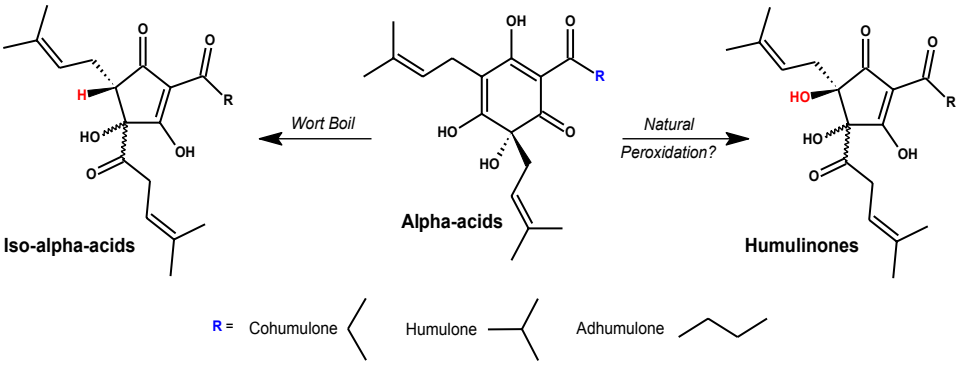
NEWSLETTER 04/2015
TECHNICAL SUPPORT

Humulinone, A Natural Hop Bitter Acid

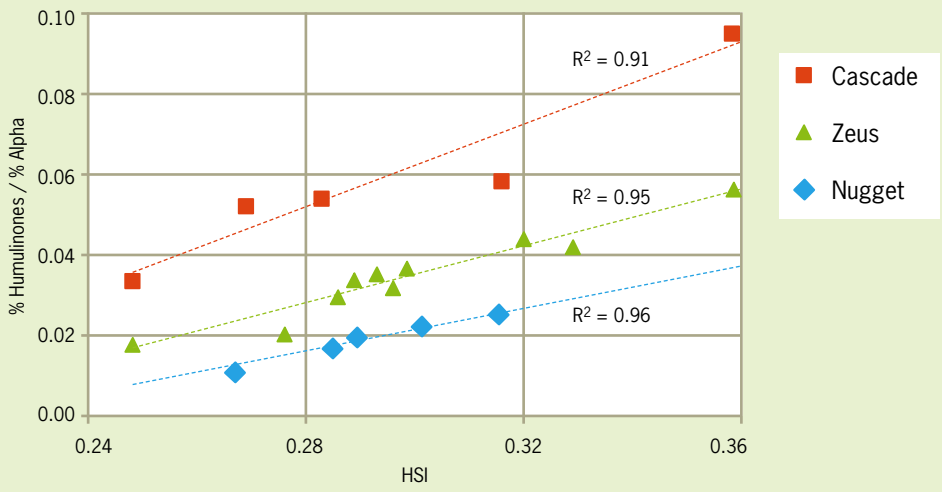
Humulinones are formed by the oxidation of alpha acids and are closely related to isoalpha acids in their molecular structure. It's been reported that humulinones are 65 % as bitter as iso alpha acids and their discovery in hops and hop pellets are relatively new. Interestingly, the small concentration of humulinones in leaf hops increase after pelletization, despite vacuum packaging and cold storage. Leaf hops and hop pellets can contain as much as 0.2 % - 0.5 % w/w humulinones whereas CO_2 hop extract contains none. We believe pelletization breaks the lupulin gland, thus exposing alpha acids to agents, outside the lupulin, that facilitate their oxidation to form humulinones.

Figure 1 – Formation of Iso-alpha-acids and Humulinones from Alpha-acids



Interestingly, high HSI (Hop Storage Index) hops have higher concentrations of humulinones than low HSI hops and the relationship between HSI and humulinone concentration is variety dependent.

Correlation of Initial HSI of Hop Pellets with Ratio of Humulinones to Alpha-Acids



If you want any further information please do not hesitate to contact us.

Simon H. Steiner, Hopfen, GmbH S.S. Steiner, Inc.
Newsletter, April 2015

Polaris

The licencing fee for the hop variety Polaris will be dropped with effect from crop 2015 onwards. Consequently, Polaris may now be considered as an alternative bittering variety.

In order to evaluate the suitability of Polaris as a bittering hop in beer, we suggest that you carry out trial brews with this variety.

May '15

Save the date!

May, 1st-3rd
Bier-Genuß Tage Ingolstadt
May, 4th-5th
60. Brauwirtschaftliche Tagung
May, 6th-8th
Bevtec Asia 2015
May, 8th
22. Dresdner Brauertag
May, 22nd-23rd
South Beer Cup 2015
May, 24th-28th
35th EBC Congress

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Check out the latest "Hopsteiner Bier Ideen"

At Ingolstadt's first **Bier-Genuss-Tage** on May 1st to 3rd.

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