



## 24th Year of the Conference

# APPLICATION OF CZECH HOP VARIETIES IN BREWING

Žatec, April 6<sup>th</sup>, 2022





## Introduction

Bohemia Hop (BH) together with the Hop Research Institute (HRI) organised the 24<sup>th</sup> year of their traditional seminar focused on the use of Czech hop varieties in brewing. This year, almost 100 brewers and experts from the brewing industry took part.

The introductory speech was given by Zdeněk Rosa, the chairman of the Board of BH and Josef Patzak, the director of HRI. These two institutions covered the whole event. Afterwards, professional lectures followed that were accompanied by tasting rounds.

In addition to the tasting of prepared beers from the HRI Experimental Brewery, which were brewed by the brewer Jan Hervert, the 3<sup>rd</sup> year of the Kazbek Cup 2022 tasting competition took place, during which the participants evaluated the samples sent into the competition.





The topic of the introductory lecture was focused on the comparison of analyses of resins in hops. In the introductory part, Gabriela Frtitschová (HRI) described the methodologies for the determination of alpha acids according to the methods EBC 7.4, EBC 7.5 and EBC 7.7, and explained why the individual methods could not be recalculated. In the second part, Jan Podsedník (BH) followed up on the previous lecture and showed the statistical outputs and comparison of individual methods in individual years. The listeners had a comparison of differences in the values of alpha acids according to the methods of their determining, and they could also see that the individual differences in the comparison of methods also differ according to the year of harvest.



In the first round of tastings, beers - where bitter varieties (such as Vital, Agnus and Rubin) were used for the first and second hopping - were evaluated. Towards the end of hop brew, Saaz variety was used for all three samples. The sample brewed with the Vital variety was the most popular. Beers, hopped with Rubin and Agnus varieties, received the same number of points.

Sample	Plato	IBU	Points	Placing
Vital	11,7	38	1,7	<b>1</b>
Agnus	11,5	38	2,1	<b>2 - 3</b>
Rubin	11,5	40	2,1	<b>2 - 3</b>





Michal Havrda's lecture (Pioneer Beer), focused on the effects of various parameters on dry hopping, received a lot of attention. In his presentation, he compared the pros and cons of static and dynamic dry hopping phases. In detail, he analysed the biotransformation processes of hop aromatic compounds in individual phases of dry hopping and showed his claims on examples of the release of some substances by yeast enzymes. In conclusion, he pointed out that the dependence of the sensory intensity of the hop aroma on the amount of hops is not linear and does not increase from a certain dose. To achieve a higher aroma and better character, he recommends splitting the hopping into several portions with a smaller amount (Double, Triple Dry Hopping).



The lecture was followed by another round of tasting. Those present had the opportunity to compare and evaluate beers where dry hopping was performed at different stages and in different quantities. For this demonstration, IPL-style beers were prepared, where the Kazbek variety was used for dry hopping, and Pale Ale-style top-fermented beers, where the Saturn variety was used.

Sample	Dry Hopping	
	Fermentation	Lagering
A	6 g/l	-
B	3 g/l	3 g/l
C	-	6 g/l



Sample	Plato	IBU	Points	Placing
Kazbek A	12,6	62	1,98	<b>2</b>
Kazbek B	12,4	56	1,85	<b>1</b>
Kazbek C	12,5	50	2,16	<b>3</b>

Sample	Plato	IBU	Points	Placing
Saturn A	12,9	33	1,49	<b>1</b>
Saturn B	12,8	35	1,8	<b>2</b>
Saturn C	12,7	36	2,67	<b>3</b>

The results of the evaluation of Kazbek IPL samples confirmed the hypotheses and findings that had been presented in the previous lecture. The most popular samples were the ones where the dry hopping was divided into several phases. For Saturn ALE samples, it has been shown that this variety is suitable for use in the dynamic phase of dry hopping, or to divide it into several phases again.

After the lunch break, Štěpán Kříž (Hostomice Brewery) took the floor and described his experience with the use of hop plugs, processed in CHMELAŘSTVÍ, cooperative Žatec. In his brewery he still uses hop cones in the beer production. The original products of pressed hops could only be pressed into larger packages. If they are not processed in time, oxidation processes and faster aging of hops can occur over time in these products. Hop plugs are packed in kilo packages (10 x 100 grams) and vacuumed in aluminum containers. The amount packed in this way is well dosed and stored. In terms of technical use and quality, they are comparable to the original way of packaging of pressed hops.



