



Institute for Crop Science and Plant Breeding Hop Research Center Hüll

The Right Time to Harvest Optimal Yield and Quality

A. Lutz, J. Kneidl, E. Seigner, and K. Kammhuber

Introduction

Hop is harvested upon reaching the "technical ripeness" (highest brewing value), not at full or "physiological" maturity. Each variety has its own specific, genetically determined optimal time of harvest which is varied by the weather situation, location conditions and the cutting time.

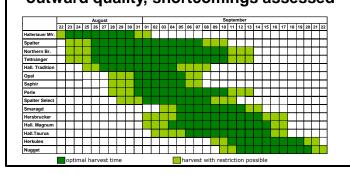
Harvest time crucially affects:

- $\succ \alpha$ -acid contents
- ➤ yield
- outward quality (color and shine, infection with diseases and pests, shattering)
- aroma (aroma intensity, oil content and composition)
- vigor and vitality of the plant (in the next season)

Economic interest of hop growers, traders and brewers

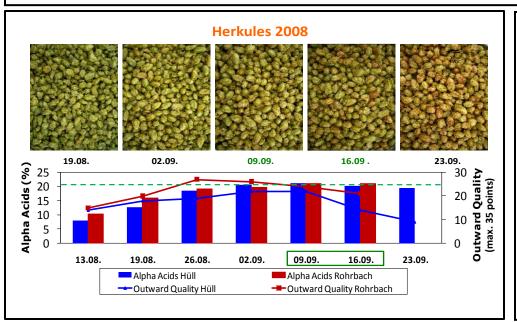
Results from harvest time studies

- 5 8 harvest times (2 dates / week),
 4 replications with 20 bines each
- > 3- 4-year-trials (climate, health and vitality)
- data for yield, α-acid contents, aroma, outward quality, shortcomings assessed



Biogenesis studies

Single bines of the most important hop cultivars are harvested at 2 different locations each week starting in mid August till late September. Cone samples are analysed at once and data concerning chemical compounds, aroma, outward quality and yield are assessed.



Improved harvest recommendations

Based on these results the optimal harvest period for each cultivar is adapted each year to the specific wheather conditions and recommendations concerning the best timing of picking are given to the growers and traders weekly.