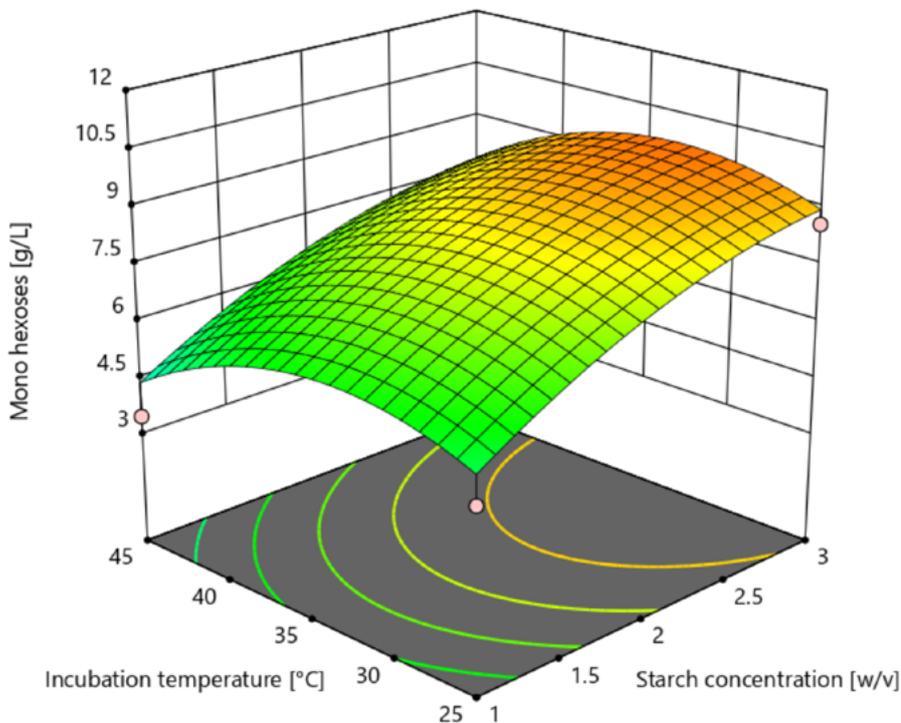


“HOP CREEP” – SOON MORE PREDICTABLE? | TECHNICAL SUPPORT |

The hop creep phenomenon is caused by the introduction of diastatic enzymes via dry hopping. Such hop enzymes are converting unfermentable real extract into fermentable sugars. In the presence of active yeast this may lead to unwanted secondary fermentation of beer followed by uncontrolled increase in diacetyl, alcohol, and carbon dioxide. Still open questions are whether this phenomenon is dependent on hop variety, crop year and growing, harvest or processing techniques. To gain more insight, a reliable analytical “hop creep forecast” method is necessary.

In a paper recently published in the BrewingScience journal, Wietstock et al. describe the development of a suitable assay to measure hop diastatic activity under optimized conditions (see Figure). They recommend quantitative HPLC determination of defined mono hexoses after the incubation of hop samples with a potato starch substrate. HPLC analysis is performed according to slight modifications of an existing MEBAK method for measuring malt diastatic activity. So far, 14 hop varieties have been analyzed showing some differences in their diastatic power. Further results on a larger number of samples coming from several crop years will be published soon together with the final description of a standardized method. The goal of the authors is to propose a reliable and reproducible approach to better predict the hop creep effect.

Figure (as presented in: BrewingScience 74, 2021, 92-99, P. C. Wietstock, T. Lützenberger, M. Biendl, B. Gibson: A Method for the Determination of Hop Diastatic Power – Part 1):



3D response surface diagram for the response mono hexose carbohydrate concentration and the effect of the independent factors incubation temperature and starch concentration. Hop concentration was set at 15 g/L.

If you need any further information, please contact us. (info@hopsteiner.de).

Simon H. Steiner, Hopfen, GmbH *S. S. Steiner, Inc.*

Newsletter, February 2022



WEBINAR-SERIES



MAR-03 | 10.30 AM

HOW TO REDUCE YOUR HOP-RELATED COST IN USE SIGNIFICANTLY

Speaker Stephan Raeker
Language English

[REGISTER HERE](#)

Covid-19 continues to be a burden to the beer industry with its strong link to gastronomy and social gathering. With limited output volumes, cost control has thus become crucial for the overall profitability or even survival of many brewers. However, cost reductions must not compromise quality! In this webinar, the Hopsteiner team will share some smart approaches to reduce your hop bill that will still allow you to brew your amazing beers.

MAY-03 | 4.00 PM

HOPSTEINER BREEDING PROGRAM – EXPLORING HOPS POTENTIAL

Speakers Dr. Alexander Feiner & Nicholi Pitra
Language English

[REGISTER HERE](#)

Climate change is an essential component in plant breeding. The biggest challenge in hop growing in recent years and in the future is securing stable yields. In this webinar, Hopsteiner scientists from the U.S. and Germany highlight new Hopsteiner varieties and shed light on breeding tools and future variety development.

Hopsteiner

COMMITTED TO THE BREWER