

## Analyst's Insight: Too much hot air from soyabeans

Recently, the delay to US soyabean plantings due to wet weather provided support to prices, which filtered into the rapeseed markets. The main points of concern have been that not all of the intended US soyabean area will be planted, yields may be impacted, and so production will be lower.

Let's suppose this happens – **how big will the potential effect be on the global oilseeds market?**

The last USDA update on US soyabean plantings showed that 96% of the intended area had been sown by 5 July. If we assume that no further planting has occurred, then based on the estimated US soyabean area (published in the USDA Acreage Report), the 2015 area is 2.4% lower compared with 2014 (but still higher than the 2013 planted area).

The USDA estimates the average 2015/16 US soyabean yield at 3.09t/ha. The previous five year average is 2.92t/ha. If we take the USDA estimate as the top end of the yield estimate and the five-year average as the mid-point, then the low end of the range is 2.75t/ha.

We're taking a slightly "worst case scenario" approach here based on the possibility that continued wet weather may lower yield potential.

Under the worst case scenario, US soyabean production could be almost 15Mt lower than the current USDA forecast (Figure 1).

Translating this to global oilseed production in 2015/16 (soyabeans, rapeseed and sunflowerseed) suggests a 4.5% fall year on year, but still the second highest amount on record.

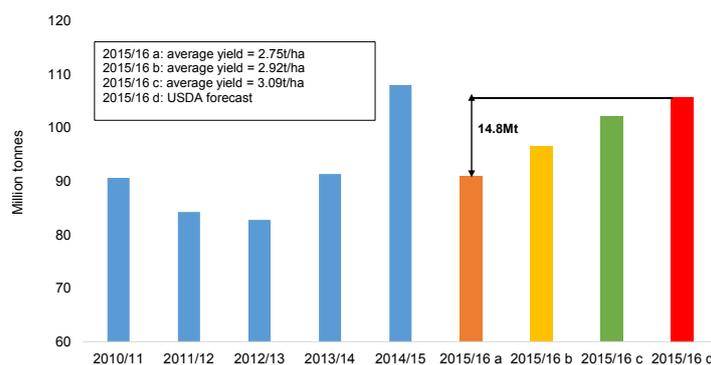
If 2014/15 end stocks are combined with the low production scenario, then estimated global soyabean availability in 2015/16 is around 4.5Mt higher year-on-year. So stocks from 2014/15 are enough to offset the anticipated decline in production.

However, it must be remembered that the South American crop still needs to be planted and will have a large influence over the final 2015/16 production number - so there's no guarantee that supplies will be comfortable.

Soyabeans are set to remain bearish overall into 2015/16, and are likely to set the tone for the oilseeds market as a whole. Although rapeseed prospects are looking more bullish in comparison, any upward price potential may be capped to an extent from the pull of soyabeans.

**Amandeep Kaur Purewal**

**Figure 1 US soyabean production**



Source: USDA

## In this issue...

### The rise and fall of milling wheat trends

The total GB wheat area attributed to nabim Group 1 and 2 wheat varieties has been in decline in recent years. With new varieties available, could we soon see this trend reversing and a shift in the variety mix?

### Gross margins alone make OSR the best of a bad job when it comes to break crops

Estimated gross margins for harvest 2016 suggest an incentive to switch feed wheat area for milling wheat or barley, continuing some of the trends seen in 2015.

### Stronger exports predicted for all classes of US wheat

US wheat production is forecast higher for 2015/16, and exports are expected to increase by 11% in comparison to last year.

### Reducing opportunity to grow wheat in the UK arable rotation

The mix of crops used in regional rotations is an ever evolving trend, determined each year by factors such as agronomics, policy and market prices.

# The rise and fall of milling wheat trends

The total GB wheat area attributed to nabim Group 1 and 2 wheat varieties has been in decline in recent years. With new varieties available, could we soon see this trend reversing and a shift in the variety mix?

Anna Lockwood, Market Specialist team  
[Anna.lockwood@ahdb.org.uk](mailto:Anna.lockwood@ahdb.org.uk), 02476 478698  
 9 July 2015

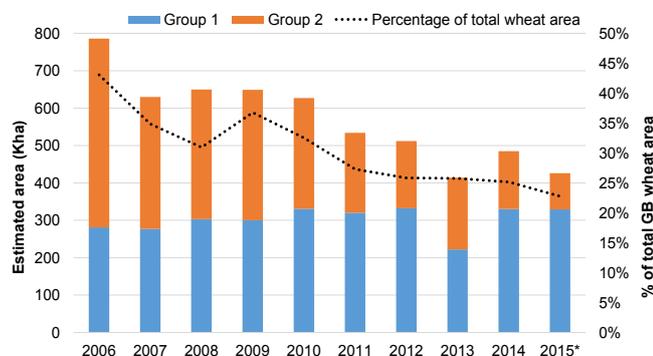
## Introduction

Results from the [AHDB Planting and Variety Survey 2015](#) suggest that the area of nabim Group 1 wheat varieties has decreased by 1Kha since 2014. With this in mind, could we see a decline in the supply of milling wheat this season? The following article discusses how and why this may not be the case.

