

THE WORLD OF MALTING BARLEY – OUTSIDE AUSTRALIA

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Foreword

The Northern Hemisphere is in the middle of the grain harvest, crop figures, S/D balances and market outlook may still change between 3 August and 27 August, the day of my lecture in Perth. I shall add today's estimates to this paper, but may be obliged to make changes before the conference.

Lecture

Farmers of the whole world will appreciate the new situation: Farming has regained its place as one of the top industries of the world, and farm production is and will continue to be rewarding.

There are four reasons for the larger, almost exploding demand for agricultural produce:

- a) the increase of the world's population and urbanization
- b) the strong world economy, leading to a widespread improvement of the people's welfare. Greater purchasing power in many countries of Asia and South America have increased food and beverage consumption and therefore the demand for grains and vegetable oils.
- c) Ethanol, diesel and bio-gas require large supplies of grains and oilseeds.
- d) Warmer world temperatures, the change of the world's climate lead to formerly unknown weather scenarios and vegetation and harvest problems.

World beer production has grown

1980 931 Mill. HL
2000 1.345 Mill. HL
2006 1.699 Mill. HL

World Meat Production has grown

1979-81 136 Mill. Tons
1999-01 235 Mill. Tons
2004 260 Mill. Tons

Since 1980 beer production increased by 82 %, meat production by 91 %.

Comparison of old and new beer countries.

(all in Mill. HL)

	1980	2000	2006
Australia	24	17	17
USA	228	232	232
Germany	116	110	107
Brazil	29	82	93
Russia	65	55	100
China	7	220	351

Beer sales increases this year 2007: USA and Germany stagnant, Russia Jan/June plus 23 %, China Jan/May plus 16 %. Southeast Asia and Latin America performing also extremely well.

Today's **malting capacity in the world** is – on paper – 21 Mill. tons. It seems, however, that many companies overstate their capacities. Repairs and barley shortages reduce production regularly. Malting capacities in China, some other Asian and Latin American countries, in Africa (except South Africa) do their local work, but are not part of the world malt pool with a transparent S/D balance. All these factors together mean that the operational malting capacity most likely is no more than 19,9 Mill. tons (95 % of listed factories on paper). In 2006 19,4 Mill. tons of malt were used for brewing, 11,4 kilos per Hl of beer on average. 1,2 Mill. tons of malt are needed for the production of whisky and food adjuncts. Malt capacity is short for the years 2007 and at least also 2008.

New factories are under construction.

(in 1000tons)	Existing Capacities	Factories under Construction (closures deducted)
European Union	8.800	315
CIS (FSU)	1.850	200
Balkans and Turkey	300	
Africa	400	
NAFTA	3.638	
South America	1.612	145 (further 180?)
China	3430	?
Other Far and South East Asia	200	
Oceania	830	

In 2006 world needs 20,6 Mill. tons of malt equal almost 26 Mill. tons of malting barley. 5 % more in 2007 mean an additional demand of 1 Mill. tons of malt or 1,25 Mill. tons of barley. Beer sales figures are so good that 5 % may prove to be too low a figure. Malting factories can be built, albeit not at the speed presently required to fill all demand. The greater problem has been and will be the production and procurement of malting barley. Last year we had a barley cop failure in Australia, Europe and North America, this year a poor crop is threatening in Europe. The longer term outlook shows risks and chances at the same time.

Alternatives in the grain production

The chance for farmers and the risk for the malt and beer industry is the increased demand for bread, meat and dairy products in the world. Already the larger food consumption would lead to a greater demand for wheat, oilseeds and coarse grains. Let me also mention a few specialities, cosmetics based on vegetable oil, or the sudden buying wave of Scotch whisky in India and China. But the greatest new impact on world markets of grains and oilseeds comes from the usage for ethanol, diesel and bio-gas. IGC/USDA/Oil World estimate this year's world crops as follows: Corn (maize) 752 Mill. tons, barley 143 Mill. tons, soybeans 222 Mill. tons, canola (rapeseed) 51 Mill. tons. Forecasts are that the use of bio-fuels will rise constantly in the years to come.

