

BEGLEITURKUNDE

Allgemein auf Grund der Verordnung (EWG) Nr. 1038/71 vom 26. 7. 1971,
geändert durch Verordnung (EWG) Nr. 1170/77 vom 17. 5. 1977.

DEUTSCHER SIEGELHOPFEN

(ohne Barmen)



SORTE

Hallerter Mittelfrüher

GRUPPE:

NR. BALLEN/BALLOT

GEWICHT IN KG (BRUTTO)

Aufbereiter:

ORT:

DEN:

19

Stichtag/Inspektor/Aufsicht

DEUTSCHER
SIEGEL

DEUTSCHER
SIEGEL



Hallertauer Mittelfrüher

Characteristics

Bitter substances

alpha-acids	3.0 – 5.5 % *
beta-acids	3.0 – 5.0 % *
cohumulone	18 – 28 % ^x
colupulone	36 – 44 % ^x

Polyphenols

total content	4.0 – 5.0 % *
xanthohumol	0.2 – 0.3 % *

Aroma substances

total oil	0.7 – 1.3 % •
myrcene	20 – 28 % ^x
linalool	0.7 – 1.1 % ^x
beta-caryophyllene	10 – 15 % ^x
aromadendrene	< 0.2 % ^x
humulene	45 – 55 % ^x
farnesene	< 1 % ^x
beta-selinene	1.0 – 1.5 % ^x
alpha-selinene	1.0 – 1.5 % ^x

Very fine aroma variety

- average bitter value
- very good aroma
- average storage stability

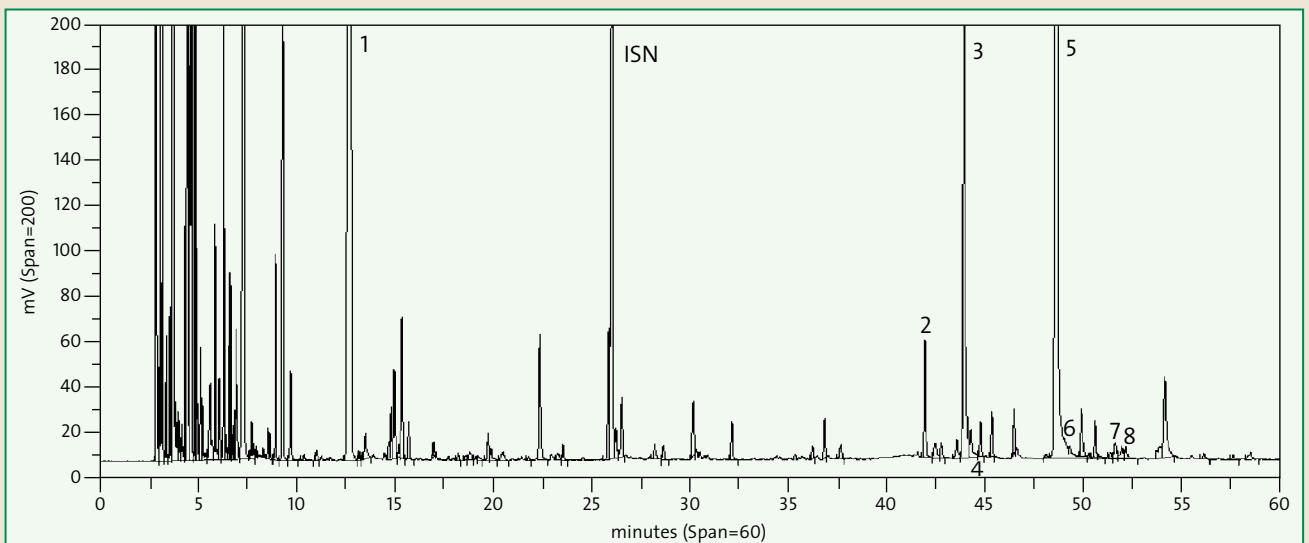
Resistance to disease:

