Into uncharted waters

The European barley crop of 2008

Where are we, how did we get here and where are we going? A year ago no-one – at least no-one I know – could have predicted that a combination of factors outside of agriculture, plus the global weather patterns that gave the world a massive harvest, would cast such a shadow of uncertainty over the likely direction of cereal markets and availability. We had entered 'Uncharted Waters'!

By **Alan Ridealgh**
Muntons plc

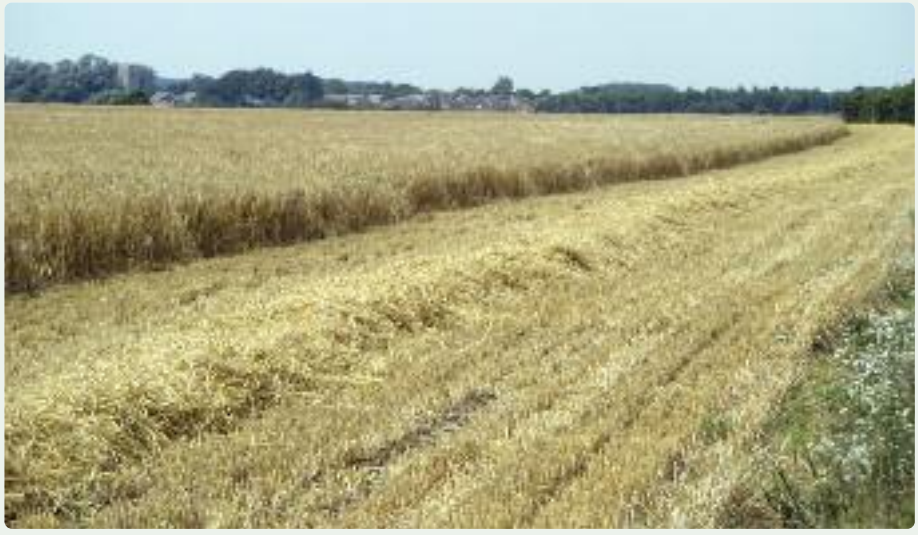
The bright spot – excellent UK winter malting barleys.

The unusual factors seen this year proved beyond doubt that local supply/demand imbalances are irrelevant in the new order. The damage to crops in northern Europe, particularly of spring malting barley, was largely ignored as the pressure of huge global supply was brought to bear. The reaction of the market is unfortunate. Where do we go next – there is no clear direction? As grain prices fall and farmers input prices rise it should be no surprise that growers are confused. Many will look to maximise their non-cereal cropping, others will move into low input growing. The result will be smaller crops and the market will rise again. Malting barley will be trapped within this process and linked closely to the price of feed wheat – but it has to reach a level that compensates for yield differences.

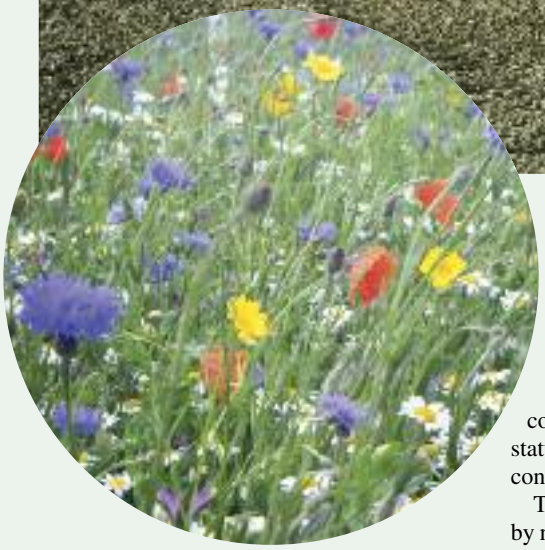
It is easier to simply look at the crops and quality that the 2008 harvest delivered rather than the more serious consequences of a market driven by factors other than fundamental supply and demand, so here goes!