World industrial use of grains

m.tons

	2003/04	2004/05	2005/06	2006/07	2007/08
				(est.)	(f'cast.)
USA	64.3	67.9	75.3	88.9	121.3
Maize	59.6	62.9	70.4	84.1	116.2
(of which ethanol)	(29.7)	(33.6)	(40.7)	(54.6)	(86.4)
EU-25	20.0	21.1	22.3	23.0	24.0
Wheat	5.2	5.5	6.5	7.0	7.6
Maize	6.1	6.5	6.3	6.4	6.7
Barley	8.1	8.5	8.6	8.5	8.6
China	16.3	21.6	27.0	33.0	38.2
Maize	12.0	17.0	22.0	27.5	32.5
Barley	3.6	3.8	4.0	4.0	4.2
Russia	3.6	3.3	3.4	3.2	3.5
Canada	2.8	2.9	2.7	3.6	5.0
Japan	3.6	3.5	3.6	3.7	4.1
S Korea	2.3	2.3	2.4	2.4	2.4
Mexico	4.2	4.1	4.0	4.3	4.5
Brazil	1.3	1.8	1.8	1.7	1.8
Argentina	1.5	1.5	1.5	1.6	1.8
Other/unsp.	16.7	19.0	20.0	21.1	22.4
WORLD	136.5	148.8	163.8	186.5	229.0
Of which:					
Maize	94.9	104.8	117.6	138.3	177.7
Barley	24.5	25.9	26.2	26.7	27.0
Wheat	12.2	12.9	14.4	15.8	18.0
Sorghum	1.8	2.3	2.5	2.5	3.0
Oats	0.2	0.2	0.2	0.2	0.2
Rye	1.6	1.6	1.7	1.7	1.8
Other/ unsp.	1.4	1.3	1.3	1.3	1.4

World Industrial Use of Grains/World Industrial use of grains by sector:

m.tons

	2003/04	2004/05	2005/06	2006/07	2007/08
				(est.)	(f'cast)
Ethanol	36.8	43.6	54.5	71.2	106.8
Starch	67.6	71.0	75.3	80.2	85.0
Brewing	27.8	29.7	30.6	31.5	32.2
Other/unsp..	4.3	4.4	3.4	3.6	4.9
Total	136.5	148.8	163.8	186.5	229.0

Both charts: Source: IGC GMR 368-28 June 2007

Climate changes

A negative factor is the warming of the earth, climatic conditions are changing. Scientists say, it will affect the Northern Hemisphere more than the Southern half of the earth. Nevertheless we have seen more abnormal weather situations in recent than in past years, it is my impression, also here in Australia.



Map of Europe

In Europe we have seen a sequence of very hot and dry springs and summers in the Mediterranean, the Balkans and the Black Sea region. The milder climate in Northern Europe, from the British isles to Scandinavia, have increased their crop potentials. In the Mediterranean one speaks of a continuous desertification, Greece, Bulgaria, Romania have seen a number of crop failures. As you know the barley production in North America is centered on Canada and the very North of the USA. My personal forecast is that barley production and malting industries will become ever smaller and finally disappear in Southern Europe, larger crops and larger malt industries in the North must make up for it. Luckily in the European Single Market the idea of national self-sufficiency is slowly disappearing.

World barley production Source: IGC July 07

	2004	2005	2006	2007 (f ^o cast)	
				28.6.07	26.7.07
Europe	65.8	56.6	57.5	61.1	59.8
France	11.0	10.4	10.4	10.7	10.2
Germany	13.0	11.6	12.0	11.0	10.9
Spain	10.6	4.5	8.1	11.2	11.2
CIS	33.2	29.5	34.7	29.9	29.9
Russia	17.2	15.8	18.1	17.0	17.0
Ukraine	11.1	9.0	11.3	7.5	7.5
N & C America	20.2	17.8	14.4	17.2	17.9
Canada	13.2	12.5	9.6	12.0	12.0
USA	6.1	4.6	3.9	4.3	5.0
South America	2.0	2.0	2.3	2.3	2.3
Argentina	0.9	0.8	1.3	1.1	1.1
Near East Asia	12.6	12.5	12.5	12.2	12.2
Far East Asia	5.8	5.6	5.9	6.0	6.0
China	3.2	3.4	3.5	3.5	3.5
Africa	6.5	5.0	7.3	5.2	5.2
Oceania	8.1	10.0	4.1	9.4	9.4
Australia	7.7	9.6	3.7	9.0	9.0
WORLD TOTAL	154.1	139.0	138.7	143.2	142.7

