GB Harvest Report

w/e 14 August 2018

Overview – Week 6- WE 14 August 2018

This Harvest Report has been prepared by ADAS for AHDB Cereals & Oilseeds, using data supplied by regional reporters (mostly independent agronomists). The approach used is consistent with previous years, allowing comparison of data and provides a snapshot of harvest progress throughout the harvest season. It should be noted that national average cereal yields are adjusted to a moisture content of 14.5%. However, the high temperatures and lack of rainfall have meant that in reality most early-harvested grain was being harvested with lower moisture levels (12-13%), meaning that actual yields are slightly lower than reported. The regional ranges presented are based on the combine yields at the time of harvest.

The high temperatures and dry conditions seen during the previous week continued into the start of WE 14/08, allowing for uninterrupted harvest progress. However, 09/08 saw a shift to lower temperatures and more unsettled conditions, with heavy showers and sustained rainfall affecting most of GB. Therefore, harvest progress has been suspended from 09/08 onwards in the majority of regions. As of 14/08, 75% of the total GB cereal and oilseed crop area had been harvested, which is at least a week ahead of harvest progress at the same point over the last five years.

Generally, grain quality continues to be good, with yields better than expected in many areas, given the challenging growing conditions experienced this year. In particular, yields on heavier soils – where moisture retention has been higher – have exceeded expectations. Elsewhere on lighter land, yields are largely dependent on levels of rainfall over the last few months and have suffered in some parts. Overall, after a challenging growing season, yields are on par with or slightly below the GB five year average. There has been minimal need for grain drying across most English regions, as farmers have tended to wait from crops to dry before resuming harvest after rain. However, in Scotland 15-20% of grain has required drying.

Further to comments last week about issues with high grain temperatures for storage, the lower air temperatures have been welcomed by farmers looking to cool their grain stores and should help improve storage conditions. Likewise, recent rainfall has helped reduce the fire risk, which had been extremely high until now.

Weather

After a warm and dry start to the week, a band of heavy, thundery showers and periods of prolonged rainfall moved across GB, with 49mm falling in the South East on 10/08 and 79mm in the North West on 12/08, according to the AHDB weather hub, conditions were drier in the Midlands and Yorkshire. Mean rainfall for WE 14/08 was 19mm. Compared to the previous week, air temperatures were markedly cooler, with average temperatures remaining below 20˚C for the week and under 10˚C in many parts of Scotland.

Winter wheat

GB winter wheat harvest is now 80% complete, with harvest progressing rapidly during the first half of WE 14/08 with ~412Kha cut during the first part of the week, but in most regions heavy rain halted harvest from 09/08 onwards. Progress continues to be ahead of the last five harvests, with harvest at this stage in 2014 at 55% complete.

Winter wheat harvest is drawing to a close in southern England, with 99% of crops harvested in the South East along with 93% of crops in the South West. Good progress has also been made in the West Midlands with 93% of crops harvested. Elsewhere, 89% of crops have been cut in the Eastern region along with 85% in the East Midlands. Further north, 80% of the wheat area has been harvested in the North West and 72% in the North East. There has been less progress in Yorkshire & Humberside (59% harvested), Wales (50% harvested) and in Scotland where 26% of winter wheat has now been cut.

Yields

The current national average estimated wheat yield is 7.7-8.0t/ha (adjusted to 14.5% moisture), which is below the GB 5 year average yield for wheat (8.2t/ha). However, yields remain highly variable with a range of up to 7t/ha between fields on the same farm. Across GB, farm yields continue to range from 2.5t/ha on the lightest land, through to an excellent 15.0t/ha on a silt soil in Lincolnshire. As with last week, coastal areas that benefited from slightly lower temperatures and a little more rainfall earlier in the season are producing slightly better yields than more central locations. Light lands have continued to provide lower yields - typically 7.5t/ha, although dropping to 2.5-5.0t/ha on the lightest land. Heavier land, which has held moisture longer, is typically yielding 7.5-8.2t/ha, with occasional crops yielding 11.5+t/ha.

Quality

The quality specification for high quality bread wheat (group 1) is specific weight ≥ 76kg/hl, Hagberg falling number (HFN) ≥ 250 seconds, protein ≥13%. The

requirements for medium quality bread wheat (group 1 & 2) are specific weight ≥ 74kg/hl, HFN ≥ 180 seconds and protein ≥ 11.5%.

