

WINTER MALTING BARLEY TRIAL – 2017 RESULTS

The Winter Malting Barley Trial (WMBT), through the University of Minnesota, was established at the Michigan State University W.K. Kellogg Biological Station (Kalamazoo County) on September 27, 2016. The plot included thirty-three varieties with three replications in a lattice design.

Variety	Yield (bu/ac)	Test Weight (lbs/bu)	% Plump	Protein %	RVA
05ARS561-208	94	42	65.0	11.1	59
06ARS617-25	135	46	76.4	11.8	6
06ARS633-3	104	44	69.9	12.5	7
07ARS515-7	110	45	68.4	12.8	4
2011-725-002	121	50	93.1	14.9	216
2014-519-08	128	51	77.2	13.3	97
2014-519-10	132	51	85.3	14.7	124
2WI14-7462	101	48	85.6	12.2	8
2WI14-7465	123	40	71.2	13.4	4
2WI14-7577	135	49	95.2	11.6	8
2WI14-7581	132	50	93.7	12.5	8
AC09/327/2	135	50	88.1	12.2	147
Calypso	155	48	79.5	12.7	147
Charles	109	41	87.7	12.5	6
DH130004	108	48	90.3	14.8	10
DH130718	115	49	89.4	12.9	7
DH130910	154	48	87.1	13.1	136
DH130939	146	52	96.5	13.5	5
Endeavor	115	48	81.2	10.6	9
Flavia	151	49	95.2	11.5	142
Hirondella*	156	45	82.6	11.1	92
LGBB13-W102*	151	43	71.4	10.6	113
McGregor*	163	47	72.4	11.6	160
Mission	117	44	78.8	12.2	131
MW12_4007-001*	123	45	65.9	12.0	149
MW12_4028-007*	119	46	66.8	12.2	119
MW13_4107-010*	110	44	68.0	12.6	95
MW13_4159-012*	112	43	46.2	12.3	137
Puffin	127	51	92.3	11.8	151
SU-Mateo	152	49	85.9	12.0	136
Thoroughbred*	161	49	77.4	11.1	150
Violetta	140	49	88.8	13.1	85
Wintmalt	128	47	88.8	11.3	137
Grand Mean	130	47			
CV	10.2	2.4			
LSD @ 5%	21.6	1.8			

*Six-row varieties, all others two-row

TRIAL DETAILS

Planting date: 9/27/16

Fertility: 9/27/16 – 20 lbs N/acre, 100 lbs P/acre, 50 lbs K/acre

4/12/17 – 12 S/acre, 102.5 lbs N/acre (50 lbs AMS + 200 lbs urea/acre)

Fungicide: 5/26/17 – 8 oz./acre Prosaro®

Harvest: 6/30/17

Growing season conditions: Fall and winter were much warmer than usual, with temperatures becoming more normal into summer. Over-winter, the site received more rain than snow, however, spring and summer were a bit dryer than normal.

Research site details: The W.K. Kellogg Biological is MSU's largest off-campus education complex and one of North America's premier inland field stations. Collaborating researchers from that station include Farm Manager, Brook Wilke, and Sustainable Agriculture Extension Educator, Dean Baas. Thank you to Brook, Dean, and their crews!



Malt quality data on select varieties from the Winter Malting Barley Trial (KBS, 2017)

Variety	Malt Ext. (%)	Wort Prot. (%)	S/T (%)	DP (°ASBC)	Alpha-amylase (20°DU)	Beta-glucan (ppm)	FAN (ppm)
Lyberac	78.6	4.22	36.6	181	45.9	49	141
Calypso	76.1	4.04	31.1	163	39.3	228	118
Charles	78.5	*5.99	45.5	94	51.2	34	*245
Endeavor	78.6	5.06	45.9	107	48.0	67	184
Flavia	78.3	4.05	35.1	145	37.8	114	116
Hirondella	75.2	3.86	36.6	149	36.7	272	108
McGregor	75.4	3.79	30.9	70	41.6	483	105
Mission	76.0	4.14	33.7	160	39.8	144	122
Puffin	77.1	4.14	35.2	127	44.0	253	122
SU-Mateo	76.5	4.08	34.1	161	39.3	367	103
Thoroughbred	76.4	3.71	33.8	128	45.9	450	109
Violetta	77.6	4.76	35.4	*216	57.5	215	157
Wintmalt	77.4	4.20	35.2	151	50.4	66	129



WMBT at KBS, April 2017



WMBT at KBS, May 2017

SOURCING WINTER VARIETIES

Malting barley production, although not new to Michigan, has not occurred at any scale for many years. Therefore, the infrastructure to support the industry has nearly vanished. Sourcing certified malting barley seed has been a challenge in the state as the crop re-establishes acreage throughout Michigan.

Fortunately, we have some diligent and high quality seed growers working to fill this need. The best resource to identify available seed is the Michigan Crop Improvement Association's website that can be found at: www.michcrop.com.

If you are looking for guidance on specific variety selection, MSU researchers are always willing to review data and your production goals to help identify a variety that will fit your needs.

Research and resources can be found at: msue.anr.msu.edu/topic/info/malting_barley

Project **GREEN** 