• wilt	very low
• downy mildew	low
• powdery mildew	average

Ripening time	early
Storage stability	average
Average yield	1,250 kg/ha

(*) weight-% – (x) % relative – (•) ml/100g hops

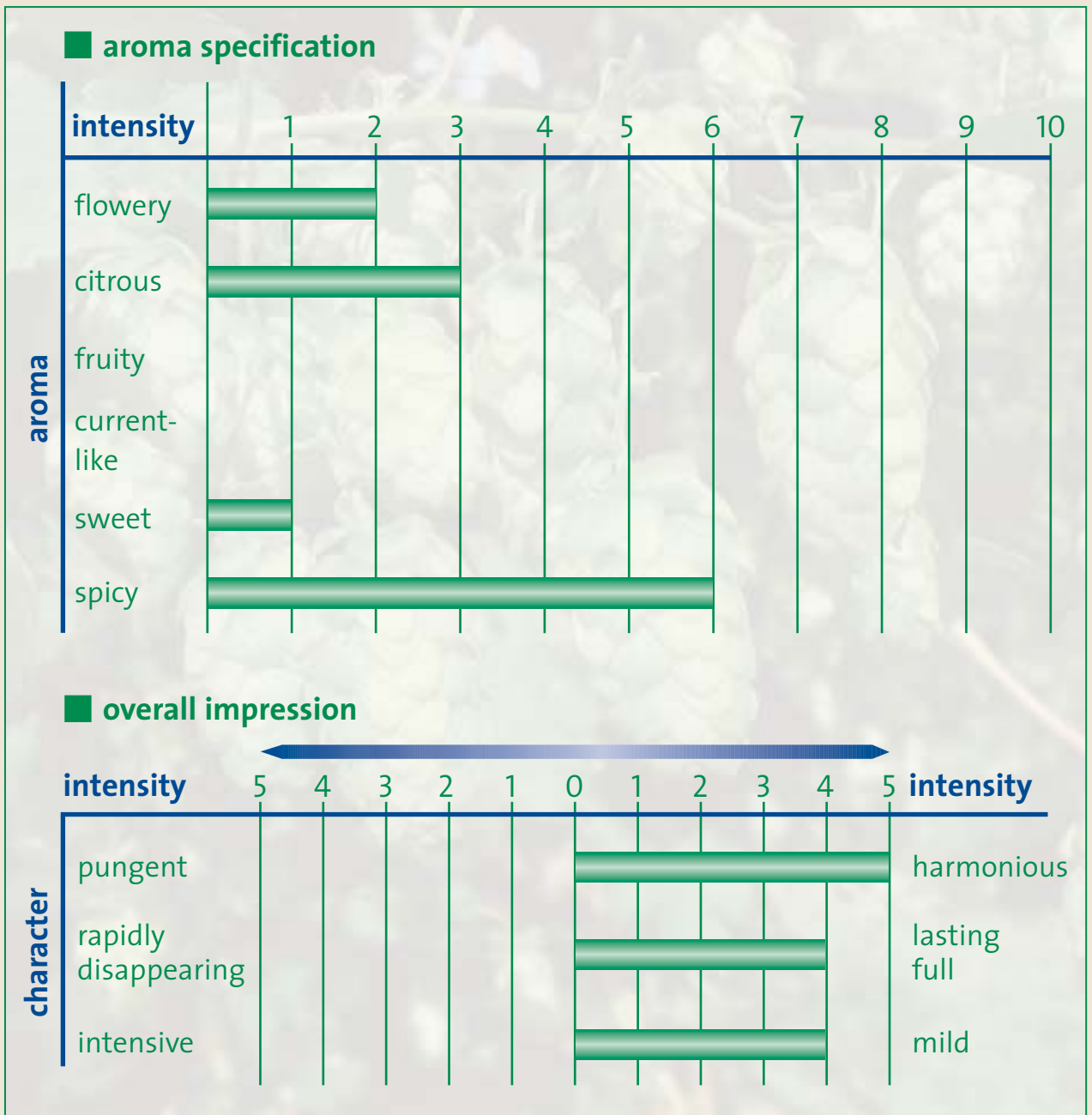
Headspace Gaschromatogramme



1 = myrcene · ISN = internal standard · 2 = linalool · 3 = beta-caryophyllene · 4 = aromadendrene · 5 = humulene · 6 = farnesene
7 = beta-selinene · 8 = alpha-selinene

Hallertauer Mittelfrüher

Evaluation



The aroma variety Hallertauer Mittelfrüher is the traditional local variety in the Hallertau. As it is highly susceptible to wilt the yields fluctuate. Therefore it is a risk to plant it on new sites which are threatened by wilt.