Winter wheat quality continues to meet specification, with the clear dry conditions during harvest meaning that crops continue to be harvested when ripe. Recent rain has yet to have an impact on quality. Mycotoxin levels also remain low. Protein levels are adequate or slightly elevated.

- Specific weight – average 76kg/hl (typical range 73-78kg/hl). Specific weights are variable with light land crops dropping to 70kg/hl, whilst some crops on heavier land have had specific weights up to 80kg/hl.
- Hagberg Falling Number – typically HFNs are >300 seconds.
- Grain protein – variable. Typically 12.4-13.5%, although on occasional crops there continue to be reports of up to 15.0%.
- Moisture – minimal drying required in most English regions, but 15-20% of crops have required drying in Scotland, due to higher moisture levels. In first half of WE 14/08, the dry conditions at harvest have meant that grain continued to come in at moisture levels below 14.5%. Therefore, driers have not been needed, apart from to blow cool air through hot grain to help the cooling process. The low moisture content of grain at harvest is a challenge for some end users, it also means that yields will be slightly lower than normal due to the lower moisture content of the grain.

Spring wheat

As of WE 14/08, just under 20% of the GB spring wheat has been harvested, mainly in the South West (44% harvested), West Midlands (30% harvested) and South East (25% harvested). Small areas (<5%) have been cut elsewhere.

Data is limited at this point, but there are no reports so far of any quality issues. As with other crops, reports point to soil type and moisture availability as playing a key role in determining the yield, although at this stage it is too early to produce a GB yield estimate.

Winter barley

Harvest of winter barley is now complete. This puts harvest completion just ahead of the 2014 harvest and in line with completion in 2017. In the later harvests of 2015 and 2016 about 90% of the GB area had been harvested by this stage in August.

Yields

The current GB yield estimate for winter barley is 6.8-7.0t/ha (adjusted to 14.5% moisture) which is in line with the GB five year average of 6.9t/ha. The latest 2018 AHDB recommended list trial harvest results for winter barley are showing yields slightly better than average. Regional average yields currently range from 5.6-7.5t/ha, although there is a great deal of variability within and between farms.

As with last week, yields in southern and eastern England, Scotland and Wales continue to be close to the GB five year average, with the best yields occurring on heavier land, due to better moisture retention – although where there has been poor drainage, heavier soils have impeded yields. Here yields of 8.0t/ha have been produced by conventional varieties and 9.0t/ha on hybrid varieties, rising to 11.0t/ha for the best crops. In these regions, some areas of light land have delivered yields of about 6.0t/ha, as most of the yield building had already occurred by the time drought set in. However, in the Midlands, northern and western England yields are still tending to be slightly below the GB five year average, where yields as low as 3.1/ha have been reported.

Quality

The majority of malting varieties are meeting specification, and quality overall is good although grain nitrogen is higher than ideal. There have been reports of pink straw seen in stubble in many regions during this harvest – most recently in Scotland - where crops have been particularly affected by drought.

- Specific weight – averaging 64kg/hl (regional range 61-69kg/hl). Specific weights have been variable this year, with reports of low specific weights occurring on farms with very light land (especially in the Eastern region), on the heavier land specific weights are better, but they still tend to be slightly below normal for the farm. There have been occasional reports of specific weights up to 70kg/hl.
- Grain nitrogen (malting varieties) – average 1.6%, regional range from 1.4-1.8%. Grain nitrogen levels tend to be lower in the north (1.4-1.5%) and higher in the south 1.6-1.8%.
- Screenings – typical reports are around 2%-10%. Screening levels are within tolerance, although concerns over potential quality issues in spring barley have meant some merchants are adjusting their tolerances to make the most of the winter barley crop that is available.
- Moisture – typical moisture content 14.0%, but ranging from 12% in the south to 16% in Scotland, minimal drying required, except to manage very small areas of grain from tramlines or very sheltered areas. Drying has been necessary in Scotland, due to wetter conditions than the rest of GB.
- Germination – typically around 98%.

Spring Barley

Spring barley harvest started in earnest in WE 31/07 and has continued throughout the last few weeks. As of WE 14/08, just under 35% of the national area has been harvested, with ~133Kha cut during this seven day period. Compared to previous years, 2018 harvest progress is currently slightly behind 2014, although ahead of other harvests over the last 5 years. Spring barley was planted in two main planting windows in 2018, which means that spring barley crops vary greatly in their maturity, meaning that not all crops are yet ready for harvest.

