



Weather Conditions and Plant Development in German Hop Growing Regions

In the last four months including July, it was considerably warmer than long-term average (see chart below). In the same period, Huell weather station reported approx. 75 mm less precipitation. Even if these numbers are not representative for all German hop growing regions, it can be stated that the growing season in 2018 is very warm and relatively dry though we do not have the extreme aridity that is reported from Northern German regions. Consequently, as of end of July, we expect an average harvest in total (see data from the International Hop Growers' Bureau (IHGC)). As of now, we expect below-average yields only for early varieties Hallertau Mittelfrueh, Northern Brewer, Tettninger and Spalter.

In the meantime we have had a heatwave in the last ten days with temperatures over 30 °C. Weather forecasts for the weekend are for cooler temperatures. It remains to be seen how this affects yields and alpha acid contents.

As a consequence of the current weather conditions, we expect the hop harvest to start at least one week earlier than usual.

| | Day Temperature in °C | | | | Precipitation in mm | | | | Sunshine Hours | | | |
|-------|-----------------------|------|------|-------------|---------------------|------|-------|-------------|----------------|------|------|-------------|
| | 2018 | 2017 | 2016 | Long-term Ø | 2018 | 2017 | 2016 | Long-term Ø | 2018 | 2017 | 2016 | Long-term Ø |
| Jan | 3,6 | -5,7 | 0,1 | -2,0 | 84,5 | 35,7 | 73,3 | 56,8 | 29 | 58 | 32 | 49 |
| Feb | -2,8 | 2,4 | 3,7 | -0,5 | 28,4 | 32,6 | 80,5 | 51,5 | 86 | 76 | 50 | 77 |
| March | 2,6 | 6,9 | 3,9 | 3,1 | 46,0 | 38,0 | 38,0 | 52,5 | 123 | 168 | 135 | 137 |
| April | 12,9 | 7,5 | 8,3 | 7,3 | 6,0 | 99,8 | 36,8 | 64,1 | 245 | 158 | 172 | 169 |
| May | 16,4 | 14,2 | 13,3 | 12,1 | 71,0 | 87,0 | 88,0 | 90,2 | 243 | 266 | 208 | 212 |
| June | 17,8 | 18,7 | 16,8 | 15,3 | 139,2 | 58,9 | 132,0 | 106,9 | 231 | 281 | 192 | 223 |
| July | 19,6 | 18,8 | 18,8 | 16,0 | 67,2 | 78,0 | 134,9 | 97,0 | 234 | 220 | 237 | 249 |

Source: Weather Station Huell

Preliminary Estimate of the IHGC (International Hop Growers' Convention) of World Crop 2018

On July 31st, 2018 the IHGC had a meeting in León, Spain, where preliminary estimates concerning this year's hop harvest were made.

Based on these numbers, we expect a world hop harvest of approx. 118.000 – 120.000 tons which equals more or less last year's crop.

Weather conditions in most of the hop growing regions were favourable despite regional and seasonal dry periods.

It has to be stressed, however, that the weather conditions in the next few weeks have a decisive influence on yields as well as alpha acid contents. Therefore the preliminary estimates of the IHGC are only a first indication of this year's crop situation.

The official crop estimate for all German hop growing regions will take place from August 20 – 23, 2018. We will inform you accordingly in our next Hop News.

Your German Hoppportunity!

| Country | Crop Quantity 2017 (to) | Crop Estimate 2018 (to) | Change |
|-------------------|----------------------------|----------------------------|--------------|
| Australia | 1.438 | 1.582 | +10 % |
| Belgium | 236 | 217 | - 8 % |
| China | 7.044 | 6.500 | - 8 % |
| Germany | 41.536 | 44.000 | + 6 % |
| England | 1.780 | 1.500 | - 16 % |
| France | 763 | 833 | + 9 % |
| New Zealand | 760 | 722 | - 5 % |
| Austria | 439 | 445 | + 1 % |
| Poland | 2.993 | 2.530 | - 15 % |
| Romania | 240 | 195 | - 19 % |
| Russia | 500 | 500 | 0 % |
| Serbia | 134 | 134 | 0 % |
| Slovakia | 104 | 152 | + 46 % |
| Slovenia | 2.676 | 2.900 | + 8 % |
| Spain* | 662 | 960 | + 45 % |
| South Africa | 710 | 754 | + 6 % |
| Czech Republic | 6.797 | 5.700 | - 16 % |
| Ukraine | 480 | 480 | 0 % |
| USA | 48.190 | 45.744 | - 5 % |
| Total IHGC | 118.710 | 117.574 | - 1 % |
| World | 119.500 | 118.500 | - 1 % |

*yields in 2017 extremely low due to hail (storms)