



AHDB Harvest Report

Report 5-Week 11

Week Ending- 22nd September

Prepared by ADAS

Overview¹

Harvest activity for the 2020 season peaked in WE08 September. Over the last fortnight, settled weather has allowed good progress to be made in any outstanding crops, with harvest drawing to a close for many. An estimated 460Kha were harvested in the last fortnight, mostly in WE15 September, bringing harvest to 98% complete. Harvest is now complete in most of the English regions, with just small areas left to harvest in parts of Yorkshire and the North East. There are also occasional fields left to harvest in Wales. In Scotland there is about 10% of the wheat and spring barley area left to harvest.

Challenging weather conditions in late August caused some delays to harvest progress, but September has seen largely dry weather. The more settled conditions have allowed rapid progress to be made, bringing the end of harvest back in line with recent years. Temperatures were mild and this, combined with a lack of recent rainfall, meant that soils dried out. This improved travelling conditions and allowed harvest in the last fortnight to progress relatively unimpeded by weather constraints.

The main challenge faced in the last fortnight was addressing areas of crops that were lodged by previous storms. Across the national area it is estimated that about 1% of wheat, 10-15% of spring barley and oats were affected to a greater or lesser extent by lodging. There was little lodging present in crops prior to middle of August, it was therefore only those crops that were still in the ground during the storms of mid to late August that were affected. In some cases, this just caused leaning, and in spring barley there was some brackling. However, in the worst affected fields, whole root systems failed and the crops were laid flat. Where this occurred, there were difficulties lifting the crop to a suitable height for the header to cut. Seed shed in lodged crops was a noticeable issue.

Estimating yields remains challenging, with large amounts of variability seen within fields and across regions. Yields for the winter crops are all below the five-year average, with some particularly poor yields reported on late planted wheat crops and poorly established oilseed rape crops.

The storms in August delaying harvest for later crops means that there has been a marked change in quality between those crops harvested up to mid-August versus those harvested during September. Prior to the rain, wheat specific weights and Hagberg falling numbers (HFNs) had been good, although protein levels were an issue. In crops harvested since the rain, there has been a decline in HFNs and specific weights, especially of later sown crops. In spring barley, the main concern is the increase in pre-germination and sprouting that has occurred in crops harvested after the rain.

Harvest to 22 September can be summarised as:

Wheat – 98% complete. Harvest of wheat crops is now complete for the majority of GB, with final areas left to harvest in the North East, Yorkshire, West Midlands, Wales and Scotland. Yields remain varied with the average between 7.1-7.3t/ha, which is below the five-year average. Hagberg falling numbers dropped as regions moved into feed wheat and where crops were affected by August rains. They are typically between 120-200 seconds for crops harvested in

¹ 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.

September, with occasional reports below 100 seconds. Protein levels are averaging between 11-14% and specific weights dropped in the last month, currently averaging at 75-76kg/hl.

Winter barley – Harvest was complete in WE11 August. Average yields are estimated between 6.5-6.7t/ha, this is below the 5-year average of 7.1t/ha. Grain nitrogen contents are averaging at 1.8%, with continued reports of grain nitrogen contents over 2% in the East of England.

Spring barley – 97% complete. Yields are in the range of 5.8-6.1t/ha, with yields up to 8.0t/ha in Scotland and the East of England. Specific weights dropped slightly in the last month and are now averaging between 59-66 kg/hl. Grain nitrogen is averaging 1.7%, but is highly variable. Lower grain N is reported in Scotland (1.4%), whilst there are reports of up to 2.0% in Yorkshire and West Midlands.

Oats – 97% complete. Harvest is now complete for the majority of regions, with small areas left to harvest in the North East, Wales and Scotland. Estimated yields average 5.1-5.3t/ha. Specific weights are typically between 46-58kg/hl.

Winter oilseed rape – Harvest was complete in WE08 September. Current yield estimates are between 2.7-3.0t/ha. Oil contents for winter oilseed rape average 44%.

Grain moisture contents for crops harvested in the last fortnight tended to be close to 15%, and as a result very little of the wheat, spring barley or oat volume harvested in this period required drying.

Straw

Dry soil conditions and good weather improved baling prospects for many and farmers continue to bale straw where possible. The settled weather in the last fortnight has allowed balers to follow soon after fields were harvested, with minimal delays to cultivations.