## Changing trends

Over the last 10 years the area and share of the **GB wheat area planted to bread wheat varieties (nabim Group 1 plus Group 2) has been in decline** (Figure 1). Interestingly, while the area of Group 1 varieties has remained fairly stable, the decline has been driven by the demise of the Group 2 varieties. According to data from the AHDB Planting and Variety survey, the area grown to Group 2 varieties fell 408Kha in the 10 years to 2015 to 97Kha.

**Figure 1 GB area of nabim Group 1 and 2 wheat varieties and the proportion of the total wheat area**



Total wheat area estimates taken from Defra June survey  
 Group 1 & 2 estimates/\*2015 area estimate taken from the AHDB Planting & Variety Survey

Source: AHDB/ Defra

The decline in the area of bread wheat varieties has been driven by **poor production economics in comparison to relatively high yielding Group 4 varieties**.

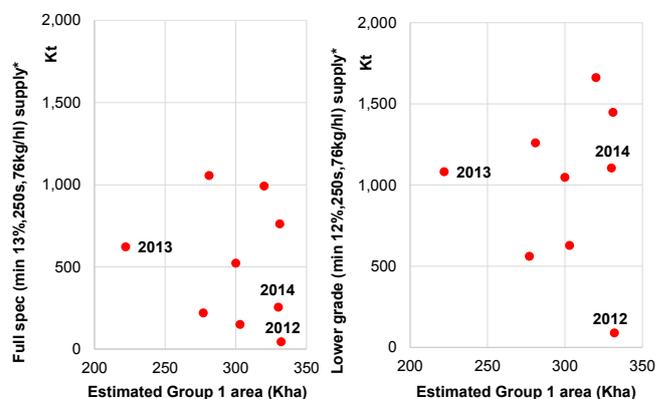
## Area vs supply

Looking at full specification Group 1 milling wheat (minimum 13% protein, 250s Hagberg and 76kg/hl specific weight), the relationship between the Group 1 area and full specification supplies is weak (Figure 2).

**Please note: Although the methodology here provides a good indication of the trends, it is important to remember that the supply figures are**

**indicative with data from several sources (see Figure 2 for details).**

**Figure 2 Relationship between the estimated nabim Group 1 area and Group 1 milling wheat supply**



\*Supply calculated using data from the AHDB Cereal Quality Survey, AHDB Planting & Variety Survey and estimated UK yield levels from Defra  
 Source: AHDB, Defra

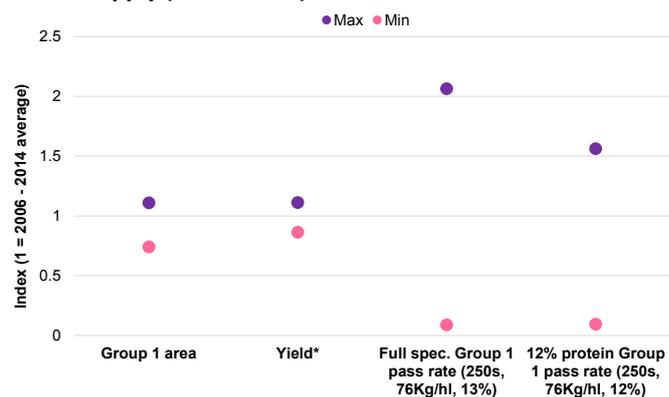
Alternatively when looking at lower grade milling wheat (minimum 12% protein, 250s Hagberg and 76kg/hl specific weight), a similarly weak relationship can be seen between the area planted and the level of supply.

The relationships shown in Figure 2, suggest that a **higher area planted to Group 1 varieties doesn't necessarily mean increased supply of full specification bread wheat** and therefore, lower full specification premiums. However, it could be more indicative of weaker premiums for the lower grade milling wheat. If anything then, higher areas of bread wheat going forward could make securing a 'good' premium even more reliant on hitting the top specification.

## So what's driving the variation in the supply of full specification milling wheat?

Looking at the variations in factors influencing the supply of milling wheat over recent years, allows the largest changes, and thus the main drivers to be identified. Variation in UK yield levels, Group 1 areas, as well as the annual pass rate for full specification and lower specification milling wheat were all considered.

**Figure 3 Drivers of variation in nabim Group 1 milling wheat supply (2006 - 2014)**



\*Defra UK average wheat yield

Source: AHDB, Defra

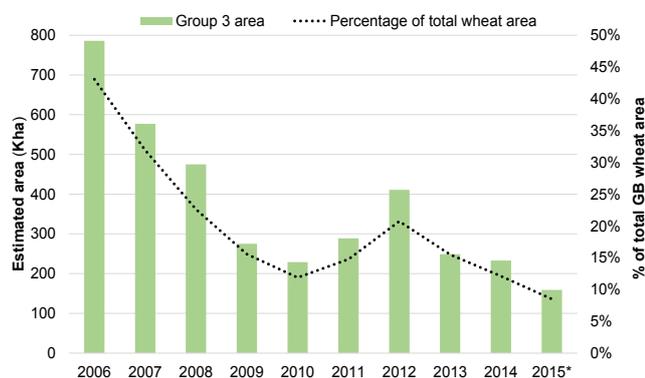
## The rise and fall of milling wheat trends

Figure 3 helps to reaffirm the conclusion that the Group 1 area does not necessarily drive the supply of milling wheat, along with the yield, as the level of variation is relatively small for both. **The big variable and therefore, the main driver is the percentage of samples reaching the desired specification.** This is, of course, linked to weather conditions at the end of the growing season and through harvest, which gives rise to the very unpredictable nature of milling premiums.

