

# BEGLEITURKUNDE

Allgemeine Erklärung der Verordnung (EWG) Nr. 1627/71 vom 20.7.1971,  
geändert durch Verordnung (EWG) Nr. 1124/77 vom 11.5.1977.

## DEUTSCHER SIEGELHOPFEN

(Einheitsmaß)



SORTIE

**Perle**

GRUPPE

NR. BALLEN/BALLOT

GEWICHT IN KG (BRUTTO)

Aufbereiter

ORT

GEN

19

BEI NUR AUSWAHL

WASCH  
SIEGEL

DE

19



# Perle

## Characteristics

### Bitterstoffe

alpha-acids	4.0 – 9.0 % *
beta-acids	2.5 – 4.5 % *
cohumulone	29 – 35 % <sup>x</sup>
colupulone	48 – 60 % <sup>x</sup>

### Polyphenols

total content	3.0 – 5.0 % *
xanthohumol	0.4 – 0.5 % *

### Aroma substances

total oil	0.5 – 1.5 % *
myrcene	20 – 35 % <sup>x</sup>
linalool	0.2 – 0.6 % <sup>x</sup>
beta-caryophyllene	10 – 20 % <sup>x</sup>
aromadendrene	< 0.2 % <sup>x</sup>
humulene	35 – 55 % <sup>x</sup>
farnesene	< 1 % <sup>x</sup>
beta-selinene	0.2 – 0.7 % <sup>x</sup>
alpha-selinene	0.2 – 0.7 % <sup>x</sup>

### Fine aroma variety

- average to higher bitter value
- good aroma
- good storage stability

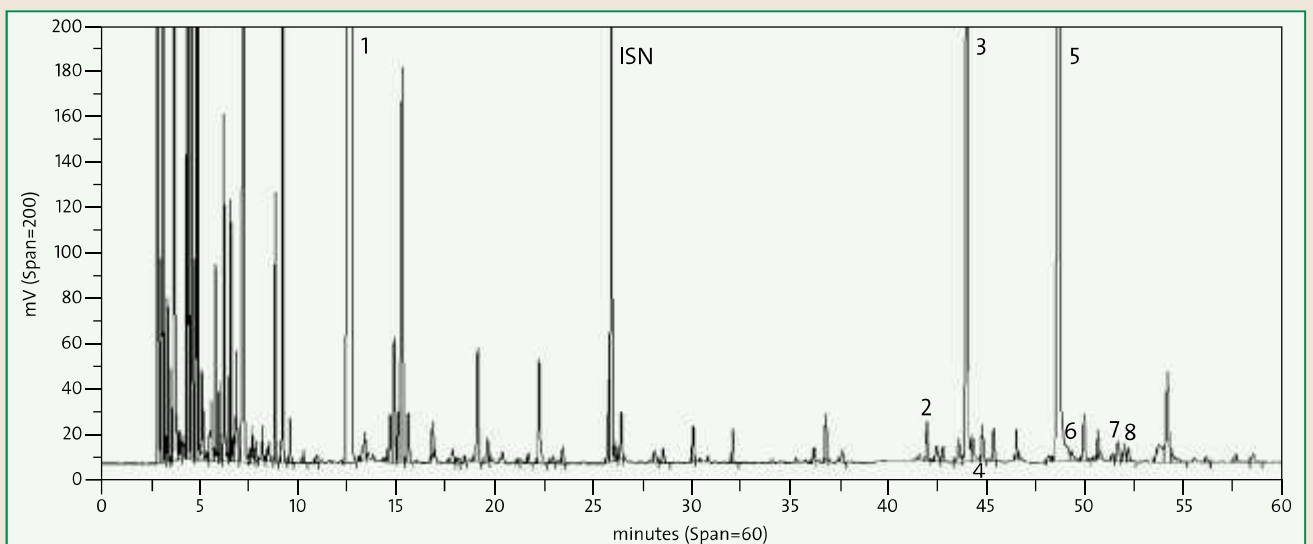
### Resistance to disease:

- |                  |                   |
|------------------|-------------------|
| • wilt           | good to very good |
| • downy mildew   | good to very good |
| • powdery mildew | average to low    |

<b>Ripening time</b>	medium late
<b>Storage stability</b>	good
<b>Average yield</b>	1,800 kg/ha