Starting with the UK, the additional area sown and the excellent growing, although not harvesting, conditions has lead DEFRA to estimate that the cereal crop is the largest for a decade. Quite rightly, the Department cautions that this might not be fully realised due to the wet harvest conditions. This can lead to incorrect comparisons between years and indeed to fundamentally wrong estimates, as the exercise is carried out with a range of grain moisture levels. Add the fact that there will be considerable wastage due to grain going mouldy or becoming infested and the potential availability falls considerably.

Table 1 illustrates the UK barley estimates for 2008. The yield at 6t/ha is the largest for a decade, driven mainly by a phenomenal performance from winter barley at just under 7t/ha – nearly 3t/ acre average in old money! Spring barley was good at 5.5t/ha, but badly affected by the wet harvesting weather, particularly in the north and Scotland, where, with the exception of the Inverness area, conditions were dire. Similarly awful conditions were endured in southern England. This resulted in a crop estimated to be 6.2 million tonnes, up 21% on last year. The comparison with previous years should be made with some caution, for the area sown was 17% higher as set-aside land came back into production and land formerly used for non-cereals came under the drill. This can of course swing back or move into other cereal crops in the future. In this situation and with average yields, we will be struggling to produce 5 million tonnes of barley and be in a shortfall position again.



Spring barleys had a stop-start season.



ABOVE: Drilling for next year in to poor seed beds – yields already expected to be reduced.

LEFT: Farmers don't have to grow crops with input prices so high, what will happen?

A black and white analysis of the figure suggests a substantial UK malting barley surplus. But things may not be quite what they seem. The poor harvest weather will reduce the availability as moulds develop and germination suffers. Remember, much of the spring barley crop was harvested at moisture levels up to 22% which also exaggerates the tonnage. Also pundits seem to forget that when assessing malting barley availability there are other demands for barley. The greater the potential of malting barley, the more will be used in the animal feed industry and for seed. Similarly, malting barley will find itself exported as feed. As time progresses there will only be a modest surplus remaining. There is an old grain trade saying that where there is a famine there will be a feast, and where there is a feast, there will be a famine. In fact this is quite logical, the markets move to deal with each year's challenges, but they do not move at a uniform rate. As I write, I would estimate the surplus to be around 300,000 tonnes but this will quickly decline. Other estimates are much higher but this appears unrealistic.

Wheat also had a tremendous season, with yields reaching a record 8.4 tonnes per hectare. This resulted in a massive crop of 17.46 million tonnes. Unfortunately, the poor weather at harvest time also affected the wheat crop very badly in terms of quality, consigning much of the crop to feed only status. This glut of low grade material also contributed to further depressing the market.

The quality of the barley crop, as defined by nitrogen content, is assessed each year by the Home Grown Cereals Authority. The interim results are shown in Table 2 and this illustrates well the lower nitrogen levels of the 2008 crop, overall the lowest for many years. This suits the distiller and ale producer well, though is less ideal for lager production, but it is what we have! It will be interesting to see the final figures when they are published and as they are usually shown by region, this too will help paint the picture for the year. I have no doubt that nitrogen levels in the main malting barley producing areas will be even lower than the average. This will be particularly so for winter barleys.

Estimates for barley production in Europe as a whole also show a sharp rise on 2007, again caused by good yields and an increase in area sown – Table 3. In Table 4, a similar exercise for spring malting barley shows the unusual positive effects in the year. However it can be seen just how close supply and demand is in a 'normal' year.

World barley stocks are forecast to rise in 2008. But, my goodness they needed to! And I doubt if it will be enough to bring stability, as they are at historically very low levels with consumption rising – see Table 5. World cereal stocks rose by a relatively modest 15 million tonnes and are still close to the 30-year low. This rise is unlikely to be repeated next year as lower prices and higher input costs – especially fertiliser – will lead to area reductions. This means future price volatility is inevitable and every market will be a weather market.