### Should we be getting concerned about Group 3s?

The area of Group 3 wheat varieties has also been in decline over the last 10 years. However, in 2012 the size of the area planted bucked the trend, with an increase of 122Kha seen in comparison to the previous year (Figure 4). **The driver behind the change is likely to be linked to the introduction of new higher yielding Group 3 varieties** being added to the [AHDB Recommended List](#). The increase in the trend was short lived, as the area once again fell in 2013, down 162Kha year on year, and has fallen each year thereafter.

**Figure 4 GB area of nabim Group 3 wheat varieties and the proportion of total wheat area**



Total wheat area estimates taken from Defra June survey  
Group 3 estimates/\*2015 area estimate taken from the AHDB Planting & Variety Survey

Source: AHDB/ Defra

With a fairly consistent downward trend occurring for the area of Group 3 varieties, it poses the question as to whether we are likely to see a shortfall in the levels of Group 3 supply in the near future.

**With a rise in popularity of the Group 1 and 2 varieties likely to be around the corner, this could be a further threat to the Group 3 area,** rather than simply doing a 1-for-1 swap with the Group 4s. The Group 3 situation could get quite interesting going forward, partly as these varieties risk operating in the shadow of the emerging Group 1 and 2 popularity. Capitalising on this will require a firm understanding of what the local market (including local ports) need.

### Concluding comments

Taking into consideration points discussed above, it can be concluded that the share of the total wheat area attributed to Group 1s 2s and 3s is likely to evolve over the coming seasons. Through the introduction of new higher yielding Group 1 and 2 varieties, current area trends could be reversed due to the changing economics behind growing a Group 1 or 2 variety.

With this in mind, if an increase in the Group 1 area occurs, it does not necessarily point towards a higher level of full specification milling wheat production, and lower premiums – ultimately that will be decided by the quality of the crop.

The current focus on Group 1 and 2 varieties might well mean that the Group 3 segment of the market becomes more vulnerable going forward.

### Key Points

- The declining trend in the area of nabim Group 1 and 2 varieties could soon be reversed as new higher yielding varieties are now available
- Varying levels of quality (not area) have the highest impact on milling wheat supply, and thus premiums each year
- If the current downward trend continues, we could see a shortfall in the supply of Group 3 wheat varieties

# Gross margins alone make OSR the best of a bad job when it comes to break crops

*Estimated gross margins for harvest 2016 suggest an incentive to switch feed wheat area for milling wheat or barley, continuing some of the trends seen in 2015. OSR margins appear relatively strong on the face of it, but there are risks behind this which might reduce the incentive to plant OSR.*

Arthur Marshall, Market Specialists team  
[Arthur.marshall@ahdb.org.uk](mailto:Arthur.marshall@ahdb.org.uk), 02476 478956  
 14 July 2015

## Introduction

Area estimates for the 2016 harvest are a long way off yet, but with upcoming planting decisions approaching, the relative gross margins of alternative crops provide an idea of how crop areas might evolve. The relative margins of different crops can be time sensitive - these are based on information available as at 8 July 2015. While averages can give an indication of national trends, it is important that all planting decisions take into account specific on-farm conditions and needs.

**Figure 1 Projected 2016 gross margins**

	Nov-16 ex-farm price £/t	Yield t/ha	Gross Margin £/ha	Gross Margin Rank
First winter feed wheat	£126	8.95	£653	2
Second winter feed wheat	£126	8.10	£503	5
First bread milling wheat*	£146	8.40	£713	1
Winter feed barley	£119	6.90	£439	9
Winter malting barley	£130	6.25	£460	7
Winter milling oats	£126	6.40	£512	4
Winter OSR^	£274	3.65	£539	3
Feed winter beans	£166	4.05	£393	10
Spring feed barley	£119	5.80	£389	11
Spring malting barley	£139	5.35	£465	6
Human consumption spring beans	£188	3.85	£443	8

All exclude straw ^Including oil bonus \*Milling premium equal to 5-year average

Sources: The Agricultural Budgeting and Costing Book, Trade, AHDB

Figure 1 above shows the projected gross margins for the 2016 harvest. The key changes in this year's estimates compared with those made at this time last year are described below:

- While wheat retains the top spot, a shift towards new nabim Group 1 & 2 varieties could be expected – essentially this comes down to the narrowing yield gap between these and what have been the 'go to' Group 4 'feed'

varieties. The narrower yield gap essentially reduces the economic risk of growing varieties from Group 1 & 2, although it doesn't guarantee that they will be grown with solely the milling wheat market in mind.

