



MI Prospects



Analyst's Insight: Further barley opportunities to come?

Barley exports have been a key success story for both the UK and EU as a whole this season. In the [latest UK supply and demand estimates](#), Defra forecast total season exports to reach 1.5Mt – the highest level since 1999/00. Meanwhile the EU looks on track to reach the highest barley exports for 16 years in 2014/15. A combination of tighter global supplies and larger crops in the EU helped make the bloc the 'go to' origin for barley this season - **current projections suggest these opportunities could continue in 2015/16.**

As reported in a [recent Prospects article](#), global barley supplies are forecast to remain tight in 2015/16. Current projections indicate that production across the six major exporters of barley, could fall by around 6% to 101Mt which, if realised, would be the lowest level since 2012/13 (96Mt). While there is a long way to go until the crops are secured, an initial look across the production forecasts for the six major barley exporters reveals potential opportunities for the UK and EU.

In particular, **output from Ukraine is expected to drop** after unfavourable weather conditions hit winter barley establishment last autumn – [read more here](#). Consequently, exports from the country next season are projected to fall

sharply and account for just 9% of the global total in 2015/16, down from an estimated 16% this season.

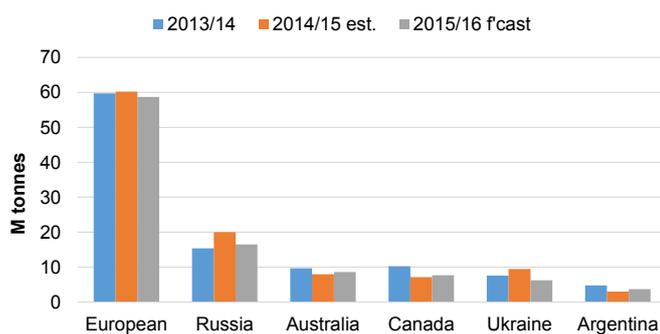
These opportunities could be further amplified if the risks to the Australian crop from the ongoing El Nino weather event ([more here](#)) are borne out. Furthermore, elections later this year also give rise to uncertainty over the export policy and so incentive to plant winter crops in Argentina. However, these are not certain to impact production in the Southern Hemisphere yet and if unfounded, we could see a rebound in the level of competition.

While the UK situation with regard to harvest 2015 is not yet clear, the **UK could again be well placed to take advantage of any early season export demand.** Defra forecast carry-over stocks at 1.4Mt, a similar level to a year ago and furthermore, sterling remains around 8% weaker (as at 26 May) against the US dollar year on year.

Final production levels are subject to both final areas and yields – and thus weather conditions in the major exporting countries will be hotly watched in the coming months. More clarity on the UK situation will be provided by the AHDB/HGCA Planting and Variety survey in early July.

Helen Plant

Figure 1 Barley production forecasts for major exporters



Source: USDA

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Where next for US ethanol?

Fluctuating profitability for ethanol production changes the timing of production but has less influence on the quantity produced than the support system.

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India's two harvests affected by poor weather

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The evolution of global production estimates

USDA estimates are key indicators of global supply levels. However, an important factor to take into consideration is that the figures evolve as the season and crop develops.

Where next for US ethanol?

Fluctuating profitability for ethanol production changes the timing of production but has less influence on the quantity produced than the support system. The US regime is still evolving but there is unlikely to be a change in policy, which would release a large quantity of grain on to the global market to further depress prices.

Simon Ward, External contributor

14 May 2015

Introduction

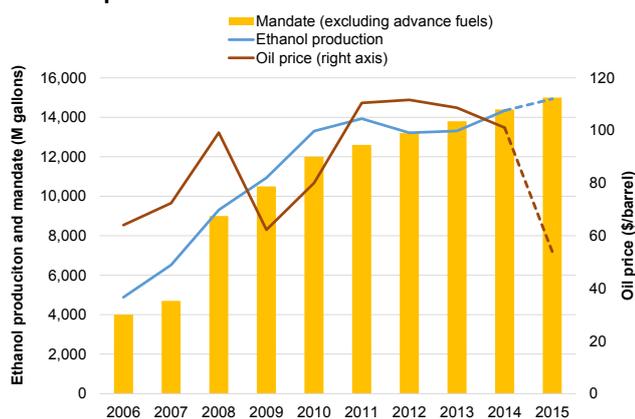
According to the USDA Economic Research Service, the USA used over 131Mt of maize to produce ethanol in 2014 - the highest ever. With the collapse of the oil price it might be expected that ethanol use may decline or even cease, with consequences for US and global maize demand.

