AHDB

AHDB Harvest Report

Report 4-Week 9

Week Ending- 8th September

Prepared by ADAS

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Overview[1]

After a fine start to harvest the weather took a drastic turn for the worse from 14 August, with a series of storms affecting most of the country. These brought with them heavy rainfall and high winds, which brought harvest activity to a halt. The weather continued to be unsettled right through to the end of August, limiting harvesting activity to the odd few hours where possible between storms Ellen and Francis, and then subsequent unsettled weather. Rainfall during this period was above average for much of the country, with fields too wet to access and crops slow to dry. The start of September saw a change to more settled weather. Harvest was able to resume in all regions, with the highest rate of clearance seen in any single harvest week this season.

The unsettled weather and limited harvest opportunities resulted in slow harvest progress across the last two weeks of August with approximately 200Kha cut each week, mostly spring barley in the East of the country. Rate of progress picked up in WE08 September, with an estimated 600Kha of crops harvested. This included large areas of spring barley, wheat and also oats, with some farmers also clearing any remaining winter oilseed rape that had not been harvested before the rain hit. In total, an estimated 2.8 million hectares of cereal and oilseed crops had been harvested to 8 September, equivalent to 84% of the GB cereal and oilseed area (based on AHDB planting survey areas).

During the mid-late August, the largest areas of crop clearance took place in the Eastern region and East Midlands. By the first week of September it was the East Midlands, Yorkshire and the South East that were clearing the largest areas. There have been considerable challenges with harvest, particularly in Yorkshire and East Midlands, where wet fields have meant that harvest conditions were particularly poor in August. However, with a period of more settled weather moving in, farmers are able to get on with clearing crops as quickly as possible.

It remains challenging to forecast yields, with large amounts of variability seen within and between fields. The challenging sowing conditions and variable sowing dates, together with recent seed shedding and lodging caused by the heavy rain, have all combined to depress yields and increase uncertainty of the final production volumes.

Harvest to 8 September can be summarised as:

> **Wheat** – 84% complete. Harvest is drawing to a close in the South and East of England, with good progress made in the Midlands. Yorkshire, the North East and Scotland are starting to pick up the pace, with harvest 40-65% complete. Yields are below the 5-year average, with a typical average of 7.1-7.5t/ha. Those crops harvested in the South and Midlands over the last week tended to be the later sown crops that went into poor seed beds. Yields from these are down compared to the earlier sown (and harvested) crops from these regions. However, the start of harvest in Scotland is resulting in some above average yields in locations that had fair weather over winter. Hagberg falling numbers (HFNs) dropped over the last three weeks, ranging from 120-280 seconds as a

[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.

result of delays to harvest and a move into the group 3 and 4 varieties. Protein levels are typically 12-14% and specific weights are typically 72-78kg/hl.

Winter barley – Harvest is now complete. Average yields are estimated between 6.5-6.7t/ha, remaining below the 5-year average of 7.1t/ha. Grain nitrogen contents are averaging at 1.9%, with continued reports of grain nitrogen percentages over 2% in the East of England.

Spring barley – 77% complete. Typical yields are in the range of 5.7-6.1t/ha. Recent heavy rain caused widespread lodging, with about 10-15% of the crop area affected to a greater or lesser extent. Specific weights have dropped slightly and are in the range of 61-67 kg/hl. Grain nitrogen is averaging 1.65%, but ranges from 1.4% in Scotland to 2% in the East of England. In order to ensure that grain losses from shedding and lodging were minimised, farmers started harvest at slightly higher moistures, averaging 17%. The majority of grain harvested in the last three weeks needed some level of drying.

Oats – 75% complete. Harvest is now complete in the East of England and the South West, with the South East close to completion. Estimated yields average 5.0-5.5t/ha. Specific weights are typically between 46-53kg/hl. Moistures of grain harvest in the last week ranged between 13-19%, with most crops requiring drying once harvested.

Winter oilseed rape – harvest is now complete with small areas harvested over the last week. Current yield estimates are between 2.8-3.1t/ha. Better yields reported in Scotland have helped to pull up the overall average. Oil contents for winter oilseed rape average 44%.

Straw

Straw baling has continued where possible, but recent wet weather hampered many baling plans. Ongoing rainfall meant that straw required turning before it could be baled, particularly where straw was green at harvest. In some cases, straw remained unbaled in fields for a number of weeks, waiting for an opportunity for it to dry sufficiently. This slow progress in clearance has led to delays in OSR sowing for some. Despite the wet weather, farmers are persisting with plans to bale straw even though it is creating logistical challenges for many.

