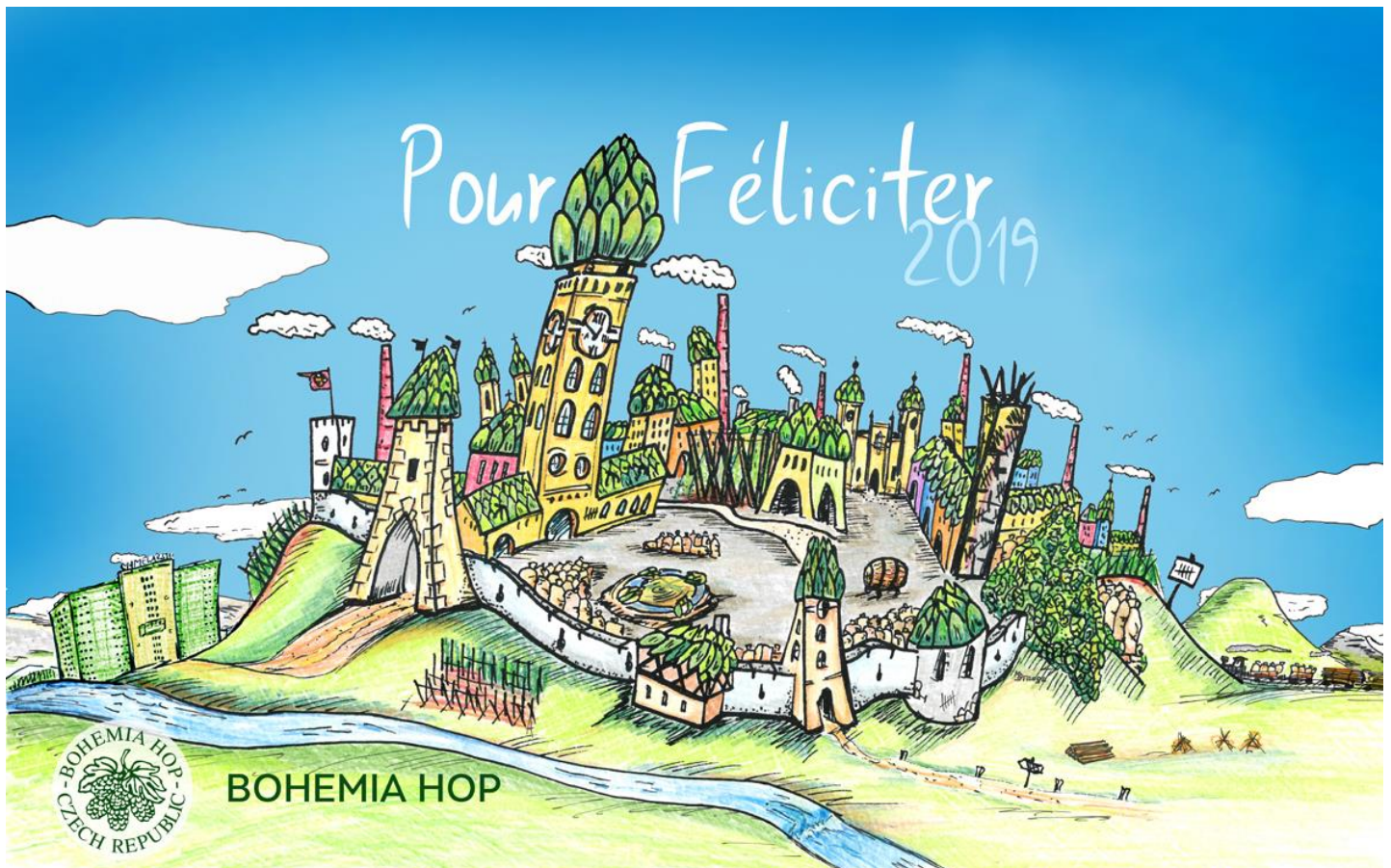


BOHEMIA HOP, A.S.

2018

CZECH HOP PRODUCTION: 5126 T OF HOPS IN 2018



CZECH HOP PRODUCTION: 5126 T OF HOPS IN 2018

Variety/ Region	Saaz(t)			Auscha(t)			Tirschitz(t)			Czech Rep. (t)		
	2018	2017	2016	2018	2017	2016	2018	2017	2016	2018	2017	2016
Saaz	3 267	4 287	4 954	429	650	663	394	576	749	4 090	5 513	6 367
Sládek	302	349	359	62	75	62	134	190	218	498	614	639
Premiant	155	193	236	42	70	82	44	78	106	241	341	424
Agnus	84	87	84	5	10	8	2	0	0	91	97	93
Saaz Late	77	77	64	0	0	0	4	4	5	81	81	69
Kazbek	45	46	26	13	11	4	6	13	12	64	70	42
others	60	77	76	0	0	0	2	3	2	62	81	78
Total	3 990	5 116	5 800	551	816	819	586	864	1 093	5 126	6 797	7 712

The total hop production in 2018 reached in the Czech Republic **5126 t** according to the latest report of Central institute for Supervising and Testing in Agriculture.

