

Hop report - Saaz fine aroma hops

Crop 2008 – January / April 2008 (Saaz region)

Weather condition – January / March 2008

Average temperature (°C)	2008	2007	30 years average	Diff.
January	2,0	5,7	-2,0	-3,7
February	3,4	4,5	-0,2	-1,1
March	4,2	6,4	3,6	-2,2
Summary 1st Trimester	9,6	16,6	1,4	-7,0

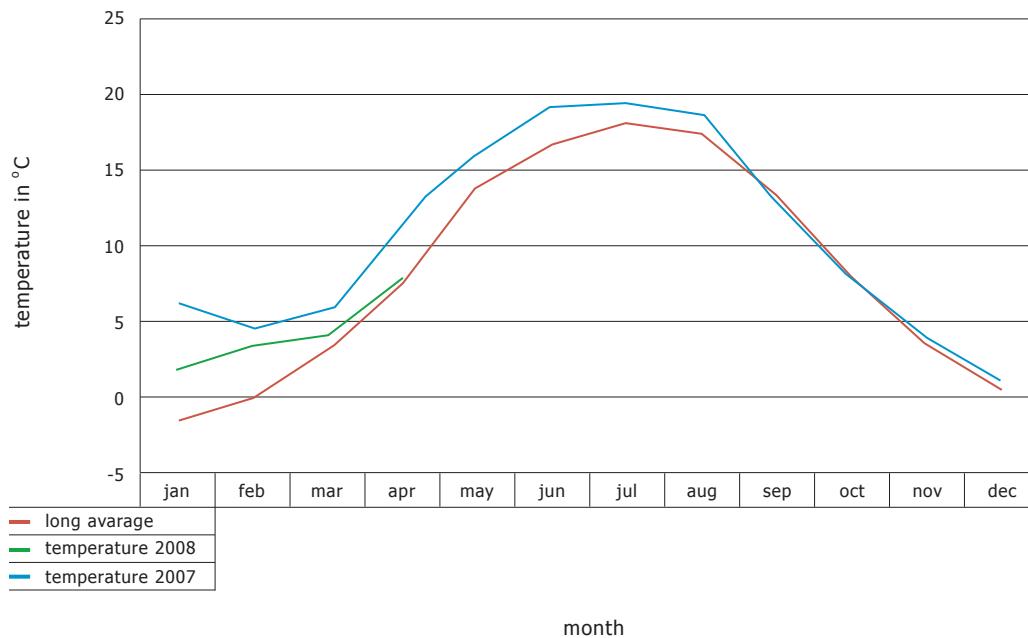
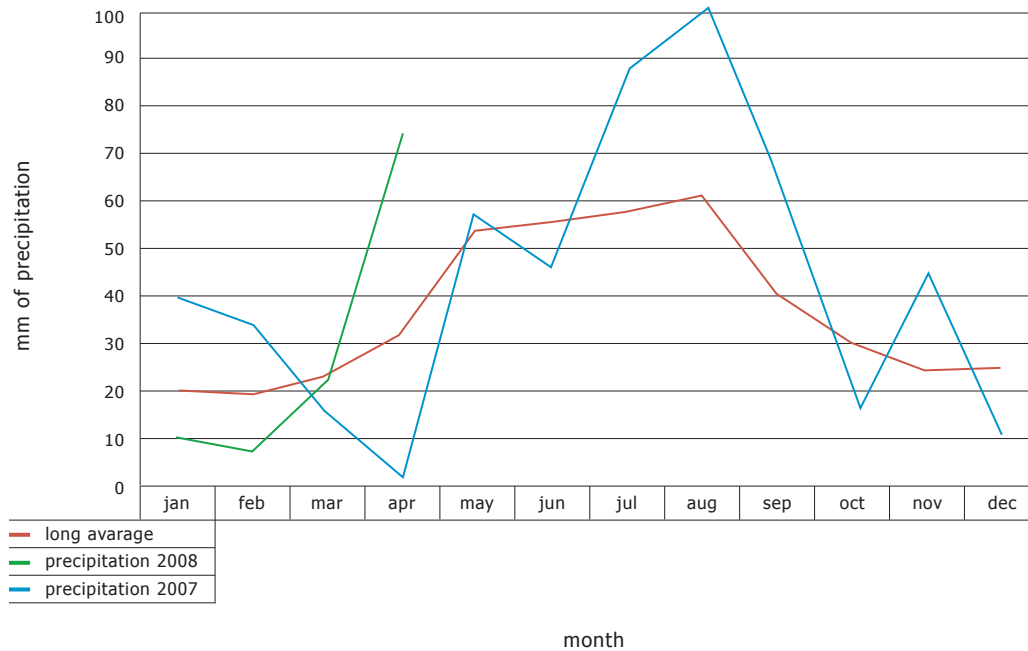
Total precipitation (mm)	2008	2007	30 years average	Diff.
January	10,8	40,0	20,0	-29,2
February	7,2	32,6	19,0	-25,4
March	22,8	16,8	23,0	+6,0
Summary 1st Trimester	40,8	89,4	62,0	-48,6

