

Overview – Week 5- WE 07 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%, the impact of this adjustment on all cereal crops is c.+0.1t/ha.

However, the high temperatures and lack of rainfall have meant that in reality most grain is 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.

After the thunderstorms in the WE 31/07, the WE 07/08 was largely fine and dry across the main GB arable area. Rainfall during the previous week meant that in most regions combining had to wait until 01/08 for moisture levels to drop back down to an acceptable level.

However, the warm temperatures and lack of subsequent rainfall during the WE 07/08 have meant that harvest has been able to progress without any disruption from 01/08 onwards, with combines running for 12+ hours per day in some areas. As a result, overall progress in harvest 2018 remains ahead of this point over the last five years, including the early harvest of 2014, with just over half of the GB cereal and oilseed area harvested to date.

Generally, grain quality has been good, with high protein levels. However, low rainfall and high temperatures have meant that many cereal crops are being harvested at 12-13% moisture. This can provide challenges for end users, with a need to add moisture before the grain is used. After a challenging growing season, yields are on par with or slightly below the GB five year average.

The speed with which harvest is progressing means that where grain is being stored off farm, in some cases transport availability has not been able to keep up and harvest has had to pause until sufficient lorries become available to transport the grain.

Likewise, reports continue of grain being brought in at temperatures of up to 30°C, with farmers struggling to cool this sufficiently for storage. Now that grain stores are being filled to greater depths, concerns are mounting about pest issues due to the

high grain temperatures. As with previous reports, the fire risk also remains high in all regions.

Weather

After the thunderstorms in WE 31/07, WE 07/08 saw fine and dry weather return across GB, with sustained high temperatures and almost no rainfall recorded apart from occasional light showers in Scotland and northern regions. According to the AHDB weather hub, mean rainfall for WE 07/08 was 3mm, with temperatures remaining high throughout the week, reaching 32°C in the South East on 03/08.

Winter wheat

GB winter wheat harvest is just under 60% complete. Harvest of winter wheat continues to progress rapidly in the dry conditions, with just under 580Kha harvested during WE 07/08. Progress continues to be ahead of the last five harvests, with harvest at this stage in 2014 at 30% complete.

Winter wheat harvest is drawing to a close in southern England at 88% complete in both the South West and South East, with the Eastern region at 75% complete. Elsewhere, the dry weather has allowed harvest to progress swiftly, with 63% of crops harvested in the West Midlands and 52% in the East Midlands. An early start to harvest has been made in the more northern regions with 21% of the crop harvested in Yorkshire & Humberside and 12% in Wales. Only occasional fields have been harvested in the North East and Scotland.

Yields

There is a great deal of uncertainty around wheat yields at this stage in harvest, with large amounts of variability between heavy land and light land affecting the assessment.

Based on early yields from the English regions the current average estimated wheat yield is 7.7-8.0t/ha, below the GB 5 year average yield for wheat (8.2t/ha). The national average yield has been adjusted to 14.5% moisture to allow for comparison with historical data. The impact of this adjustment on the national yield estimate is +0.1t/ha.

Yields have been highly variable with light lands tending to have provided lower yields typically 7.5t/ha, although yields have been seen to drop to 2.5-5.0t/ha on the lightest land. Heavier land, which has held moisture longer, is yielding 8.0-8.2t/ha, with occasional crops yielding 11.5-15.0t/ha. Even on farm, yields have been variable with up to a 7t/ha yield difference between fields. Coastal areas that have benefited

from slightly lower temperatures and a little more rainfall are producing slightly better yields than more central locations.

With an increased volume of feed wheats harvested in the WE 07/08 there have been some better yields reported, with heavy land yielding up to 11.5t/ha in the South East.

Quality

The quality specification for high quality bread wheat (group 1) is specific weight ≥ 76 kg/hl, Hagberg falling number (HFN) ≥ 250 seconds, protein $\geq 13\%$. The requirements for medium quality bread wheat (group 1 & 2) are specific weight ≥ 74 kg/hl, HFN ≥ 180 seconds and protein $\geq 11.5\%$.

There have been no real issues with grain quality and the clear dry conditions during harvest mean that crops have been harvested when ripe, with no weather delays. Therefore, there has been no indication of quality dropping off due to delays at this stage. Mycotoxin levels are also low due to the dry conditions.

Protein levels are on the high side.

- Specific weight – average 76 kg/hl (typical range 74-78 kg/hl). Specific weights are variable with light land crops dropping to 70 kg/hl, whilst some crops on heavier land have had specific weights up to 80 kg/hl.
- Hagberg Falling Number – typically HFNs are >300 seconds.
- Grain protein – typically 13.0-13.5%, although on occasional crops there have been reports of up to 15.0%.
- Moisture – minimal drying required, except to manage very small areas of grain from tramlines or very sheltered areas. The dry conditions at harvest have meant that grain is frequently coming in at moisture below 14.5%, with occasional moisture as low as 12% on the hottest days. This has meant that driers have not been needed, except in situations where they can be utilised to blow cool air through hot grain to help the cooling process.

Winter barley

Harvest of winter barley is 99% complete – with approximately 14Kha harvested in the last week. As of 07/08 there remained small areas left to harvest in Scotland (93% harvested), as well as occasional fields in Yorkshire and Wales.