This final figure includes hop production in all **Czech hop growing regions – Saaz, Auscha and Trstice**.

The average yield for all hop varieties grown in the Czech Republic was only **1,02 t/ha**.

This means a large decrease compare to **2017 production of 6792 t (yield 1,37 t/ha)**. The worst results was recorded in the Moravian Trstice region with 0,8 t/ha for Saaz variety and 0,93 t/ha for all varieties. Both Saaz and Auscha regions had average yields for all varieties 1,03 t/ha with slightly better yield of Saaz variety in the Saaz hop growing region.

The total production in the **Saaz region accounted to 3989,5 t (2017 – 5116 t), Auscha to 550,7 t (2017 – 816 t) and Trstice to 586,2 t (2016 – 864 t)**.

SAAZ variety

The fine aroma variety SAAZ accounted for nearly 80 % of the Czech hop production of **4090 t (2017 – 5513, 2016 – 6367)**. In the **Saaz hop growing region** the total Saaz variety harvest reached **3267 t (2017 – 4287 t, 2016 – 4954 t)**.

Sládek, Premiant, Kazbek, Saaz Late and Agnus

Varieties Sladek and Premiant were the most affected Czech varieties by the extreme weather conditions both in **yields** and in the contents of **alpha bitter acids**.

The yields of both Premiant and Sladek were second worst in the history of growing these two varieties and the alpha content was also never lower. The worse yields were for Premiant in 2006 and Sladek in 2002 and both had also very low alpha contents in 2003.

Sladek variety (with higher acreage this year) reached total production of **498 t** (2017 – 614, 2016 – 639 t). **Premiant** production (with the same acreage) was only **241 t** (2017 – 341 t, 2016 – 424 t).

Saaz Late production was the same as last year – **81 t**. The flavour variety **Kazbek** had **63 t** compare to 70 t last year. The Czech bitter variety **Agnus** also reached similar production to last year – **90 t**.

Content and production of alpha bitter acids

The alpha content of **Saaz variety with 2,9 %** is only slightly below the long term average and in line with the last 5 years. Very disappointing were alphas with **Sladek, Premiant and Saaz Late with record low values**. The total alpha production of Premiant is 53 % down compare to last year, Sladek alpha production is down by 44 % and the alpha production of Saaz variety is down by nearly 30 %.

Variety	Hop Production (t)			Average Alpha (%)			Alpha Production (t)			Crop Diff. Ratio	
	2018	2017	2016	2018	2017	2016	2018	2017	2016	2018/2017	2018/2016
Saaz	4 090	5 513	6 367	2,90	3,00	3,40	119	165	216	72%	55%
Sládek	498	614	639	4,30	6,20	6,50	21	38	42	56%	52%
Premiant	241	341	424	5,10	7,60	8,50	12	26	36	47%	34%

Market

Since the harvest was very low in all the Czech hop regions and with all varieties there was no spot market in the Czech Republic for 2018 crop.

The period of harvest and post-harvest months was a period of intense communication between traders and brewers about the real needs until the 2019 crop and stock situation of different varieties and various customers.

Due to a very good communication and understanding between brewers and traders it was possible to satisfy all needs for Saaz variety for the brewing year until crop 2019.

