For your health, marinate your steak!
This might sound as a joke but it is true! Portuguese researchers have looked into the effect of different beer types as meat marinates in regard to the formation of polycyclic aromatic hydrocarbons (PAHs). All beer types tested (Black Beer, Pilsner and a non-alcohol Pilsner) showed inhibitory effects on PAH formation (which are to see in context with cancer). The effect increased with the increase of their radicals-cavenging activity. Stay healthy, insist on beer marinated meat!

The hidden treasures of hop bracts
We know we don’t know everything about hops, but we’re always discovering new things! These Japanese researchers have used a novel separation technique using a sequential liquid chromatography (LC) method in the following steps: (1) highspeed countercurrent chromatography (HSCCC); (2) hydrophilic interaction chromatography (HILIC) using an amide column; and reversed–phase (RP) LC using a (3) octadeclysily (ODS) or (4) phenyl column. The comprehensive separation and structural analyses identified four compounds for the first time in plants, and 20 compounds that have not been reported from hops were also identified. Most of the compounds were hydrophilic glycosylated and/or esterified analogues of abscisic acids, hydroxycinnamic acids, flavonols, lignans, hydroxybenzoic acids, or carotenoids. In addition, large amounts of highly oligomeric proanthocyanidins were found in the hop bract extract. Who knows, maybe these compounds will become physiologically important in the future!

A holistic story about hops
We know a lot has been written about hops. This review shows there is still a huge amount of information covering hop chemistry and nomenclature we are not aware of. Furthermore, the different hop resins found in the lupulin glands of the hop cones are discussed in detail. The major hop bitter acids (α- and β-acids) and the latest findings on the absolute configuration of the cis and trans iso-α-acids are discussed. Special attention is given to the hard resins; the known δ-resin is reviewed and the ε-resin is introduced. Recent data on the bittering potential and the antimicrobial properties of both hard resin fractions are disclosed. Also hop aroma components and hop derived polyphenols and their potential health benefits are addressed.

About complete advanced hopping
We are currently facing a trend towards traditional hopping methods, especially with the increasing success for craft beers. However advanced hopping has various benefits that were investigated by a Belgian research team. The results indicate that fully advanced hopped beers prepared with isomerized hop extracts, hop polyphenol extracts, and specific hop aroma essences have a complete beer flavor that can compete with traditionally hopped beers. They were also able to show that next to their radical scavenging activity, polyphenolic extracts have high potential to improve beer sensory properties. Except for the proanthocyanidins, all polyphenolic preparations were highly flavor-active, with positive effects on mouthfeel. Also bitterness quality improved after the addition of total polyphenolic extract.


Hops are like grapes! Each year climate and specific conditions will determine the flavor and aroma they perform in the final beer. With the high hop addition in craft beers little changes in the hop composition may be noticeable in the end. With the Hop Harvest Guide we try to help brewers to judge the yearly deviation of hop aroma and flavor. Visit us at BrauBeviale (Hall 1) and ask for our Hop Harvest Guide!