As of WE 14/08, just over 70% of the spring barley area had been harvested in the South East, with 63% cut in the West Midlands and 58% in the Eastern region. Less progress has been made in the South West at 48% of the crop area and the North West with 40% of the area harvested. In Yorkshire & Humberside and the East Midlands, 27% of the crop has been harvested. Elsewhere, 9% of the crop area has been cut in Scotland, 7% in Wales and 5% in the North East.

Yields

Yields have been variable, depending on the soil type and how much rainfall the field received over the last few months. Due to this variation, the average yield this week is 5.1-5.5t/ha. In the South East and South West yields remain close to average, whilst in the Eastern region yields are about 5% down, mainly due to high screenings and combine losses. Crops from the Midlands have also shown below average yields, falling as low as 2.5t/ha in some western areas with poor establishment.

Quality

Overall, indications that quality is better than expected - given the growing conditions - and generally grain is of good quality, although grain nitrogen levels are a little on the high side. There are reports of severe lodging in crops in South West Scotland, elsewhere this has not been a major issue.

- Specific weight – averaging 65 kg/hl (regional range 60-67 kg/hl).
- Grain nitrogen (malting varieties) – average 1.7%, regional range from 1.5-2.0%. Reports of considerable variation within regions.
- Screenings – typical reports are around 2%-10%, although there have been reports of screenings of up to 20% in the West Midlands.
- Moisture – average 14.0% - minimal drying required.
- Germination – insufficient data at this point.

Oats

Harvest of oats is just over 75% complete, with ~31Kha harvested in the WE 14/08. Harvest of both spring and winter varieties is now complete in the East Midlands, Eastern region and South West. Oat harvest is also nearing completion in the South East (99% complete), North East (98% complete) and West Midlands (94% complete). Progress has been slower in Scotland with 25% harvested and Yorkshire & Humberside with 22% of the area harvested. In Wales the main oat harvest has yet to get fully underway due to weather delays, with 8% of the area harvested.

Harvest progress is now almost 20% ahead of the same point in 2014, which is the earliest recent harvest (last 5 years). In 2015-17 harvest of oats did not start until the first week of August.

Yields

The estimated 2018 oat yield (winter and spring varieties) is 5.2-5.4t/ha, which is below the five year average of 5.7t/ha, which includes both winter and spring varieties.

Winter oat yields range from 5.1t/ha on the lighter land through to 8.5t/ha on the heavier land, although this has reached 9.0t/ha on occasional fields in the North East. Spring oat yields range from 4.5t/ha on light land to 6.5t/ha on heavier land.

Quality

- Specific weight – averaging 56kg/hl, specific weights are better in the west, with the South West reporting averages of 64kg/hl and early figures from Wales of 68kg/hl, whilst in the Eastern region the specific weights are averaging 51kg/hl.
- Moisture – Current average 13% - minimal drying required. Moisture content ranges from 12-15% - with higher moisture contents reported in northern regions.

Winter oilseed rape

GB Winter oilseed rape harvest is now complete in England and Wales, with 93% of the crop harvested in Scotland. Overall, 95% of the GB oilseed rape area has now been harvested. Progress has remained ahead of the last five years for much of harvest. However, due to recent weather delays in Scotland, harvest progress has slowed and is now behind the early harvests of 2014 and 2017.

In previous weeks, in some cases it had been necessary to harvest at night in an attempt to avoid pod shattering due to the very dry conditions. However, due to higher moisture levels in Scotland, this has been less of an issue for the remaining oilseed rape area.

Yields

The estimated current average yield for winter oilseed rape is 3.3-3.5t/ha, which remains slightly below the GB five year average of 3.5t/ha. This is in line with the results from the AHDB Recommended List, where the control mean was below the three year average. (It should be noted that 2015 and 2017 both had high average yields and therefore the three year average yield is higher than the 5 year average). Yields are highly variable with light land yields continuing to drop as low as 1.5-2.0t/ha, whilst on heavier land the yields continue to range from 3.5-5.0t/ha. Cooler coastal areas continue to yield more consistently across the soil types than the warmer inland areas. Reports point to considerable variation of up to 3.5t/ha within regions. In many cases the low seed moisture content has reduced yields further.

Quality

- Oil content – occasional reports of low oil contents, but most crops are averaging 44%.
- Specific weight – no issues reported.
- Moisture - very dry conditions mean moisture levels are low and no drying has been necessary in most cases - although some growers in the North West have had to make use of dryers for seeds at 11% moisture, after combining plants with green stems. Average moisture levels are around 7-8%.