



# AHDB Harvest Report

Report 3-Week 6

Week Ending- 18<sup>th</sup> August

Prepared by ADAS

## Overview<sup>1</sup>

Hot and dry weather from WE11 August continued into the early part of WE18 August with temperatures as high as 36°C, and even 38°C in places. However, weather changed overnight on Wednesday to make way for heavy showers and thunderstorms for most of GB. Heavy thundery down pours meant that levels of rainfall were variable at a local level. However, the main band of rain travelled west to east across Wales and Central England, with average rainfall in these areas ranging from 40-70mm over the period. The further north or south away from this band of heavy rain, the lower the rainfall, with parts of the South Coast and Northern Scotland receiving very little. Rainfall was often concentrated into short periods of intense rain, resulting in localised surface water flooding. This rapidly drained away, but crops and fields remained wet. As a result, little progress with harvest was made from Thursday onwards, resulting in a reduced rate of harvest this week compared with the rapid progress made in WE11 August. An estimated 360Kha of crops were harvested in WE18 August, mostly on Wednesday before the rain set in. To 18 August, 1.7 million hectares had been harvested, equivalent to 52% of the GB cereal and oilseed area. The focus of harvest activities this week were winter wheat and spring barley, although those farmers who still had areas of winter barley left prioritised this. Small areas of oats were also harvested.

It has been challenging to forecast average yield estimates for this season due to the high variability across all crops. The overall picture is that yields of most crops are below the five-year average, with winter crops badly affected by the poor drilling conditions in the autumn. The best yields occurred where crops were drilled into good seed beds earlier in the autumn. These crops had good root development, therefore resilient to the wet winter and the dry spring. Later drilled crops that went into cloddy wet seed beds varied in level of establishment, with some areas of crops patchy and thin. This has brought overall yields within a field down and has led to variability in the farm yields.

Harvest to 18 August can be summarised as:

- **Wheat** – 59% complete, with harvest underway in all regions until rain brought progress to a halt. Average yields from England and Wales in the region of 7.3-7.7 t/ha, but highly variable. Hagberg falling numbers on milling varieties holding at over 275 seconds. Proteins are good (12-14%) and specific weights are typically 74-79 kg/hl.
- **Winter barley** – harvest is now complete. Current estimated average yields for winter barley range from 6.3-6.6t/ha, remaining below average the 5-year average of 7.1t/ha. Grain nitrogen contents continue to be high, averaging 1.8%, with multiple reports of grain nitrogen percentages over 2% in the East of England.
- **Spring barley** – 19% complete. Spring barley yields are based on a small sample of early harvested crops (generally the better early planted crops). These are currently close to average (5.8t/ha), ranging between 5.7-6.2 t/ha. Specific weights are good, ranging between 64-66kg/hl and grain nitrogen was variable ranging from 1.3% in Scotland to 1.9% in the East of England. Green grains are present in samples from the North, impacting quality.

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<sup>1</sup> 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. All harvest reports run from Wednesday to Tuesday – with data reported for the week ending on a Tuesday e.g. WE14 July. A full data dashboard of progress is available [here](#). For comparison with previous years the second week of July, WE14, is referred to in the dashboard as Week 1.

- **Oats** – 24% complete – start made to winter oat harvest in the Northern regions. Oat specific weights are based on only a small area harvested, and typically range between 51-53kg/hl
- **Winter oilseed rape** – 96% complete. Harvest is complete in Southern regions and Midlands, with some small areas left in the North. Current yield estimates are between 2.6-3.0 t/ha and continue to be below the 5-year average of 3.5t/ha. Oil contents for winter oilseed rape average 44%.

Grain harvested to date has predominantly been harvested in very dry and often hot conditions. This meant that very little grain required drying. However hot weather and uneven ripeness meant that conditioning was required for crops going into store to aid cooling down to safe temperatures.

## Straw

Straw baling continued at pace up to the start of the recent rain, with farmers intending to bale a high proportion of their crop area to compensate for reduced yields. The majority of the winter barley area and a high proportion of the wheat area harvested to date were baled. In addition, an estimated 10-15% of the oilseed rape area has been baled, and some farmers are even baling bean haulm too.

Straw yields are lower than in recent years with wheat and winter barley yields typically ranging from 2.0-4.2 t/ha depending on evenness of the crop. Only a relatively small area of spring barley straw was baled before the rain hit and that typically ranged from 1.5-3.0 t/ha. Oilseed rape straw yields ranged from 0.7-3.0 t/ha, depending on the thickness of the crop and the proportion of the field that was bare.