This puts harvest progress just ahead of that achieved at the same point in time in any of the last five years. The early harvest of 2014 saw 95% of the winter barley area harvested by the end of week 5 (WE 07/08) and 91% in 2017. In the later harvests of 2015 and 2016 between 50-60% 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. Regional average yields currently range from 5.6-7.5t/ha, although there is a great deal of variability within and between farms.

Yields in southern and eastern England, Scotland and Wales are tending to be close to historical averages, with the best yields occurring on heavier land, due to better moisture retention. Here yields of 8.0 t/ha are common on 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.

In the Midlands, northern and western England yields are tending to be slightly below the farm average, especially on lighter land crops, where yields as low as 4.9t/ha have been reported.

Quality

The majority of malting varieties are meeting specification, and quality overall is good. 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 65kg/hl (regional range 61-68kg/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 over the last week with just under 20% of the national area harvested to date. There were just under 119Kha harvested during WE 07/08.

Compared to previous years, 2018 harvest progress is currently slightly behind this point in 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 will be ready for an early harvest.

As of WE 07/08, just under 40% of the spring barley area had been harvested in the South West and Eastern region. Good progress had also been made in the South East and West Midlands, with just under 35% harvested. A start to harvest was also made in Yorkshire, the East Midlands and parts of the North West. The main harvest has yet to start in Wales, Scotland and the North East, with just the occasional field cut there.

Yields

Initial yields are based on early harvested (and therefore often early planted) crops from southern and central England, and will therefore be subject to change as the later planted and more northern crops ripen for harvest.

In the South East and South West yields have been close to average, whilst in the Eastern region yields are about 5% down. Early harvested crops from the Midlands have also shown slightly below average yields. The current yield estimate for spring barley based predominantly on these locations is 5.3-5.7t/ha, compared to a GB 5 year average yield of 5.8 t/ha.

Quality

Only limited quality data is available at this stage in harvest, and again this data comes mostly from the south and east, but overall early indications are good, although grain nitrogen levels are a little on the high side.

- Specific weight – averaging 65 kg/hl (regional range 60-67 kg/hl).
- Grain nitrogen (malting varieties) – average 1.7%, regional range from 1.5-1.8%. Reports of considerable variation within regions.
- Screenings – typical reports are around 2%-10%, although there have been odd reports of screenings of up to 20%.
- Moisture – average 14.0% - minimal drying required.
- Germination – insufficient data at this point.

Oats

Harvest of oats is just under 60% complete, with just under 26Kha ha cut during WE 07/08. It is still predominantly winter varieties that have been harvested at this stage, although harvest of spring varieties is now underway. Harvest progress is now roughly 10% 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.

As of WE 07/08, oat harvest is complete in the South West, with 90% of oats cut in the South East and 86% in the West Midlands. Elsewhere, 80% of oats have been harvested in the North West, 77% in the Eastern region and 58% in the North East. Progress has been slower in the East Midlands (20%) and Yorkshire & Humberside (10%), with harvest only just starting in Wales (6%) and Scotland (3%).

Yield

The GB five year average yield for oats is 5.7t/ha, which includes both winter and spring varieties. The estimated oat yield (winter and spring varieties) is 5.1-5.3t/ha, which is slightly below the five year average.

Winter oat yields have ranged from 5.1t/ha on the lighter land through to 8.2t/ha on the heavier land, although this has reached 9.0t/ha on occasional fields in the North East. Early spring oat yields currently range from 4.5t/ha on light land to 6.5t/ha on heavier land.

Quality

Quality data is based predominantly on winter varieties harvested in the southern half of England, and is therefore subject to change as the spring crops start to be analysed.

- Specific weight – averaging 56kg/hl, specific weights are better in the west, with the South West reporting averages of 64kg/hl, whilst in the Eastern region the specific weights are averaging closer to 51kg/hl.
- Moisture – Current average 12.4% - minimal drying required. Moisture content ranges from 12-15% - with higher moisture contents reported in the Midlands compared to the South.

Winter oilseed rape

GB Winter oilseed rape harvest is about 90% complete, with an estimated 81Kha harvested in the last week. Harvest progress has remained ahead of the last five years for much of harvest; however, the end of harvest is now in line with the early harvests of 2014 and 2017. Rate of progress is now being dictated by the availability of ripe crops in Scotland and northern England.

At a regional level, harvest is complete in the North West, East Midlands, West Midlands, Eastern, South East and South West. The largest areas of crops left to harvest are in Scotland (~25Kha), the North East (~8Kha) and Yorkshire (~5Kha).

As with previous weeks, in some cases it has been necessary to harvest at night in an attempt to avoid pod shattering due to the very dry conditions. Concerns continue over seed moisture levels, which if harvested in the heat of the day have been coming in very low.

Yields

The estimated current average yield for winter oilseed rape is 3.3-3.5/ha, which is slightly below the GB five year average of 3.5t/ha.

Yields are highly variable with light land yields continuing to drop as low as 1.5-2.0 t/ha, whilst on heavier land the yields continue to range from 3.5-5.0 t/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.

Quality

The high temperatures and low moisture have caused much of the oilseed rape area to ripen rapidly, leading to reports of red or brown seed.

- 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%.