

TASTING RESULTS – BRAUBEVIALE 2018

| TECHNICAL SUPPORT |

Test series 1 – Type Helles

The beers had an original gravity of 11.5° Plato and an alcohol content of 4.3% by vol. The recipe for both beers was identical, but there was a difference in the hop variety used in the kettle. Hopping was done with pellets in three doses, at start of boiling (50% of total alpha dosage), 20 minutes after start of boiling (25%) and 20 minutes before the end of boiling (25%). Total boiling time was 70 minutes. The one beer was kettle hopped with Hallertauer Perle, while in the other beer a new promising experimental hop from Hopsteiner breeding program Germany was used.

Analytical data of the pellets

	LCV (EBC 7.5) %	Alpha acids (EBC 7.7) %	Co-Humulone % rel.	Beta acids (EBC 7.7) %	Co-Lupulone % rel.
Perle	8.7	7.3	30.0	4.7	54.2
99/268	9.5	8.1	29.7	3.9	58.5

Analytical data of the beers

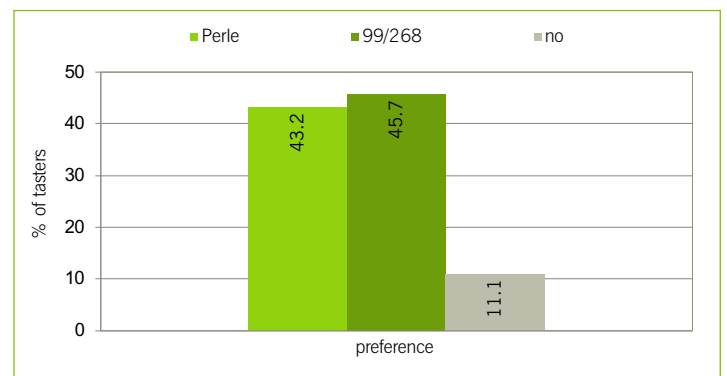
	IBU (EBC 9.8)	Iso-alpha acids* mg/l	Alpha acids* mg/l
Perle	21.8	22.6	3.3
99/268	22.5	23.9	4.3

* Inhouse method, HPLC; ** EBC 9.49

Evaluation of bitterness – Mean values (max. 7)



Preference of tasters in %



Test series 2 – Type New England IPA

The NEIPA beers had an original gravity of 15.6° Plato and an alcohol content of 6.5% by vol. The recipe for both beers was identical, but there was a difference in the hop variety used in dry hopping.

Hop addition in the brewhouse: Hopping was done in two doses, at start of boiling (11 g product/hl), and in the whirlpool (360 g product/hl). The total boiling time was 70 minutes. The hops were used as dried, milled cone hops.

Hopping in cold block: Beer A was dry hopped with the experimental variety #06277, Beer B with #06297. Both hops originate from our Hopsteiner breeding program in the USA. The hops were added into the tank as dried, milled cone hops in bags, to keep beer losses

as low as possible. To minimize the impact of oxygen, the filled hop bags were vacuum-sealed in foils. At the dosage point they were opened and the still vacuumized hops were introduced into the tank.

There were three dry hopping dosages of 1 kg/hl each. Dosage 1 at start of primary fermentation, dosage 2 at the end of primary fermentation and dosage 3 after chilling to 8°C and removing the previously sedimented yeast.

Fermentation was done with LalBrew New England of Lallemand.

Analytical data of the cone hops

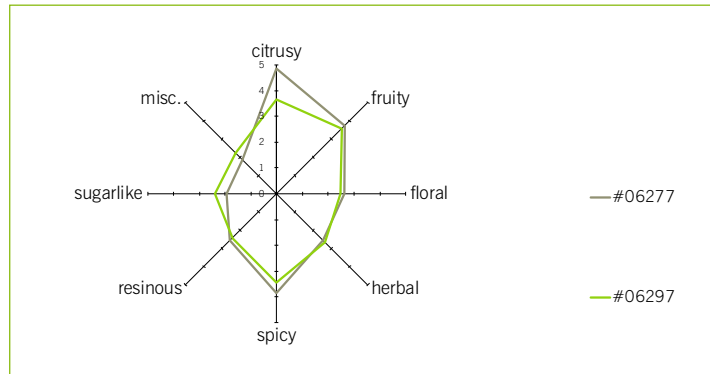
	LCV (EBC 7.5) %	Alpha acids (EBC 7.7) %	Beta acids (EBC 7.7) %	Total oil EBC 7.10 ml/100g	Myrcene* % rel.	Linalool* % rel.
#06277	12.4	7.3	3.5	2.5	49.9	0.3
#06297	16.6	8.1	5.2	1.6	54.8	0.2

Analytical data of the beers

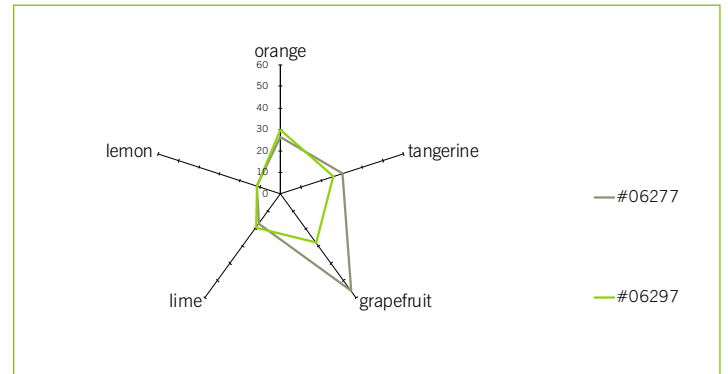
	IBU (EBC 9.8)	Iso-alpha acids* mg/l	Alpha acids* mg/l	Myrcene** µg/l	Linalool** µg/l
#06277	75.8	20.2	35.5	9930	1489
#06297	68.8	27.1	37.3	6372	623

* Inhouse method, HPLC; ** EBC 9.49

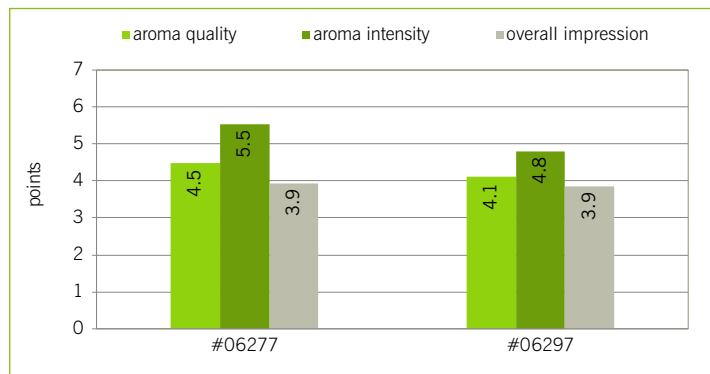
Aroma impressions - Intensity



Aroma impressions - citrusy in %



Evaluation of aroma – Mean values (max. 7)



Preference of tasters in %