The high temperatures during the early part of the period made straw brittle, which was challenging for baler set up. However, those baling spring barley straw struggled with stalks that were still green where crops were harvested before reaching ripeness.

## Wheat

### Harvest update

An estimated 59% of GB wheat was harvested by 18 August, with about 15% of the national area harvested during the last week. The prior weeks' progress was maintained through to 12 August and the majority of this week's harvest occurred during the first day of this period. A band of heavy rain affected much of the country on Wednesday night and through Thursday, bringing harvest to an abrupt halt. Despite the reduced rate of progress in the latter part of the week, wheat harvest remains ahead of 2019 and 2017 (27% and 10% at this point), but is behind that of 2018.

Harvest in the East, South East, South West and North West is now near completion, in the Midlands they are about 36-49% complete, whilst the North East, Yorkshire and Scotland range from 3-21% complete. Crops in the Northern regions were only just reaching harvest maturity when the rain hit. Where farmers had looked at the forecast, some opted to harvest before crops were at full ripeness in order to take advantage of the remaining good weather. This has led to issues with green grain, reducing the overall quality of some crops.

The early maturing milling varieties, planted in good conditions before autumn rains set in, make up the majority of the volume harvested to date. As the regions progress through their crop areas, a higher proportion of the later drilled varieties planted in wetter conditions, especially feed wheats, will come to harvest.

### Yields

There is a great deal of uncertainty over the national average yield, due to the high level of variability within and between crops this season. Current yields are based predominantly on crops harvested in the South and East, with a bias towards early-planted milling wheat varieties. The current national yield estimate for winter wheat is 7.3-7.7t/ha and remains below the five-year average of 8.4t/ha. The large range in drilling dates, driven by challenging autumn and winter weather conditions, has meant that yields are highly variable not only across GB, but even in-field.

Farm yields have ranged from 3.5-13.5t/ha. Typically milling varieties have yielded 5.5-12.0t/ha, whilst feed varieties have yielded 4.5-13.5t/ha. The best were earlier drilled crops on heavier land. These tended to establish sufficiently before the autumn rains hit, especially where heavy land was free draining (e.g. wold land in Yorkshire). Later drilled crops on lighter land established better than the later drilled crops on heavy soils. Where soils were very light, these crops were affected by moisture deficits in spring, which suppressed yields slightly compared to normal years. At the opposite end of the spectrum are later drilled heavier fields, where seed beds were cold and cloddy at time of drilling. Where compaction led to waterlogging issues these fields were often patchy, with large areas of crop either absent or affected by low plant and tiller numbers. Here if plants remained, they tended to suffer from poor rooting and were subsequently negatively impacted by the dry conditions through the spring period. The poorest yields on lighter land occurred where crops were drilled or broadcast into poor soil conditions in February, with second and third wheats yielding lower than first wheats in this situation.

### Quality

The quality of wheat harvested before the rain hit on 13 August was good in the majority of crops. Where farmers in the North opted to harvest crops before full ripeness to avoid rain delays, there are some issues of green grain from secondary tillering. This is affecting Hagbergs and protein levels. Overall protein levels are meeting specification, with higher protein levels occurring on those crops

that were drilled early. Grain appearance in first wheats is good, whilst second and third wheats tend to be more shrivelled.

**Specific weight** – Typical range between 74-79kg/hl. Specific weights remain variable, with some reported as high as 84kg/hl in the East of England. The higher specific weights are occurring on those crops established early into good seedbeds. Those with lower weights tend to be in fields which experienced waterlogging in the autumn and/ or moisture deficits in May. Weights from milling varieties tend to be higher than those of feed varieties.

**Hagberg Falling Number (HFN)** – Typically between 275-300 seconds for milling varieties. Feed varieties harvested in the North, where crops were affected by green grains, were lower (around 250 seconds).

**Protein** – Protein contents are averaging 12% with a range of 12-14%. Protein levels were lower on the immature samples affected by green grains.

**Moisture** – Average 15%, with a range between 14-18%. High temperatures early in WE18 August meant that most grain was harvested at low moisture and required little drying. However, some did require conditioning with cool air to bring down the overall temperature of the grain. Cooling was challenging across GB as temperatures remained high overnight, but the cooler temperatures later in the week helped somewhat. Where grain was harvested after showers, moisture content did creep up and a small proportion of grain was actually dried. Where crops were harvested early in the North and had green grains, there are reports of moistures rising by up to up 4-5% after 2-3 days in store.