First two months of 2008 were deeply below long-term average (1961-1990) of precipitations, just on the level of about 50%. Precipitations in March 2008 were richer than in the same period of 2007 and they equalled long-term average. The rainfalls were nevertheless only on 65% of long-term average in the first trimester of 2008. The development of the temperatures during the same period was slightly more favourable than one year before, although the temperatures varied above the normal. It concerns all three months. However, there were no extremely high temperatures recorded, as in January – February 2007.

Weather condition – April 2008

Temperature & precipitation in April	2008	2007	30 years average
Average temperature (°C)	8,8	12,8	8,5
Precipitation (mm)	74,8	2,1	32,0
Total precipitation (mm) JAN-APR	115,6	91,5	94,0
Max. temperature (°C)	23,1 (28.4.)	26,6 (27.4.)	
Min. temperature (°C)	-1,6 (17.4.)	-0,1 (21.4.)	
Max. precipitation (mm)	11,6	1,3	
Number of dry days	12	28	

It is evident, that the climatic conditions in April 2008 developed very well and precipitations compensated the moisture insufficiency of the first trimester. We can conclude, that April created climatically good base not only for growth of hops, but also for other crops.



Spring works and growth report

The development of climatic conditions within the first trimester and April 2008 helped to keep the growth of vegetation on the normal level, according to our opinion. We see slight delay in the advancement of spring works, in comparison with previous years, nevertheless we consider this situation optimal. The pruning of hops was finished in time and regularly, in spite of some problems with frequent rainy days. On the majority of hop gardens the leading hop wires have been strung up and fastened until the end of April. We estimate that the training of Saaz semi-early red-bine hops will be carried out between 8th and 10th May 2008, in case of hybrid varieties the training will start already on the beginning of May.



Basis of good harvest

From point of view of the occurrence of plant diseases and animal pests, it appears problematic to perform the protection against alfalfa snout beetle (*Otiorrhynchus sulcatus* F.) in the future, view to the fact that the validity of licence for using of majority of effective preparations will finish. By chance, thanks to the climate development, the conditions for its propagation were not created and almost no treatment was necessary. Contrary to previous year, the beginning of flyover of aphides *migrantes alatae* from the primary host plants of *Prunus* gen. was not recorded up to now. Similarly, red spider mite (*Tetranychus urticae* Koch.) was ascertained just occasionally and its malignity limit was not noted anywhere. On the other side, the climatic conditions, especially frequent rains and relatively high precipitations, are favourable to the propagation of downy mildew of hops (*Pseudoperonospora humuli* Myi et Takah.). Against the primary infection of this mycosis we recommend therefore to apply fungicide Aliette 80 WP in concentration of 0,3% everywhere in the hop gardens, where the spiky sprouts have been discovered.

Saaz, May 5, 2008

Jaroslav Hájek, Irena Nováková

Chmelařstvi Cooperative Žatec

Hop report - Saaz fine aroma hops

Crop 2008 – May 2008 (Saaz region)

Weather condition – May 2008

Temperature & precipitation in May	2008	2007	30 years average
Average temperature (°C)	13,9	15,8	13,4
Total precipitation in May (mm)	54,4	57,0	54,0
Max. temperature (°C)	30,7 (31.5.)	31,5 (26.5.)	
Min. temperature (°C)	1,9 (4.5.)	-0,6 (2.5.)	
Highest precipitation in one day (mm)	19,4 (14.5.)	15,0 (14.5.)	
Total precipitation Jan - May (mm)	170,0	148,5	148,0
Number of dry days	22	16	

We can state, that May of this year aligned with long-term average as far as temperatures and precipitations is concerned, what is rather scarce phenomenon. Average temperatures were increasing, step by step, within consequent decades. Rainfalls, on the other side, were divided into two short periods – first half of the first decade and second half of the second decade of May. The rains in the second decade had stormy character, with local occurrence of hailstones. Approx. 220 hectares have been damaged, out of this number about 100 hectares were 100% destroyed, in the locality of Lisany and Postoloprty. The end of the month could be characterized as dry, with gradually increasing temperatures.

