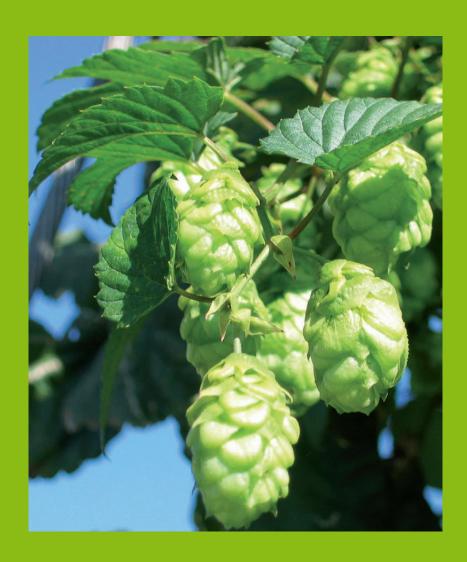
## HOPSTEINER – NEWSLETTER AUGUST 2011

TECHNICAL SUPPORT





## Analytical Methods for Hops and Hop Products

Nowadays most leaf hops worldwide are processed into various hop products after harvesting. Hop products are more homogeneous, easier to handle and have better storage stability than leaf hops. In addition, brewers' modern day requirements have become more complex, as a result of which there is a huge range of hop products with varying compositions.

In order to characterize the various hop products, several analytical methods are needed to focus on the relevant hop components. The following table gives an overview of the most recent analyses for hops and hop products:

Method	EBC	ASBC	MEBAK	Remarks
Sampling	7.1	Hops-1	4.1.1 / 4.2.1 / 4.3.1	Hops and hop products
Hand Evaluation		Hops-2	4.1.2	Hops
Seed Content of Hops	7.3	Hops-2	4.1.2.7	Hops
Moisture	7.2	Hops-4	4.1.4 / 4.2.3	Hops and hop products
Lead Conductance Value (using Toluene)	7.4	Hops-6B		Hops
Lead Conductance Value (modified Wöllmer method)	7.5		4.1.5.1	Hops and pellets
Lead Conductance Value (modified Wöllmer method)	7.6	Hops-8B (II)	4.2.4.1	Extracts
Conductometric Bitter Value	7.6 + 50% iso-α- acids acc. to 7.8		4.2.4.1 / 4.3.3.1	Ethanol extracts
$\alpha$ - and $\beta$ -Acids (Spectrophotometry)		Hops-6A, Hops 8B (I)		6A only for hops and pellets; 8B (I) only for extracts
$\alpha$ - and $\beta$ -Acids (HPLC)	7.7	Hops-14	4.2.4.2	Hops, pellets and extracts
iso- $\alpha$ -, $\alpha$ - and $\beta$ -Acids (HPLC)	7.8	Hops-16	4.3.3.1	For extracts and isomerized extracts
iso-α-Acids (HPLC)		Hops-9C, -9D		For isomerized extracts
iso- $\alpha$ -, $\alpha$ - and $\beta$ -Acids (HPLC)	7.11	Hops-15		Iso-pellets
iso-α-Acids and reduced iso-α-Acids	7.9			Isomerized and reduced iso-extracts
Hop Oil Content	7.10	Hops-13		Hops and hop products
Hop Oil Components (GC method)	7.12	Hops-17		Hop essential oil isolated from hops or hop products
Hop Storage Index	7.13	Hops-12		Hops and pellets

All methods refer to the latest released versions.

If you need further information, please don't hesitate to contact us!

## HOPSTEINER

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