

Supplementary Table S1. Malt quality parameters calculated for barley cultivars

Parameter ^a	Cultivar	Value	Score
Extract (% dry weight)	AL AN BA CE CH HA LU MN SC	>82.2	10
	ML	81.6-82.2	9
	OT RG	80.9-81.5	7
	MO SA SK	80.2-80.8	5
	SL	78.7-79.4	3
Colour (EBC standard)	AL AN BA CE CH HA LU MN MO OT RG SK SC SL	3.0-3.8	10
	ML SA	<2.6	6
Soluble N (% dry weight)	AL AN BA CE CH LU ML MN SA SC	0.55-0.70	10
	OT RG SK	<0.55	6
	HA MO	0.76-0.8	5
	SL	0.86-0.9	3
β -glucan (% dry weight)	AL AN BA CE CH HA LU MN OT SC SL	< 180	10
	MO RG SA	181-240	5
	ML	241-300	4
	SK	>360	1
Viscosity (cP)	AL AN BA CH HA LU MN OT SA SC SL	<1.52	10
	CE ML MO	1.53-1.56	9
	RG	1.57-1.6	8
	SK	1.73-1.76	2
Friability (%)	HA ML MO RG SA SL	82.6-95	10
	AL AN BA CE CH LU MN OT SC	>95	8
	SK	77.5-80	6
Modification (area %)	AL AN BA CE CH HA LU MN MO OT RG SA SC SL	94.1-98.5	10
	ML	92.6-94	8
	SK	88.1-91.0	6
Homogeneity (%)	AL AN BA CH LU ML MN MO RG SA SC SL	>80	10
	CE HA OT	77-80	7
	SK	73-76	6
Diastatic power (°WK)	AL BA LU MN MO SA SL	>275	10
	RG	251-275	8
	CE SC	226-250	5
	CH HA	201-225	4
	ML OT	175-200	2
	AN SK	<175	1
α -amylase (U/g)	SC	>266	10
	AL HA	249-266	9
	CH MO	231-248	8
	MN RG SA	213-230	7
	AN ML OT SL	195-212	6
	BA CE LU	177-194	5
	SK	<158	1
β -amylase (U/g)	BA LU MO SA SL	>675	10
	AL MN RG	611-675	6
	CE SC	546-610	5
	CH ML	481-545	3
	HA	415-480	2
	AN OT SK	<415	1

^aDetermined according to European Brewing Convention (EBC) standard evaluation methods