Growth report

The development of the hops in May maintained the trends of previous periods and our estimation, made out on the beginning of hops training period in April, proved true. The beginning of the training passed in relatively quiet atmosphere, but due to higher temperatures and precipitations in the middle of the month the hops showed enormous increases, what caused serious troubles to the hop growers, especially in the connection with lack of season workers. That is why the hop growers had problems in order to manage this important operation in time. View to the fact, that on majority of hop gardens the training continued until the end of month, next operation (the ploughing) will be carried out on the beginning of June.

Since the beginning of May the farmers had to concentrate themselves on elimination of primary as well as secondary infection of downy mildew of hops (*Pseudoperonospora humuli* Myi et Takah.). Although the flyover of aphid (*Phorodon humuli* Schrank) from the primary host plants was delayed, this insect pest attacked the hops more intensively by the end of May and the areas invaded had to be treated as soon as possible. The height of the hop plants varies around 2,7 metres.

Other information

Variety	Saaz Region (ha)	Auscha Region (ha)	Trschitz Region (ha)	Czech Republic (ha)
Saaz	3 572	597	579	4 748
Agnus	52	0	0	52
Bor	6	7	0	13
Premiant	149	44	74	267
Sládek	172	8	59	239
Fuggle	0	0	5	5
Magnum	2	6	2	10
Others	10	1	0	11
Total	3 963	663	719	5 345

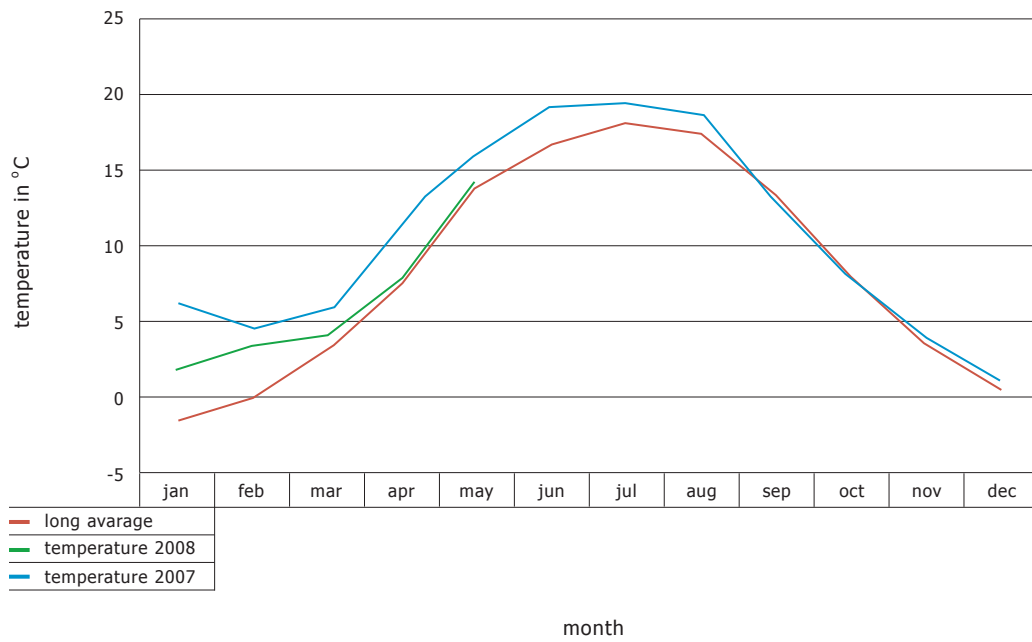
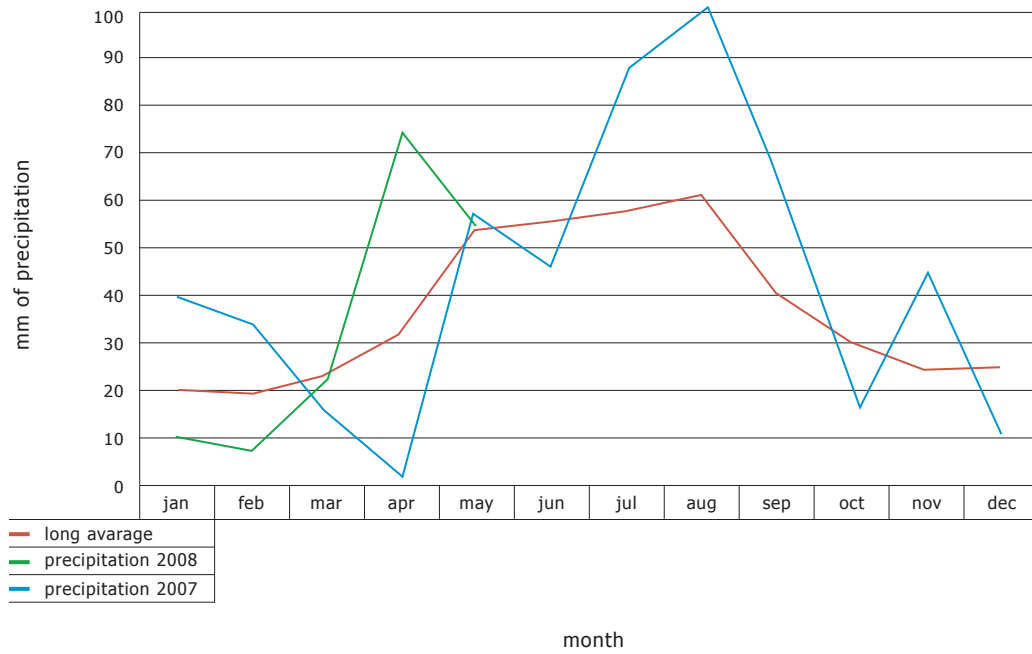
Source: Central Institute for Supervising and Testing in Agriculture Brno, Department of Permanent Cultures - Hop Division Zatec – ing. Vladimr Barborka, Head of Department