In Europe, conditions were variable, from

TABLE 1: TOTAL BARLEY UK ESTIMATES 2008 CROP

	2007	2008
Area ha	885	1,033
Yield t/ha	5.8	6.0
Production tonnes (Millions)	5.13	6.20

Source: DEFRA

TABLE 2: UK 2008 BARLEY QUALITY

	Nitrogen Content (% dm)	
	2007	2008
Flagon	1.72	1.56
Pearl	1.81	1.62
Cocktail	1.70	1.56
Optic	1.66	1.58
Tipple	1.68	1.53

Source: HGCA

TABLE 3: BARLEY EU EARLY ESTIMATES 2008 CROP

	2007	2008
Area '000 hectares	13,728	14,580
Yield tonnes/ha	4.2	4.5
Production million tonnes	57,697	65,516

Source: COCERAL

TABLE 4: EU 25 MALTING BARLEY – MILLION TONNES

	PRODUCTION	DEMAND
2004/5	13.7	10.7
2005/6	12.1	10.3
2006/7	10.1	10.0
2007/8	10.7	10.3
2008/9	12.4	10.4

Source: Strategie Grains

TABLE 5: WORLD BARLEY SITUATION

WORLD BARLEY SITUATION – MILLION TONNES	
2008	150.1
2007	134.9

WORLD BARLEY CONSUMPTION MILLION TONNES	
2008	146.6
2007	139.8

WORLD BARLEY GLOBAL STOCKS MILLION TONNES	
2008	24.3
2007	20.7

Source: IGC

excellent in France to poor in Denmark. This makes interpretation at this stage somewhat challenging. Will countries with poorer quality have to import or will they use the grain on their doorsteps in order to avoid the increased cost of transport? Scotland will almost certainly have to import malting barley. Already a fair quantity has been shipped from England. It is possible the shortfall could be as much as 200,000 tonnes. Time will tell.

Table 6 looks at the more important producing countries in Europe.

So, where are we going? Setting sail into uncharted waters without a map is not something we have done before. Any prediction is bound to be wrong but ultimately the direction will be controlled by the fundamentals of supply and demand. Whilst acknowledging that price and direction are linked to oil prices, this fades into the background when global yields are low or demand exceptionally high because of low stocks. The effect of the so-called credit crunch will probably be to reduce demand, however we certainly are not able to predict the weather, at least that part of the weather which influences crop yields.

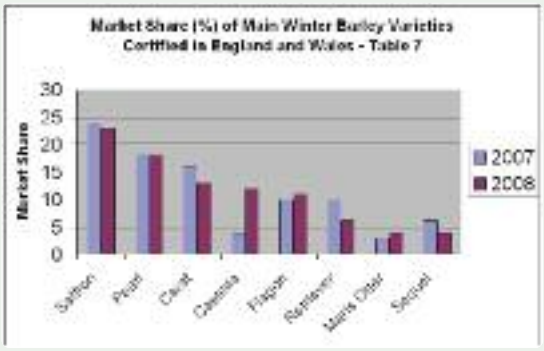


Table 7.

Switching to a more parochial view again, certified seed sales (see Table 7, left) of winter barleys in England and Wales suggest that the proportion of malting varieties has stabilised at around a third of the total. If the new variety Cassata is included, the proportion has in fact grown. These figures do not take into account farmer saved seed but I would expect the overall proportion to be around 35% of malting varieties. If this were to be the case then there would only just be enough malting quality grain to meet the demand in an average year. We wait with interest to see the spring seed sale equivalent, the current anecdotal evidence suggests the area will be similar to spring 2008. ■

