



The Midland Craft Brewers Association



Brewing crafted ales.....at home

Hop Test

The hop test was conceived to test MCBA member's ability to test that they could distinguish a particular single hop in nine different beers. The nine beers were all made from the same 25 litre wort and then split into 5 different batches and then each 5 litres of wort was boiled with a different hop. The hops were chosen based on popularity of the hops and then categorised into aroma or bittering hop. The Recipe Below was used for the hop testing quiz, the hops used below was divided into 5 when it came to boil the hop.

Batch size	25 litres	Original gravity	1.038
		Final gravity	1.009
Boil size	29.88 litres	Alcohol (by volume)	3.9%
Boil time	60 minutes	Bitterness (IBU)	23
Grain weight	4 kilograms	Color (SRM)	4.5°L
Efficiency	75%		

Yeast		Mash	
9 dry grams		90 minutes, 36.36 litres	
Dry <i>Danstar</i>	Nottingham Ale	Strike <i>Target 65°C</i>	12.52 litres 72°C 90 minutes (+0)
Grains/Extracts/Sugars		Sparge <i>Target 60°C</i>	23.84 litres 59°C

4 kilograms

Maris Otter
38ppg, 4°L

3.5 kilograms
87.5%

Wheat
38ppg, 2°L

0.5 kilograms
12.5%

Hops

35 grams

Choice Whole hop 90 grams

Cascade hops
6%, Whole

0.18 ounces

Boil

60 minutes, 29.88 litres

Choice Whole hop 45 grams
90 minutes

45 grams

45 minutes

Ferment

7 days @ 14-21°C

Beer	Actual hop	Old/new world	Alpha acid	Brewer 1	Brewer 2	Brewer 3	Brewer 4	Brewer 5	Brewer 6	Brewer 7
Beer 1	Progress	Old	Low	Goldings	-	Target	Goldings	Challenger	Bramling	Brewers Gold
Beer 2	Target	Old	High	Target	Target	Bramling Cross	Brewers Gold	Hallertau	Fuggles	Willamette
Beer 3	Challenger	Old	Medium	Goldings	-	Willamette	Fuggles	Goldings	Bramling	Northern Brewer
Beer 4	Fuggles	Old	Low	-	Nothern Brewer	Fuggles	Challenger	Fuggles	Goldings	Centenial
Beer 5	Hallertau	Old	Low	Chinook	-	Saaz	Cascade	First Gold	Northern Brewer	Challenger
Beer 6	Saaz	Old	low	-	Fuggles	Progress	Target	Bramley Cross	Styrian Goldings	Hallertau
Beer 7	Chinook	New	High	Goldings	Styrian Goldings	Simcoe	Northdown	Nothern Brewer	Nelson Sauvin	Cascade
Beer 8	Pride of Ringwood	New	High	Nelson	Goldings(ek)	Northern Brewer	Bramling Cross	Perle	Nelson Sauvin	Ahtanum
Beer 9	Bramling Cross	Old	Low	Challenger	Challenger	Galena	-	Saaz	Goldings	Target

				1	1	1	0	1	0	0
Old/new world										
Old				o		o	o	o	o	o
Old				o	o	o	o	o	o	n
Old				o		n	o	o	o	o
Old					o	o	o	o	o	n
Old				n		o	n	o	o	o
Old					o	o	o	o	o	o
New				o	o	n	o	o	n	n
New				n	o	o	o	o	n	n
Old				o	o	n	o	o	o	o
Alpha acid										
Low					1		0	1	0	1
High					1	1	0	0	0	0
Medium					0		1	0	0	0
Low					0	0	1	0	1	0
Low							1	0	1	0
low					0	1	1	0	1	1
High					0	0	1	0	1	1
High					1	0	1	1	0	1
Low					0	0	0	0	1	0
Correct					3	2	6	2	5	4

Conclusions

The hops were added at the start and middle of the boil, so some aroma may not have been apparent.
6 out of 9 brewers correctly identified 1 hop variety, and 3 out of 9 brewers did not identify any varieties correctly.
Target and Fuggles were the varieties which were most frequently identified.
Old world hops were better identified than new world hops, which perhaps reflects personal usage of hop varieties by the brewers.
High alpha acid hops tended to be more frequently identified than low alpha acid hops.
Most brewers preferred Fuggles and Pride of Ringwood hops (joint first place)
then Hallertau in second place, then Challenger, Target and Chinook in equal third place.
Perhaps the biggest surprise was that Pride of Ringwood was so well received, as some reviews describe it as having a rough flavour.

Brewer 8	Brewer 9	Score	Actual hop	Old/new world	Alpha acid	Votes
Cascade	Challenger	0	Progress	Old	Low	
Bramling	Hallertau	2	Target	Old	High	2
Challenger	Cascade	1	Challenger	Old	Medium	2
Nelson Sauvin	Nelson Sauvin	2	Fuggles	Old	Low	5
Fuggles	Saaz	0	Hallertau	Old	Low	4
East Kent Golding	Fuggles	0	Saaz	Old	low	
-	Northdown	0	Chinook	New	High	2
Northdown	Bobek	0	Pride of Ringwood	New	High	5
-	-	0	Bramling Cross	Old	Medium	

1	0	Correct	Old/new world	
n	o	8	Old	
o	o	8	Old	
o	n	7	Old	
n	n	5	Old	
o	o	7	Old	old world hops better identified
o	o	8	Old	
o	o	3	New	
o	n	4	New	
		6	Old	
		Correct	Alpha acid	
	0	0	3	Low
	0	0	2	High
	1	0	2	Medium
	0	0	3	Low
	1	1	4	Low
	1	1	6	low
		1	5	High
	1	1	7	High
	4	4	2	Low
				high alpha acid hops better identified