Healthy growth at the end of May



Hop garden damaged by hailstorm



Saaz, June 2, 2008
 Jaroslav Hájek, Irena Nováková
 Chmelařstvi Cooperative Žatec

Hop report - Saaz fine aroma hops

Crop 2008 – June 2008 (Saaz region)

Weather condition – June 2008

Temperature & precipitation in June	2008	2007	30 years average
Average temperature (°C)	17,5	19,6	16,7
Total precipitation in May (mm)	86,8	47,6	56,0
Max. temperature (°C)	32,6 (22.6.)	32,3	
Min. temperature (°C)	4,6 (14.6.)	7,6	
Highest precipitation in one day (mm)	19,4 (14.5.)	15,0 (14.5.)	
Total precipitation Jan - June (mm)	256,8	196,1	204,0
Number of dry days	13	17	

Obs.: The data for 2008 are up to 25.06.2008 only.

The weather on the beginning of June 2008 did not delight the farmers very much and on very beginning of the month, on 1st of June 2008, some gardens have been damaged by hail-storms. Approximately 10 hectares have been destroyed totally and further 100 hectares partially. During the third decade of the month the weather got warmer and the temperatures varied around 30°C within that period. On 25th June 2008 the whole territory of the country has been affected by storms accompanied by heavy rains and hail-stones. Saaz region was among the most afflicted regions, although the damages on hop plantations seem to be relatively small, view to intensity of storms. About 4 hectares of the special purpose hop garden of Hop Research Institute Co., Ltd. have fallen down and about 130 hectares have been damaged by hail-stones. It concerned localities of Lhota pod Džbánem, Velká Třeboc, Vrané, Mutějovice, Kounov, Domoušice, Zbrašín, Líšňany, Brloh, Hříškov. We evaluate the month of June as more humid in comparison with the average and normal and normal one as far as the temperature concerns.

Growth report

The growth of hops was satisfactory on majority of gardens and it was favourably influenced by relatively good moisture reserves created in May and beginning of June. We suppose that most of the plants will reach the height of the constructions up to the end of June. High temperatures recorded within the third decade (around 30°C) had negative influence on elongating of hops. The growth of hop vines slowed down. The plants started to create lateral shoots more intensively and in low-lying localities it began to set the flower bottoms.