US ethanol pricing economics

While the low oil price has raised doubt over the viability of ethanol production in the US, in practice **production is dependent on direct or indirect subsidy levels**. A range of support mechanisms have been used, including assisting with the capital cost of plant construction and maintaining ethanol prices. Without subsidy it is doubtful whether there would be any significant use of ethanol for fuel in the US (or Europe).

Broadly, the production of ethanol has reflected the mandated level far more closely than the price of oil (Figure 1). This suggests that the effect of low oil crude oil prices in the short term on ethanol production is limited. Figure 1 shows only the basic ethanol mandated quantity (largely from maize) and excludes the mandate for advanced fuels.

Figure 1 Ethanol production, ethanol mandate and Brent crude oil price



**Projections are extrapolated from the January and February data. This may eventually prove incorrect but is provided to show the current situation.*

Source: US Environment Protection Agency, Chicago futures markets

Nonetheless, the **ethanol pricing situation is complex**. The US operates a cap and trade system to encourage the use or blending of ethanol;

- The blender is required to include a specified proportion of renewable fuel (different types are recorded separately) to avoid penalty.

- Any renewable fuel produced gives rise to a certification, known as a Renewable Identification Number or RIN.
- The RIN is either supplied to the monitoring authority to demonstrate compliance or can be sold to any other blender who has not met the blending target.

Prior to 2013 the RIN price had ranged between \$0.01 per gallon to \$0.05 per gallon. This low RIN value meant that oil price became a significant influence on ethanol price. However, **the cost of producing ethanol, is as important as oil prices in determining production**. Once a plant is built it will usually continue to produce, even if only the running costs are covered (or, if there is a cost to closure and the long term prospects are good, even if there is a small loss).

New era?

Without the complication of the mandate and RINs, the blender would simply have to consider whether ethanol or the fossil fuel (gasoline) was the cheaper and use as much of the cheaper fuel as was technically possible. However, the mandate does impact blenders' decisions.

The purchase price of ethanol is the value of ethanol (priced to compete with gasoline), plus the RIN (priced to avoid the penalty for not achieving the mandate). If the value of the RIN rises because of undersupply and fear of penalty for not reaching the mandate, the price of the ethanol produced also rises.

At the time of writing, the RIN value is high, at about \$0.7223 per US gallon. The ethanol cost (including the RIN) is about \$1.44 per US gallon. In effect the value of the ethanol alone is about \$0.71 per US gallon. Thus, **net of the RIN, the ethanol price is the lowest ever for some blenders, reflecting the price needed to compete with oil**.

The ethanol producer's price (ethanol and RIN) is also low and in early January it was at the lowest level experienced in the period starting from August 2006. Nonetheless, the price was not that much lower than 2008 and 2010 –significantly, also when the maize price was low.

Faced with low oil prices, the blender may:

- Continue to buy ethanol to meet the mandated ethanol inclusion rate
- Buy RINs to avoid the penalty for not reaching the mandate
- Hope that the situation may improve, allowing a short term shortfall in ethanol inclusion that may be met in the future

The demand for RINs drives up the RIN price, making this option increasingly less desirable. Since the ethanol producer continues to manufacture ethanol, while the value of RIN and ethanol cover operating costs,

Where next for US ethanol?

production is maintained despite a fall in ethanol value to the blender. It is theoretically possible for the producer to supply the ethanol and RIN at less than the RIN cost, suggesting a negative value for the ethanol.

If the situation is expected to change, the blender may increase the oil proportion in the gasoline, expecting to buy more ethanol, or purchase RINs, at a lower price in the future. The result is that ethanol may be stockpiled. This is most likely to be the case when the cost of manufacture is low, as it is at present as a result of the low maize price.