- Feed barley gross margins have fallen less dramatically than wheat. For the second cereal spot in the rotation, this may encourage another year of further switching to barley – especially where black-grass is an issue. This comes down to the narrow gap between barley and wheat prices over the last year, although it is very unclear as to whether this will continue over the coming year. The current low price levels make barley's lower yields versus wheat less significant at the relative gross margin level.
- For break crops, oilseed rape (OSR) has had a season of low returns with prices below what many would have liked to sell at. Returns for November 2016 are modelled similarly. Nonetheless, OSR has retained a relatively favourable gross margin, but many will likely view this as a 'best of a bad job'. Beyond the gross margin level though, incorporation of all costs as well as associated risk paints a different picture.

All of these are looked at in more detail below.

## Possible shift into nabim Group 1 and 2 varieties

The availability of wheat varieties in nabim Groups 1 and 2, with yields comparable to feed varieties, is anticipated to improve their gross margins relative to Group 4s for harvest 2016. Traditionally, it has been fair to assume that varieties in nabim Groups 1 and 2 were being grown with specifically the milling wheat market in mind. However, with some Group 1 and 2 yields comparable to those in Group 4, it might be that some are grown to a feed wheat input protocol with any achievable premium a bonus.

With this in mind, it is important that farm specific milling wheat gross margins take into account achievable yields and average premiums. Figure 2 below shows the additional gross margin from growing milling wheat over feed wheat at varying average premium levels (which accounts for the actual premium and pass rate) against various yield differentials.

Figure 2 shows that as the yield differential between 'milling' and 'feed' varieties narrows, the average premium required to justify growing milling wheat reduces. The role of the premium remains important to incentivise farmers to grow high yielding Group 1 and 2 varieties to a milling wheat input protocol rather than feed.

# Gross margins alone make OSR the best of a bad job when it comes to break crops

**Figure 2 First bread milling wheat gross margins relative to first feed wheat**

		Average milling premium (£/t)			
		£0	£10	£20	£30
Yield difference from feed wheat (t/ha)	0.00	-£39	£51	£140	£230
	-0.25	-£70	£17	£104	£191
	-0.50	-£102	-£17	£67	£152
	-0.75	-£133	-£51	£31	£113
	-1.00	-£165	-£85	-£6	£74
	-1.25	-£196	-£119	-£42	£35
	-1.50	-£227	-£153	-£78	-£4

Sources: *The Agricultural Budgeting and Costing Book, Trade, AHDB*

## Barley or second wheat?

Gross margin estimates at this point in time last year (for harvest 2015) were based on prices lower than the year before (for harvest 2014), and showed a smaller decline in margins for winter feed barley than second feed wheat. The same can be seen once more this year, with estimated winter feed barley gross margins down only £21/ha while second feed wheat is £115/ha lower. With lower yields than wheat and a narrowing price discount, barley revenues per hectare have had less to lose than wheat in the past two seasons of generally falling prices. This makes it a more competitive crop at lower price levels.

As revealed by the [AHDB 2015 Planting and Variety survey](#), the estimated GB barley area for harvest 2015 has increased year on year while the estimated area planted to wheat has fallen, a response that would have been expected given estimated gross margins. A further shift from wheat to barley may therefore be expected again for 2016.

## OSR risk and reward

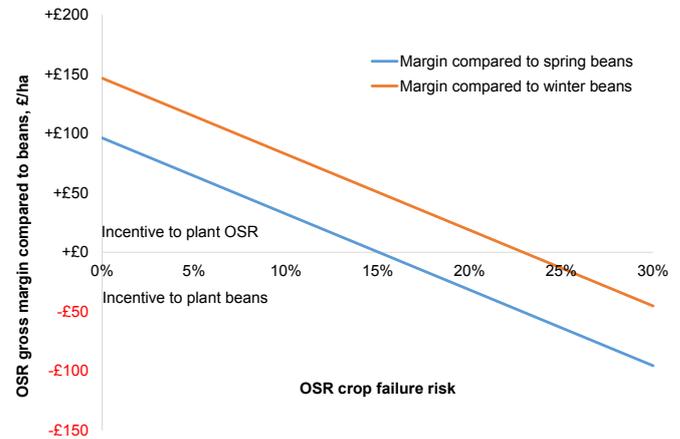
With pulses the main alternative shown here, on the face of it, OSR appears the best of a bad bunch for break crops. Depending on the exact decisions taken and the needs of individual farm businesses, this could prop up the OSR area for harvest 2016. However, there are a number of risks offsetting this which reduce incentives to plant OSR.

The yields achievable on specific farms may not match those assumed, particularly where OSR has been intensively included within rotations. Whilst planting OSR may minimise losses when looking at a single season alone, there are follow on benefits to alternatives that are not calculated in these gross margins – such as having a [break from OSR](#) this coming season to maximise potential in subsequent (potentially higher priced) seasons.

There is also failure risk to OSR crops, including Cabbage Stem Flea Beetle (CSFB) damage following the loss of

neonicotinoid seed treatments. Assuming a failed crop incurs only some variable costs of £100/ha, Figure 3 shows how the incentive to plant winter or spring beans over OSR varies based on the OSR failure risk. Remember though that this doesn't account for the indirect benefits such as residual nitrogen from pulse crops.

