

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

Perle

GRUPPE:

NR. BALLEN/BALLOT

GEWICHT IN KG (BRUTTO)

Aufbereiter:

ORT:

DEN:

19

Gleichmischer/Aufsicht:

DEUTSCHER
SIEGEL

DEUTSCHER
SIEGEL



Perle

Characteristics

Bitterstoffe

alpha-acids	4.0 – 9.0 % *
beta-acids	2.5 – 4.5 % *
cohumulone	29 – 35 % ^x
colupulone	48 – 60 % ^x

Polyphenols

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

Aroma substances

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

Fine aroma variety

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

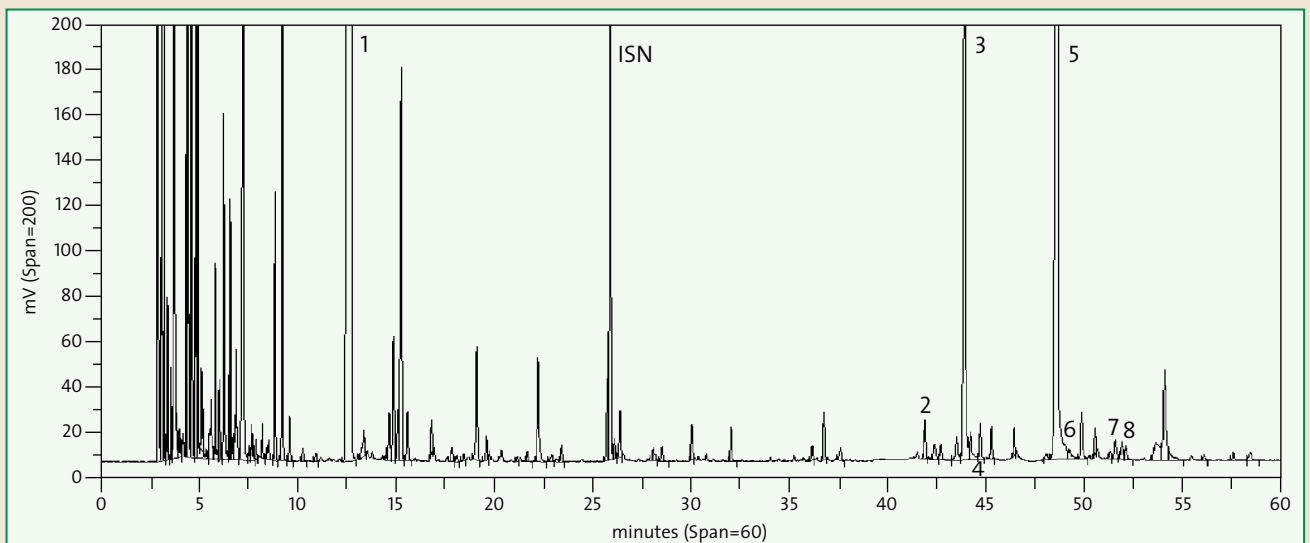
Resistance to disease:

