

# BEGLEITURKUNDE

Allgemeine Erklärung der Verordnung (EWG) Nr. 1181/71 vom 20.7.1971,  
geändert durch Verordnung (EWG) Nr. 1184/77 vom 17.5.1977.

## DEUTSCHER SIEGELHOPFEN

(Einheiten)



SORTE

**Hallerbauer Mittelfrüher**

GRUPPE

NR. BALLEN/BALLOT

GEWICHT (IN KG (BRUTTO))

Aufbereiter

ORT

GEN

19

BEI NUR EINER ANSEICH

WASCH  
SIEGEL



# Hallertauer Mittelfrüher

## Characteristics

### Bitter substances

alpha-acids	3.0 – 5.5 % *
beta-acids	3.0 – 5.0 % *
cohumulone	18 – 28 % <sup>x</sup>
colupulone	36 – 44 % <sup>x</sup>

### Polyphenols

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

### Aroma substances

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

### Very fine aroma variety

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

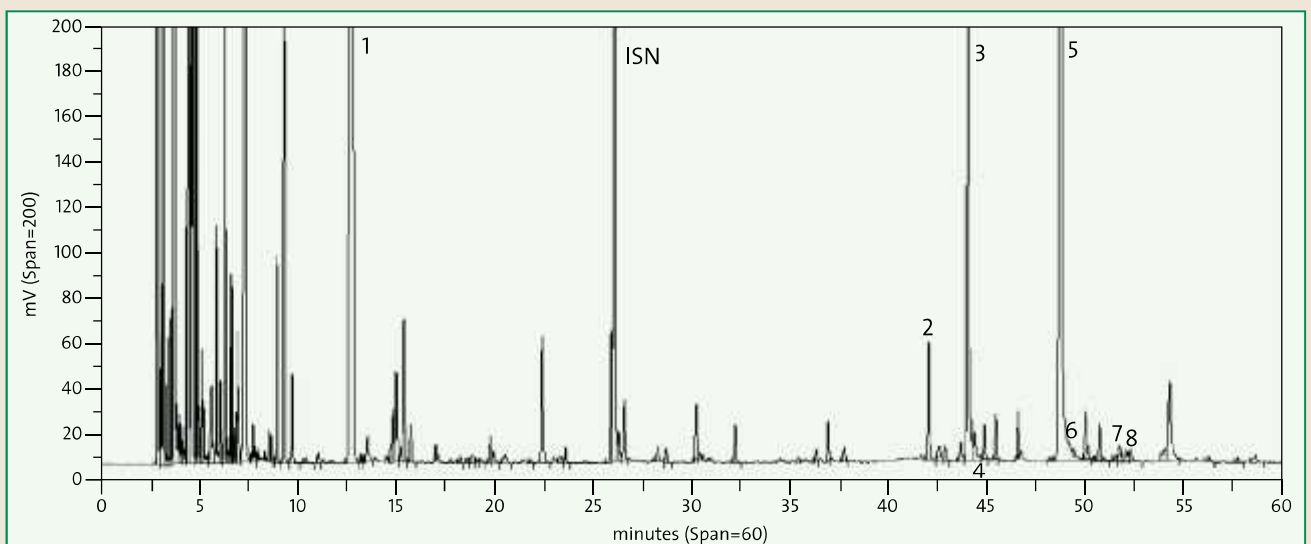
### Resistance to disease:

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

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

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

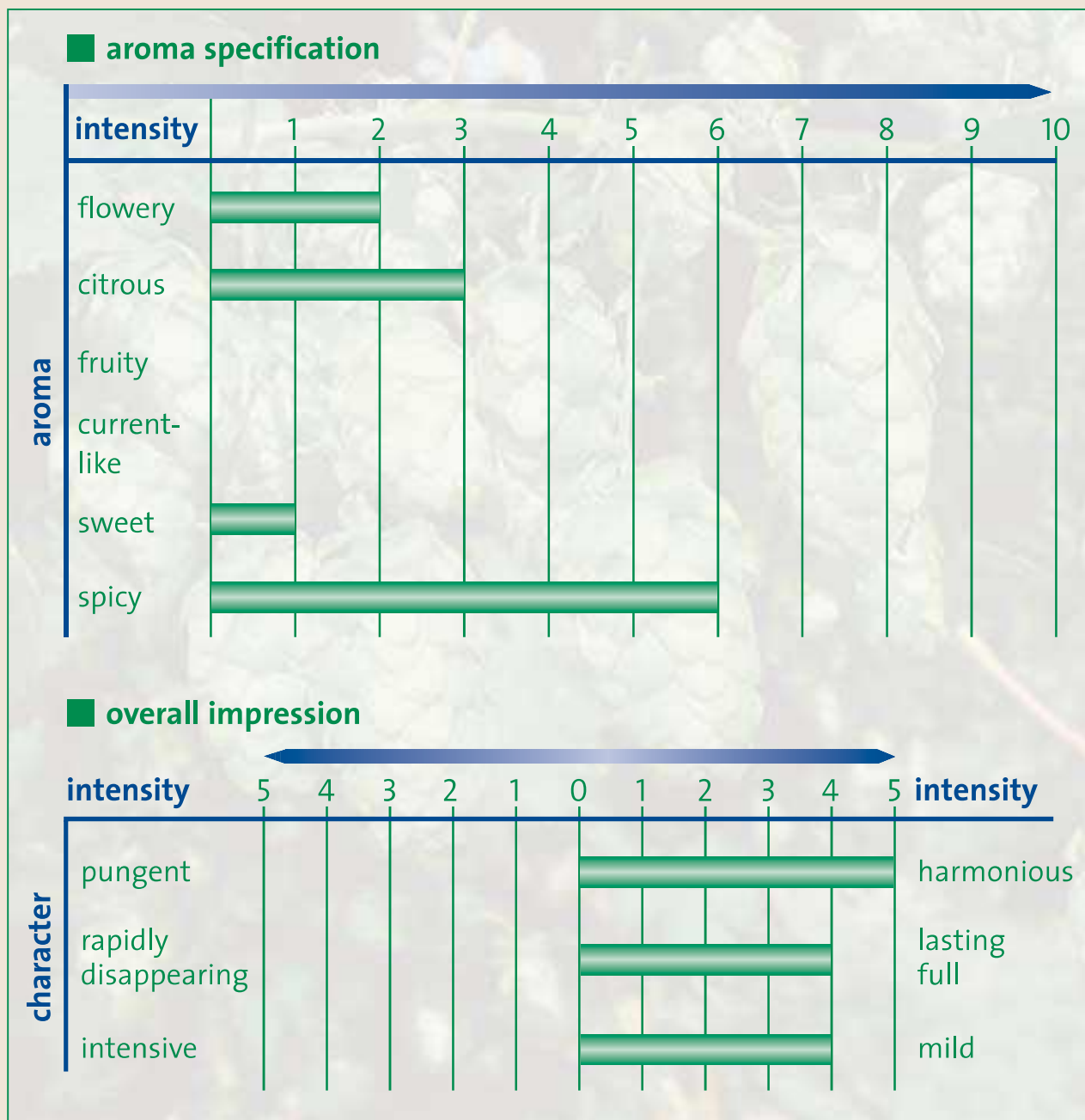
### Headspace Gaschromatogramme



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