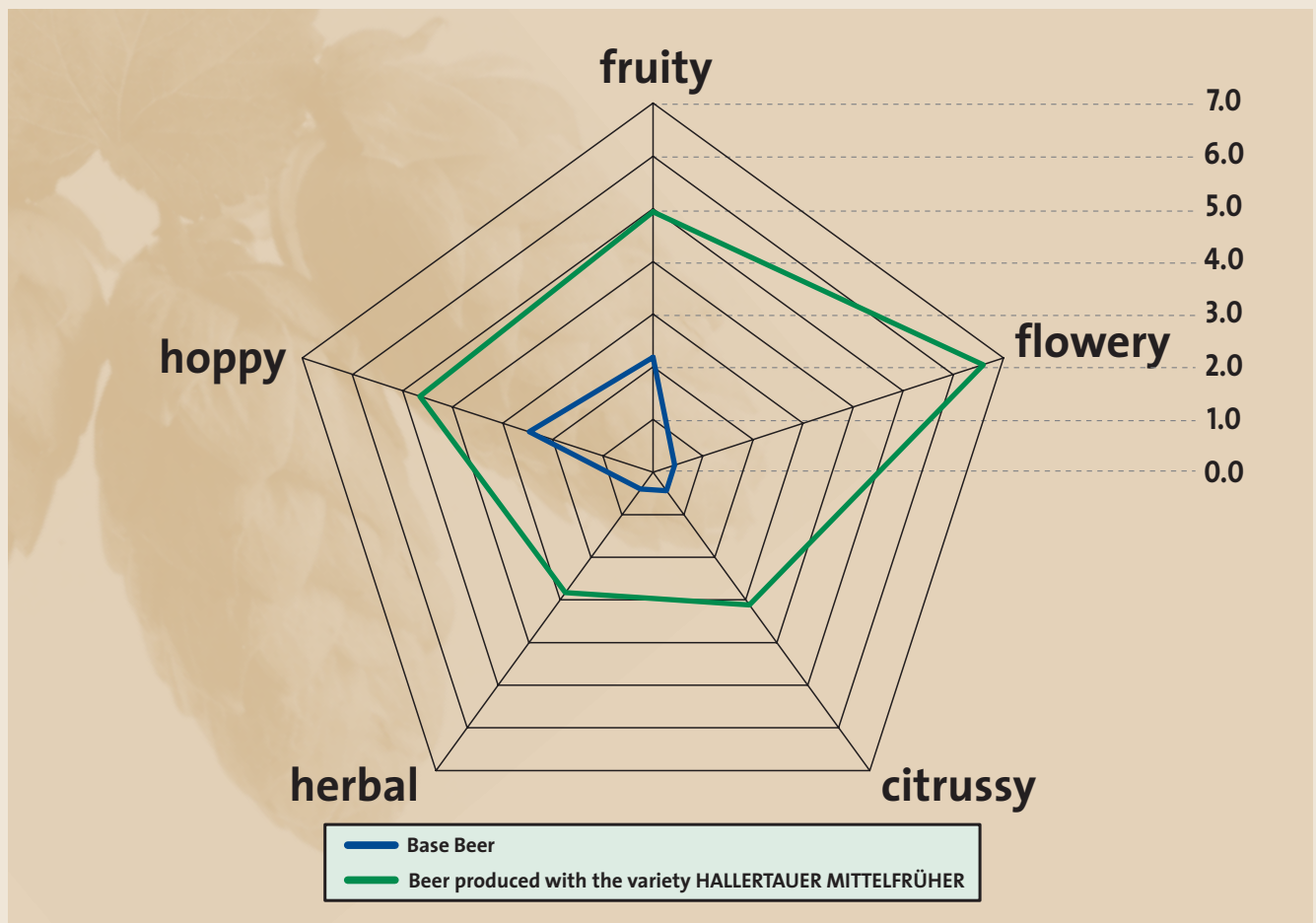


Brewing trial: Hallertauer Mittelfrüher

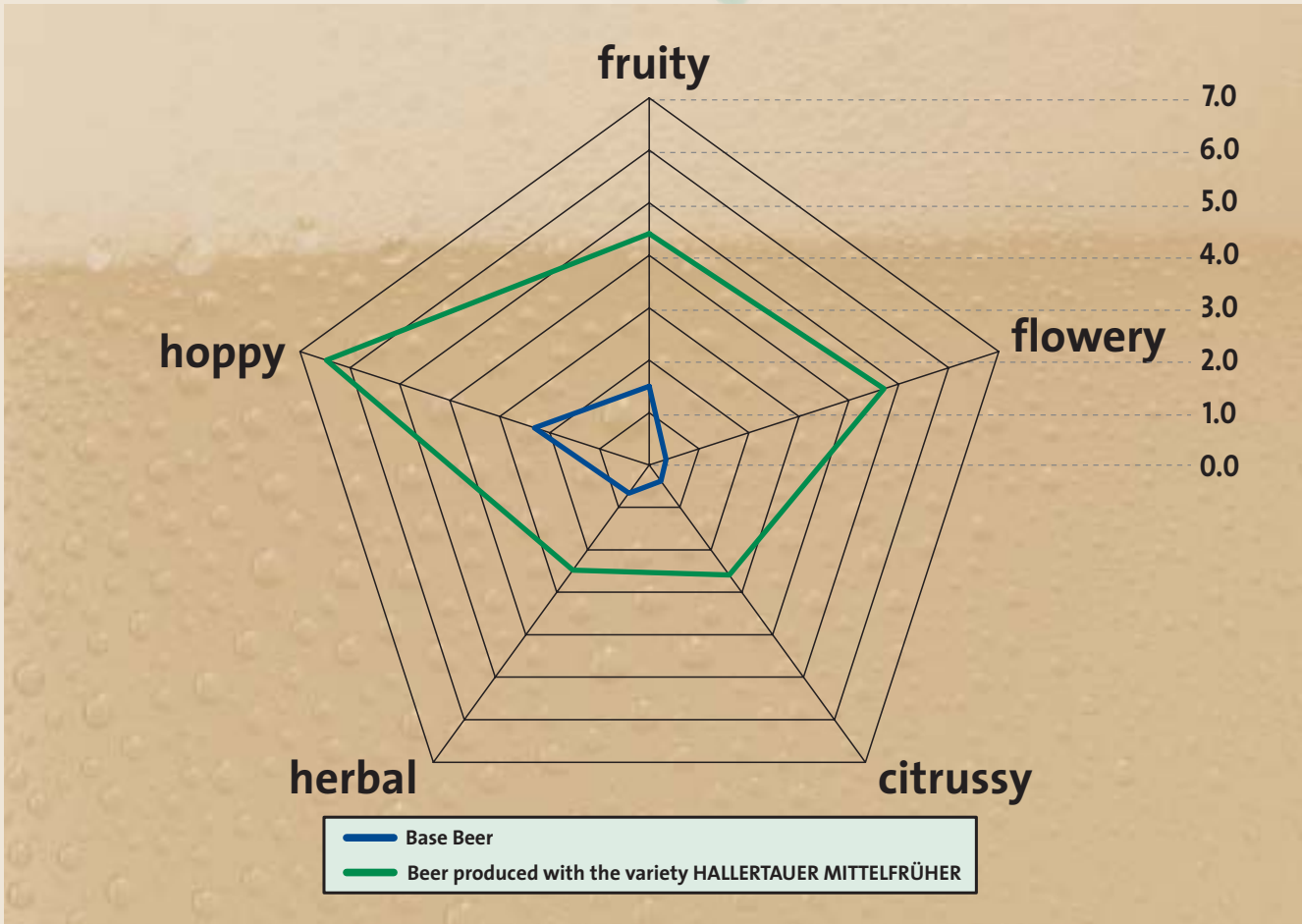
1. Beer Analysis

co-isohumulone	6.2 mg/l	iso-xanthohumol	0.62 mg/l
n-isohumulone	13.0 mg/l	xanthohumol	0.02 mg/l
ad-isohumulone	3.3 mg/l	linalool	84 µg/l
Σ isohumulones	22.5 mg/l	total polyphenols	247 mg/l
bitterness	25 EBC-BU		

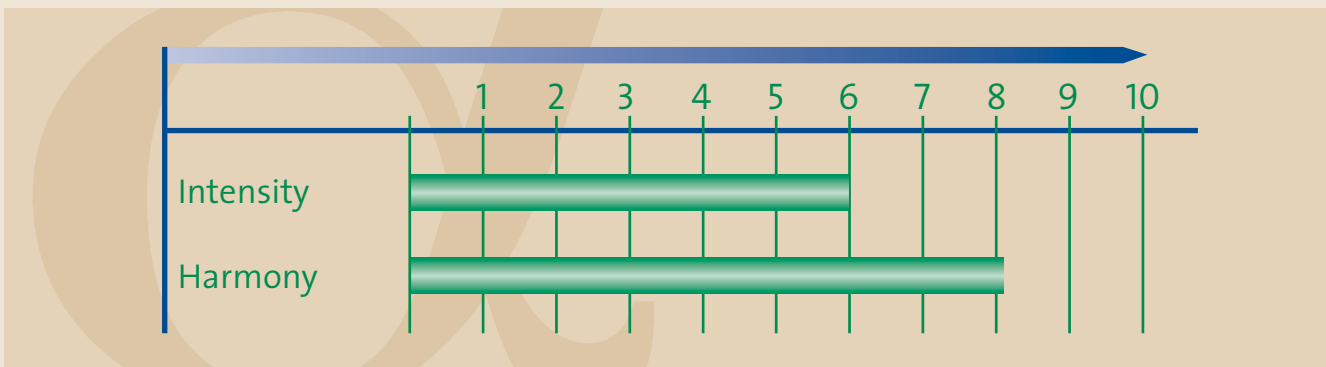
2. Sensory Evaluation “Hop Aroma” (Smell)



3. Sensory Evaluation “Hop Flavour” (Taste)



4. Sensory Evaluation of the Bitterness



The variety Hallertauer Mittelfrüher can be distinguished in beer by an intensive, pleasantly harmonic bitterness. In smell it has a distinctly flowery as well as fruity-hoppy aroma, whereas in taste the hoppy tang is more prevalent.