



NEWSLETTER 08/2014

TECHNICAL SUPPORT

Single Hop and mixed Hop Variety Aromas

At the Hopsteiner Forum in July 2014 a selection of Pale Ales were presented to an audience of brewers and brewing scientists to show the impact on beer aroma by only using different hop varieties for dry hopping.

Unique and partly new hop varieties were selected to produce four single hopped beers and in addition four mixed combinations.

The base beer of all eight Pale Ales was identical (14°P, 6% abv.) and exclusively made using Hallertau Tradition in the brewhouse. The following varieties and blendings thereof were used to create a selection of various dry hopping aromas.

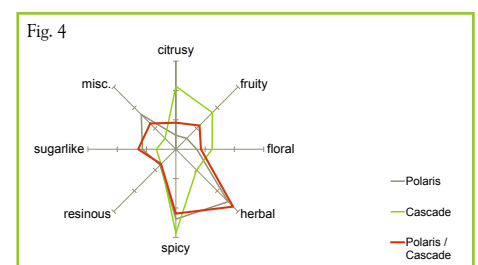
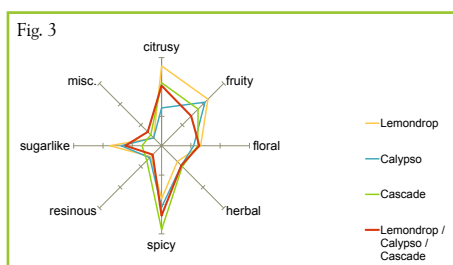
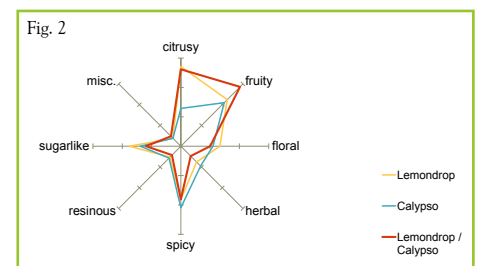
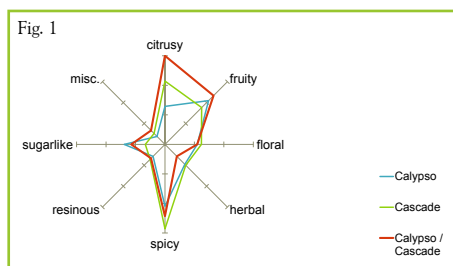
	Variety used for Dry Hopping (in total 300g / hl)	Blending
Pale Ale 1	US Lemondrop	pure
Pale Ale 2	US Calypso	pure
Pale Ale 3	German Polaris	pure
Pale Ale 4	German Cascade	pure
Pale Ale 5	US Calypso & German Cascade	½ each
Pale Ale 6	US Lemondrop & US Calypso & German Cascade	⅓ each
Pale Ale 7	German Polaris & German Cascade	½ each
Pale Ale 8	US Lemondrop & US Calypso	½ each

Tasting Results

Each of the following figures compares the flavor profile of the single hopped Pale Ales and their blendings.

Figure 1 and 2 show an increase of fruity and citrusy aroma profiles if hops were used in mixed combinations. Therefore, their initial flavor characteristics were even more pronounced. The mixture of three varieties (see fig.3) seem to become indistinct compared to the single hopped profiles. However, depending on certain dominating aroma components, some varieties like Polaris (see fig. 4) even keep their typical aroma characteristic if used in a mixture of hop varieties.

If you have any further questions please do not hesitate to contact us.



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