Winter barley straw baling was complete by WE08 September with the majority baled before Storm Francis hit. Baling of wheat straw was a high priority in areas with mixed farms (particularly West of England and Wales) where 90-100% of the area was baled. In the North East and Yorkshire 70-90% of the area was baled, with recent dry weather facilitating this. Further south and east, where there are fewer livestock farms, the proportion baled is slightly less. Baling choices here were also affected by the level of black-grass contamination, urgency of planting following crops (especially oilseed rape) and perspective on value of straw for baling vs incorporation into the soil.

Straw yields remain lower than in recent years, with typical wheat yields between 2.0-4.2t/ha depending on the harvest conditions. Yields dropped for later harvested wheat crops in the North, with reports as low as 1.0-1.5t/ha where crops were poorly established or were affected by lodging. Spring barley straw yields are in the range of 2.5 – 3.0t/ha, with reports that straw is brittle, affecting yields. Oat straw, where the challenge was green stems before, is now dry and brittle lowering yields slightly to between 2.0-3.5/ha. Oilseed rape straw yields ranged from 0.7-3.0t/ha, depending on the thickness of the crop and the proportion of the field that was patchy.

The combination of reduced crop areas compared to recent years, lower yields, and challenges with baling are all putting downwards pressure on straw productivity this year.

Wheat

Harvest update

By 22 September harvest of winter wheat crops is near completion at 98% harvested. Wheat harvest is in line with recent years and ahead of 2017, which was at 95% complete by this week. Just over

200Kha was harvested the last fortnight (WE15 and WE22 September). The largest areas of crops harvested in the last fortnight were in Yorkshire, Scotland and the Midlands. The recent dry weather allowed harvest progress to continue unhampered, with the majority of regions either complete or near completion. There are only small areas of crops left to harvest (approximately 20Kha), mostly in Scotland, with occasional fields left to harvest in parts of Northern England, the West Midlands and Wales.

Stormy weather towards the end of August caused some widespread lodging issues, with an estimated 1% of the national wheat area lodged. In some instances where regions received localised heavy showers, this resulted in crops laying completely flat (e.g. in Scotland) which resulted in challenging harvesting conditions and a reduction in yields. There were further reports of seed shedding in crops harvested during the last fortnight, resulting in localised yield impacts.

Yields

The current national yield estimate for winter wheat is 7.1-7.3t/ha and remains below the five-year average of 8.4t/ha. Yields were highly dependent on establishment and soil conditions at time of sowing.

Farm yields ranged from 2.5-14.0t/ha. Some of the most consistent good yields were reported from the North and East of England and Scotland, with the best yields (of up to 14.0t/ha) coming from Scotland. The crops that yielded well were the ones that were sown into good seed beds early last autumn and were able to establish before the worst of the wet weather hit. Crops on well drained heavier soils did particularly well as these retained moisture through the dry spring. However, where drainage was poor due to compaction, yields were negatively impacted. This was exacerbated in areas where drilling was delayed (for black-grass control) and the wet weather resulted in heavy cloddy seed beds. Here crops established poorly, with poor plant counts and low tiller numbers, both of which negatively impacted yields. Crops on lighter land, especially those drilled very late, were impacted by the dry spring and water stress, reducing growth and subsequently yield.

In the last fortnight some of the late drilled 'spring' winter wheat crops were harvested. These were particularly thin and often yielded poorly at below 5.0t/ha. The late drilled second and third wheats have tended to perform worse than first wheats, with reports of yields as low as 2.5t/ha in the West Midlands. Here seed shed also contributed to particularly poor yields.

Typically milling wheats yielded 5.0-11.0t/ha and feed wheats typically between 5.5-12.5t/ha, with some as high as 13.0-14.0t/ha where crops established well with a full spray programme benefiting.

Quality

As harvest progressed, farmers moved on from milling varieties often sown earlier in the season and well established, into the later sown feed varieties of which more were sown into poor soil conditions. The majority of milling varieties were harvested in good conditions. It was mostly milling crops in Yorkshire and the North East that were affected by the rain in late August. Overall, specific weights and Hagberg falling numbers reduced in later harvested crops compared to those seen at the beginning of the season. This is, in part, due to the delays to harvest of some milling varieties in the North, but also due to the increase in proportion of group 3 and 4 varieties harvested. Another contributing factor was that harvest progressed into the tail ends of headlands and the poorer crops that had been left until the end as main harvest activities drew to a close.

Wet conditions during grain fill favoured the development of fusarium on grains if inoculum was present (however, dry conditions at flowering should have minimised infection). There were reports of occasional pink grains in samples from the East Midlands, but no widespread reports of grain samples failing due to mycotoxin contamination.

In thin crops, especially where grass weed control was poor, there are reports of ergots present in grain samples. This is of particular concern in late harvested crops from the East of England and East Midlands.

