)	DP (°ASBC)	Alpha-amylase (20°DU)	Beta-glucan (ppm)	FAN (ppm)
WO	Calypso	40.6	95.8	52	80.3	2.0	2	11.9	3.96	34.5	148	36.1	324	126
	Flavia	36.4	91.9	38	78.9	2.2	2	12.2	4.09	34.8	129	37.6	332	120
	Puffin	33.3	92.3	46	79.0	1.8	2	12.3	4.15	33.8	108	36.6	423	131
	Scala	40.8	97.9	45	80.8	2.0	2	11.3	4.23	38.3	153	49.2	118	136
	SU Mateo	38.1	96.2	54	79.5	n.d.	3	11.2	3.28	29.4	115	33.8	492	122
	Violetta	38.7	95.2	46	79.1	1.4	1	13.4	3.73	28.4	161	43.4	412	128
	Wintmalt	37.0	94.8	49	79.9	2.1	2	11.4	3.42	31.1	125	45.1	282	122
NW	Calypso	36.6	90.5	60	77.6	2.7	2	13.6	3.99	31.3	201	41.1	405	149
	Flavia	38.5	95.9	52	79.2	n.d.	3	12.1	4.00	35.5	147	40.4	291	145
	Puffin	38.4	95.3	69	76.8	3.1	2	12.8	4.00	31.6	128	40.4	623	150
	Scala	39.8	95.8	58	79.7	2.4	2	12.6	4.29	35.3	184	56.1	228	155
	SU Mateo	37.3	95.6	63	77.5	n.d.	3	12.7	3.69	30.3	140	37.0	528	124
	Violetta	37.7	94.4	61	77.4	1.9	1	13.1	4.46	34.3	212	52.4	347	171
	Wintmalt	36.0	92.6	57	78.9	2.5	2	12.8	3.94	31.6	162	54.8	217	153
NC	Calypso	39.6	96.7	45	78.8	2.0	2	13.2	3.96	32.2	174	41.0	271	153
	Flavia	40.4	97.4	32	80.0	n.d.	3	12.0	3.82	32.9	130	44.2	291	151
	Puffin	36.2	96.6	43	78.2	1.7	1	13.2	4.16	32.6	127	43.9	433	162
	Scala	41.3	98.2	30	80.9	n.d.	3	11.9	4.06	35.4	167	58.2	151	169
	SU Mateo	36.1	94.8	44	78.6	n.d.	3	12.6	3.58	30.7	134	36.7	546	119
	Violetta	37.4	95.9	37	79.2	1.9	1	13.0	4.53	35.0	173	54.7	245	180
	Wintmalt	37.0	94.5	42	80.1	2.0	1	12.4	4.03	33.6	132	62.1	210	171
SC	Calypso	42.2	96.5	40	81.3	2.7	1	9.5	3.47	40.5	140	40.5	112	141
	Flavia	37.7	93.7	37	80.6	3.2	1	8.9	3.63	42.3	113	49.7	78	160
	Puffin	34.9	90.8	41	79.2	3.0	1	10.1	3.86	40.9	92	49.0	251	185
	Scala	41.6	96.2	37	81.9	2.7	1	9.3	3.62	39.7	122	54.0	82	137
	SU Mateo	34.0	91.0	62	79.3	3.0	1	9.6	3.69	39.7	76	52.9	191	149
	Violetta	38.8	94.4	34	80.9	2.7	1	9.8	3.90	40.5	131	52.0	160	157
	Wintmalt	37.1	94.7	40	81.1	3.4	1	9.7	3.74	40.6	98	52.5	94	158

Malting quality was assessed by the USDA Cereal Crops Research Unit in Madison WI.

WO = Wooster, NW = Northwest (Custar), NC = North Central (Fremont), SC = South Central (Piketon).

Malting quality of two-row winter barley lines grown at three Ohio sites 2016–17.

