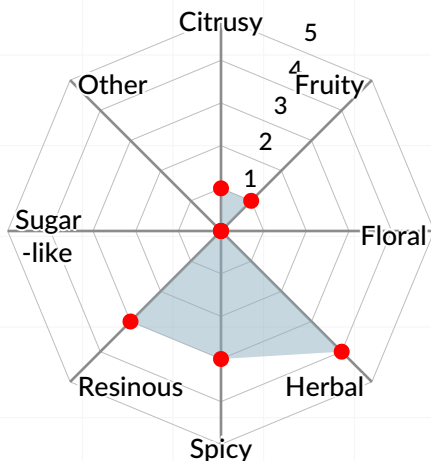


AROMA EVALUATION



VISUAL EVALUATION



AROMA SPECIFICATION

spicy, aniseed, tobacco, clove

GENETIC ORIGIN

New variety bred in Huell

AGRONOMIC ASPECTS

GROWING

| | |
|----------------------|----------------|
| Yield (kg/ha) | 1,500 - 2,100 |
| Maturity | Medium to Late |
| Main Growing Country | Germany |
| Acreage (ha) | 47 |

RESISTANCE AGAINST DISEASES

| | |
|----------------|-------------|
| Wilt diseases | Resistant |
| Downy mildew | Resistant |
| Powdery mildew | Susceptible |
| Aphid | Tolerant |

CHEMICAL INGREDIENTS

BITTER COMPONENTS

| | |
|--------------------------|-------------|
| Alpha-Acid % | 4.0 - 6.0 |
| Beta-Acid % | 3.5 - 5.5 |
| Co-Humulone % rel. | 13 - 18 |
| Hard Resins : Alpha-Acid | 0.46 - 0.59 |

POLYPHENOLS

| | |
|-----------------------|-----------|
| Total Polyphenoles | 4.5 |
| Xanthohumol (EBC 7.7) | 0.2 - 0.3 |

AROMA COMPONENTS

| | |
|------------------------------|-------------|
| Total Oils (ml/100g) | 0.4 - 0.8 |
| Beta-Caryophyllene: Humulene | 0.30 - 0.33 |
| Farnesene % of total Oil | 0.00 - 1.00 |
| Linalool % of total Oil | 0.8 - 1.4 |
| Linalool: Alpha-Acid | 0.22 - 0.23 |

HOP ALTERNATIVES

BREWHOUSE

Opal

DRY HOPPING

Opal

HOPS HOTLINE
800.339.8710