## Winter Barley

### Harvest update

By 18 August, harvest of winter barley was complete across all regions, with just the occasional field left to harvest in Scotland. There were only a few thousand hectares harvested in the last week, with most farms having completed harvested in WE11 August. Harvest progress in 2020 is in line with the early harvest of 2018, and ahead of 2019 which was at 94% complete by week 6 (equivalent to WE18 August).

### Yields

The current yield estimate for winter barley is 6.3-6.6t/ha, which is 7-12% below the five-year average of 7.1t/ha.

Yields remain variable, with farm yields in the range of 3.0-10.0t/ha. Generally, hybrids yielded well, typically around 8.5 t/ha with some reports of crops at 10t/ha. However, these are balanced out with yields below 5t/ha for 2 row malting varieties that were adversely affected by conditions at planting. In-field variability is common, with patchy bare areas where establishment was poor or crops suffered moisture deficit in May. These bare areas are then bringing overall averages down.

### Quality

Winter barley was harvested in the good weather at the start of the harvest period, with most samples meeting quality specifications. However, grain nitrogen levels are high and some alternative markets (feed) are being sought for affected samples. Specific weights as a whole are good. There are some reports of lower specific weights and high screenings where crop establishment was poor and soil conditions less than ideal in autumn.

**Specific weight** – Specific weights averaging 64kg/hl but are typically in the region of 62-66kg/hl.



**Screenings** – Typically around 2-7%.

**Grain nitrogen (malting varieties)** – Average 1.8%. Lower grain nitrogen contents have been reported on Scottish crops and those from Northern England, but these are still close to 1.7%. In the South and East, grain nitrogen levels have occasionally exceeded 2%. These high nitrogen samples are going into store as feed without segregation.

**Moisture** – Moisture contents averaging at 15% with a range between 13-17%. Around 10% of the crops harvested in the last week required drying where localised showers took place. Given the small area harvested, this accounts for less than 1% of the total crop area.

**Germination** – Reports show germination levels reaching 98% in the East of England and 97% in Yorkshire.

## Spring Barley

### Harvest update

An estimated 19% of GB spring barley was harvested by 18 August. The rate of spring barley harvest was picking up during the first part of the week, however wet weather from Thursday onwards halted progress in most regions. Despite the recent rain delays, harvest progress is in line with most recent years.

Harvest is well progressed in the South West (47% complete), East (46% complete) and South East (35% complete). In the Midlands and Wales, harvest is 12-15% complete, whilst in Northern England very little spring barley had been harvested before the rain hit. In Scotland, about 7% of the area had been harvested before rain affected progress.

The majority of spring barley crops harvested to date were those sown early (January – March), with areas that replaced failed wheat crops on heavier land only just becoming ripe (around 20% of the area). The main issue facing growers is the variability in individual fields, with green grains and secondary tillers a common challenge. Use of glyphosate is widespread in an attempt to ‘even up’ the crop which has secondary tillers and green, soft grain.

Areas of spring barley crops in the North had only just been desiccated, as many crops were uneven in ripeness. These crops will be ready for harvest about 14 days after treatment.

Where crops were ripe and wet weather delayed harvest, this has led to crops becoming over-ripe in fields. This has resulted in brackling and some crop leaning where patches were particularly thin. Some lodging has occurred on headlands and around trees because of storm damage (<1% of the area is affected).

### Yield

Early yield reports are based on a small sample of crops at this stage, mostly from the East, South East and South West. Crops harvested to date tend to be earlier planted crops that were able to establish good root systems before the dry weather set in. The current yield estimate is between 5.7-6.2/ha, which is around the five-year average of 5.8t/ha.

In most of the English regions, yields are slightly down on the regional 5-year average. However, in Scotland, above average yields are being reported. Due to the high proportion of spring barley grown in Scotland, this has a positive influence on the national yield average.

Yields were lower on lighter soil types where moisture deficits occurred in May, dropping to 4-5 t/ha. There are some good yields in individual fields where there was good establishment and good moisture retention in spring, up to 9.5t/ha. Malting variety yields are ranging between 4.0-6.5t/ha and

feed between 5.0-9.5t/ha. Those crops on heavier land are typically yielding better than those on lighter soils, due to better structure and moisture during the dry May weather.