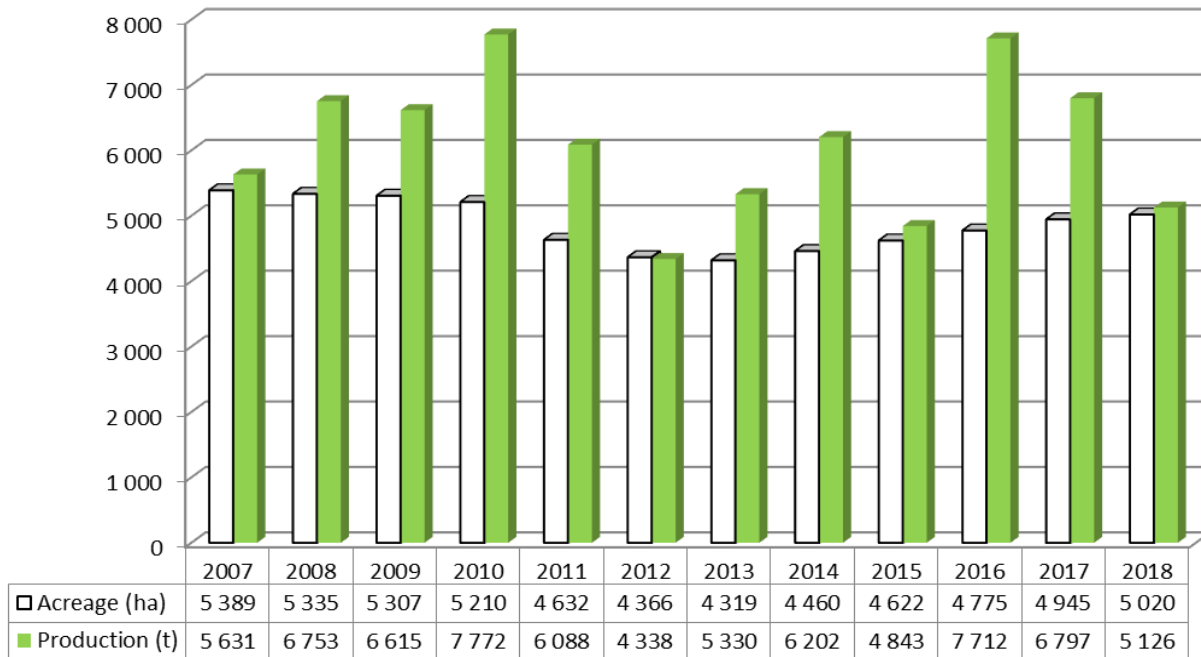
There is still some availability of Kazbek variety.

Hops from the current hop acreage are in general sold out until 2020 and follow up crops are also already highly contracted.

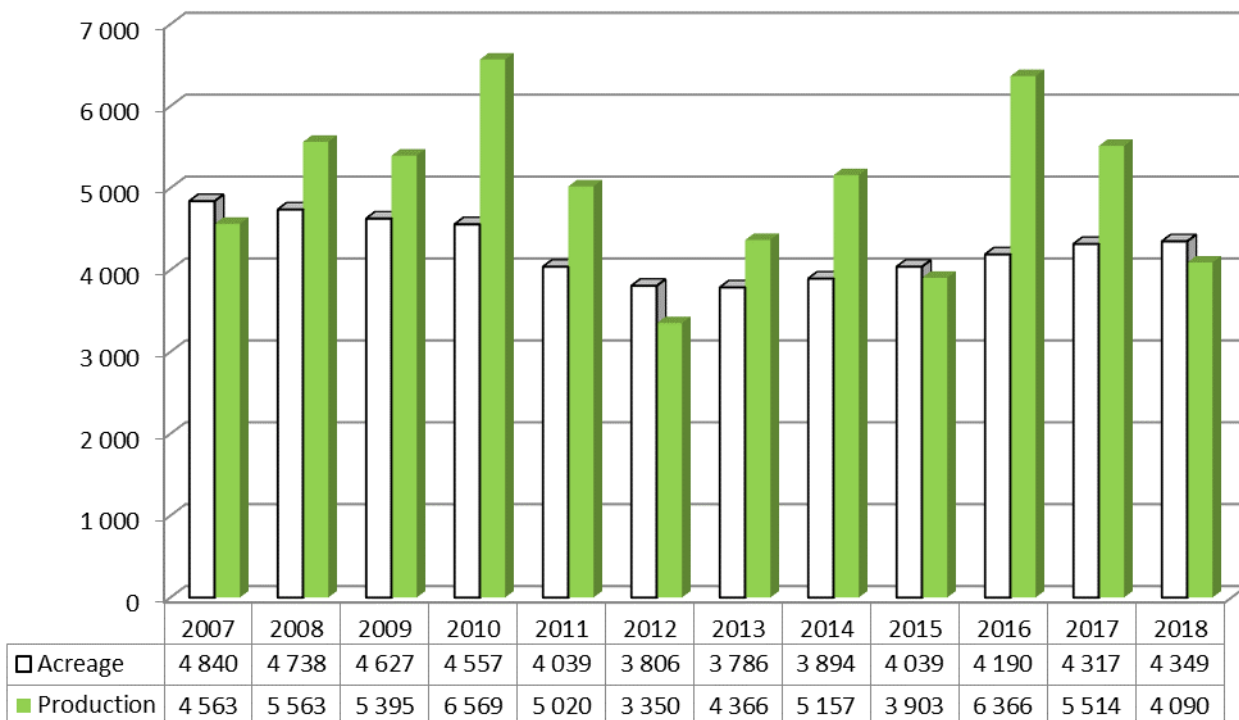
The Czech growers are despite this bad year going to continue in high investments in new technologies as well as new trellises.