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

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

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

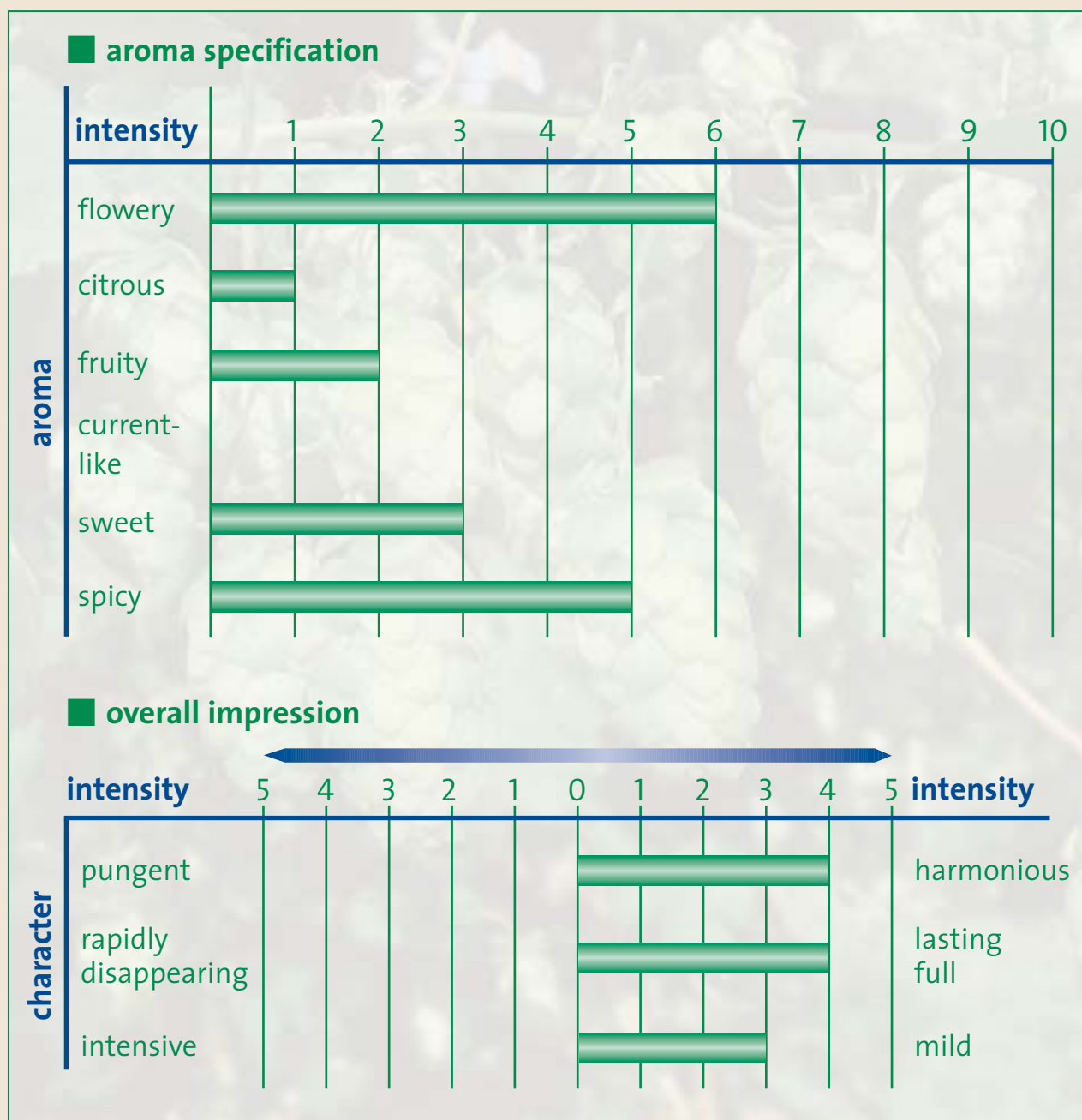
Headspace Gaschromatogramme



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.