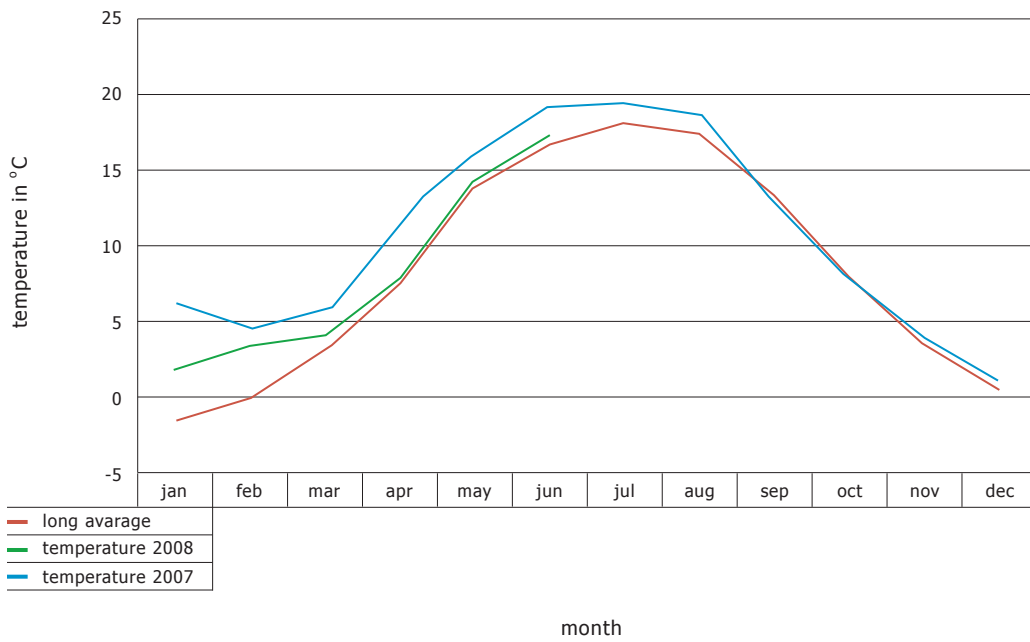
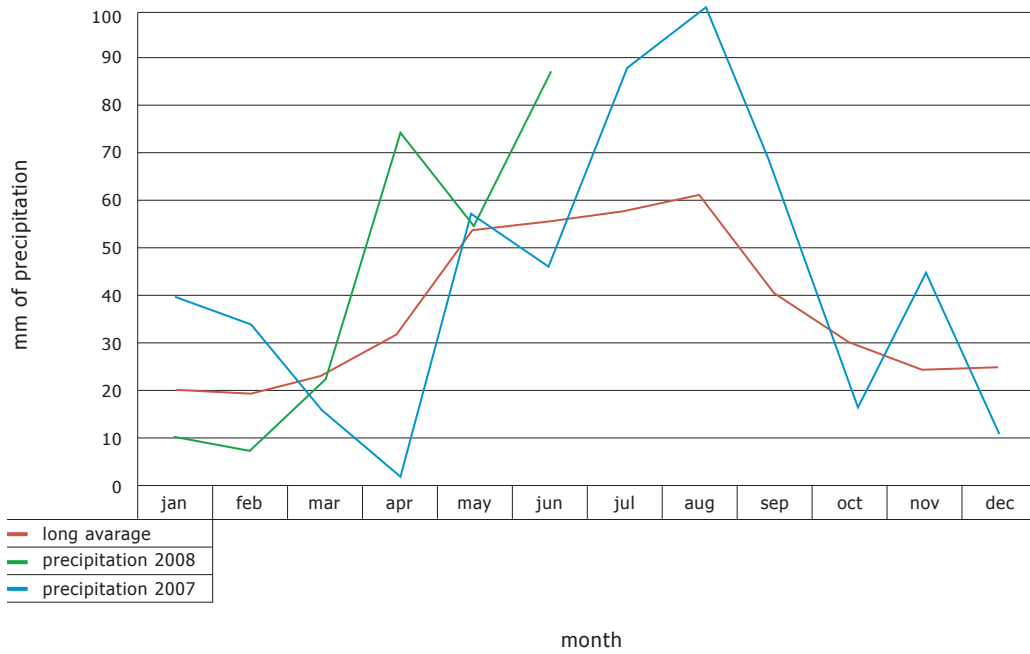
Health state of hops

The flyover of aphid (*Phorodon humuli* Schrank) from stone fruit trees to hops continued also on the beginning of June. That is why it was necessary to pay high attention to the occurrence of aphid on hop gardens. The use of preparation Chess 50 WG in concentration of 0,8 kg per hectare was recommended, depending on the intensity of incidence frequency. By the end of the months the spraying against aphid by preparations based on imidaclopride (Confidor 70 WG, Kohinor 70 WG, Warrant 700 WG) was suggested. On the gardens, where occurrence of red spider mite (*Tetranychus urticae* Koch) was detected, the preparations Nissorun 10 WP or Ortus 5 SP can be used. The emergence of downy mildew of hops (*Pseudoperonospora humuli* Miy et Takah.) corresponded to the development of weather and at the moment it is recommended to treat the hops by preparations Ridomil Gold plus 42,5 WP, Aliette Bordeaux and Ortiva. The occurrence of powdery mildew (*Sphaerotheca humuli* (DC) Burr) was not ascertained. The health state of hops is good.