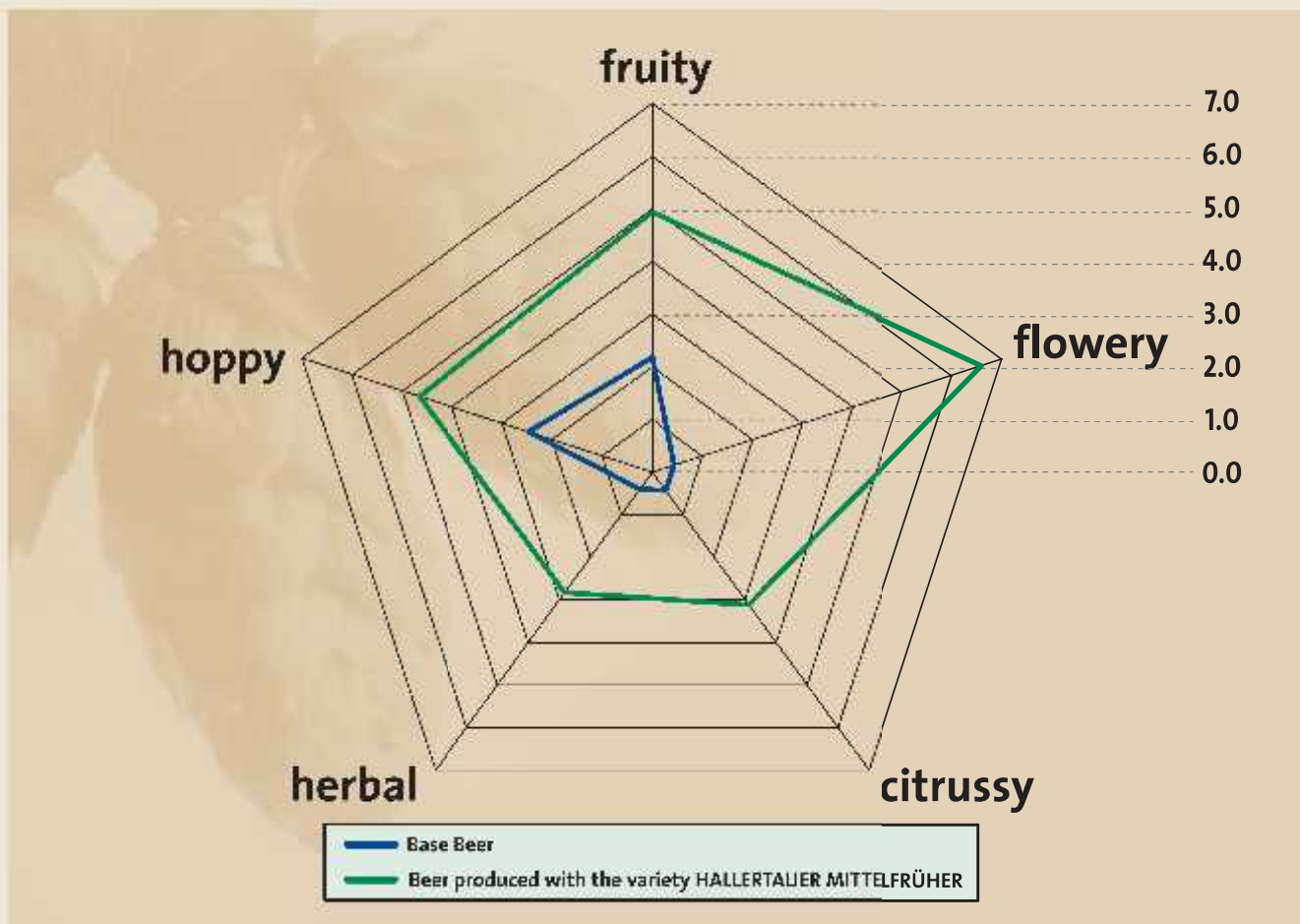
The aroma variety Hallertauer Mittelfrüher is the traditional local variety in the Hallertau. As it is highly susceptible to wilt the yields fluctuate. Therefore it is a risk to plant it on new sites which are threatened by wilt.