Site	Variety	Kernel weight (mg)	Kernel on 6/64" (%)	Barley color (Agron)	Malt extract (%)	Wort color	Wort clarity	Barley protein	Wort protein	S/T (%)	DP (°ASBC)	Alpha-amylase (20°DU)	Beta-glucan (ppm)	FAN (ppm)
WO	Calypso	46.7	96.2	29	81.6	2.1	2	11.5	4.01	36.8	154	41.4	159	129
	Endeavor	31.1	85.0	28	82.1	3.6	1	11.7	5.40	46.8	158	86.2	78	230
	Flavia	41.9	96.1	23	81.5	n.d.	3	10.7	3.97	39.5	127	40.4	84	127
	Puffin	37.0	93.3	27	79.4	1.9	1	12.0	4.04	33.9	97	43.7	379	136
	Scala	41.0	96.8	27	81.7	1.8	1	11.7	4.25	39.0	152	58.3	50	163
	SU Mateo	41.5	95.4	29	80.5	n.d.	3	11.2	3.79	34.8	126	39.6	288	118
	Vincenta	42.0	93.6	20	80.2	1.6	1	11.2	3.83	37.4	133	44.4	113	133
	Violetta	39.4	93.9	15	80.7	1.7	1	12.3	4.17	34.5	185	51.0	177	133
	Wintmalt	40.2	92.7	37	80.0	1.9	1	11.8	4.00	35.5	137	53.8	131	122
NW	Calypso	38.9	87.0	43	79.2	2.2	1	12.5	3.88	32.3	169	42.9	309	130
	Endeavor	31.5	70.5	51	79.0	n.d.	3	12.7	4.67	37.2	137	72.7	442	183
	Flavia	37.7	90.8	38	79.5	2.1	2	11.8	4.14	35.7	155	43.9	127	136
	Puffin	34.8	87.3	41	78.9	1.6	1	12.8	4.28	34.5	123	39.0	447	149
	Scala	37.9	92.0	37	81.1	1.9	1	12.1	4.10	36.3	172	51.3	266	136
	SU Mateo	36.3	85.9	48	78.7	n.d.	3	11.4	3.96	35.3	131	35.0	545	109
	Vincenta	36.9	81.6	44	78.4	1.6	1	12.7	4.15	33.7	143	44.9	221	136
	Violetta	36.9	88.4	47	78.6	1.5	1	13.6	4.34	34.1	197	47.0	421	145
	Wintmalt	34.3	85.3	47	79.3	2.4	2	12.4	4.16	34.2	127	50.5	286	143
NC	Calypso	41.5	93.4	38	80.0	2.2	2	10.7	3.51	35.2	138	38.5	137	110
	Endeavor	32.8	82.6	38	78.8	n.d.	3	12.4	4.51	38.8	154	59.4	71	207
	Flavia	37.4	90.3	35	79.6	2.7	2	11.4	3.64	33.9	131	43.2	113	127
	Puffin	40.3	94.4	36	79.0	1.7	1	11.9	4.01	34.9	126	42.6	214	130
	Scala	41.2	96.8	36	80.7	2.0	1	11.8	4.02	35.3	187	50.4	46	134
	SU Mateo	37.8	90.8	44	79.4	n.d.	3	10.6	3.67	36.6	128	32.0	293	103
	Vincenta	36.1	85.3	35	77.9	1.9	1	11.9	3.74	33.9	132	39.2	113	103
	Violetta	38.3	93.0	35	79.2	1.9	1	11.9	4.02	36.3	174	41.0	150	129
	Wintmalt	36.5	89.3	40	79.3	n.d.	3	11.5	3.81	36.0	140	48.9	61	118

Malting quality was assessed by the USDA Cereal Crops Research Unit in Madison WI. WO = Wooster, NW = Northwest (Custar), NC = North Central (Fremont).

Malting quality of six-row winter barley lines grown at three Ohio sites 2015–16 and 2016–17.