Winter barley straw baling is complete, and the majority of the crop area was baled in good conditions. Early harvested wheat straw also saw a high proportion of crops baled and cleared off the field quickly. However, with the move to wetter weather in mid to late August, baling has become more of a challenge. Farmers have been tending to bale where it is possible, especially in the more mixed farming areas in the West where 90-100% of the regional area harvested to date has either been baled or will be baled. In the East, the area baled is traditionally lower than the West due to lower demand, but many farmers are trying to optimise productivity on fields and increase baling. However, the challenging weather conditions, especially in Yorkshire and parts of the North East mean that in these regions the proportion baled to date is lower (dropping to 30%), and as harvest has only just started in these regions, the weather over the next week will have a big influence on just how much actually ends up being baled.

Straw yields remain lower than in recent years, with typical wheat yields between 2.0-4.5t/ha depending on the harvest conditions. Spring barley straw yields are in the range of 2.5 – 3.5t/ha, with reports that straw is becoming increasingly brittle and affecting yields. Oat straw, especially spring varieties, has remained green and sappy and has required longer to dry before it can be baled, yields ranged from 1.5-3.0/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 bare.

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, with the expectation that volumes will be well down on previous years.

Wheat

Harvest update

To WE08 September, an estimated 84% of GB wheat was harvested. The majority of the activity since the last report took place in the last week, with about 15% of the national area harvested in WE08 September, versus just 10% of the national area cleared in the previous fortnight. The slow progress since the last report (WE18 August) was due to wet and changeable weather conditions. There were occasional brief windows of opportunity to harvest during the second half of August, but many fields remained too wet to access for much of the latter part of the month. It was not until the more settled weather arrived in early September that activity really picked up and good progress could be made.

The start of wheat harvest was ahead of recent years. However, the wet weather has now brought progress broadly in line with other recent years, but well behind the early harvest of 2018 where wheat harvest was virtually complete by the first week of September. By WE08 September, winter wheat harvest was complete in the East of England, South West and North West, and drawing to a close in the South East and Wales. The Midlands were between 75-85% complete, with Yorkshire and the North East between 50-65% complete. Scotland is just under halfway through with wheat harvest, with the majority being cut in Southern areas of the country and yet to begin in the North of Scotland.

Wet and windy weather during late August caused lodging in some unharvested crops, with an estimated 1% of the total wheat area lodged. The worst affected crops were those on exposed fields that caught the full brunt of strong winds, especially in Northern areas of GB and the East Midlands.

Yields

There continues to be high variability in yields. The current national yield estimate for winter wheat is 7.1-7.5t/ha and remains below the five-year average of 8.4t/ha.

The recent heavy rain and wind has resulted in some seed shedding on ripe crops (this is particularly an issue in Yorkshire and parts of the East Midlands), especially where harvest was delayed by a couple of weeks due to rain. It is estimated that in the worst affected crops, up to 0.5t/ha could have been lost due to shedding.

The large range in sowing dates and variable establishment, exacerbated by the wet and windy weather over the last few weeks, has meant that yields are highly variable not only across GB, but even in-field. Earlier sown crops (mid to late September) yielded better than the later sown crops that went into poor seedbeds. The most disappointing yields to date occurred on very light soils where crops struggled this spring due to water stress, or on heavier soils that were sown late into poor seed beds. Early established crops, on soils that drained well over the winter but retained moisture during the spring, performed best. Second and third wheats are generally performing much worse than first wheats.

Farm yields range from 4.5-13.5t/ha. Higher yields are coming from the East and South of England, where a larger proportion of winter crops were sown into good conditions and established well. The lower yields are coming from the North West and West Midlands, with yields dropping as low as 2.5t/ha in some of the worst cases, where sowing and establishment conditions were challenging.

Typically milling wheats yielded 4.5-11.0t/ha and feed wheats have crept up to 13.5t/ha where they were established well and it was worth investing in inputs.

