



# ***HUMULUS LUPULUS***

## **AND OTHER BITTER TRUTHS**

### **Whatever the fruit, we've got the hop**

Thanks to the craft beer movement and “premiumisation”, hops have gone through a remarkable transformation. In addition to doing its technological duty (stabilising foam and making beer keep longer), for some time now the “green gold” has been showing off its talents in the flavour department (bitterness and mouth-feel) and above all when it comes to putting aroma into beer.

And this is the case not only with hop-forward beers like IPA, but across all categories. There's no beer style today that somebody somewhere isn't offering in a dry-hopped version. Take the new, but now well-established categories of American Stout or Hopfenweisse [hop wheat beer], for example, or even rare styles such as Cuvée Saint-Gilloise, a lambic beer from the Cantillon brewery in Brussels.

As a result, the aroma profile has become a key quality feature alongside the well-established one of alpha acid content. “Hopsessed”, the reference system developed by BarthHaas has played a decisive part in creating a standardised language of sensory description and documentation of hop aromas. This new hop language is now used all over the world in hop grading and quality assessment, as well as in scientific papers from various universities. The Hop Navigator on the BarthHaas website provides valuable guidance in this new world of aroma and flavour by presenting the aroma profiles that our team of experts has produced for each hop variety.

#### **Hop aroma - the key to success in flavour design**

A recent American study by Mayich et al. on aroma preferences in beer among men and women confirms the leading role of the hop as a flavouring agent. 200 women and 200 men stated their aroma preferences in beer. They had been asked to choose from among the following descriptors: apple, pear, peach, apricot, melon, strawberry, raspberry, pineapple, mango, lemon,

orange, coconut, rose, geranium, chocolate, caramel, pepper, ginger, tea, mint, grassy, earthy, pine, cedar, nutty, malty, bread-like, coffee and smoky. The findings show that both men and women prefer citrus aromas. Whereas nutty and malty are also significant among men, the entire range of fruit aromas – from apple to peach to strawberry and raspberry – are important for women [1].

In view of the fact that the target group “women” is one of the biggest growth markets for beer, the authors correctly draw the following conclusion from the study: the hop industry must not underestimate the importance of aromas and flavours from hops in beer, as most of the aromas preferred by women are contributed to the beer solely by hops. Please note that we are talking here about brewing with traditional ingredients. Brewers operating outside the jurisdiction of the German Purity Law can, of course, simply add the fruits they need for the preferred aromas to the beer, but then they will have to contend with the micro-organisms thus introduced and run that extra mile for non-standardised processes. This therefore proves what we've known all along: the hop is the magic plant of the future.

And this may also apply to other beverages. Let's take another look across the pond. The recently developed product category of “hard seltzers”, i.e. carbonated water with grain alcohol from fermented sugar and natural flavourings, is becoming increasingly popular among young people in the USA. In this new, fast-growing beverage that is threatening to outsell beer, fruit aromas are also a key component. This presents a good opportunity for the hop sector to set its magic plant to work here, too.

[1] Mayich, D.: Moving Beyond Variety-by-Name to Flavor Contributions in the Hops Industry: A Preference Study of Beer Drinkers in North America, MBAA TQ vol. 56, no. 4, 2019, pp. 133-136