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

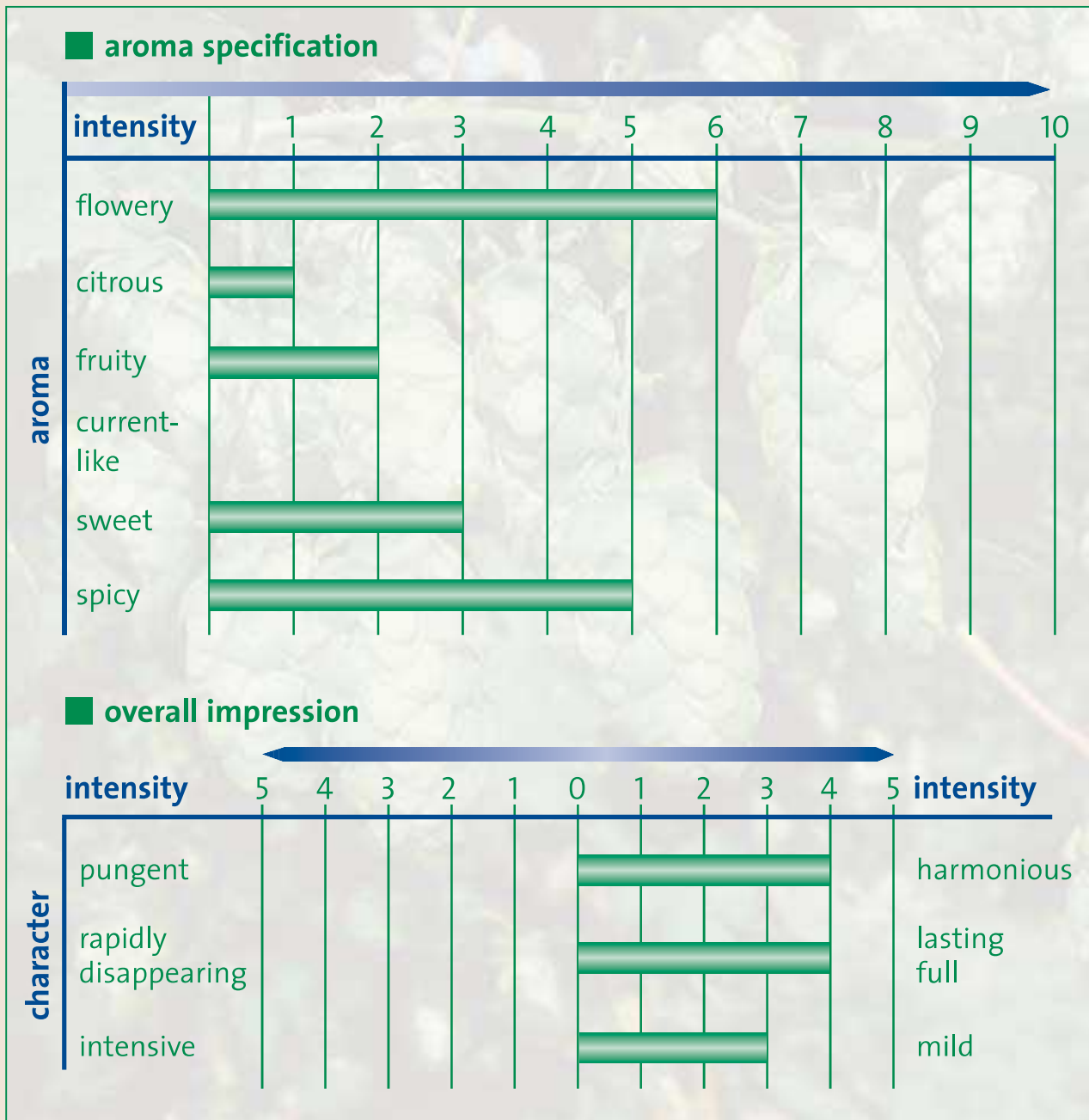
### Headspace Gaschromatogramme



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

# Perle

## Evaluation



The aroma variety Perle is a product of the Hop Research Centre in Hüll with good resistance characteristics, high yields and very good production characteristics. This aroma variety was registered as a variety in 1978. In the 1990s it became very popular with the hop-growers.