**Figure 3 Comparative 2016 gross margins for OSR over**



Sources: *The Agricultural Budgeting and Costing Book, Trade, AHDB*

Beyond a failure risk of 15%, spring beans begin to look a more attractive crop than winter OSR. Approaching 25%, winter beans also overtake OSR. An [AHDB survey](#) conducted in winter 2014 suggested that 5% of crops nationally had failed due to CSFB damage, implying that the national failure rate is not high enough to incentivise planting beans over OSR on this basis alone. However, this is likely to vary between regions, so for certain areas there may well be a failure risk that comes close to incentivising growing beans over OSR.

## Concluding comments

Estimated gross margins for harvest 2016 suggest that the feed wheat area could lose out to both new Group 1 and 2 varieties and barley. With low forward prices, the incentive to plant barley over wheat looks set to be stronger, alongside only a small price discount of barley to wheat. The improving yields of milling wheat relative to feed are expected to increase the incentive to plant more milling wheat, including more 'speculative' milling wheat crops. The incentive to plant OSR remains strong as the 'best of a bad job', but various risks and other considerations reduce the crop's attractiveness.

## Key Points

- Low price levels and a small discount to wheat continue to make barley attractive for harvest 2016
- Improving yields in nabim Group 1 and 2 varieties increase the incentive to plant these over feed wheat
- OSR margins remain relatively high but may well be seen as the 'best of a bad job' and come with risks attached which may dampen the incentive to plant

# Stronger exports predicted for all classes of US wheat

*US wheat production is forecast higher for 2015/16, and exports are expected to increase by 11% in comparison to last year. Durum wheat production looks to have recovered to over 2Mt, while SRW production is forecast 14% lower at 10.7Mt. Exports of all the classes are forecast to increase, but sales to date have been sluggish.*

Sarah Nightingale, External contributor  
16 July 2015

## Introduction

The July update of the World Agricultural Supply and Demand Estimates Report (WASDE), published by the USDA ([read more here](#)), gives an indication of the condition and outlook for the 2015 US wheat crop.

Supply and demand forecasts for the separate classes of wheat help to show the potential pattern of exports in 2015/16. It also allows us to identify any potential supply issues for a particular wheat class.

## Total US wheat production 6% higher than last season

Total wheat production for the US this season was revised up from the June forecast of 57.7Mt, to 58.5Mt. This is 6% higher than last year's crop, which suffered from drought and produced 55.1Mt.

Problems with the ongoing winter wheat harvest, which was 65% complete as at 12 July, resulted in production forecasts lower than in June. On the other hand, good conditions for spring wheat varieties in most of the producing states led to an increase in the production forecast for Hard Red Spring (HRS), white spring and durum wheat.

Harvest is only just starting for spring crops in southern areas, and more information will be available on yields and quality in forthcoming weeks.

**Figure 1 US wheat supply & demand**

M tonnes	14/15		15/16		14/15		15/16	
	HRW	HRS	SRW	White	Durum	Total wheat		
Beginning stocks	6.4	8.0	4.6	5.8	3.1	4.2		
Production	20.1	23.6	15.1	15.6	12.4	10.7		
Imports	0.3	0.3	1.8	1.4	0.4	0.5		
<b>Total Supply</b>	<b>26.8</b>	<b>31.8</b>	<b>21.5</b>	<b>22.8</b>	<b>15.8</b>	<b>15.4</b>		
Domestic Use	<b>11.5</b>	<b>13.9</b>	<b>8.3</b>	<b>7.8</b>	<b>8.0</b>	<b>7.0</b>		
- Food use	10.1	10.8	7.3	6.9	4.4	4.2		
- Feed use*	0.4	2.3	0.4	0.4	3.3	2.3		
Exports	7.3	8.0	7.4	8.8	3.6	3.7		
End-season stocks	8.0	9.9	5.8	6.1	4.2	4.8		
Beginning stocks	1.4	1.8	0.6	0.7	16.1	20.5		
Production	6.1	6.5	1.4	2.1	55.1	58.5		
Imports	0.3	0.3	1.2	1.1	3.9	3.5		
<b>Total Supply</b>	<b>7.7</b>	<b>8.6</b>	<b>3.3</b>	<b>3.8</b>	<b>75.1</b>	<b>82.5</b>		
Domestic Use	<b>1.9</b>	<b>2.9</b>	<b>1.6</b>	<b>2.1</b>	<b>31.4</b>	<b>33.7</b>		
- Food use	2.3	2.3	2.0	2.0	26.1	26.3		
- Feed use*	-0.5	0.4	-0.6	0.0	3.0	5.4		
Exports	4.0	4.2	1.0	1.1	23.3	25.9		
End-season stocks	1.8	1.5	0.7	0.6	20.5	22.9		

Please note: 2014/15 figures are estimates and 2015/16 figures are forecasts \*and residual figure which may be less than zero. Source: USDA

Figure 1 shows the USDA estimates (2014/15) and forecasts (2015/16) for supply and demand of the five classes of US wheat.

