

Feast to famine?

The story of a harvest

Some harvests go quickly, some slowly. Rarely has one seemed to last an age. From the beginning of combining the first winter barley in France or Spain in June through to the imminent (as I write) Australian harvest in October we have seen the UK “cutting season” extend from July to end of September.

By **Alan Ridealgh**
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Drilling of barley in the UK was down significantly on the previous year. Any concern about available quantity was allayed by good growing conditions. A week or so before harvest confidence was high, with a good quality crop on the cards, with the possible exception of Scotland where a combination of late drilling and constant rain was causing concerns over both quality and quantity.

The signs continued to be good as harvest commenced in France with high levels of acceptability. With early harvest commencing in southern England a similar pattern was expected: good yields, low nitrogen, high acceptability.

Then it rained – and rained

Our beautiful crop dissolved before our very eyes; the golden ears turned grey, matching those leaden skies.

There were dry periods, although I cannot remember them. Through the gloom of the weather, mirrored by that of the grain trade, harvest of winter barley crept north and eventually was complete. A mixed bag resulted – Maris Otter and Gleam were superb – grain size was particularly good and levels of acceptability based on nitrogen/protein were also encouraging.



Pearl, the dominant variety, was no disaster but yields were ordinary and losses due to weather related quality parameters such as splits or pre-germination reduced the available quantity to such an extent that prices rose in an undisciplined market dominated by traders sensing the creation of a “weather market” coupled with a sadly uncontrolled short market. Table 1 overleaf shows the UK supply

*All ready and nowhere to go.
A combine harvester at Mendlesham
in Suffolk awaits an improvement
in the weather.*



*“Where’s it gone?”
A crop of Optic spring
barley dissolves before
the eyes of Muntons
Stowmarket Grain
Buyer, Mike Norfolk.*

“As I write it is still too early to make a definite statement regarding malting barley availability around the world. There are suggestions from some of the traders and brokers that there is a million tonnes of surplus malting barley. This prediction is dangerous for it does not take into account quality.”

Table 1: UK 2004 Crop Estimate AS AT 23/9/04

| | AREA (HA) | YIELD T/HA | TOTAL PRODUCTION | MALTING VARIETIES | TOTAL MALTING | SUITABILITY | AVAILABLE SUPPLY | DEMAND | SURPLUS/ (DEFICIT) |
|----------------------------|------------------|-------------|------------------|-------------------|------------------|-------------|------------------|-------------------|--------------------|
| England & Wales | | | | | | | | | |
| Winter | 359,000 | 6.2 | 2,225,800 | 65% | 1,446,770 | 45% | 651,047 | -750,000 | -98,953 |
| Spring | 323,000 | 5.4 | 1,744,200 | 75% | 1,308,150 | 50% | 654,075 | -350,000 | +304,075 |
| Scotland | | | | | | | | | |
| Winter | 60,000 | 6.2 | 372,000 | 75% | 279,000 | 20% | 55,800 | -40,000 | +15,800 |
| Spring | 264,000 | 5.5 | 1,452,000 | 80% | 1,161,600 | 65% | 755,040 | -760,000 | -4,960 |
| TOTAL SUPPLY | 1,006,000 | 5.76 | 5,794,000 | 72% | 4,195,520 | 50% | 2,115,962 | -1,900,000 | +215,962 |
| TOTAL WINTER | 419,000 | 6.2 | 2,597,800 | 75% | 1,725,770 | 41% | 706,847 | -790,000 | -83,153 |
| TOTAL SPRING | 587,000 | 5.4 | 3,196,200 | 80% | 2,469,750 | 57% | 1,409,115 | -1,110,000 | +299,115 |