SPRING BARLEY 2008 EUROPE – TABLE 6

Country	Area Spring Barley in 1000ha		Yield t/ha		Production in MT		Screenings in %		Protein in %		Share of Malting Barley %		Main Varieties
	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	
Denmark	586	464	4.3	4.9	2.5	2.3	94	89	12	11.5	30	45	Power, Quench, Prestige, NFC Tipple, Class, Henley, Publican
Germany	534	496	4.9	4.3	2.58	2.1	91	85	11.3	12.2	60	56	Marthe, Braemar, Pasadena, Annabell, Quench and Lisanne in Probe
Finland	614	550	3.2	3.45	1.96	1.89	90	93	10.5	11.5	15	15	Barke, Scarlett, Braemar, Saana, Annabell, NFC Tipple, Prestige
France	529	498	6.6	5.3	3.5	2.6	93	80	10	12.1	70	62	Sebastian, Henley, NFC Tipple, Pewter, Prestige, Scarlett
Ireland	147	141	7.3	6.8	1.1	0.96	91	83	8.9-11.8	10.9-11.4	34	28	Prestige, Quench, Cocktail, Sebastian, Spotlight
Austria	101	119	5.2	3.41	0.47	0.41	90	80	10.5	12.5	47-50	30	Xanadu, Marthe, Bodega, Bojos, Class
Sweden	397	318	3.5	4.5	1.74	1.43	97	88-95	9.5-13	10-12.5		31	Prestige, Astoria, NFC Tipple
UK	609	503	7.3	5.6	3.89	2.81	92	80	9.7	10.5	51	65	NFC Tipple, Optic, Quench, Westminster, Cocktail
Poland	1.03	1.07	2.8	3.1	2.88	3.35							Scarlett, Prestige, Sebastian, Troon
Czech Republic	341	369	4.8	3.5	1.6	1.3	91	84	11	12.8	50	45	Sebastian, Prestige, Jersey, Malz, Bojos, Xanadu

Improved North American yields

Canadian and US malting barley crop report

Western Canadian conditions during the 2008 growing season included a cool dry seeding period followed by a cool moist spring and summer. This resulted in higher than average barley yields across most of the Canadian Prairies. However, the cool season slowed development and delayed the start of harvest. Rains and cool weather in late August caused further harvest delays and resulted in some staining.

CANADA: BARLEY SUPPLY AND DEMAND OCTOBER 2008

	2004-2005	2005-2006	2006-2007	2007-2008
Seeded area, '000 ha	4678	4143	3690	4398
Harvested area '000 ha	4050	3634	3223	4051
Yield, tonne/ha	3.26	3.21	2.97	2.92
Production '000 tonnes	13186	11678	9573	11822
Imports '000 tonnes	83	46	43	35
Total supply '000 tonnes	15962	15159	12905	13349
Exports '000 tonnes	1975	2975	1975	2700
Food use '000 tonnes	268	167	167	180
Feed	9417	8404	8889	8669
Total Dom. use '000 tonnes	10073	8894	9438	9249
Carry-over stocks '000 tonnes	3435	3289	1492	1400

Source CWB

By **Bob Cuthbert**
Canadian Wheat Board

However, warm dry conditions during September and early October allowed for a rapid finish to the harvest. In terms of malting barley production, despite the delayed harvest, Western Canadian farmers gathered a high yielding, above average quality crop. This has resulted in a higher than average percentage of the barley crop that is potentially selectable for malting. Domestic feed values, although lower than this past year remain stable and are at a premium to export feed values.

A total of 3.73 million ha were sown with barley in 2008 in Canada, down from 4.39 million ha sown in 2007. 3.45 million ha were harvested with an average yield of 3.3 tonnes/ha for a total Canadian barley crop of 11.2 million tonnes, with 93% of this production coming from Western Canada. Despite the reduction in seeded acreage, total Canadian production was up 2% from 2007 as a result of improved yields. Malting varieties comprised 61% of the total seeded barley area. In Western Canada, 81% of malting barley production was two-row (2R). Six-row (6R) acreage increased its production share for the second year in a row and now accounts for 19% of the total malting barley acreage. This was due to good prospects for malting barley exports into the U.S. six row malting barley market.

AC Metcalfe was the overwhelming leading variety of two row malting barley with 57% of 2R seeded acres. CDC Copeland acreage increased slightly to 23%, and CDC Kendall was 11% of the total 2R area. Legacy continues to rank as the number one 6R variety accounting for 45% of the six-row malting acreage. Tradition continued to gain acres in 2008 and now accounts for 33%; Lacey 8%; and Excel 7% of total 6R seeded area.