Hard Red Winter (HRW) wheat production, the most severely affected by drought last year, is seen to increase by 17% to 23.6Mt. Contrastingly, production of Soft Red Winter (SRW) wheat is seen to decline by 13.6% to 10.7Mt, due to a smaller area sown and lower yields this year.

Production of HRS wheat and white wheat varieties are forecast to increase slightly to 15.6Mt and 6.5Mt respectively. A larger sown area has resulted in a forecast 42% increase in durum wheat production to 2.1Mt.

## 2015 harvest affected by rains in some areas

As harvest progresses from southern states to central and northern regions, the quality of the crop has been a concern following heavy rain in many areas during June.

Early reports suggest that HRW states such as Kansas and Oklahoma, which suffered from dry conditions during early spring, benefitted from June rains. So far, yields and quality are better than expected.

SRW quality may, however, have been affected by the very heavy rains experienced in the Midwest during harvest, particularly in Illinois, Indiana, Ohio and Missouri. US Wheat Associates report a decline in the Hagberg Falling Number test results for samples from Illinois and Missouri in the week to 10 July.

Heavy rain during harvest was also reported to be causing some concern for the "desert durum" states of California and Arizona, which are expected to account for about 26% of total durum wheat production in 2015/16.

In contrast, the Pacific Northwest is suffering severe drought conditions and very high temperatures, affecting white wheat production. Washington's wheat crop in particular has been affected, and 26% of its spring wheat crop was reported to be in "poor" or "very poor" condition as at 12 July. The average for the past five years is 11%.

## Total wheat exports forecast to increase by 11% for 2015/16...

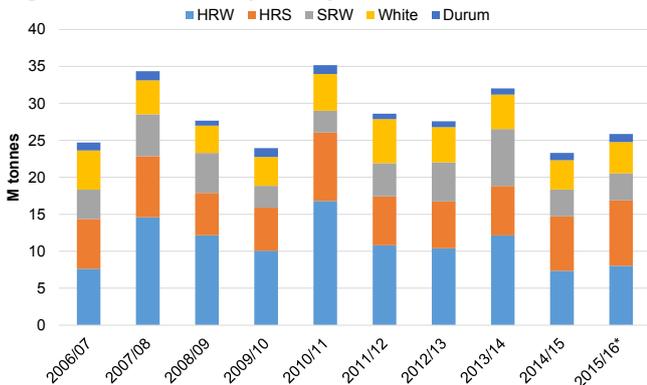
The USDA projects total US wheat exports for 2015/16 to increase by 11% on last year to 25.8Mt. This is still a relatively low figure compared to previous years. Furthermore, apart from 2014/15, it would be the lowest amount exported since 2009/10 (23.9Mt).

Figure 2 shows small increases in exports of all the classes are forecast. The largest increase of 1.5Mt, is forecast for HRS. This figure was increased following a reduction in the high protein wheat production forecast

# Stronger exports predicted for all classes of US wheat

for Canada in 2015/16; a result of dry conditions in Alberta and Saskatchewan.

**Figure 2 US wheat exports by class**



\* July 2015 forecast

Source: USDA

Export forecasts for the season are likely to change over forthcoming months as harvest progresses. They will also be affected by developments in import demand and the final export availability of competitors such as the Black Sea region and EU. The strength of the US dollar will also be an important factor.

### ...Though export sales to date are down

Cumulative export sales for wheat between 1 June and 2 July 2015 are down from 8.2Mt last year, to 6.2Mt.

**Figure 3 US wheat sales by class to 2 July**



Source: USDA

Figure 3 shows sales of all classes of wheat, except durum, are down so far this year.

In its recent report on US commercial sales, US Wheat Associates reveal only 24% of projected wheat exports have so far been committed. This is below the five-year average of 30% of exports committed by early July.

Sales during June to the three largest US wheat importers, Japan, Mexico and Philippines, were down 42%, 39% and 37% respectively.

Nigeria, Brazil, Mexico and Japan were the main importers of HRW in 2014/15. Sales to Brazil by 2 July are lower this year at 68Kt, compared to 842Kt last year. In contrast, sales to Nigeria are 45% higher at 405Kt.

Principal buyers of HRS are Japan (which bought 1.3Mt in 2014/15), the Philippines (1.2Mt) and Taiwan (621Kt). Additionally, the EU (Italy and UK) also imports between 300Kt and 400Kt per year.

Sales to key HRS importers from the US so far are down on last year. Total sales of this class by 2 July were also down 1Mt at 1.8Mt.

Mexico is the principal importer of SRW accounting for 31% of sales in 2014/15. Colombia, Nigeria, and Ecuador were also important buyers of this class in 2014/15. Total sales to 2 July were down 15% year on year to 1.2Mt.

The Asian market is important for US white wheat sales, with the major importers being Japan, Philippines and Korea. Total sales of this class to date (2 July) were down 14% at 1.2Mt.

Yemen, previously a key importer for US white wheat looks to have been lost as a result of the civil war. In previous years Yemen has bought up to 700Kt of white wheat from the US, but the last shipment, made in March, was unable to unload. No sales have been reported to Yemen so far this season.