Saaz, June 27, 2008

Jaroslav Hájek, Irena Nováková

Chmelařstvi Cooperative Žatec



Hop report - Saaz fine aroma hops

Crop 2008 – July 2008 (Saaz region)

Weather condition – July 2008

Temperature & precipitation in July	2008	2007	30 years average
Average temperature (°C)	18,2	19,5	18,0
Total precipitation in May (mm)	77,2	87,4	59,0
Max. temperature (°C)	32,3 (16.7.)	36,7 (16.7.)	
Min. temperature (°C)	6,3 (31.7.)	10,1 (31.7.)	
Highest precipitation in one day (mm)	24,2 (3.7.)	45,7 (31.7.)	
Total precipitation Jan - July (mm)	334,0	287,5	263,0
Number of dry days	12	13	

Above table of temperatures and precipitations makes evident that July 2008 was rarely aligned with long-term average what regards the temperature level. The precipitations then exceeded the average by more than 30%. We can state, that the first and the third decades were richer in temperatures as well as in precipitations, whereas the second decade of the month was below long-term average. The farmers ask the question how the tropical temperatures, which have been lasting since 26th of July, will finally influence the development of hops.

Growth report

Although the climate seems to be favourable for development of the hops, the consequences of previous period, when large part of the hop gardens was damaged by heavy rains and hail-storms, are still visible. In majority of cases the damnification was not so serious, nevertheless the signs of inclement weather are evident up to now. We have recorded the first setting of flowers already by the end of June and beginning of July (see our report for June 2008). The full setting of flowers nevertheless culminated in majority of cases between 6th and 10th of July. By the end of July the second blossoming have started in majority of hop gardens. The creation of hop cones on individual hop gardens is unlevelled. The state of vegetation, as far as the maturing is concerned, can be described as follows: Quite developed hop cones of the first blossoming can be seen on majority of plantations, and new flowers appear in upper parts of plants. Based on these facts we believe, that this crop could return to usual parameters as far as the yield and alpha content concerns. It will be necessary to follow carefully further development of vegetation (especially the progress of the second blossoming), before the decision of the start of harvest will be taken. Beginning of hop gathering nevertheless can be expected between 18th and 22nd of August 2008.

Hop phytosanitary information

From the point of view of health keeping of the hops, the situation in July was not so complicated in this year. The protection against hop aphid (*Phorodon humuli* Schrank) was performed, despite some problems arisen, by the end of May and beginning of June. Basic treatment against occurrence of red spider mite (*Tetranychus urticae* Koch) by preparatives Nissorun 10 WP and Ortus 5SC was done in time as well, where necessary. However, warm and even tropical weather within last days of July creates good conditions for reproduction of surviving adult individuals of this pest. It will be therefore necessary to monitor the reproduction of red spider mite, view to the fact, that now only preparation Omite 30W can be used, nevertheless it is not applicable under high atmospheric temperatures. The farmers carry out the prevention against downy mildew of hops (*Pseudoperonospora humuli* Miy et Takah.) in accordance with the monitoring of the occurrence of this contagion, and in conformity with The Methodology of Hop Protection.

Czech Hop Report - Current situation in the Czech hop growing sector

Dear trading partners,

During the spring and summer of this year as well as the autumn of last year there appeared numerous evaluations of the situation of Czech hop growing from the side of some of the world hop trading companies. We would like to point out that some of these evaluations and outlooks are very generalising, in many cases inaccurate and misleading. It is possible that the goal of this information is to lower the potential and the value of the Czech hop growing in the eyes of the customers of Czech hop industry and gain a competitive advantage for the future.

We are in no case denying that the Czech hop growing is currently facing many problems due to the under the cost pricing that the hop farmers encountered within the last very long period, due to extremely rapid strengthening of the Czech currency and also due to bad crops 2006 and 2007 in yields as well as in alpha content. Despite these above mentioned problems it is however necessary, in opposition to some information, to stress that even in these difficult conditions the customers of the Czech hop industry received hop quantities that reflected the climatic stroke into the whole production in the last two crops.

This difficult situation forced the Czech hop growers and hop merchants to start negotiations with their partners about the possibility of making provisions for this in price that could reflect the increasing costs, and at the same time the exchange rate development which is not affecting to this extent no other hop growing region in the world, for the crop 2008 and following years. According to our information all these negotiations are led on voluntary basis and their goal is with possible amendments of the contract conditions to increase to a maximum the security and trust of our customers.