Area based on HGCA survey 12.7.04

Table 2: Estimate of EU Barley Crops

| | WINTER | | | | SPRING | | | | TOTAL | | | |
|-----------------------|-------------|-------------|--------------|--------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | ACREAGE | | CROP | | ACREAGE | | CROP | | ACREAGE | | CROP | |
| (In 1,000 tons) | 2003 | 2004 | 2003 | 2004 | 2003 | 2004 | 2003 | 2004 | 2003 | 2004 | 2003 | 2004 |
| Old EU Members | | | | | | | | | | | | |
| Austria | 73 | 80 | 341 | 480 | 139 | 111 | 541 | 612 | 212 | 191 | 882 | 1092 |
| Belgium | 30 | 34 | 205 | 245 | 11 | 6 | 66 | 37 | 41 | 40 | 271 | 282 |
| Denmark | 130 | 130 | 776 | 845 | 580 | 585 | 3000 | 3072 | 710 | 715 | 3776 | 3917 |
| Germany | 1337 | 1376 | 7053 | 9581 | 750 | 617 | 3613 | 3210 | 2087 | 1993 | 10666 | 12791 |
| Finland | - | - | - | - | 530 | 564 | 1697 | 1813 | 530 | 564 | 1697 | 1813 |
| France | 1053 | 1051 | 5878 | 7277 | 697 | 581 | 3990 | 3566 | 1750 | 1632 | 9868 | 10843 |
| Greece | 105 | 112 | 242 | 298 | - | - | - | - | 105 | 112 | 242 | 298 |
| Ireland | 17 | 13 | 131 | 95 | 169 | 161 | 1022 | 1058 | 186 | 174 | 1153 | 1153 |
| Italy | 310 | 310 | 1009 | 1130 | - | - | - | - | 310 | 310 | 1009 | 1130 |
| Luxembourg | 5 | 5 | 28 | 38 | 5 | 4 | 27 | 25 | 10 | 9 | 55 | 63 |
| Netherlands | 3 | 3 | 20 | 21 | 53 | 43 | 352 | 280 | 56 | 46 | 372 | 301 |
| Portugal | 10 | 11 | 12 | 18 | - | - | - | - | 10 | 11 | 12 | 18 |
| Spain | 744 | 790 | 2022 | 2373 | 2345 | 2367 | 6676 | 7449 | 3089 | 3157 | 8698 | 9822 |
| Sweden | 7 | 6 | 40 | 30 | 356 | 393 | 1502 | 1722 | 363 | 399 | 1542 | 1802 |
| United Kingdom | 456 | 419 | 2851 | 2598 | 622 | 587 | 3518 | 3196 | 1078 | 1006 | 6369 | 5794 |
| TOTAL | | | | | | | | | | | | |
| old EU Members | 4280 | 4340 | 20608 | 25029 | 6257 | 6019 | 26004 | 26040 | 10537 | 10359 | 46612 | 51069 |
| New EU Members | | | | | | | | | | | | |
| Cyprus | 50 | 50 | 100 | 127 | - | - | - | - | 50 | 50 | 100 | 127 |
| Czech Republic | 86 | 116 | 440 | 594 | 464 | 353 | 1628 | 1862 | 550 | 469 | 2068 | 2356 |
| Estonia | - | - | - | - | 132 | 135 | 263 | 256 | 132 | 135 | 263 | 256 |
| Hungary | 181 | - | 445 | 735 | 168 | 339 | 380 | 735 | 349 | 339 | 825 | 1470 |
| Latvia | - | - | - | - | 139 | 140 | 247 | 273 | 139 | 140 | 247 | 273 |
| Lithuania | - | - | - | - | 309 | 306 | 900 | 833 | 309 | 306 | 900 | 833 |
| Poland | 106 | 142 | 228 | 728 | 910 | 926 | 2603 | 2680 | 1016 | 1068 | 2831 | 3408 |
| Slovakia | 20 | 19 | 150 | 86 | 220 | 205 | 682 | 834 | 240 | 224 | 832 | 920 |
| Slovenia | 14 | 16 | 39 | 68 | - | - | - | - | 14 | 16 | 39 | 68 |
| TOTAL | | | | | | | | | | | | |
| new EU Members | 457 | 343 | 1402 | 2338 | 2342 | 2404 | 6703 | 7473 | 2799 | 2747 | 8105 | 9811 |
| TOTAL | 4737 | 4683 | 22010 | 27367 | 8599 | 8423 | 32707 | 33513 | 13336 | 13106 | 54717 | 60880 |

Table 3: Nitrogen content of main UK varieties (%)

| | 2003 | 2004 | 2001 – 2003 3 YEAR AVERAGE |
|-------|------|------|-------------------------------|
| Optic | 1.64 | 1.66 | 1.69 |
| Pearl | 1.86 | 1.85 | 1.79 |

Table 4: Grain size of main UK varieties (retained on a 2.50mm screen) %

| | 2003 | 2004 | 2001 – 2003 3 YEAR AVERAGE |
|-------|------|------|-------------------------------|
| Optic | 89.2 | 93.5 | 89.0 |
| Pearl | 89.4 | 90.5 | 90.5 |

Table 5: Moisture content of main UK varieties (%)

| | 2003 | 2004 | 2001 – 2003 3 YEAR AVERAGE |
|-------|------|------|-------------------------------|
| Optic | 14.2 | 16.0 | 15.2 |
| Pearl | 14.7 | 14.9 | 14.6 |

and demand estimation.