Graphs:

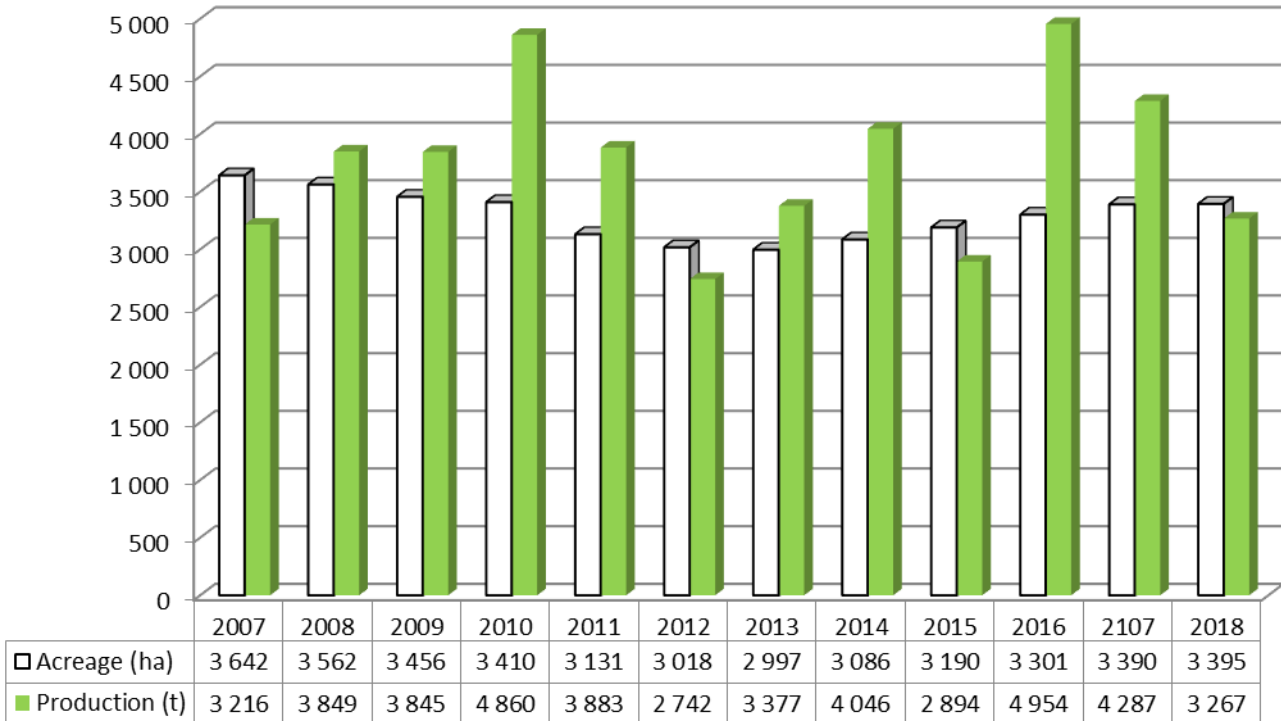
Total Hop Acreage - Including All Varieties