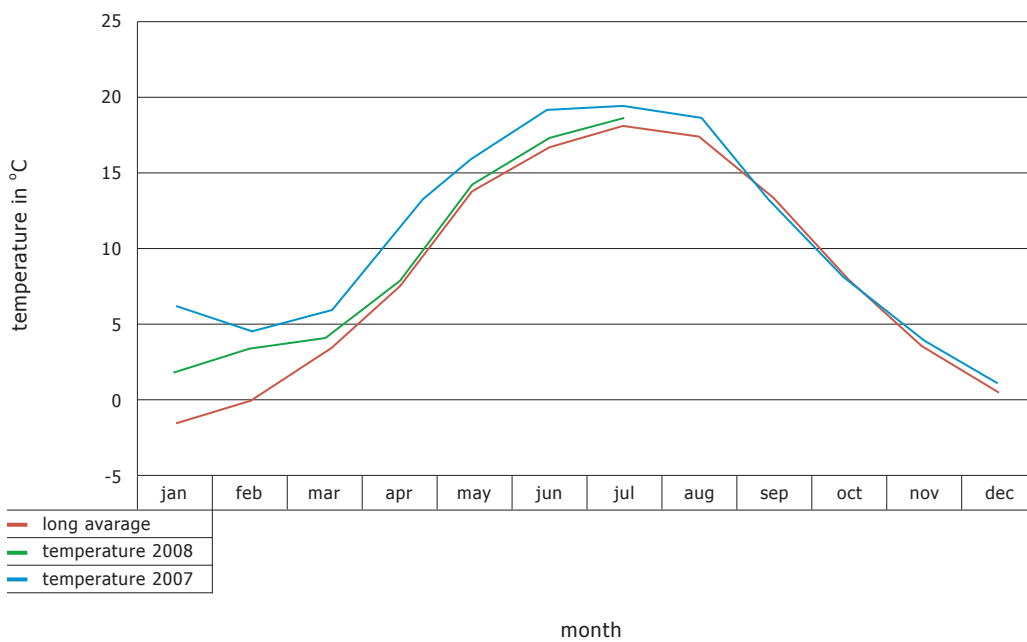
To an extent that is limited by financial situation there are hop yards renewals underway as well as constructions of new trellises in order to balance the demand and supply as soon as possible. The Czech hop growers have a support of the responsible national institutions such as the Ministry of Agriculture of the Czech Republic and its minister Mr. Petr Gandalovic claimed during this year Czech hop growing congress that "It is in the interest of the Czech Republic to maintain the thousand year old tradition of hop growing" and the ministry opened for hop growers possibilities of gaining financial sources from national as well as European subsidy programmes in order to help to stabilize this traditional industry in the Czech Republic. We can provide further information on this issue. This ministry support can also be seen for example in the support of the European protected designation of origin "ZATECKY CHMEL" (SAAZ HOPS).

There is therefore no reason to see the Czech hop growing industry with its long tradition and time-proved partnership as an in any way insecure or unstable partner for future. In the last decades it was just the case of the Czech hop farmers who as almost the only ones had their full faith in the long term contract partnership and trust in their contract partners and closed therefore contracts for their entire production and did not try to participate in the trading on the spot hops market. This has however now turned against the Czech hop growing and its economics due to rapid unforeseeable changes of the exchange rate as well as rises in costs. Despite this experience the hop growers in the Czech Republic want to sustain this principle of mutual security of deliveries and there are currently intensive negotiations from the side of the hop merchant companies with the hop growers following the lasting interest of breweries for crops for many years ahead.

We are looking forward to our further cooperation and we thank you for your trust.

Zatec, 28th July 2008

HOP GROWERS UNION OF THE CZECH REPUBLIC
CHMELARSTVI, COOPERATIVE ZATEC
BOHEMIA HOP
ZATEC HOP COMPANY
TOP HOP
ARIX EU
HOPSTEINER CR





Hop gardens in the Saaz area at the end of July



Saaz, 1st August, 2008
Jaroslav Hájek
Irena Nováková

Chmelařstvi Cooperative Žatec

Saazer Red's arch of triumph

Hop report - Saaz fine aroma hops

Crop 2008 – July 2008 (Saaz region)

