



# BOHEMIA HOP

## APPLICATION OF HOPS IN BREWING – 23<sup>RD</sup> YEAR OF “CANCELLED CONFERENCE “

Due to the situation and restrictions that have been affecting events not only in our country, it was not possible to hold an annual meeting – “Application of Czech Hops in Brewing”. Therefore, the two organizers – the Hop Research Institute in Žatec (HRI) and Bohemia Hop decided that the conference would be moved to another year. However, all the beers for this event had already been brewed by the brew master Jan Hervert (from HRI). Therefore, on 22<sup>nd</sup> of April the beer tasting took place within Bohemia Hop under strict measures. The tasting committee was made up of 6 judges. Each member of the committee then submitted a completed tasting list with their comments. At the same time, we prepared several tasting sets and contacted some breweries (representatives of large and small ones) and asked them for help and cooperation with the beer tasting.



**The first set of beers** was created by 4 samples while using varieties very similar to the Saaz variety. For better clarification and perception of the characteristics of a particular hop variety in beer, the beers were brewed as single hop (100% hopping by a given variety). As everybody knows the Saaz variety is a Czech national treasure. The Saaz Late variety celebrates its 10<sup>th</sup> birthday this year and it certainly found her place among the brewers during that time. The Saaz Comfort and Saaz Shine varieties were registered in 2019 so there is still time for them to win their place. Saaz Comfort is characterized by a higher content of alpha acids, which ranges from 5,0 to 6,5% and a yield of 1,7 t / ha.

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On the other hand, the Saaz Shine variety is similar to Saaz in the content of alpha acids with a level of 3,0 – 5,0%, but it differs in yield. The expected yield of this variety is 2,5 t / ha.

Sample	Alcohol by Weight (Volume)	Points	Placings
SAAZ COMFORT	12,1%	73	2.
SAAZ SHINE	12,0%	85	4.
SAAZ LATE	12,1%	77	3.
ŽPČ/SAAZ	12,0%	47	1.

Traditionally, the Saaz variety was ranked first among the samples. It impressed the judges by a pleasant bitterness and a delicate and pure hop aroma. The Saaz Comfort variety was ranked the second. It was specific with the rapid onset of bitterness and a pleasant floral aroma with fruity tones. The Saaz Late variety was ranked third among the samples and it was most often associated with harsher bitterness. In addition to the spicy aroma, the SAAZ SHINE variety was also associated with a fruity aroma, a mild bitterness, which, however, quickly faded away.

**The second set of beers** aimed to find out the preferences for the use of hops intended for growing on the low trellises - so-called “dwarf” hops. Also, in this case, single hop beers were prepared. Country (2018) and Blues (2019) varieties were selected from the three registered dwarf varieties. Country is an aromatic variety specific for its delicate hop and grassy aroma accompanied by herbal and spicy tones. The recommended use is during the boiling for flavoring and finishing lager beers and ales. The Blues variety is an aromatic variety with a medium intensity of hop and spicy aroma. The recommendation is same as for the above-mentioned variety.

Variety	Alfa Acids	Beta Acids	Cohumulone (% w.)	Weight of Oils
BLUES	5,0 – 8,5 %	3,0 – 4,5 %	19,0 – 26,0 %	0,6 – 1,5 g/100 g
COUNTRY	3,0 – 4,5 %	1,5 – 2,5 %	18,0 – 28,0 %	0,6 – 1,2 g/100 g



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The evaluation of bottom-fermented beers is shown in the table below.

Sample	Alcohol by Weight (Volume)	Points	Placings
BLUES	11,2%	48	2.
COUNTRY	11,4%	31	1.

The judges placed the Country variety on the first place according to their preferences. It worked very well in beer and the hops performed balance flavor and aroma. The delicate taste and pleasantly fading bitterness of the beer enticed us to drink it again. The positive news is that the Country variety is the most widespread dwarf variety in the Czech Republic and is grown in several localities in the Saaz region. The Blues variety, on the other hand, was associated with a grassy aroma, which was accompanied by fruity tones.

In the last set of beers, there was no comparison and evaluation of preferences, as only one beer was introduced. Jan Hervert brewed India Pale Lager when using Czech varieties Premiant (1996) and Mimosa (2019). The Mimosa variety is a newly registered one, which with its characteristics completely deviates from other Czech hops. With its alpha acids content (1,5 – 2,5%) and beta acids content (5,0 – 7,0%) does not resemble any Czech variety.

Sample	Alcohol by Weight (Volume)
PREMIANT + MIMOSA	12,0%

Among the judges the beer was evaluated very similarly – with pleasant aroma that attracts to another sip. The aroma evokes various scents, such as citrus and spicy with hop and grassy tones. The impression after the first drink provoked a wild discussion and the opinions of the judges differed. We are, therefore, wondering what place the Mimosa variety will take in the brewing world. We are absolutely convinced that it belongs to it.

In conclusion, we would like to thank Plzeňský Prazdroj, Staropramen Brewery, Budějovický Budvar, Krušovice Brewery, Starobrnno Brewery, ZUBR Brewery, Litovel Brewery, Zichovec Family Brewery, Máša Brewery, Pioneer Beer Brewery and other judges from Bohemia Hop and the Hop Research Institute for cooperation during the evaluation of prepared beers under these difficult conditions.