Quality

Harvest is now moving on from the better earlier planted milling varieties into the later sown feed varieties, many of which were planted in poor soil conditions. The majority of crops harvested in the South during recent weeks were feed varieties, with most of the milling varieties harvested before or during WE18 August. Elsewhere there were still a good number of milling varieties left to harvest. Where milling wheat crops were left to harvest in the Midlands and Yorkshire, milling quality has deteriorated due to poor weather experienced during mid to late August. Specific weights declined following the adverse weather, with some reports of sprouting occurring. Pink grains are now present, due to the development of *Fusariam fungi* following the ideal wet and humid conditions, which is leading to some rejections by merchants. Hagberg falling numbers (HFN) were holding well before heavy rains set in, but are now declining below milling specifications (over 250 seconds). However, this is also reflecting the fact that a higher proportion of crops harvested in the last few weeks were feed varieties, which will have lower HFNs. Protein contents are high in some areas in the Midlands and Yorkshire – up to 15% in some cases. However, these were balanced out by low proteins in the East of England associated with poorer yields. Green grains remain an issue and extra drying was required where these were present to achieve storage moistures. Where crops are ripe and harvest was delayed, there are reports of sprouting, especially in the North.

Specific weight – Typical range between 72-78kg/hl, averaging 75 kg/hl. Specific weights have decreased slightly due to adverse weather over the recent harvest period, causing some sprouting.

Hagberg Falling Number (HFN) – Typically range from between 120-280 seconds, with occasional reports of values dropping as low as 90 seconds. HFN numbers fell as harvest progressed into feed varieties and where harvest of milling varieties was delayed by the recent rain. The majority of milling varieties that are falling below specification will now be used for either low grade milling or feed.

Protein – Protein contents are variable and range between 12-14%, with occasional reports as high as 15% in the West Midlands and Yorkshire especially on crops with lower yields. However, poorer crops in the East of England and South have brought the overall average down, with the majority of crops cut in these regions falling below 13%.

Moisture – Typical ranges between 14-18%, with an average of 16%. Wet weather over the last fortnight has meant that an increasing amount of grain has needed drying. Issues of green grains are reported where crops were harvested before they had time to dry out.

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 is common, with patchy bare areas where establishment was poor, or crops suffered moisture deficit in May. It is these bare areas that have brought overall averages down.

Generally, hybrids yielded 8.5t/ha, with some reports of crops at 10.0t/ha. However, these were balanced with crops of below 5.0t/ha for two row malting varieties. Some two row feeds have achieved higher yields (8.0t/ha), but feed varieties generally yielded 4.5-7.4t/ha. Malting varieties

have yielded particularly poorly at 4.5-7.4t/ha. Heavy land yielded 5.0-7.5t/ha, compared to light lands with 4.5-6.5t/ha.

The best regional yields were reported in Scotland, with regular reports of yields over 7.0t/ha. Here rainfall was more moderate over winter, and water stress was less of an issue in the spring. 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, with most samples meeting quality specifications. However, grain nitrogen levels were 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 60-66kg/hl.

Screenings – Typically around 2-7%.

Grain nitrogen (malting varieties) – Average 1.9%. 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 East, 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%. Higher moistures were recorded during the final week of winter barley harvest.

Germination – Reports show germination levels were satisfactory across GB.

Spring Barley

Harvest update

An estimated 77% of GB spring barley was harvested by 08 September. Harvest pace, although hampered by rain, progressed at a greater rate than for other crops during the second part of August due to the fact spring barley dries more quickly than wheat or oats. As a result, rate of progress gradually built during the last two weeks of August, with over 100Kha harvested each week. The dry weather in WE08 September allowed rate of progress to increase further, with just under 350Kha cleared in the week. The rapid rate of clearance in the last week has brought harvest progress back in line with the early harvests of 2018 and 2019.

To date, harvest is now complete in the East of England and South West, with the South East, Wales and the East Midlands over 80% complete. North West, West Midlands and Scotland are between 60-70% complete with Yorkshire now just over halfway (56% complete) the North East has only really starting spring barley harvest in the last week.

The heavy rainfall and strong winds in August caused issues with lodging and brackling, with an estimated 10-15% of the crop area affected to a greater or lesser extent. Where ears had dropped below the level of the combine header, harvest slowed and resulted in increased yield losses. In Yorkshire, the harvest of spring barley is proving to be particularly challenging. Wet soils and poor rooting structure have meant that in some instances, combines are pulling the crop out rather than cutting it. This is exacerbated where crops have lodged and combines are trying to pick up flattened crops.

Yield

Yield estimates remain close to the five-year average, ranging from 5.7-6.1t/ha. Early harvested crops tended to be those established earlier in the spring into seedbeds with adequate moisture. These crops yielded well, with the best crops yielding 8.0t/ha or more. Some of the best yields of up to 10t/ha have been reported on well-established crops in the Yorkshire Wolds where soils were free-draining enough to allow for early establishment, but held enough moisture throughout the spring to avoid water stress. Elsewhere as sowing progressed seedbeds rapidly dried out and lack of moisture resulted in poor establishment and thin crops. Those crops planted on lighter soils that held little moisture were the worst affected and here yields dropped as low as 4.5t/ha.