For US durum wheat the main importers are Italy and Algeria. In 2014/15 they purchased 358Kt and 210Kt, respectively. Furthermore, both countries made purchases of durum wheat in June. Total sales to 2 July are up 68% to 280Kt.

### Concluding comments

While US wheat exports are forecast to increase this season, they will still be low in comparison to the previous 5-year average. Furthermore, sales to date have been sluggish so the US faces a challenge to meet current export forecasts and avoid further stock buildup.

HRS exports are expected to increase by 1.5Mt, due to a higher production forecast for the US and expected lower availability of high protein wheat in Canada.

Although SRW production is down, supplies are plentiful for the principal importing countries of this class of wheat, mostly based in Latin America.

### Key Points

- HRW and durum wheat production in the US is likely to be higher this season, while SRW production is expected to be lower
- Exports of all five classes of wheat in the US are forecast higher this season
- Export sales to date have been behind last year's pace

# Reducing opportunity to grow wheat in the UK arable rotation

*The mix of crops used in regional rotations is an ever evolving trend, determined each year by factors such as agronomics, policy and market prices. Looking at long term trends allows us to identify key drivers of shifts in regional crop areas as well as analysing where we could next see changes.*

Anna Lockwood, Market Specialist team  
[Anna.lockwood@ahdb.org.uk](mailto:Anna.lockwood@ahdb.org.uk), 02476 478698  
 21 July 2015

## Introduction

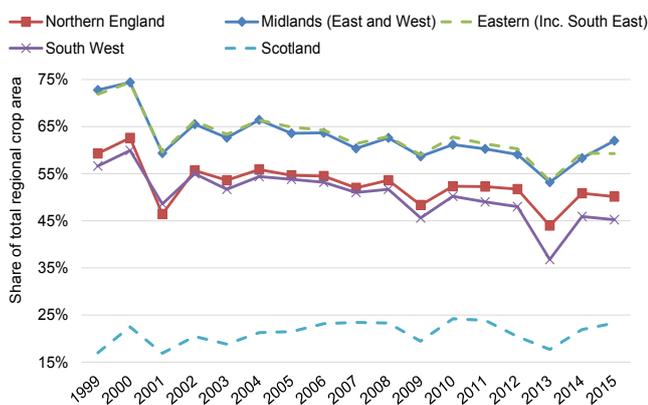
Using the data gathered from the Defra June survey and the [AHDB Planting and Variety Survey 2015](#), we can identify how long and short term trends of regional cropping mixes are developing.

**Please note: The total UK crop area (1999-2014) is calculated using the Defra June survey figures for wheat, winter and spring barley and winter oilseed rape (2015 area figures are calculated using the AHDB Planting and Variety Survey results).**

## Wheat

The level of wheat incorporated into regional cropping mixes in England has been steadily declining since the late 1990's, with several factors likely to be behind the demise (Figure 1). 2015 sees the regional trends continue, with the maximum level of variation, year on year, one percentage point (pp).

**Figure 1 Proportion of total\* regional crop area planted to wheat**



Source: Defra/AHDB

*The total UK crop area (1999-2014) is calculated using the Defra June survey figures for wheat, winter and spring barley and winter oilseed rape (2015 area figures are calculated using the AHDB Planting and Variety Survey results).*

One of the motives behind the declining trend is likely to be less second wheat grown in rotations. This is probably being driven by the need for more cultural control of black-grass. With the efforts to control black-grass becoming ever more important, growers are turning to alternative crops, probably at the expense of second wheat crops. However, with potentially less second wheat, production may not fall as much as areas with higher first wheat yields are becoming more influential over overall averages.

The upshot is that, at the economic optimum, there is a reducing opportunity to grow wheat in the UK arable rotation.

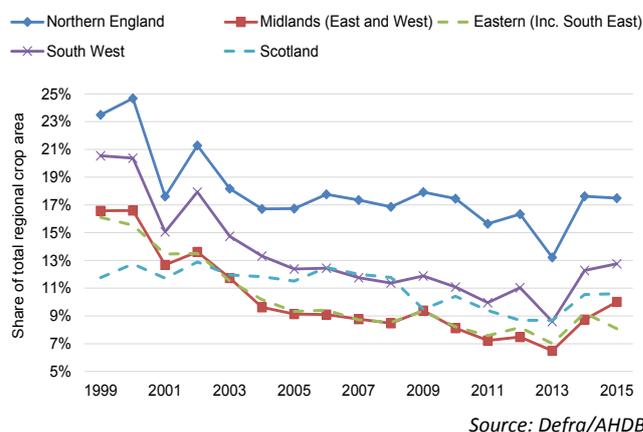
Bucking the downward trend in 2015 is Scotland, with a year on year increase seen for the wheat area. The increase comes as a possible consequence of the three crop rule with wheat taking the place of spring barley on some farms.

## Barley

Looking at the longer term trend for winter barley, the share in regional rotations has also declined, but in more recent years this fall has stopped and been partly undone (Figure 2). High yielding winter feed barley varieties are the likely cause in the recovery in the crop's share of the rotation, largely at the expense of second wheat. This trend will need close monitoring as it risks the UK having a large surplus of feed barley to export on pure commodity terms.

