Optimize your hop management!
To this point it is still a bit a blur in which way alpha, beta, and iso–alpha acids add to or foil the antioxidative properties of beer. These properties are predominantly attributed to hops polyphenols, but these German Researchers took a closer look on the hop bitter acids. With a very sophisticated equipment consisting of EPR spectroscopy, GC–MS (SAFE), HPLC and continuous flow analysis (CFA), they applied different hopping regimes to small scale brewing trials using CO2 extract and purified hop acids. They were able to show that hop alpha– and beta–acids showed similarly significant radical quenching abilities while iso–alpha acids displayed a negligible effect. Therefore, during wort boiling additional later hop additions (as late as in the whirlpool) make sense to increase the antioxidant properties of the wort. Although this leads to a certain loss of hop bitter yield, the radical content can decrease by 15 % – 28 % resulting in a significantly higher oxidative wort stability. Additionally, in most cases the higher amount of alpha acids also resulted in a higher formation of SO2 during fermentation. So check with your brewers not to add the hops to soon into the kettle!

Why always hops?
This or a similar question was asked by these Belgium Researchers. They looked back into the middle ages when hops was just one of many beer styles. They were able to show that hop alpha– and beta–acids showed similarly significant radical quenching abilities while iso–alpha acids displayed a negligible effect. Therefore, during wort boiling additional later hop additions (as late as in the whirlpool) make sense to increase the antioxidant properties of the wort. Although this leads to a certain loss of hop bitter yield, the radical content can decrease by 15 % – 28 % resulting in a significantly higher oxidative wort stability. Additionally, in most cases the higher amount of alpha acids also resulted in a higher formation of SO2 during fermentation. So check with your brewers not to add the hops to soon into the kettle!

extracts of the herbs were preferred over ethanol/water extracts because of lower astringency and higher drinkability of the resulting beers. You see, it just doesn’t work entirely without hops..

Do you still brew conventionally or already advanced?
What is still blasphemy on German territory has been deeply investigated in Belgium. These Researchers compared the flavour and flavour stability attributes of conventionally (traditionally) and advanced–hopped beers. They found that the use of hop oil fractions may positively influence flavour stability of the resulting beers. In general, flavour stability of advanced hopped beers using iso–alpha acids is at least comparable to conventionally hopped beers. Hop aromatisation, whether advanced or conventional, results in a lower rating of sensory stale flavours.

Sweetie — what did you brew for dinner tonight?
The Ultimate Almanac of World Beer Recipes is not simply a book but a practical guide to the world’s major beer styles from A to Z for the professional brewer. How many beer styles there are exactly in the world is always a matter of debate among experts. The (American) Brewers Association Beer Style Guidelines recognize close to 150 styles and sub-styles; the European Beer Star recognizes about 40. Even the most detail-oriented classification may not exceed 200 styles. This book attempts to cover “all” beer styles in the world, past and present. It features 101 major beer styles with descriptions, recipes and brewing instructions. In addition, there are some five dozen minor beer style entries listed in an Appendix at the end of this book, with brief style descriptions or definitions.

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