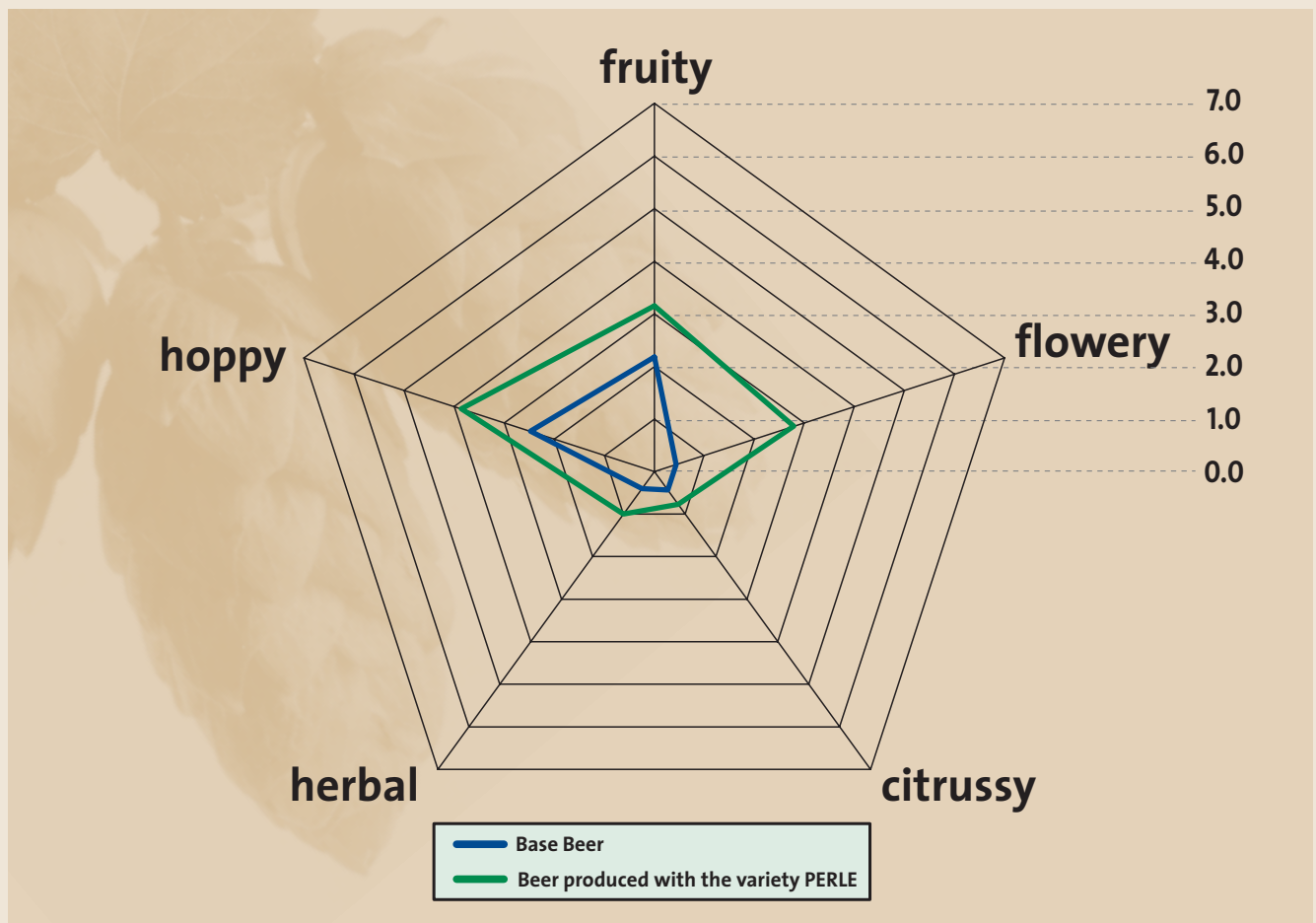
Brewing trial: Perle

1. Beer Analysis

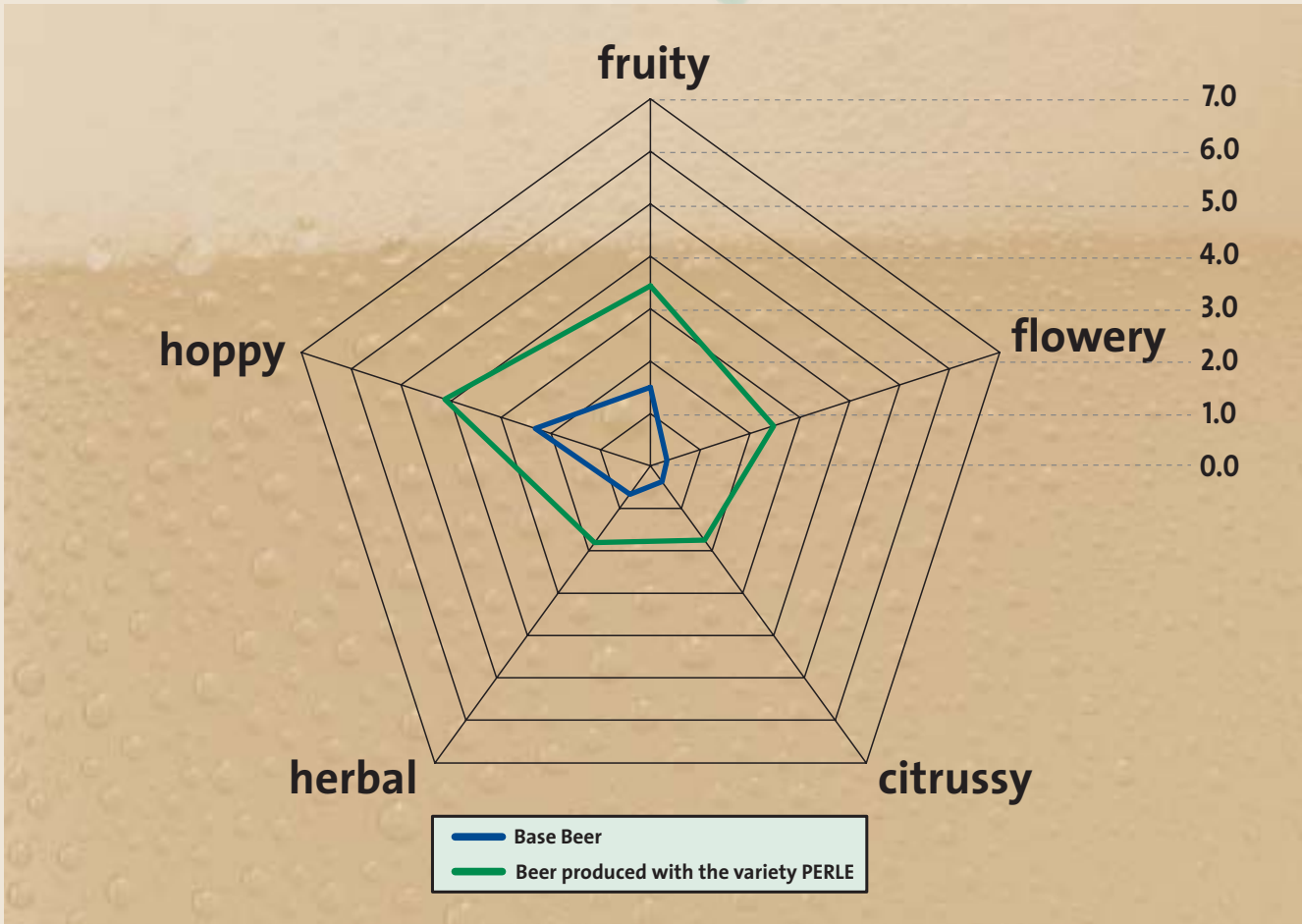
co-isohumulone	8.6 mg/l	iso-xanthohumol	0.66 mg/l
n-isohumulone	10.2 mg/l	xanthohumol	nd*
ad-isohumulone	3.4 mg/l	linalool	22 µg/l