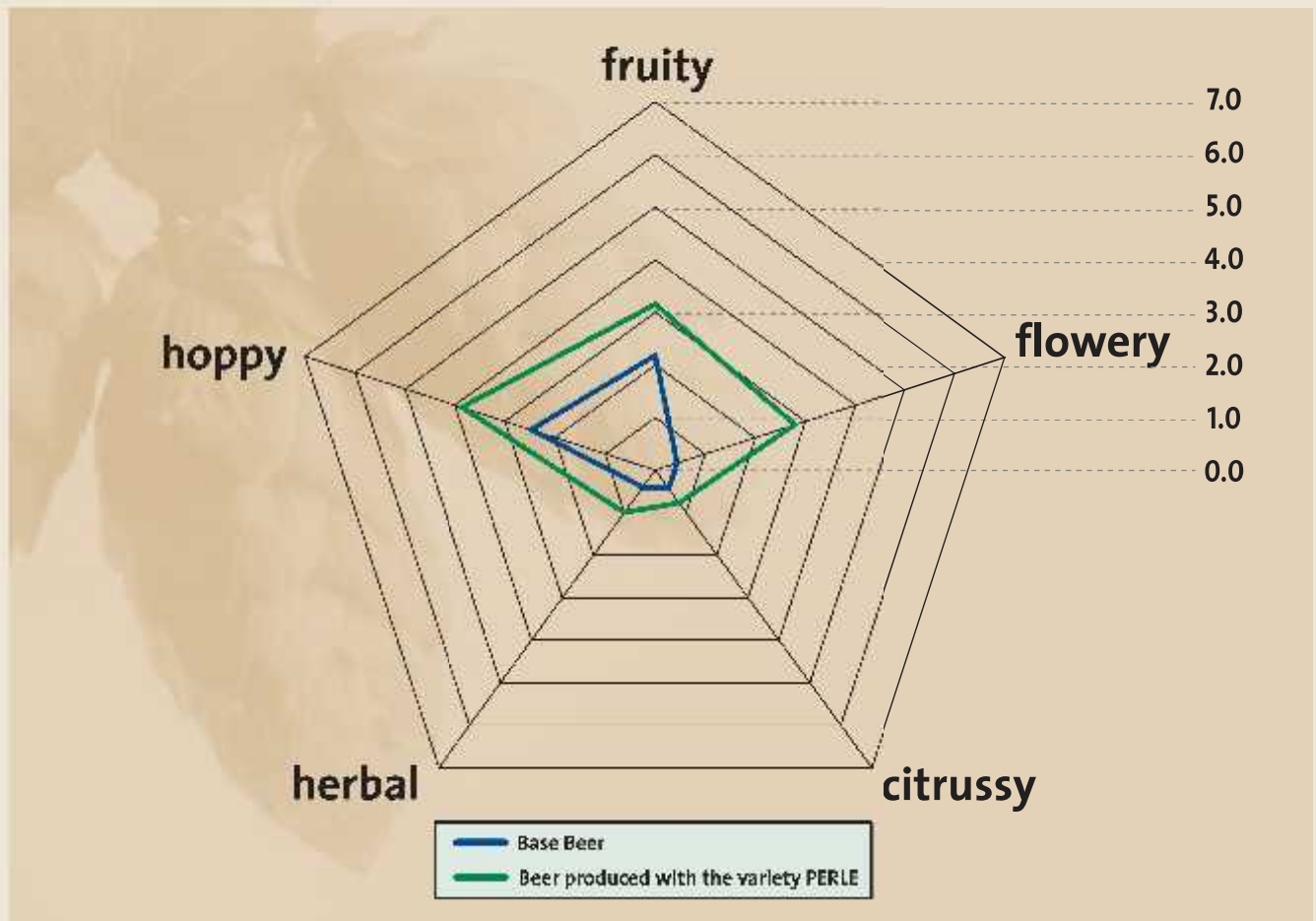
# Brewing trial: Perle

## 1. Beer Analysis

co-isohumulone	8.6 mg/l	iso-xanthohumol	0.66 mg/l
n-isohumulone	10.2 mg/l	xanthohumol	nd*
ad-isohumulone	3.4 mg/l	linalool	22 µg/l
∑ isohumulones	22.2 mg/l	total polyphenols	190 mg/l
bitterness	24 EBC-BU		