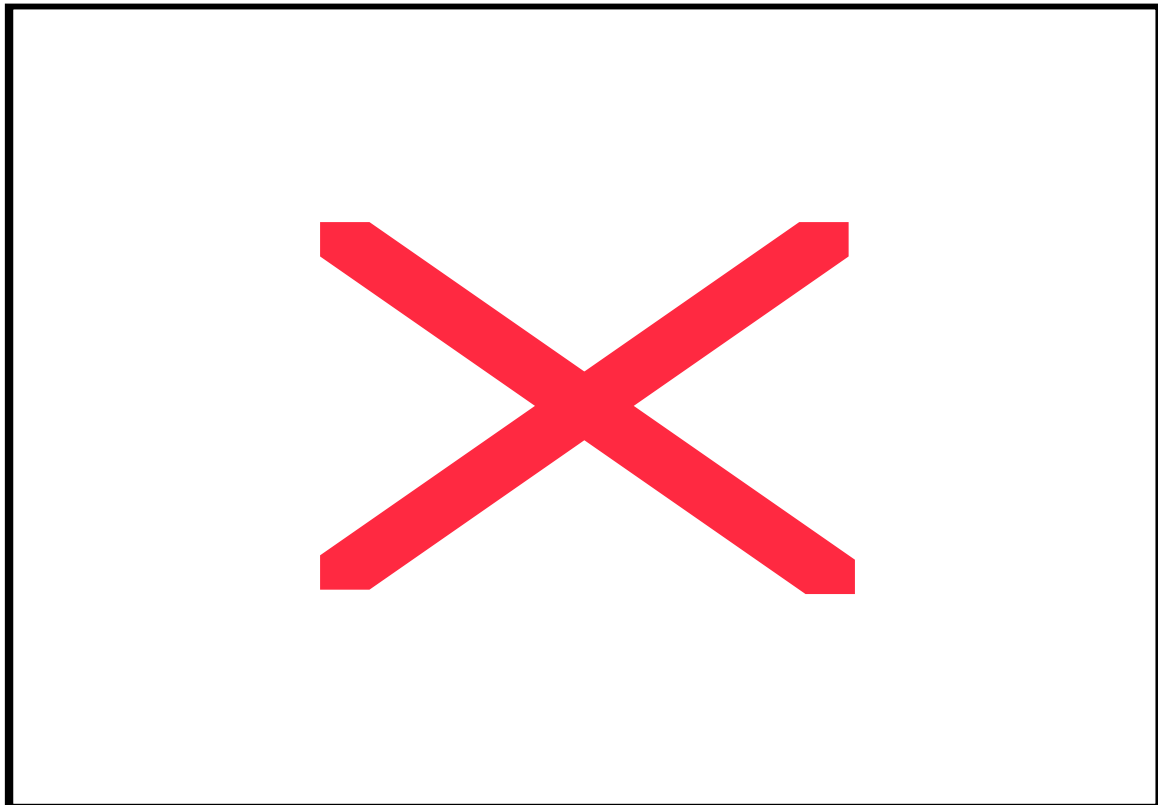
The world barley production has dropped from 180 Mill. tons in 1985 and has stabilized at around 140 Mill. tons in the past years. The sharpest drops have been seen in the FSU, in the USA, but also in the United Kingdom. Barley was replaced by commercially more attractive corn and feed wheat in the feed mix.

The problem is that smaller barley crops automatically put at risk sufficient barley supplies for the malting and beer industry.

European Union

In the EU-27 we expect a barley crop of about 58 Mill. tons, slightly more than last year. But the crop suffered from a long draught in April, everywhere in Europe except in the Iberian Peninsula. Therefore Spain so far is the only country in Europe, which harvested a good barley crop. The UK and Scandinavia have only started to harvest, and their crops look quite promising, albeit on smaller acreages in Denmark and with smaller yields in England. From May till the end of July the EU recorded wet and cool weather, too late to be helpful for yields, but improving kernel size in the ears, and the cool weather preventing sprouting in the fields and too many diseases. In the Balkans and the Black Sea countries the heat wave continued till end July, barley and other crops were badly damaged or in some places totally destroyed in Hungary, Romania, Bulgaria, Greece, Turkey, Ukraine and South Russia.

S/D Balance



The figures shown in this S/D sheet are not final. They are also misleading. The problems of this year's crop were small yields, high screenings, and above all too high protein contents. All that with great regional differences. Our industries must accept higher screenings and above all, protein contents upto 13, in Czech, Slovakia and the Balkans upto 14 % protein. Only on that basis we arrive at a reasonable, but still short volume of malting barley supplies. We need to select "compromise" barleys, which are failed malting or better feed varieties, maximize the use of winter barley, and try to import malting barley as well. Origins of imports can only be Canada, the U.S. and Australia. EU import regulations allow an annual quota of 300.000 tons to be imported at an import tax of EUR 16,- per ton, but the validity of the respective licences is only 30 days from day of fixation until customs clearance. You can see that an import of Australian barley poses a huge risk.