Σ isohumulones	22.2 mg/l	total polyphenols	190 mg/l
bitterness	24 EBC-BU		

*nd: not detectable

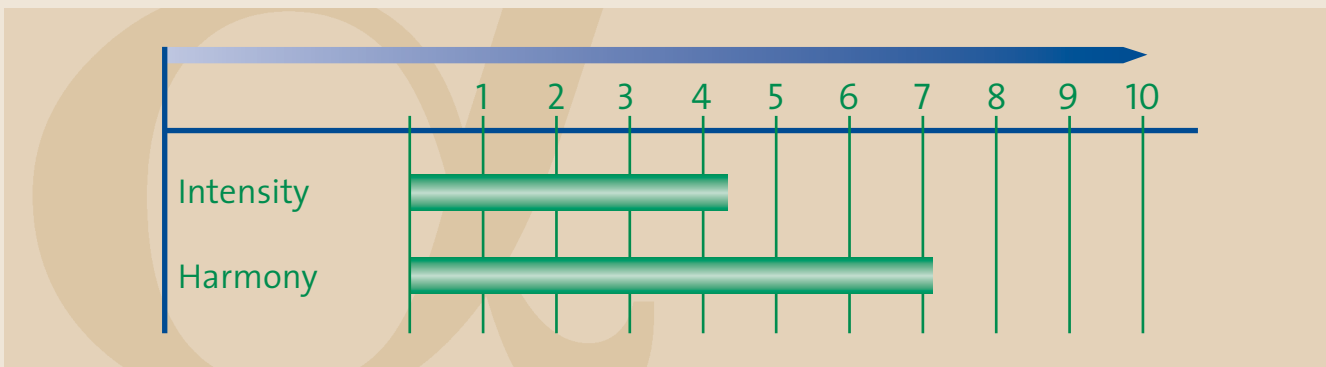
2. Sensory Evaluation “Hop Aroma” (Smell)



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.