2015-16

Site	Variety	Kernel weight (mg)	on 6/64" (%)	Barley color (Agtron)	Malt extract (%)	Wort color	Wort clarity	Barley protein	Wort protein	S/T (%)	DP (°ASBC)	Alpha-amylase (20°DU)	Beta-glucan (ppm)	FAN (ppm)
WO	Hirondella	33.9	84.7	46	75.5	2.5	2	13.6	4.89	36.2	161	38.5	468	165
	Maja	22.8	36.7	63	77.5	2.5	2	11.7	4.19	36.7	165	54.1	150	220
	Thoroughbred	32.7	87.2	56	78.9	2.0	2	11.3	3.52	33.1	129	43.4	432	137
NW	Hirondella	28.5	72.3	64	74.0	2.0	1	12.9	3.35	26.0	147	40.5	546	163
	Maja	24.6	51.1	69	76.8	3.0	2	12.3	4.40	37.1	169	55.9	146	192
	Thoroughbred	30.2	81.6	68	77.4	2.2	2	11.7	3.55	31.5	140	49.8	515	135
NC	Hirondella	32.4	83.1	38	77.3	2.4	1	10.7	3.61	36.7	130	36.4	427	105
	Maja	25.2	50.6	42	77.6	2.7	1	11.8	4.15	37.8	172	62.2	89	180
	Thoroughbred	30.8	89.9	34	78.1	n.d.	3	10.4	3.52	35.1	115	45.6	420	107
SC	Hirondella	39.2	96.0	45	80.7	3.0	1	8.4	3.60	43.3	130	44.1	123	135
	Maja	31.8	90.1	52	79.8	n.d.	3	9.1	3.52	40.1	137	53.9	89	161
	Thoroughbred	34.2	94.0	45	80.0	3.0	2	8.8	3.51	40.9	104	48.7	283	150

