

A Multi-Parameter, Predictive Model of Starch Hydrolysis in Barley Beer Mashes

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Table S1 – Statistical Significance of Model Parameters

Response	Intercept	Linear Effects			Interaction Effects			Quadratic Effects		
	β_0	β_T	β_{pH}	β_{GR}	β_{T-pH}	β_{T-GR}	β_{pH-GR}	β_T^2	β_{pH}^2	β_{GR}^2
Y_{TE} (% GW)	82.42	1.27	-0.50	-1.20	-	0.76	-	-0.98	-0.71	-
<i>p-value</i>	-	<0.0001	0.0478	<0.0001	-	0.0096	-	0.0043	0.0336	-
Y _{FE}	60.52	-5.05	1.06	-0.40**	-	-1.41	-	-5.18	-1.67	-
<i>p-value</i>	-	<0.0001	0.0008	0.1637	-	0.0001	-	<0.0001	<0.0001	-
Y _{NFE}	20.94	6.31	-1.57	-0.78	-	2.16	-	4.27	1.03	1.03
<i>p-value</i>	-	<0.0001	<0.0001	0.0217	-	<0.0001	-	<0.0001	0.0209	0.0216
FE (% TE)	74.45	-7.32	1.74	0.57**	-	-2.49	-	-5.53	-1.45	-1.06
<i>p-value</i>	-	<0.0001	<0.0001	0.1250	-	<0.0001	-	<0.0001	0.0044	0.0322
GLC	12.58	-0.71	-0.01**	-	-0.31*	-	-	-	-0.34*	-
<i>p-value</i>	-	<0.0001	0.9510	-	0.0663	-	-	-	0.0780	-
MAL	42.09	-5.39	1.51	0.66	0.47	-1.98	-	-4.32	-0.69	-
<i>p-value</i>	-	<0.0001	<0.0001	0.0021	0.0399	<0.0001	-	<0.0001	0.0114	-
MLT	11.95	-0.71	-	-0.10**	-	-0.19*	-	-0.34	-	-
<i>p-value</i>	-	<0.0001	-	0.2316	-	0.0511	-	0.0037	-	-
FRC	7.04	-0.53	0.18**	0.18**	-	-0.28*	-	-0.66	-0.36	-0.38
<i>p-value</i>	-	0.0001	0.1449	0.1419	-	0.0504	-	0.0002	0.0315	0.0236
NFE (% TE)	25.55	7.32	-1.74	-0.57**	-	2.49	-	5.53	1.45	1.06
<i>p-value</i>	-	<0.0001	<0.0001	0.1250	-	<0.0001	-	<0.0001	0.0044	0.0322
DP4+	15.82	4.31	-0.50*	-0.21**	-0.60	0.98	-	2.46	0.91	-
<i>p-value</i>	-	<0.0001	0.0610	0.4205	0.0462	0.0021	-	<0.0001	0.0113	-
NC	11.13	3.05	-1.21	-0.39**	-	1.55	-	2.96	-	-
<i>p-value</i>	-	<0.0001	0.0151	0.4073	-	0.006	-	<0.0001	-	-

All coefficients in the table above correspond to codified rather than actual values for each factor (i.e., values between -1 and 1 rather than the actual range of process values). Coefficients of included terms for which $0.05 \leq p < 0.1$ are denoted with a superscripted *; terms included solely to maintain model hierarchy are denoted with a superscripted **. Empty table entries indicate effects that failed to satisfy the inclusion criterion of $p < 0.1$ and were not required to maintain model hierarchy.