However, the growth in popularity of high yielding feed barley is offset by declining demand for 'commodity' winter malting barley. With growth of distilling demand and more 'Europeanisation' of the large scale brewing sector, malting demand is becoming increasingly dominated by spring barley. The exception to this lies in the craft brewing sector with the rise of heritage varieties such as Maris Otter.

**Figure 2 Proportion of total\* regional crop area planted to winter barley**



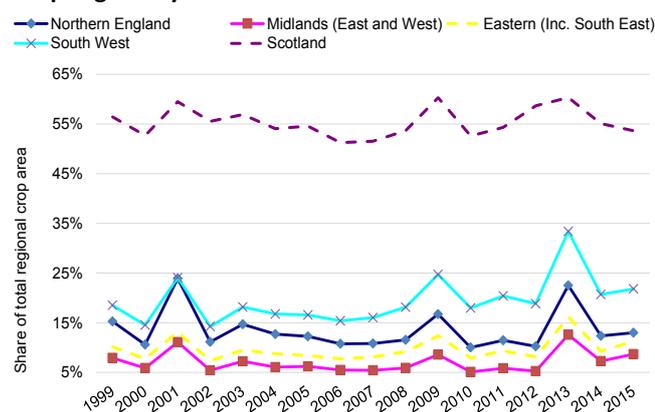
Source: Defra/AHDB

*\*The total UK crop area (1999-2014) is calculated using the Defra June survey figures for wheat, winter and spring barley and winter oilseed rape (2015 area figures are calculated using the AHDB Planting and Variety Survey results).*

The story for spring barley is slightly different, with the trend over the past few years increasing progressively in regional rotations in England (Figure 3). One of the primary drivers for the increase this year is the use of spring cropping to control black-grass – with spring barley being a 'go to' spring crop as we see when wet weather impacts autumn plantings and diverts land to spring cropping.

# Reducing opportunity to grow wheat in the UK arable rotation

**Figure 3 Proportion of total\* regional crop area planted to spring barley**



Source: Defra/AHDB

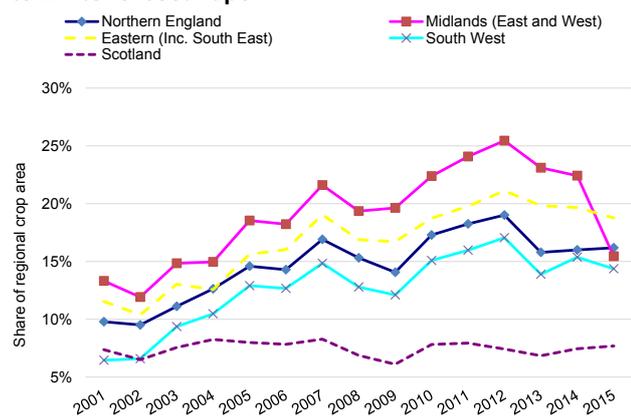
\*The total UK crop area (1999-2014) is calculated using the Defra June survey figures for wheat, winter and spring barley and winter oilseed rape (2015 area figures are calculated using the AHDB Planting and Variety Survey results).

Scotland has once again seen an opposite trend to England, as the spring barley share of the rotation has fallen by 1pp this year. Again, new requirements under CAP are likely to have played a part here as alternate crops will now have to be included into rotations as a result of the three crop rule.

## Winter oilseed rape

For winter oilseed rape, recent years have seen the long term trend for area growth being gradually undone (Figure 4) with the biggest decline seen for the Midlands. However, the area share is historically high compared with the early 2000's.

**Figure 4 Proportion of total\* regional crop area planted to winter oilseed rape**



Source: Defra/AHDB

\*The total UK crop area (1999-2014) is calculated using the Defra June survey figures for wheat, winter and spring barley and winter oilseed rape (2015 area figures are calculated using the AHDB Planting and Variety Survey results).

Several factors can be identified as drivers for the decline ([click here for more information](#)), including restrictions of the use of neonicotinoid seed treatments.

It is likely that there will be a further loss in the rotation going forward, although oilseed rape is still seen as a key 'go to' break crop. With this in mind, an increased area devoted to pulses and oats could be on the horizon, which may be used as alternative break crops.

## Conclusion

For wheat, the share in each regional crop mix has largely remained unchanged from last year and for England, the long term decline continues.

Despite winter barley seeing some revival in recent years, the share in regional rotations remains a long way from the highs seen in the late 1990's. In comparison, spring barley has continued on a steady upward trend this year with spring cropping looking favourable for growers with black-grass issues.

The regional share of winter oilseed rape in rotations is declining, as factors continue to stack against it being an economically viable break crop to grow. However, it is still seen as a key break crop and is likely to remain in rotations going forward, although perhaps at a lower level.

## Key Points

- The incorporation of wheat in regional cropping mixes continues to steadily decline
- The trend for spring barley in regional mixes is increasing – a likely result of increased spring cropping in an effort to control black-grass
- Long term growth of oilseed rape in rotations is now being undone