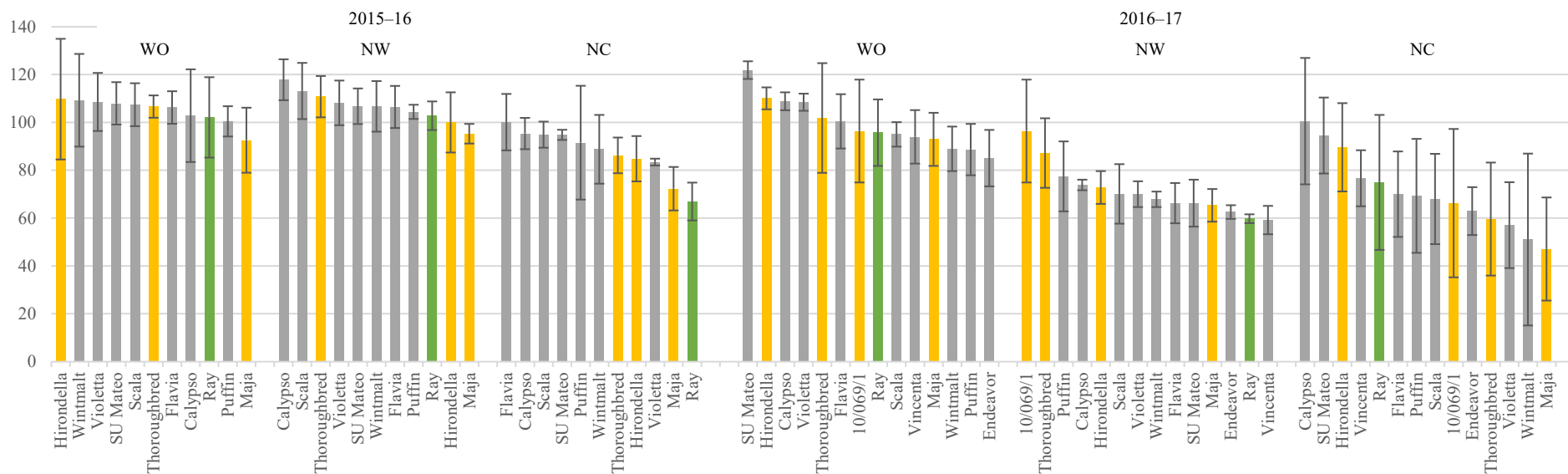
2016-17

Site	Variety	Kernel weight (mg)	on 6/64" (%)	Barley color (Agtron)	Malt extract (%)	Wort color	Wort clarity	Barley protein	Wort protein	S/T (%)	DP (°ASBC)	Alpha-amylase (20°DU)	Beta-glucan (ppm)	FAN (ppm)
WO	10/069/1	36.0	90.8	23	79.5	2.6	2	11.5	3.98	36.4	117	42.5	422	138
	Hirondella	39.3	95.6	34	80.2	1.9	1	9.8	3.59	38.1	117	41.2	349	108
	Maja	27.1	67.1	38	79.5	2.4	1	11.2	4.01	36.0	159	64.0	255	161
	Thoroughbred	34.3	94.6	21	79.7	2.4	2	11.1	3.79	35.8	140	48.5	513	110
NW	10/069/1	32.6	80.0	37	77.6	2.3	1	11.7	3.81	33.2	148	44.1	389	134
	Hirondella	33.0	80.8	54	77.7	1.7	1	12.1	3.81	32.2	146	40.1	510	114
	Maja	26.7	51.9	48	77.4	2.4	2	13.0	4.34	34.9	170	62.2	346	167
	Thoroughbred	31.6	89.1	45	78.5	1.9	2	11.1	3.74	34.5	125	44.7	608	105
NC	10/069/1	33.5	85.4	35	77.2	3.0	2	11.7	3.78	34.6	136	39.5	349	124
	Hirondella	32.4	83.1	38	77.3	2.4	1	10.7	3.61	36.7	130	36.4	427	105
	Maja	25.2	50.6	42	77.6	2.7	1	11.8	4.15	37.8	172	62.2	89	180
	Thoroughbred	30.8	89.9	34	78.1	n.d.	3	10.4	3.52	35.1	115	45.6	420	107

Malting quality was assessed by the USDA Cereal Crops Research Unit in Madison WI.

WO = Wooster, NW = Northwest (Custar), NC = North Central (Fremont), SC = South Central (Piketon).

Yield in bushels per acre of winter barley lines grown at three Ohio sites 2015–16 and 2016–17

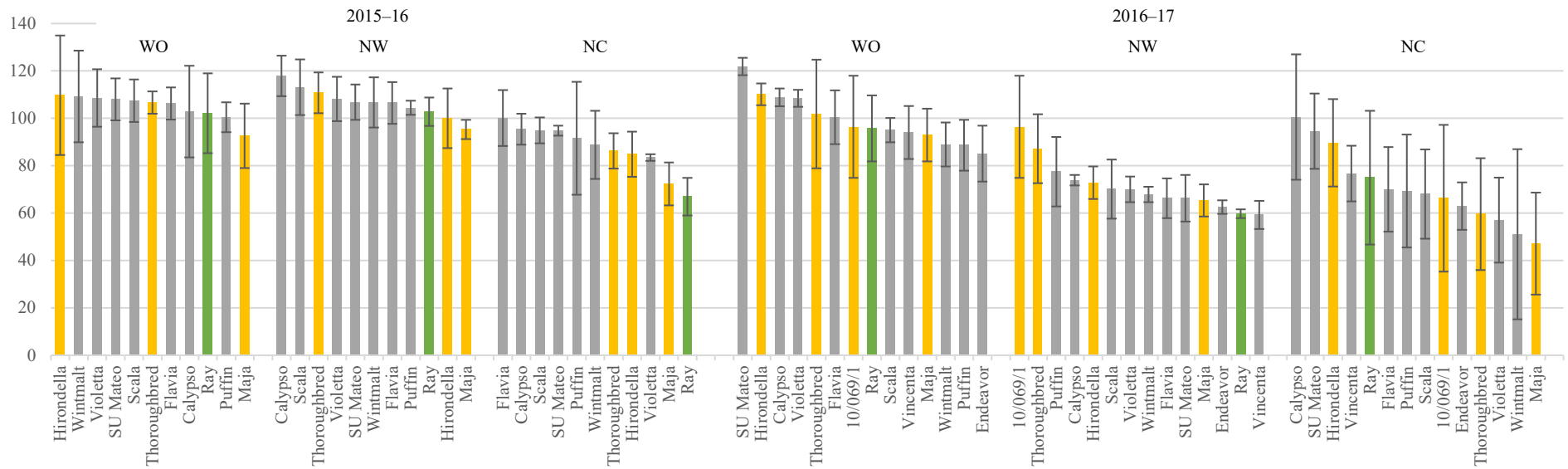


Seed was sown at the rate of 100 lbs./ac.

Gray = two-row, gold = six-row, green = OSU six-row feed barley.

WO = Wooster, NW = Northwest (Custar), NC = North Central (Fremont).

Yield in bushels per acre of winter barley lines grown at three Ohio sites 2015–16 and 2016–17.



Seed was sown at the rate of 100 lbs./ac.

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