Specific weight – Early in the season specific weights were holding up well at about 77-78kg/hl. However, crops harvested later in the season had lower specific weights bringing the average down to 75-76 kg/hl. Typical range between 72-78kg/hl.

Hagberg Falling Number (HFN) – HFNs for crops harvested prior to the rain in August were typically well over 250 seconds. However the delays to harvest, combined with an increasing proportion of feed varieties being harvested, means HFNs for crops harvested in September tended to be between 120-200 seconds. There were occasional reports of values dropping below 100 seconds, and as low as 90 seconds in Yorkshire.

Protein – Protein contents typically ranged from 11-14%, with occasional reports as high as 15% in the West Midlands and Yorkshire, especially on crops with lower yields. Spring wheat proteins in the East of England are averaging 13- 13.5%, except in the very poor late sown crops with poor rooting.

Moisture – Typical ranges between 14-19%, with an average of 15%. Drier weather in the past fortnight has meant little drying was needed, with occasional reports of green grain in the most recently harvested crops.

Winter Barley

Harvest update

Harvest of winter barley was complete across all regions by 18 August. Harvest progress in 2020 was in line with the early harvest of 2018, and ahead of 2019.

Yields

The current yield estimate for winter barley is 6.5-6.7t/ha, which is 6-9% below the five-year average of 7.1t/ha.

Yields were variable, with farm yields in the range of 3.7-10.0t/ha. In-field variability was common, with bare areas where establishment was poor or crops suffered moisture deficit in May. These bare areas brought overall averages down.

Generally, hybrids yielded 8.5t/ha, with some reports of crops at 10.0t/ha. These yields were balanced with crops of below 5.0t/ha for many two row malting varieties, although some two row feeds have achieved higher yields (8.0t/ha). Feed varieties generally yielded 5.5-10.0t/ha. Malting varieties have yielded 4.5-7.4t/ha. Crops on heavier land yielded 5.5-10.0t/ha, compared to light lands which yielded between 4.5-6.5t/ha.

The best regional yields were reported in Scotland, with regular reports of yields over 7.0t/ha and occasionally up to 9.5t/ha. Here rainfall was more moderate over winter, and water stress was less of an issue in the spring months. In contrast, the lowest regional yields were reported in Northern and Western England (North West, North East West Midlands and Yorkshire), with regular reports of yields around 5.0-5.5t/ha.

Quality

Winter barley was harvested in good weather early into the harvest period. However, grain nitrogen levels were high, with these samples likely bound for feed or alternative markets. Specific weights

were maintained throughout harvest, with only occasional reports of lower specific weights where crop establishment was poor.

Specific weight – Specific weights averaging 64kg/hl but are typically in the region of 60-66kg/hl.

Screenings – Typically around 2-7%.

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

Moisture – Moisture contents averaged 15% with a range between 13-17%.

Germination – Reports show germination levels were satisfactory across GB.

Spring Barley

Harvest update

To 22 September, an estimated 97% of spring barley had been harvested. Clement weather in WE15 and WE22 September allowed good progress to be made, with just over 200Kha harvested in the last fortnight. This puts 2020 harvest progress in line with last year and ahead of 2018 and 2017, which were 93% and 75% complete by mid-September.

WE15 September saw the South complete all remaining areas, with the North West and Midlands completing in WE22 September. The North East, Wales and Yorkshire are near completion with a few fields remaining, whilst there are still about 30Kha left to harvest in Scotland.

Lodging and brackling was widespread (estimated 14% of national area affected) as a result of the storms and heavy rains in the second half of August, with Northern England and the Midlands worst affected. Where crops were impacted, harvest progress slowed as travelling speeds were reduced to minimise grain shed. However, despite care being taken at harvest, yield losses of 1.0-2.0t/ha were reported in the worst affected crops.

Yield

The current national yield estimate is 5.8-6.1t/ha. This is below the good yields of 2019 (6.3t/ha), slightly higher than the five-year average of 5.8t/ha.

Typical yields for malting varieties ranged from 4.5-8.6t/ha, with feed varieties yielding up to 10.0t/ha. The lower yields are more representative of later harvested crops that were sown later and suffered poor establishment, either as a result of being sown into wet cloddy seed beds on heavy land or dry seed beds on light land that were subsequently affected by water stress. Higher yields tend to be found on better structured soils, with some over 8.0t/ha in Scotland and the East of England.