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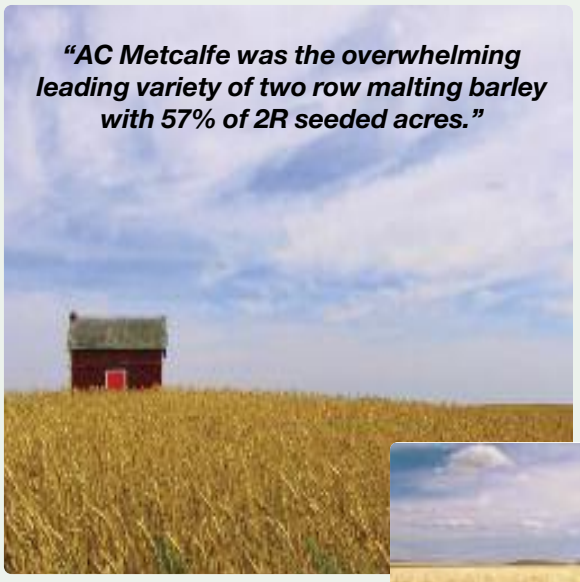

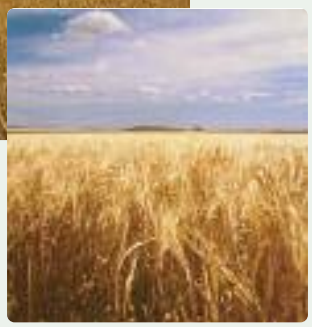

The uncertain future of the Canadian Wheat Board's single desk for feed and malt barley continues to create some market uncertainty. The Government of Canada passed a regulation in June 2007 which was to create an open market for barley effective from 1 August 2007. This regulation was overturned by the courts on 31 July 2007. The single desk for Western Canadian barley currently remains in effect, but will most likely be revisited by the federal government. The Conservative government favours the elimination of the barley single desk however they have a minority in Parliament and enacting legislation to amend the CWB Act could prove to be difficult.

Barley production in the United States was 5.2 million tonnes in 2008, an increase of 12% compared to 2007. An increase in planted acreage and improved yields accounted for this change. Production in 2008 was slightly higher than the five year average of 5.06 million. This season 1.53 million hectares were harvested with an average yield of 3.39 tonne/ha. Approximately 57% of US production was 6R and the leading varieties were Tradition, Robust, and Lacey. The remainder was 2R with Harrington, AC Metcalfe, and Conlon leading the way. Planted acreage is expected to remain fairly stable in 2009, with an area similar to the 5 year average acreage levels. Despite production increases, supply of 2R is still short of increasing domestic demand and 6R selection rates will be affected by low test weight, which has lead to additional import requirements of both 2R and 6R from Canada. ■

The hop harvest of 2008

Another year of panic and shortages?

Well, we certainly hope not and the signs so far are relatively good compared to this time last year. Higher yields in Germany and the USA, a lack of storms in Slovenia and a good crop across most of Europe has certainly led to a more relaxed atmosphere across the hop world.

By **Paul Corbett**
Charles Faram

The yields of Bramling Cross were much better this year.

After the horror that was the 2007 crop growers in many countries decided that it was time to plant up new hop yards and take advantage of some of the extremely good prices that were being offered for contracts. The biggest increase in acreage was in the US where a reported 2,927 ha (7,234 acres) were planted. Just to put that into context the UK crop was only just over 1,000 ha (2,500 acres) in total last year. The varieties chosen for planting were mainly high alpha CTZs (Columbus, Tomahawk and Zeus), Summit (a new low trellis high alpha variety) and Cascade. In Washington State the growing conditions are usually good enough to produce a full crop in the first year of production (the only place in the world where this is possible), however this spring was unusually cold and the plants did not develop as expected and so we are still largely relying on the 2007 acreage to fill this year's demand. This means that there is still a very tight supply situation with US hops. Alpha can be replaced with other varieties from Europe and so the market for US alpha is calming down but the aroma hops will be difficult to come by and prices will remain high.