Typical yields for malting varieties have ranged from 4.5-8.6t/ha, with feed varieties yielding up to 10.0t/ha.

Farm yields are in the range of 4.5-10.0t/ha. The better overall yields are coming from Scotland, where the weather conditions were less extreme and there was little in the way of water stress affecting establishment reducing the level of variability in yields. The lower yields are coming from the North West and West Midlands, where establishment conditions were challenging.

Quality

The wetter weather in the second half of August has resulted in a reduction in spring barley quality, especially in regions such as Yorkshire where the heavy rain caused lodging and harvest difficulties. A slight reduction in specific weights was observed in those crops harvested after the rain started, compared to those harvested earlier in the season. Nitrogen contents are highly variable, with some as high as 2.0% in Yorkshire and East of England. Screenings are relatively low and do not appear to be causing an issue.

Specific weight – Averaging 62kg/hl, with a typical range between 61-67kg/hl. These fell somewhat in later harvested crops, due to a combination of an increased proportion of poor crops harvested and the wet weather at the end of August.

Grain nitrogen (malting varieties) – Averaging 1.6% with a typical range between 1.4-2.0%. Nitrogen levels are highly variable both within and between regions. For example, in Yorkshire alone they range from 1.5-2.0%. Scotland is reporting average nitrogen levels at around 1.4%.

Screenings – Typically 2-5%, occasionally rising to 12% on poor crops. Higher screenings are reported of lighter soils.

Germination – In the range of 95-98%, although this can be variable within the same heap.

Moisture – Averaging 17% for crops harvested in the last week, with a range of 12-18%. The majority of grain harvested in the last three weeks required some drying, as there was insufficient sun to dry crops thoroughly prior to harvest. Green tillers remain an issue, even in the later harvested crops.

Oats

Harvest update

An estimated 75% of GB oats were harvested by WE08 September. Winter oat harvest was drawing to a close, whilst a good start was made on spring oats. In recent years, harvest of oats has typically been 80-90% complete by the end of the first week in September. The heavy rainfall in late August caused some delays to harvest and although the rate of progress picked up in the WE08 September, it is still a little way behind other years. However, it should also be noted that the oat area is estimated

to be almost 20% higher than that grown in 2019, and therefore the actual area harvested to date is similar to past years.

Oat harvest is most advanced in the South West (100% complete), East of England (100% complete) and the South East (98% complete), whilst harvest was still in its early stages in Scotland and Yorkshire (36% and 32% complete respectively). Severe winds have also caused seed shed and lodging in the East and West Midlands and Yorkshire. An estimated 10-15% of the total oat area was affected by lodging, with headlands and overlaps worst affected.

Yields

Yields are variable with the estimated average between 5.0-5.5/ha.

Yields on winter varieties are 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 have typically yielded 5.0-7.5t/ha, whilst spring oats have ranged from 3.5-8.0t/ha. The poorer spring oat yields are from crops that were badly affected by the strong winds and rain, which resulted in high levels of seed shed (estimated yield losses of up to 2.5t/ha in the worst affected crops). Naked oat varieties have yielded 3.5-5.5t/ha, with milling varieties realising 5.0-8.5t/ha and feed varieties yielding 5.0-8.5t/ha.

The best oat yields are reported in the North of England, with regular reports of yields over 6.0t/ha in the North West, North East and Yorkshire. In the South and East of England, yields are averaging closer to 5.0t/ha.

Quality

Where harvest was delayed and crops have stood wet, there are occasional reports of sprouting, reducing the quality of these samples. There are occasional reports in the East of England of high levels of crown rust.

Specific weight – Typical range between 46-53kg/hl. Specific weights are generally acceptable.

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 have tended to be cut at higher moistures in the range of 13-19%, but averaged at 17%.

Winter oilseed rape

Harvest update

Harvest of winter oilseed rape is now complete. There were small areas that had not been harvested before the heavy rainfall in mid-August. These crops were gradually harvested over the last few weeks, with the final crops in Scotland cleared in WE08 September.

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 2.8-3.1t/ha, down on the 5-year average of 3.5t/ha. It has been a difficult year for estimating oilseed rape yields in particular. 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 CSFB 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 (September 2019 was dry for many) and again in spring 2020, reducing their yields.

Quality

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

Moisture –Average moisture content at harvest was about 7%. Some drying and conditioning has been necessary where crops harvested above 8%, but most farmers waited until the crop was dry to harvest.

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