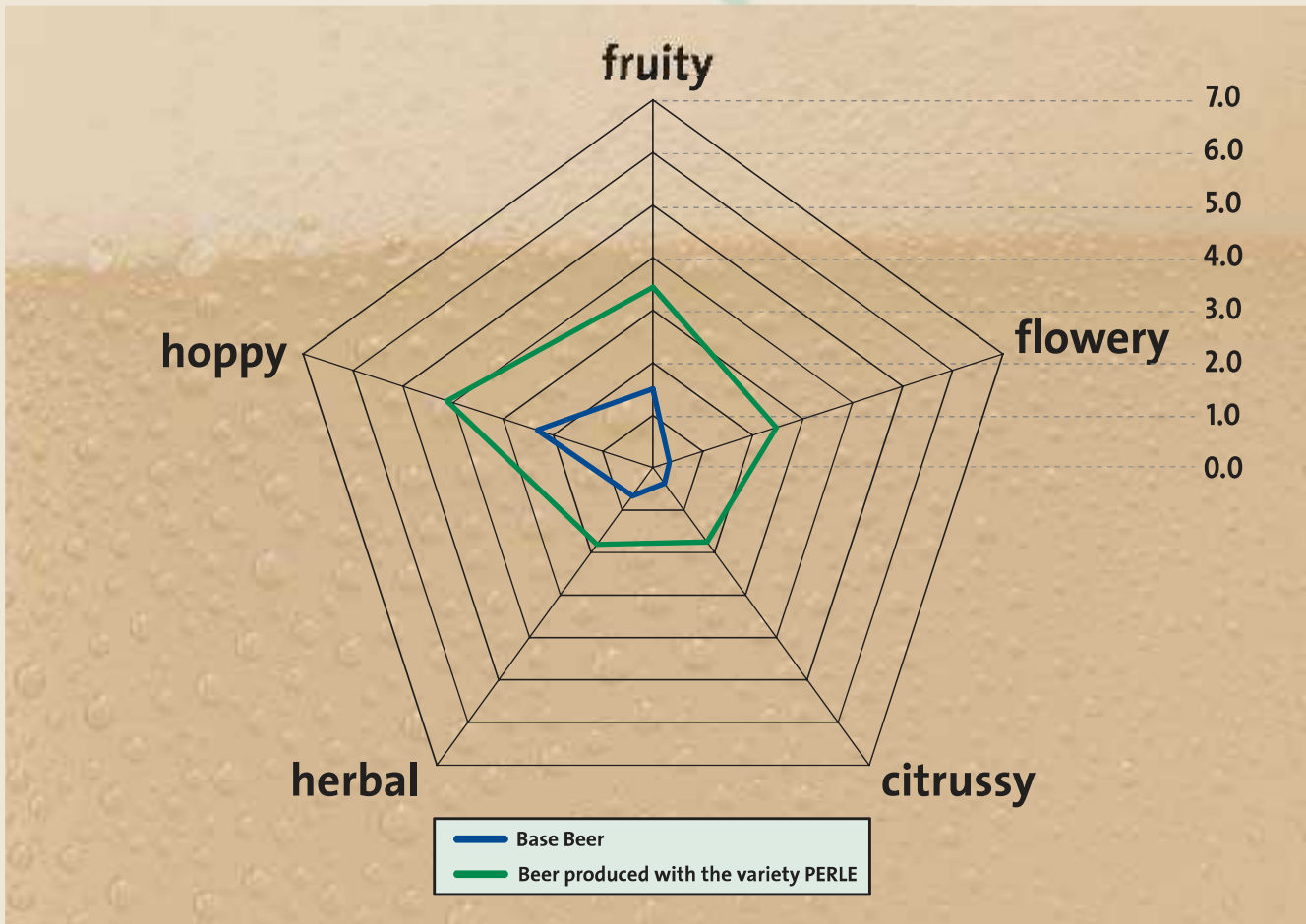
\*nd: not detectable

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

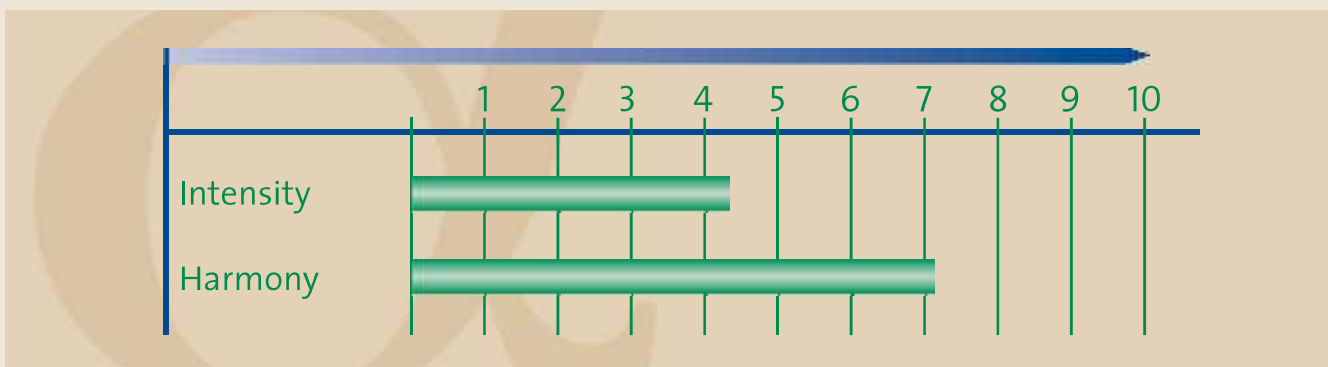




### 3. Sensory Evaluation “Hop Flavour” (Taste)



### 4. Sensory Evaluation of the Bitterness



The variety Perle imparts the beer a harmonic, not too intensive bitterness. The aroma is delicate, both in smell and taste it inclines towards a hoppy tang as well as fruity and flowery flavours.