Europe continued to report good results. The French and German spring crops were yielding at record levels. Grain quality was excellent. Germany would need a much reduced import amount and as a result European prices fell. This fall just about kept a lid on the UK ex-farm prices, especially as the huge spring crop potential throughout England and Scotland was yet to be realised. Table 2 illustrates the European crop situation including details of the “new” countries.

Again it rained – and rained

Further attempts to force the prices up were defeated by the known French and German crops plus the as yet unrealised potential crops from Denmark, Canada and Australia.

At this point we began to have a little harvesting of spring barley in Eastern England. Surprisingly, although a little weathered, many barleys were actually very good! The market again stabilised. This showed signs of changing when horror stories began appearing from Canada as poor weather delayed harvest.

The harvest reports filter in

Once again the market tried to wobble upwards but was stopped by good news from Scotland where harvest results were much, much better than expected. Information from Denmark however was not good – low yields and variable quality. And then the excitement was over. Or so we thought. Australian information is rarely transparent – sorry chaps, the truth can hurt – and it became apparent that estimates of the barley crop touted to be near record levels in

August and September fell and fell until some sour souls are now wondering if the exportable surplus will be as low as 1.2 million tonnes. It was forecast originally at 2.4 million tonnes.

The Home Grown Cereals Authority carries out a quality survey of the UK crop every harvest. Tables 3, 4 and 5 show the results from this exercise in terms of nitrogen, grain size and moisture. This shows that the two main varieties performed very similarly to last year in terms of nitrogen, with a better grain size. It is not surprising to see that moisture levels for the spring crop – as shown by Optic in particular – were higher.

There have been several attempts at estimating the total United Kingdom crop size. Table 6 shows four such estimates, including the “official” figures from the Environment, Farming and Rural Affairs, major UK grain traders Allied Grain and the National Farmers Union. With the exception of the NFU, the figures show for the first time that the UK crop has fallen below six million tonnes.

It is fully expected that this reducing trend will continue. The demand for malting barley is around 1.9 million tonnes. Given that the requirements for feed barley and seed remain constant, then total supply is going to become tight, worsened by the fact that only around 70% of the crop is of malting varieties and that suitability will be unlikely to exceed 50%. The Muntions view is that the crop size for barley has been over-stated in other estimates probably due to the higher grain moistures in the spring

crop exaggerating yield. A barley crop size of 5.79 million tonnes “feels” nearer the truth.

At the same time better news filtered through from Canada but only in regard to quantity not quality. Table 7 shows Canadian crop development.

As I write it is still too early to make a definite statement regarding malting barley availability around the world. There are suggestions from some of the traders and brokers that there is a million tonnes surplus malting barley in the world. This prediction is dangerous for it does not take quality into account. This is reinforced by recent news that 150,000 tonnes of European spring barley has been sold to maltsters in South America – who traditionally are buyers of Canadian malting barley.

In summary it seems that Australia will have only just enough material to meet normal demand. Canada can supply into the low-grade markets but not to customers with a higher quality demand such as is needed by the “branded-brewers” of the world. This leaves only Europe as a cushion. In practice this means France in terms of good quality and Denmark/Sweden for average material. These supplies could become limited as time progresses.

So a year of forecast surplus becomes a year of just enough.

What about the new varieties?

As barley prices remain at levels that farmers consider unsustainable it becomes very important to look at up and coming varieties in the hope that farmers incomes can be boosted by better yields rather than straight forward market values. With winter

Table 6: Estimate of UK crop size 2004

| | BARLEY | WHEAT |
|--------------|--------|-------|
| DEFRA | 5.86 | 15.70 |
| ALLIED GRAIN | 5.83 | 15.76 |
| NFU | 6.05 | 15.84 |
| MUNTONS | 5.79 | 15.85 |

Table 7: Canada malting barley (2004)

| | AREA '000 (HA) | PRODUCTION '000 (T) |
|---------------------|----------------|---------------------|
| Alberta | 2023 | 5813 |
| Manitoba | 449 | 1393 |
| Saskatchewan | 1983 | 4844 |
| Three-Provinces | 4456 | 12051 |
| Other Provinces | 318 | 989 |
| TOTAL CANADA | 4774 | 13040 |

barleys in the United Kingdom there has been a significant recent trend of decline.