# Brewing trial: Hallertauer Mittelfrüher

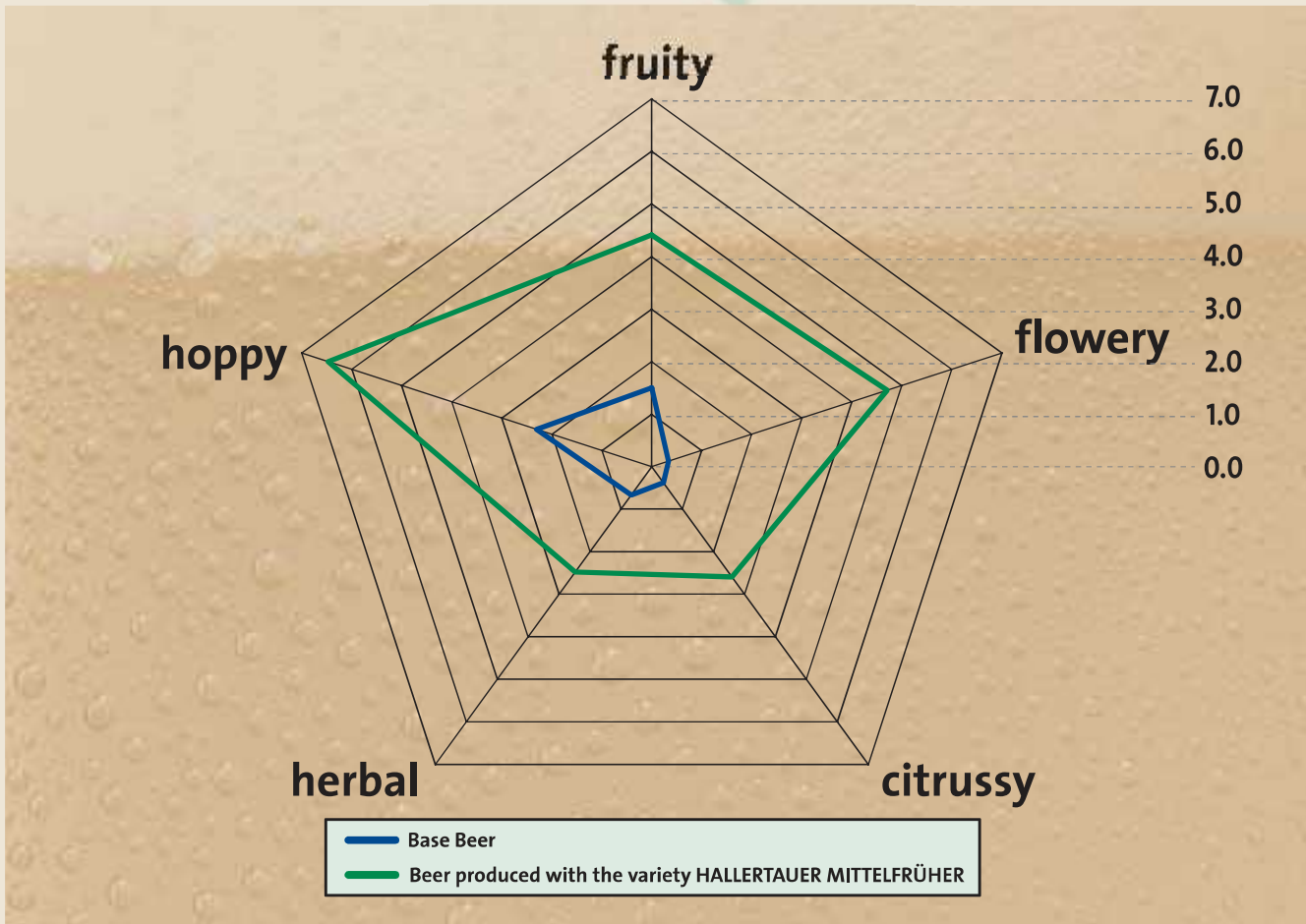
## 1. Beer Analysis

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
∑ isohumulones	22.5 mg/l	total polyphenols	247 mg/l
bitterness	25 EBC-BU		

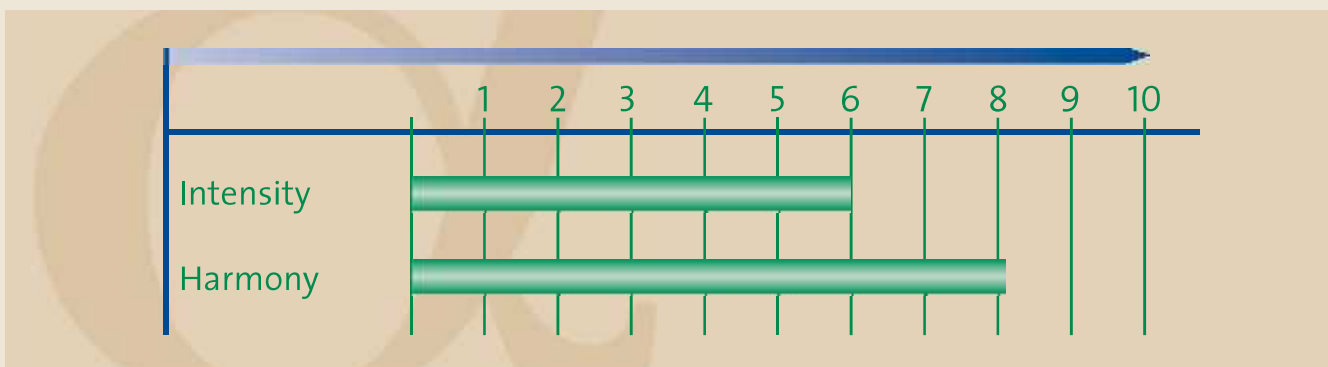
## 2. Sensory Evaluation "Hop Aroma" (Smell)



### 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.