

Hop Market Telegram

November 2006

Alpha deficit of 700 to 1,300 mt – Crop 2006 selling out quickly – Tight market expected to continue into crop 2007

2006 Crop Market Environment

After this year's harvest the situation of the world hop market must be taken very seriously. Estimates of the supply shortage as a result of the poor 2006 European crop range between 700 and 1,300 mt alpha or approximately 8.6% to 15.5% of the annual worldwide demand. Should the "worst case" scenario prove to be accurate the alpha shortage would not be limited to crop 2006 alone but would represent a real structural deficit in general. (A structural deficit being defined as insufficient acreage at average yields and alpha levels to satisfy demand).

The main factors that have contributed to this situation are:

1. Very much below average crop in Central Europe
2. A warehouse fire in the US that destroyed 130 mts alpha
3. Acreage reductions as a result of low prices in the last years and a tendency of most global brewers to rely heavily on the spot market
4. Strong growth in beer output over the last years
5. Strong growth of hop based products for uses outside the brewing industry

In 2005 beer output rose at an annual rate of 3% or 45.8 million hectolitres (m hl). Of that amount, **China** contributed by far the largest share, with an increase of 15.2 m hl. A drop of 2.1 m hl in Japan slightly reduced the above-average growth in **Asia** compared with the rest of the world.

In **Europe**, both the Ukraine with +6.4 m hl and Russia with +4.0 m hl showed strong growth, while the UK on the other hand registered a significant drop of 2.9 m hl.

The increase in output in **America** is accounted for by growth in Brazil (+4.4 m hl) and Mexico (+4.0 m hl). In the US, output fell by 2.2 m hl.

Africa shows the highest growth of all continents in percentage terms, with 4.9%

The following table details the most recent statistics of world beer output:

| | 2004 1,000 hl | 2005 1,000 hl | 2004 +/- % rel. | 2005 +/- % rel. |
|---------------------------|------------------|------------------|--------------------|--------------------|
| European Union | 377,569 | 378,281 | 20.6% | 0.2% |
| Rest of Europe | 151,341 | 165,057 | -25.2% | 9.1% |
| Europe total | 528,910 | 543,338 | 2.6% | 2.7% |
| North America | 255,532 | 253,401 | 0.3% | -0.8% |
| Central America/Caribbean | 83,078 | 87,770 | 3.1% | 5.6% |
| South America | 153,348 | 161,745 | 6.9% | 5.5% |
| America total | 491,958 | 502,916 | 2.8% | 2.2% |
| Asia | 439,735 | 456,531 | 10.6% | 3.8% |
| Africa | 70,692 | 74,189 | 7.1% | 4.9% |
| Australia/Oceania | 20,948 | 21,114 | -2.0% | 0.8% |
| WORLD TOTAL | 1,552,243 | 1,598,088 | 4.9% | 3.0% |

The long-term average growth in beer output has ranged between 1% - 2%. However, annual growth has increased over the last 10 years (1995-2005) to approximately 3% coinciding with the fall of communism and the establishment of capitalistic free market economies in Eastern Europe and China.

During the same 10-year period the world acreage for hops has decreased by 35% (see table below)

World hop acreage since 1996 (in hectares)

| 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 76,967 | 70,241 | 60,112 | 57,427 | 58,991 | 58,903 | 56,237 | 53,570 | 51,500 | 50,004 | 49,500 |

The direction of the market is determined by the so-called "alpha balance". The following table depicts the development of that statistics over the last years:

| Calendar year | Alpha demand | | Alpha production | | Balance | |
|---------------|-------------------|-------------------|------------------|-------------------|------------|-------------------|
| | Hopping rate | Demand | Crop year | Production | Surplus | Deficit |
| 2001 | 5.5 g α/hl | 7,834 mt α | 2000 | 8,020 mt α | 186 mt α | --- |
| 2002 | 5.3 g α/hl | 7,649 mt α | 2001 | 8,646 mt α | 997 mt α | --- |
| 2003 | 5.2 g α/hl | 7,664 mt α | 2002 | 8,749 mt α | 1,085 mt α | --- |
| 2004 | 5.1 g α/hl | 7,916 mt α | 2003 | 6,722 mt α | --- | 1,194 mt α |
| 2005 | 5.0 g α/hl | 7,990 mt α | 2004 | 8,103 mt α | 113 mt α | --- |
| 2006 | 4.9 g α/hl | 8,066 mt α | 2005 | 7,877 mt α | --- | 189 mt α |
| 2007 | 4.8 g α/hl | 8,138 mt α | 2006 | 6,876 mt α | --- | 1,262 mt α |

These figures are, of course, subject to the inaccuracies associated with statistical data and estimates. For this reason other sources might come to somewhat different results but the overall message is clear and the same from all known sources. The deficit for crop 2006 (brewing year 2007) is a preliminary figure based on current data available from this year's crop.

The above figures do not yet take into account that hop consumption outside the brewing sector has been growing strongly over the last couple of years. We estimate that at this point about 150 mt of alpha are consumed in these alternative uses every year. This consumption further widens the gap between alpha supply and demand.

Spot Market

What little was available for spot market sales out of crop 2006 has been largely sold during October and November. Little remains for the rest of the marketing season. Spot hops from the 2007 crop in the Southern hemisphere, which should become available as of June 2007, are scarce and will not provide much respite. It is important to note that merchandise from crop 2007 in the Northern hemisphere will not be available in any significant quantities before January 2008. Careful planning of the requirements and deliveries is thus utterly important as products must last until the end of calendar year 2007.

Forward markets and outlook

With the possibility of a structural deficit being one of the key factors behind this year's shortfall (the other being unfavourable climate in Continental Europe) it is all too likely that the tight supply situation will continue into crop 2007.

It is of great importance for the brewing industry to now send the right signal to the growing community, which must be: we are in it for the long-run and we are showing it by committing to long-term contracts of at least 4 years duration. This is, in our view, the only measure that can entice growers to stay in business and to make the necessary investments into modernising their operations. It goes without saying that prices above production costs must be offered in order to have a motivational effect.

The 2006 spot market gave testimony to the dangers of a heavy exposure to the spot market. We firmly believe that it is in the interest of all partners of the hop supply chain to restore stability and reliability to the market with the help of forward contracts. While forward contracts are no guarantee against crop failures they greatly enhance one's security of supply and represent an effective tool for forward planning on the grower, the processor and the brewer level.

With best regards from Nuremberg,

Joh. Barth & Sohn GmbH & Co. KG