Hop yards blown over by the storms near Hereford, UK.

The early picked US aroma hops are good in both quality and alpha. The later picked higher alpha hops started to show signs of powdery mildew around the second week of September and needed to be picked before the disease took hold. Unfortunately the picking capacity can only cope with a certain tonnage per day and so hops were left to hang until the pickers could get to them. The cooler nights and dew in the morning encouraged mildew growth and this restricted and degraded the quality and quantity of these late picked high alpha hops. Worryingly when these hops are harvested again next year the new yards should be in full production and there will be even more hops to pick. As there will not be any extra picking machines this may lead to hops being picked even later into October and more risk of disease; we hope it can be kept at bay.

In Germany the crop has been excellent with just the right amounts of sunshine and rain and all at the right times! According to initial estimates the harvest will exceed the 2007 crop by 7,000 tonnes (a 22% increase) and with the alpha levels also extremely good, the increase in terms of brewing value will be even higher. The hop quality is also first class with no pest or disease problems showing. Due to the extremely high spot market price for alpha last year some of the aroma acreage was replaced by high alpha hops and there is likely to be a tight market for some of the German aroma hops but the situation is much

better than last year so there should be full supply. It is reported that an extra 1,000ha (2,500 acres) have been planted this year, mainly in the high alpha variety Herkules. This variety has so far produced excellent yields with alpha between 15-17% and many are forecasting that it will replace Magnum as the main German high alpha hop.

The UK crop has been extremely variable and there have been quite a few problems. Before harvest there were two farms which had hop yards fall over in the wind and storms. Three fires have been reported, two kiln fires and one storage fire, an estimated 6,000kgs lost. Heavy rains in the first two weeks of harvest caused extremely difficult picking conditions; wet hops take much longer to dry on the kiln and therefore use more drying fuel and delay picking. They also tend to dull or redden during drying and this can lead to samples being much less attractive to the buyer. In particular the early picked varieties like Goldings have suffered more than the later maturing varieties; after the rain stopped the quality improved significantly. One positive piece of news is with the variety Bramling Cross which after a very poor year in 2007 seems to have enjoyed the colder winter and produced a good yield for 2008.

UK yields have been extremely variable. Some growers have had a good crop and have produced over and above their contracts but more often than not there has been under production and shortages. Alpha yields have also not been good with a lack of sunshine during the summer being blamed for one of the lowest alpha years in the last decade. Overall it seems that there could be shortages of some UK varieties.

In Slovenia growing conditions have been very good with normal levels of production reported. Availability is good and prices seem to be settling down. Last year's hail storms which affected the crop so badly did not reappear in the hop growing areas although worryingly in August there were violent hail storms reported only 80km away. Roof tiles were shattered such was the force of the storm. In Slovakia there were also storms and some of the acreage was damaged and this has caused a very tight supply of the Saaz variety.

The reports from China are for a good crop and it is estimated that they have produced enough alpha to cover their domestic requirements although figures from China are always very difficult to obtain.

Worldwide the new plantings will start to produce partial yields next year and come into full production the year after and with the new plantings of American hops coming on stream for 2009 there should be more than enough production. In fact, with many of the bigger breweries turning to down stream and pre-isomerised products in 2007 to cope with the shortages and with beer sales in some of the developed countries on the decline there could be a massive over production of alpha just around the corner. If this is the case let us hope that this time there is a more programmed reduction in acreage and that contracts are made to cover requirements rather than reliance on the spot market. It is amazing how quickly the pendulum of supply and demand can swing and last year certainly proved that if sensible prices are to be achieved then the security of contracts are the only way forward for both producers and their customers. ■

Harvesting in Slovenia – a much better crop this year.

Powdery mildew appearing in the Yakima valley – mid September. The hops have patches of yellow developing which is the mould taking hold in the crop. The disease spreads very quickly in the right conditions and will devastate an area of hops very quickly.