Farmers consider winter barley, which is predominately a crop of England, an expensive luxury. There is a place for the crop with some growers as it enables them to spread harvest workload whilst also providing an entry for oil seed rape. However, neither of these two reasons should be why farmers grow winter barley; they should grow the crop because the income is satisfactory first and foremost.

Evaluation

The process of varietal evaluation is co-ordinated by Crop Evaluation Limited, takes into account the views of the IoB – now administered by the Maltsters Association of Great Britain and ultimately leads to Recommendation. Many promising varieties fail to make the final grade for various reasons including weaknesses compared with existing varieties for disease resistance, agronomic yield and malting quality. It can be seen from Table 8 that there are very few new winter malting varieties. Flagon is the only current one. Breeders no longer see returns for a major programme of development of this crop.

However, breeders have no such reluctance to develop spring barley. Their goal is to produce pan-European varieties hence ensuring a return on the considerable capital required for the development process. As can be seen from Table 9 there are several potential new malting varieties for the future. It must be stressed that commercial quantities of these varieties are still several years away. It is clear, for example, that should Tipple become accepted as a malting variety then the advantages over Optic in terms of yield will make this variety popular with growers. ■



● **Author**

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● Source for all of the tables: Muntons, Allied Grain, Gleadell Agriculture, DEFRA, NFU, HGCA, Mautner.

Table 8: Winter barley yields treated as % mean of controls (Pearl, Regina, Carat, Cannock and Siberia)

| 2-ROW | | | |
|----------------------------|-------------------|------------|---------------------|
| | TYPE | 2004 MEAN | 5-YEAR MEAN 2000-04 |
| Saffron # | Feed | 107 | 106 |
| Spectrum # | Feed | 104 | 102 |
| Cannock | Feed | 102 | 102 |
| Camion | Feed | 102 | 102 |
| Flagon # | Potential Malting | 101 | 102 |
| Nocturne # | Feed | 101 | 100 |
| Aquarelle | Feed | 101 | 98 |
| Rattle # | Feed | 100 | 101 |
| Kingston | Feed | 100 | 100 |
| Carat | Feed | 100 | 99 |
| Pearl | Malting | 98 | 98 |
| Scylla | Feed | 97 | 100 |
| Haka | Feed | 97 | 98 |
| Regina | Malting | 96 | 96 |
| Control mean (t/ha) | | 8.7 | 8.2 |

= candidates for Recommendation

Table 9: Spring barley yields treated as % mean of controls (Cellar, Optic, Chalice, Static and Rivera)

| | TYPE | 2004 MEAN | 5-YEAR MEAN 2000-04 |
|----------------------------|---------|-------------|---------------------|
| Wicket # | Feed | 112 | 111 |
| Tocada # | Feed | 111 | 111 |
| NFC Tipple # | Malting | 110 | 109 |
| Rebecca | Feed | 110 | 104 |
| Waggon # | Feed | 110 | 111 |
| Minstrel # | Malting | 107 | 106 |
| Henley # | Malting | 106 | 106 |
| Westminster # | Malting | 106 | 105 |
| Doyen | Feed | 106 | 106 |
| Spire | Feed | 106 | 106 |
| Cocktail | Malting | 106 | 106 |
| Oxbridge # | Malting | 106 | 107 |
| Power # | Feed | 105 | 108 |
| Toucan # | Malting | 105 | 105 |
| Kirsty | Feed | 104 | 103 |
| Troon | Malting | 102 | 102 |
| Macaw # | Malting | 102 | 104 |
| Cellar | Malting | 101 | 101 |
| Static | Feed | 101 | 102 |
| Carafe | Malting | 100 | 101 |
| Chalice | Malting | 100 | 99 |
| Riviera | Feed | 100 | 100 |
| Decanter | Malting | 99 | 98 |
| Optic | Malting | 98 | 99 |
| Prestige | Malting | 97 | 100 |
| Control mean (t/ha) | | 6.48 | 6.79 |

= candidates for Recommendation



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