Weather condition – August 2008

Temperature & precipitation in August	2008	2007	30 years average
Average temperature (°C)	18,3	18,9	17,4
Total precipitation (mm)	48,8	102,2	62,0
Max. temperature (°C)	33,2 (7.8.)	31,8	
Min. temperature (°C)	4,8 (31.8.)	7,8	
Highest precipitation in one day (mm)	15,2 (15.8.)	27,2	
Total precipitation Jan - August (mm)	383,0	389,7	325,0
Number of dry days	20	19	

August 2008 weather can be characterized as normal, although the difference in the volume of precipitations compared to long-term average is 13,2 mm. It rained before the beginning of the harvest, i.e. up to 16th August, what can be considered one of the positives of this year. Precipitations therefore did not influence negatively the course of the harvest. The only negative were frequent and strong winds, especially within the second half of the first decade of the months, what influenced negatively the quality of hops (bruises of cones) and in Terschitz region 5 hectares of hop gardens have fallen down on 5th August 2008.

Growth report

The weather in August created relatively good conditions for quality ripening of hops. The harvest started in majority of cases between 18th August and 21st August 2008. As far as the production is concerned, slightly above-average yields can be expected in Auscha and Terschitz regions. The yields in Saaz region will correspond to the long term average, nevertheless the content of alpha bitter substances will be higher here than in other two regions.

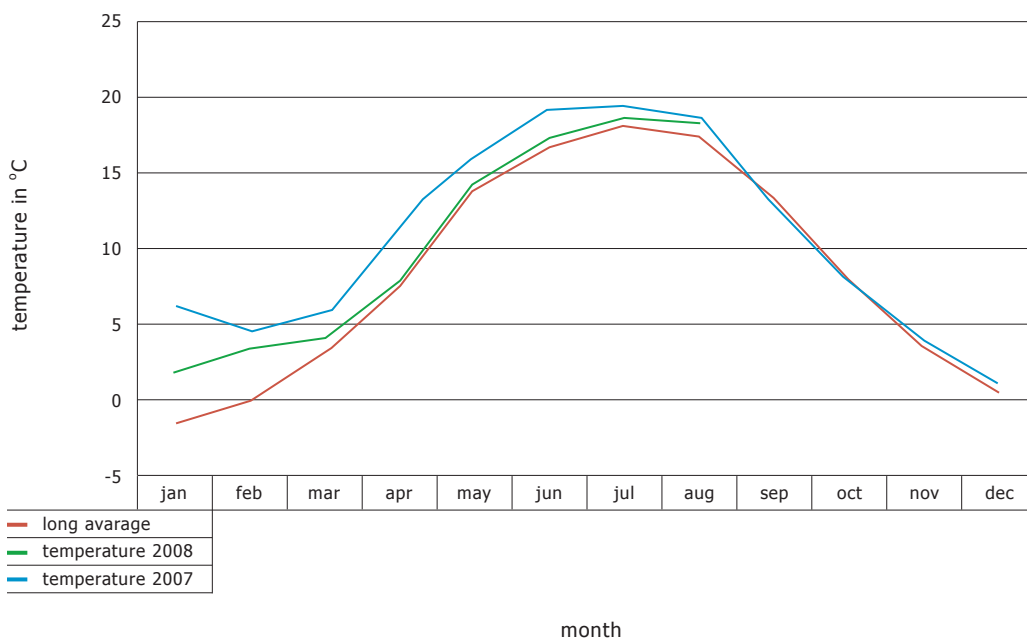
Hop phytosanitary information

No special problems were recorded in the matter of health state of hop gardens during August, as well. In some localities higher occurrence of red spider mite (*Tetranychus urticae* Koch) was noted and it was necessary to treat respective gardens by chemical preparative. In majority of cases the OMITE 30W preparative was applied. This year we appraise the health state of hops as good.

Other information

The acreage of hop gardens in the Czech Republic in 2008 (UKZUZ 28th August 2008)

Variety	Saaz Region (ha)	Auscha Region (ha)	Trschitz Region (ha)	Czech Republic (ha)
Saaz	3 562	597	579	4 738
Agnus	52	0	0	52
Bor	6	7	0	13
Premiant	149	44	74	267
Sládek	172	8	59	239
Fuggle	0	0	5	5
Magnum	2	6	2	10
Others	10	1	0	11
Total	3 953	663	719	5 335





Hanging of hops at hop-picker



Visit of Ing. Jan Veleba - the chairman of The Agrarian Chamber (in the middle) at the hop harvest 2008

Saaz, 2nd September, 2008
Jaroslav Hájek
Irena Nováková

Chmelařstvi Cooperative Žatec