



# HARMONIE

Harmonie was registered in 2004 and is a high beta variety with moderate alpha content. Current acreage is limited but it has shown very good quality for its contribution to beer aroma in the Czech Republic. Its name comes from the "harmonious structure of hop resins".

> Aroma Hop <</p>



# **Technical Data**

#### ACID COMPONENTS

Alpha Acids4.0 - 8.0% w/wBeta Acids4.0 - 8.0% w/wCohumulone19 -22% of alpha acids

#### **OIL COMPONENTS**

Myrcene	30.0 – 40.0% of whole oil
Humulene	10.0 – 20.0% of whole oil
Caryophyllene	6.0 – 11.0% of whole oil

## **CHARACTERISTICS**

It is s characterized by a high share of beta fraction but oppose to Sládek it has higher content of alpha bitter acids. The first brewing trials and testing in Czech breweries showed at very good quality especially for intensity and quality of beer aroma.

#### **TYPICAL BEER STYLES**

Porters, Fruit beers

#### AROMA

Its bittering characteristics can be best described as spicy, citrus, liquorice and resinous.

#### **POSSIBLE SUBSTITUTIONS**

Not available yet.



Belgian Malts that Make Your Beer So Special

#### **BREEDING PROPERTIES:**

Harmonie hops are normally used for their aromatic influence in a brew. Expect a racinous scent with a hint of spice and a hay-like quality.



### BREWING TIPS

- Here is some guidance for your homebrewing hop additions:
- For bittering, add hops as desired no later than 15 minutes from end of the boil.
- For aroma, add hops 5-15 minutes from end of the boil.
- For flavor, add hops 2-5 minutes from the end of the boil.
- For dry-hop character, add directly to the primary or secondary fermenter.

### **STORAGE**

Hops have three main enemies: heat, light and oxygen.

Heat accelerates the chemical breakdown of hops including both aromatic oils and the precious alpha acids that provide most of the bitterness in beer. Always store them in the freezer at a temperature between -1 and  $-21^{\circ}$ C (30F to -5F).

Hops exposed to light will break down rapidly, leaving off flavors in your beer. When possible, store your hops in a dark place and avoid exposure to sunlight.

In oxygen's presence hop oils and alpha acids will oxidize. Oxidized alpha acids lose their bitterness, and old hops will take on a "cheesy" aroma. The best container is a vacuum sealed oxygen barrier such as a vacuum packed foil pouch, typically made from a layer of food grade plastic and layer of mylar.

<u>Note</u>: whole hops degrade faster because of the larger surface area exposed to air. Pellets are highly compressed, and therefore age more slowly than whole hops. They also take less space and are easier to vacuum pack, which is why they are often used in home brewing and micro brewing.





**Type T90 Hop Pellets** 

Type Leaf Hops



La Malterie du Château SA (Castle Malting)

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