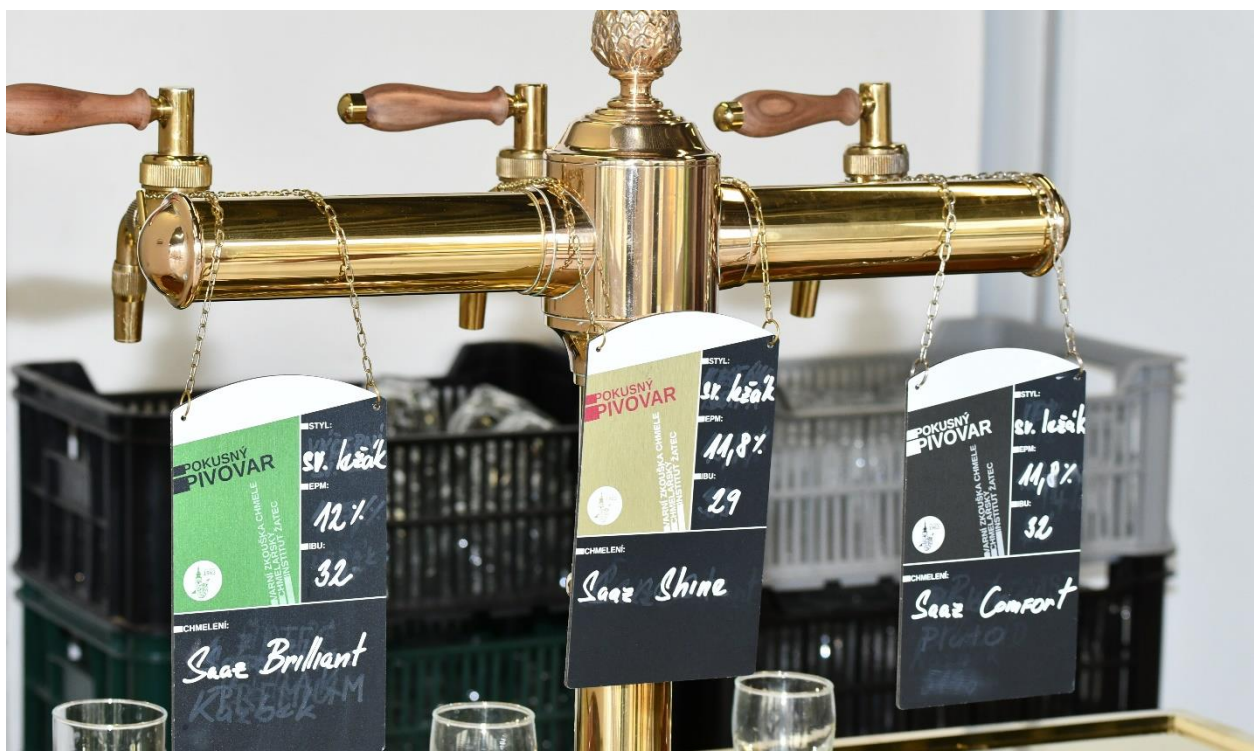


Newly registered varieties in various beer styles were presented in the final professional tasting. Vladimír Nesvadba (HRI) commented on their use and sensory benefits for beer. The Eris and Juno varieties were used for IPL-style dry hopping, where they showed a fruity, sweet and citrus scent with herbal tones. For dark lager, the Harmonie variety was used for the base, and for the dry hopping the Jupiter variety, which profiles itself with a woody and spicy aroma with hints of fruit and citrus. The Pluto variety was used in the NE IPA style beer, which is characterized by a strong fruity and woody aroma.

Sample	EPM	IBU	Wort Kettle	Whirlpool	Dry hopping
IPL	8,4	41,0	Saaz Shine	Eris + Juno	Eris + Juno (5 g/l)
Dark Lager	13,2	38,0	Harmonie	Jupiter	Jupiter (4 g/l)
NE IPA	15,6	40,0	-	Pluto	Pluto

The block of lectures was closed by Josef Patzak (HRI), who described the process of production and certification of hop seedlings.

It was possible to taste beers from the Saaz Shine, Saaz Brilliant and Saaz Comfort series which were offered on tap by the Hop Research Institute throughout the whole day.







# Kazbek Cup 2022

At the end of the say, the winners of the Kazbek Cup 2022 were announced. 22 samples from 16 breweries entered the competition. The samples were evaluated in two categories - top and bottom fermented beers. As in recent years, Jan Hervert from the HRI Experimental Brewery became the absolute winner - winning one category and become second in the other.

The single hop Kazbek beer from the Hop Institute s.r.o. gained the most popularity in the category of top-fermented beers, which was very closely followed by the beer 12° Vokno Ale from the Volt Brewery. Elbrus beer from the Podlesí Brewery came in third. The results were the same as in the previous year.

Top – fermented Beer		
Beer	Brewery	Placing
Single hop Kazbek	Experimental Brewery HRI	1
12° Vokno Ale	Volt	2
Elbrus	Podlesí	3





In the category of bottom-fermented beers, the Radouš brewery succeeded with Ru-Ka beer. Second place was won by Single hop Kazbek beer from the HRI Experimental Brewery and the Volt Brewery won third place with its 12 ° SH Lager.

Bottom – fermented Beer		
Beer	Brewery	Placing
Ru-Ka	Radouš	1
Single hop Kazbek	Pokusný pivovar CHI	2
12° SH Ležák	Volt	3







## After-party in Pioneer Brewery

The program ended with a tour of the Hop Lighthouse and the Hop and Beer Temple. The traditional after-party followed, which took place in the Pioneer Brewery. Not only had the ones who remained the opportunity to taste Czech varieties in various beer styles but they could also play the beer quiz that was organized by the Hop Museum.



See you in Žatec next year...