Quality

Quality overall is good for spring barley crops and was not significantly impacted by the heavy rain that hit at the end of August. Specific weights dropped only slightly since the last report (WE08 September). Overall nitrogen levels are on the high side, with the West Midlands reporting some in the range of 1.8-2.0%. However, malting crops from Scotland are reporting low grain nitrogen levels closer to 1.4%. There has been an increase in sprouted grains or samples which showed signs of pre-germination in crops harvested in the last fortnight. Farmers are prioritising selling any crops that are at high risk of sprouting, to try and minimise germination issues if stored. In Scotland, most crops are

still meeting malting specifications, but there are reports of occasional loads being rejected due to low germination rates.

Specific weight – Averaging 62kg/hl, with a typical range between 59-66kg/hl.

Grain nitrogen (malting varieties) – Averaging 1.7%, with a typical range between 1.4-2.0%. Nitrogen levels are variable, but tend to be high across all regions. West Midlands and Yorkshire are reporting many samples in the range of 1.8-2.0%.

Screenings – Typically 2-6%, occasionally rising to 12% on poor crops. Higher screenings are reported off lighter soils.

Germination – 98%. However samples are variable with ranges of 90-99% within the same heap.

Moisture – Averaging 16%, with a range between 12-19%. Dry weather since WE08 September has meant that little grain that was harvested in the last fortnight required drying.

Oats

Harvest update

An estimated 97% of GB oats were harvested by WE22 September. Winter oat harvest is complete and the harvest of spring oats are drawing to a close. Harvest is on par with this time last year and ahead of 2018 and 2017. The heavy rainfall in late August caused some delays to harvest, but progress in the last two weeks has improved. It should also be noted that the oat area is estimated to be almost 20% higher than that grown in 2019.

Oat harvest is complete in most English regions. There are occasional fields left to harvest in Wales and the North East, whilst about 6kha remains unharvested in Scotland, most of which is in the South East of Scotland. An estimated 10-15% of the then currently unharvested oat area was affected by lodging caused by the wind and rain in August, but most of this area has now been harvested.

Yields

Yields are variable with the estimated average between 5.1-5.3t/ha.

Yields on winter varieties were highly dependent on autumn crop establishment, with those sown on heavier land in October yielding better than both those on lighter soils and later sown winter varieties on heavy land. Winter oat crops typically yielded 5.0-9.0t/ha, whilst yields of spring oats ranged from 3.0-8.5t/ha. The poorer spring oat yields are from crops that were badly affected by the strong winds and rain, resulting in high levels of seed shed (with estimated yield losses of up to 2.5t/ha in the worst affected crops). Naked oat varieties yielded 3.5-6.0t/ha, with milling varieties between 5.0-8.5t/ha and feed varieties yielding 5.0-8.0t/ha.

The best oat yields are reported in the North, with regular reports of yields over 6.0t/ha in Scotland, the North West, North East and Yorkshire. In the South and East of England, yields are averaging closer to 5.0t/ha. The main focus of harvest in the last fortnight was Scotland, here spring oats harvested in the North West averaged 6.5t/ha compared to the South East of Scotland, where yields averaged 5.6t/ha. Spring oat yields in Yorkshire were better than expected despite seed shedding, with an average yield of 7.0t/ha.

Quality

Where harvest was delayed and crops stood wet, there were occasional reports of sprouting, reducing the quality of these samples.

Specific weight – Typical range between 46-58kg/hl. Specific weights are generally acceptable, but tended to be better in winter oats compared to spring oats.

Moisture - The majority of winter oats were ripe at harvest and so were harvested at moistures close to 14.5%. Those crops harvested in the last week tended to be cut at slightly higher moistures in the range of 13-19%, but averaged at 16%.

Winter oilseed rape

Harvest update

Harvest of winter oilseed rape is now complete. Harvest progress was broadly in line with the early harvest of 2018, and about a week ahead of 2019.

Yields

The national average yield is estimated to be 2.7-3.0t/ha, down on the 5-year average of 3.5t/ha. It has been a difficult year for estimating oilseed rape yields. Yields were highly variable, with patchy thin crops and uneven establishment making the judgement of average yields particularly challenging. Yield reports range from 0.5t/ha on the worst affected fields through to 4.7t/ha on those crops that were established well and not impacted by cabbage stem flea beetle (CSFB) damage. Poor yields have been linked to the combined effects of pest activity, poor weather conditions in winter and spring and pigeon grazing.

The best yields have come from crops planted in August and established well, particularly those crops on more water retentive heavier soils. Crops on light land were affected by water stress soon after planting and again in spring 2020, reducing yields.

Quality

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

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