## Quality

Crops harvested to 18 August are showing no quality issues. However, many of the later drilled crops with green tillers are yet to be harvested. Specific weights to date are good. Nitrogen levels are above average in the East of England, but low in Scotland.

**Specific weight** – Averaging 65kg/hl with a typical range between 64-66kg/hl.

**Grain nitrogen (malting varieties)** – Averaging 1.5% with a typical range between 1.3-1.9%. High nitrogen's are being reported, with 50% of samples above 2% in the East of England, even where nitrogen rates were reduced for malting premiums. Lower nitrogen contents are predominantly in Scotland, where only a small area of spring barley has been harvested to date.

**Screenings** – Typically of 2-4% occasionally rising to 10% in some areas, based on limited data received. Higher screenings reported off lighter soils.

**Germination** – Reaching 98% in the East of England and 97% in Yorkshire and the Midlands.

**Moisture** – Averaging 14% with a range of 12-18%. In the East of England, some farmers are starting at 16.4% and coming down to 13.2% during the day (around 5% of the area). Some ambient air drying of green grains has been required where crops were cut before reaching full ripeness.

## Oats

### Harvest update

An estimated 24% of GB oats (mainly winter varieties) were harvested by 18 August. This level of progress is similar to last year, but behind the early oat harvests of 2018, 2016 and 2015. Oat harvest is most advanced in the South West (60% complete), East of England (48% complete) and the South East (35% complete), whilst harvest was only just starting in Wales and the Midlands (15-18% complete). Further north, harvest of oats had only just started before rain disrupted activities. Harvest of spring and naked oat varieties was underway in the southern regions. Secondary greening is delaying ripening for some, particularly crops on lighter soils.

There are some reports of lodging (between 1-5% of the area) where heavy showers occurred, issues are worse around trees and/or headlands.

### Yields

Early yields are variable, with the average between 4.5-5.5t/ha based on the winter areas harvested in the South and Midlands. Yields on winter varieties are highly dependent on autumn crop establishment, with those drilled on heavier land in October yielding better than those on lighter soils and later drilled winter varieties on heavy land. Early yield indications for spring oats are good, but some crops are very short in places.

Farm yields range between 3.7-8.1t/ha, with winter feed and naked varieties yielding higher than spring and milling varieties.

## Quality

Quality data is mostly available for winter crops sown early (October), with limited quality data for spring oats.

**Specific weight** – Typical range between 51-53kg/hl. Specific weights are generally acceptable, with occasional reports of higher weights up to 55kg/hl.

**Moisture** - The majority of winter oats were ripe at harvest and so were harvested at moistures close to 14.5%. Average moisture contents are in the range of 13-18% but averaged at 15%. Only small amounts (<3%) needed drying where showery weather occurred before combines could get in. Typically, farmers started on crops at 15.5% and with moistures coming down to 12.5% during the day.

## Winter oilseed rape

### Harvest update

An estimated 96% of the GB winter oilseed rape area was harvested by 18 August, with about 9% of the national area harvested during the WE18 August. Harvest is complete in the southern regions, Midlands, East and Wales, with small areas left to cut in Yorkshire, North East and Scotland.

Outstanding areas are late maturing varieties, and those crops had yet to surpass desiccation periods before the rain hit.

Harvest progress remains broadly in line with the early harvest of 2018, and about a week ahead of 2019.

### Yields

Yields are generally averaging around 2.6-3.0 t/ha, lower on fields that have lost headland or areas of the fields to waterlogging and poor establishment. This is down on the 5-year average of 3.5t/ha.

Yields are highly variable, with patchy thin crops and uneven establishment making the judgement of average yields particularly challenging. Yield reports range from 0.8 t/ha on the worst affected fields through to 4.5 t/ha on the crops that established well and were not impacted by cabbage stem flea beetle (CSFB). Poor yields are often linked to CSFB activity, with some reports of yields below 0.8 t/ha where CSFB damage was extensive. Light land is tending to produce poorer yielding crops than heavier soils, where drilling took place in August.

### Quality

**Oil content** –Between 43-45% and, averaging 44%.

**Moisture** –Average moisture content at harvest was about 8%. Some drying and conditioning has been necessary where crops were harvested above 8%, but most farmers waited until the crop was dry to harvest.

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