A short remark about the Doha Round of the WTO. I cannot imagine that it succeeds, because the positions of the U.S., the EU, but also India and Brazil are too far apart, everyone wants to protect something. In the EU the Southern countries under the strong leadership of France are the protectionists, they are followed by the Eastern (former Communist) countries, which still stick to a high degree of government influence. The North, led by the U.K., would love to see a complete deregulation of markets. BUT in the EU we still need a unanimous vote on all major decisions.

European maltsters and brewers are apprehensive about the future. For years the brewers have exerted pressure on the margins of maltsters to buy the cheapest malt possible, and the large brewing companies were much stronger than the comparatively small malting firms. Maltsters had no choice but to lower their bids on malting barleys. The farmers responded gradually by switching to other crops. This year there is not only a poor quality crop in the EU, but the acreage of malting barley, mostly spring barley, was too small from the beginning. Both maltsters and brewers must change their policies, remunerate farmers better for their risky crops and accept the climate change as a fact, consequently switch from the traditional spring barley to a larger production of winter malting barley.

Eastern Europe

The EU's neighbours in the East, mainly Russia and the Ukraine, have become important players in the barley markets. Their crops, Russia last year 18, this year 16 Mill. tons, the Ukraine, last year 11,3, this year 6,5 Mill. tons, have been stressed by heat and dryness all spring and summer. Last year the two countries combined exported a total of 6,5 Mill. tons of feed barley, this year 2,0 – 2,5 Mil. tons seem the possible maximum. The Black Sea has an enormous freight advantage to the import markets of feed barley in the Middle East. The beer output in Russia will reach 110 -115 Mill. HL in 2007, in the Ukraine about 30 Mill. HL. The malting capacities are 1,4 Mil. tons in Russia, 350.000 tons in the Ukraine, all modern facilities, most of them owned by international brewing and malting companies. These companies imported barley seed from the EU and installed a very successful system of contract growing. So far it has never been quite enough, Russia remained an importer of modest quantities of barley and malt. This year the gap may be larger.

US and Canada

The U.S. and Canada are plagued by a heat wave in the West. In the U.S. a large crop of good quality barley, mainly 6row, is being harvested in the Midwest, especially North Dakota. In Montana and Idaho, where mostly 2row barley is grown, crop prospects have deteriorated over the past weeks. Also in Saskatchewan and Alberta it is too hot and dry, the Canadian Wheat Board has reduced its crop forecast to 11,3 Mill. tons. It remains to be seen, what the Canadian export surplus will be. The Canadian government had decreed to deregulate barley markets, i.e. to stop the Single Desk powers of the CWB in the export trade of barley and all trade in malting barley. A court overruled the regulation so that the CWB retains its former rights, probably only temporarily.

A few remarks from the distance about **Argentina, China and Australia:**

Argentina has land reserves, and a good climate and soil for growing malting barley. It has the best access to the large Brazilian market and even to Venezuela, which is now member of Mercosur. Barley and malt production are increasing. European trading and malting companies see great opportunities in the country at a time, when EU malting barley production is at risk of becoming insufficient.

China has shown an unbelievable flexibility in their purchase policies of imported malting barley. And China has even become an exporter of malt. A malt exporting country can be competitive mainly on basis of home-grown barley. It will be most interesting to hear during the conference, how China's barley procurement will happen in the future.

Australia will have an enormous job this year. The EU cannot export any malting barley, and probably not much more than 3 -4 Mill. tons of feed barley. Russia and the Ukraine drop almost out as barley exporters. Therefore the main job is on your country and on Canada to supply the world import needs of 16 Mill. tons of barley.

Conclusion: EU, Australia, and Canada will lose percentage points in the malting barley production, newcomers Russia, Ukraine, China and Argentina will produce an increasing percentage of the world's malting barley crops. But our countries should remain the dominating forces in the export trade of barley and malt. Everywhere breeding and research must do an important job to maintain and improve production numbers, under the threat of climatic incidents. GM crops cannot be excluded. Most of all, farmers must receive rewarding prices for their crops so that they remain interested in growing malting barley.

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Aug 3, 2007