

## Overview – Week 8- WE 28 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 unusually warm and dry conditions experienced during the first half of harvest were replaced in WE 21/08 by cooler, unsettled conditions with spells of heavy rain, which continued throughout WE 28/08 too. Although harvest has been able to continue during drier periods, there has been widespread disruption as a result of the rain, meaning that progress has slowed compared to previous weeks.

As of 28/08, 91% of the GB cereal and oilseed area has been harvested. Despite recent disruption, this remains ahead of progress in the last five years.

Despite the challenging growing conditions experienced this year, grain quality continues to be good, with yields better than expected in many areas. In particular, yields on heavier soils – where moisture retention has been higher – continue to exceed 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.

Although harvest has been disrupted by rainfall over the last two weeks, there has been minimal need for grain drying across most English regions, as farmers have tended to wait for crops to dry before resuming harvest after rain. However, the exception to this is in Scotland and Yorkshire & Humber, where almost all grain has needed drying in some cases.

Further to comments in previous weeks 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 mid-August.

## Weather

The start of WE 21/08 saw the unusually warm and dry conditions experienced during the first half of harvest replaced by cooler, unsettled conditions, bringing regular spells of rainfall across all regions, some of which has been heavy at times. According to AHDB WeatherHub, WE 21/08 saw mean weekly rainfall of 16mm, which is broadly in line with the long-term average for this time of year. Northern and western regions saw the most of the rainfall, although all regions saw regular showers.

Unsettled conditions remained during WE 28/08, with a mean rainfall of 22mm. Again, the wettest weather tended to be in northern and western regions, although heavy rainfall in the South East on 26/08 saw 34mm fall in London and the South East.

## Winter wheat

GB winter wheat harvest is now 96% complete, with recent rainfall having slowed down the rapid progress made in previous weeks. Winter wheat harvest is now complete in the West Midlands, Eastern region, South East and South West, with the last few fields still left to cut in the East Midlands. Elsewhere, harvest is 90% complete in Yorkshire & Humberside and 94% in the North East. Good progress has been made in Scotland over the last two weeks, with winter wheat harvest now 75% complete. However, due to wet conditions in Wales, minimal harvesting has been able to take place and progress remains at just under 60%.

Overall, winter wheat progress continues to be ahead of the last five harvests, with harvest at this stage in 2014 at 87% complete.

## Yields

The current national average estimated wheat yield remains at 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 still 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  $\geq$  76kg/hl, Hagberg falling number (HFN)  $\geq$  250 seconds, protein  $\geq$  13%. The requirements for medium quality bread wheat (group 1 & 2) are specific weight  $\geq$  74kg/hl, HFN  $\geq$  180 seconds and protein  $\geq$  11.5%.

Winter wheat quality continues to meet specification, although there are reports of sooty molds developing in ripe crops in Scotland that have not been cut due to wet weather. Overall, mycotoxin levels still 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 – continues to be variable. Typically 12.4-13.6%, although on occasional crops there continue to be reports of up to 15.0%.
- Moisture – most crops are at 15% and despite the frequent showers, most grain harvested during WE 21/08 and 28/08 has generally not required drying. However, there are reports of crops in Scotland starting to come in at up to 20% moisture due to rainfall, most of which has required drying.

### Spring wheat

As of WE 28/08, just over 70% of the GB spring wheat area has been cut, with harvest now complete in the South West and nearing completion in the West Midlands (99%). Good progress has also been made in the Eastern region – in between showers – with 93% of the spring wheat area harvested, with slower progress in the East Midlands (65% harvested) and the North West (15% harvested).

## Yields

Based on available data, initial reports give yields of 5.0-6.0t/ha, although there are reports of yields of up to 7.5t/ha on fields with very moisture retentive soil. Due to challenging establishment conditions, followed by a lack of rainfall in late spring and early summer, yield patterns are closely linked to soil type and available moisture.

## Quality

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

Initial reports show that spring wheat quality continues to meet milling specification and protein levels are adequate or slightly elevated. Generally, quality is very dependent on soil type and sowing date.

- Specific weight – average 75kg/hl (typical range 72-80kg/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, particularly in the Eastern region.
- Hagberg Falling Number – based on available data, HFNs are slightly below 300 seconds.
- Grain protein – based on available data, typically 13%, although slightly higher in the South West.
- Moisture – based on available data, most crops are at 15%, although this is higher in northern and western regions that have seen more rainfall. Drying has generally not been necessary apart from in Scotland and Yorkshire & Humber.

Winter barley

Harvest of winter barley was completed in week 6 (WE 14/08), which is just ahead of the 2014 harvest and in line with completion in 2017. In the later harvests of 2015 and 2016, winter barley harvest was not complete until WE 28/08.

## 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.

As with previous weeks, 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, with yields as low as 3.1/ha reported.

## Quality

The majority of malting varieties continue to meet 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

As of 28/08, just under 70% of the national area has been harvested, with harvest now complete in the South West as well as the Eastern region and nearing completion in the South East (90% harvested) and West Midlands (89% harvested). Good progress has also been made in the East Midlands (86% harvested), Yorkshire & Humber (83% harvested) and the North West (70% harvested). In Scotland (34% harvested) and Wales (14% harvested) progress has been slower, with the main harvest yet to get underway in the North East (10% harvested).

## 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 average or slightly better than expected, although grain nitrogen levels are a little on the high side and screenings have also been high. There are reports of severe lodging in crops in South West Scotland, elsewhere this has not been a major issue.

- Specific weight – averaging 64 kg/hl (regional range 60-66 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 several regions, particularly on lighter soils.
- Moisture – average 15.0%. The majority of crops required drying in Scotland and Yorkshire & Humber.
- Germination – typically around 98%.

#### Oats

Harvest of oats is just over 80% complete. Harvest of both spring and winter varieties is now complete in the West Midlands, Eastern region, South East, South West and North West, with harvest close to completion (98% harvested) in the North East. Good progress has been made in the East Midlands (90% harvested), with 75% now harvested in Yorkshire & Humberside. Progress has been slower in Scotland (32% harvested) with the main harvest yet to start in Wales (8%) harvested, due to wet conditions.

Despite delays due to recent rainfall, oat harvest progress remains ahead of the last five years, with 79% of the oat area harvested at this point in 2015.

### 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 continue to 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 55-57kg/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% - almost all crops have required drying in Scotland and Yorkshire & Humberside, due to wet conditions. Moisture content ranges from 12-17% - with higher moisture contents reported in northern regions and Scotland.

#### Winter oilseed rape

GB Winter oilseed rape harvest is now largely complete, apart from a few remaining fields in Scotland. Progress remained ahead of the last five years for the majority of harvest, but due to recent rainfall, this slowed and is now in line with both 2017 and 2014. At this point (WE 28/08) in 2015 and 2016, oilseed rape harvest had still not been completed.

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 across GB, this has not been necessary for the final stages of harvest.

## 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. 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%.