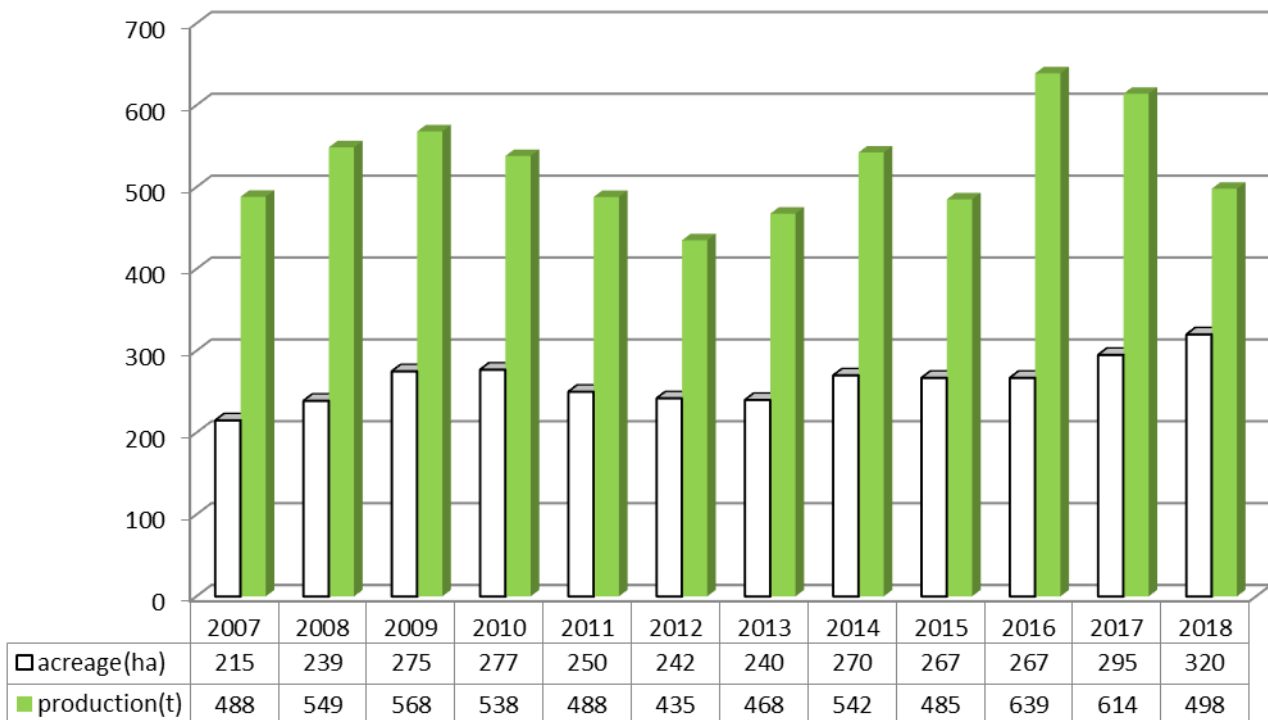
SAAZ variety (Czech Republic) - Acreage and production



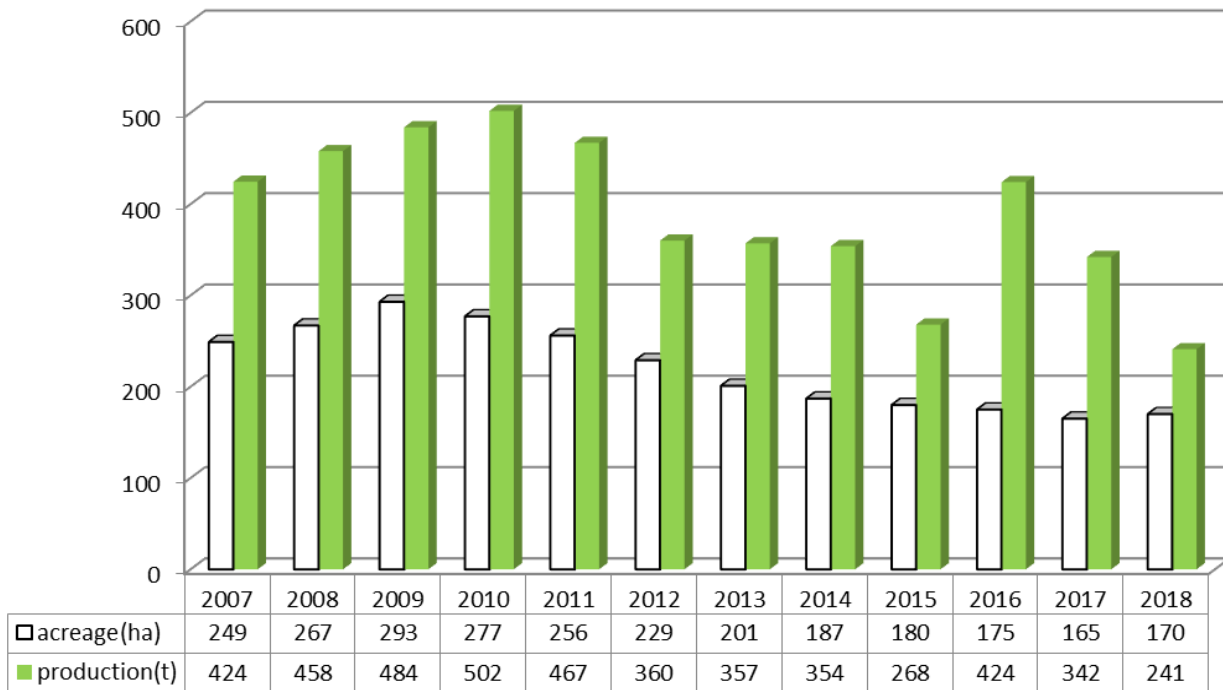
Variety SAAZ- Saaz Hop Growing Region



SLADEK - Acreage and Production



PREMIANT - Acreage and Production



KAZBEK variety - Acreage and production