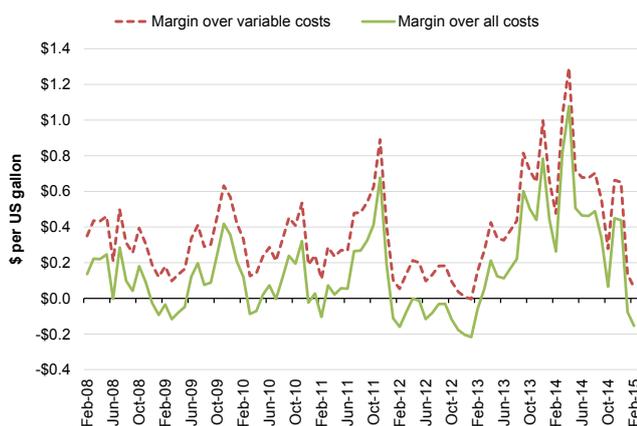
The increase in ethanol stocks since the beginning of the year is a good indication that the profitability of blending is expected to rise.

Profitability – not always as expected

The profitability of ethanol manufacture depends largely on: the price of ethanol, and distillers' grains and the cost of maize and energy. The cost of maize and the value of distillers' grains are inversely related i.e. a drop in maize prices reduces the manufacturers' costs but the revenue from sales of distillers' grains is also lower. The same is true, to a lesser extent, for ethanol and energy. This means that the movement in profitability from a price change in one component is less than might be expected.

Spot Brent crude oil futures prices generally remained above \$100/barrel from early 2011 to mid-2014, yet production margins for ethanol fluctuated considerably over the same period. Figure 2 shows the returns per US gallon as estimated by the Iowa State University.

Figure 2 Ethanol production margin over a) variable (running) and b) all (total) costs



Source: Iowa State University

Ethanol politics

Historically, US oil imports were increasing and it was felt to be politically undesirable to rely on imports from the Middle East and therefore the ethanol mandate and other support was put in place. The first mandate was legislated for in 2005. This was ramped up in 2007, virtually doubling the requirement for 2008 and increasing the mandated requirement going forward. As a result, the US has reversed the upwards trend in net oil imports.

There is a cost to the US economy of ethanol production from the inclusion of a fuel which may not be the cheapest, and lower fossil fuel prices increase this cost. However, the lower fossil fuel price has also made fracking uneconomic, reducing domestic fossil fuel production and potentially risking more oil imports into the US. **A reduction in oil imports was a significant part of the ethanol policy objectives, so any reversal in policy would involve an objective change.**

There has been concern that a consultation proposed a reduction in the mandate from 14.5bn US gallons to 13bn US gallons in 2014 and subsequently. The decision has been postponed and according to Scott Irwin and Darrel Good of the University of Illinois it is looking increasingly unlikely that the reduction will be imposed but uncertainty remains.

It so happens that **several of the important ethanol producing states also swap between the two US political parties.** Five of the 10 states that all or in part changed allegiance from Republican to Democrat between the 2004 and 2008 US Presidential elections, are also within the top 10 ethanol producing states. It would be a brave Presidential candidate that argued to remove the ethanol mandate and a lucky one that argued for its abolition and was elected.

Conclusion

The mechanism used to support ethanol production helps to maintain production when oil prices are low. The cost is largely paid by the consumer rather than as an obvious transfer through the tax system, making it less politically contentious. Fluctuating profitability changes the price of ethanol and the timing of production but has less influence on the quantity produced than the support system. The US regime is still evolving but it is unlikely to be politically expedient to remove all support. As a result, there is unlikely to be a change in policy releasing a large quantity of grain on to the global market to further depress prices.

Key Points

- Ethanol manufacture is driven by policy
- The price of oil determines the price of ethanol but this has only a small impact on production
- Ethanol price is the value of ethanol (competing into gasoline) and the value of the RIN
- Ethanol manufacture continues even if the ethanol price is only sufficient to cover running costs
- US policy still evolving but unlikely to be politically expedient to remove all support

Time to think again about milling premiums

Milling premiums are often mistakenly taken as an indication of the over/under supply of milling wheat in the UK. This is compounded by the fact that the milling wheat area in the UK often reacts to the milling premium when crops are being planted. By looking at premiums in the context of world feed grain supplies and domestic quality, it is easier to interpret what the milling premium is actually telling the market.

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Introduction

A milling premium is often misinterpreted as being purely a function of the milling wheat market. Essentially it is a market signal – the gap between the milling wheat and feed wheat price is useful and informative, but fundamentally it is a by-product of the separate milling and feed grain markets:

- **A strong milling premium** indicates a relative shortage of a particular grade (or grades) of milling wheat and/or a relative abundance of feed wheat/other feed grain e.g. maize. Here the market's message is "interrogate wheat stores closely to find the quality"
- **A weak milling premium** indicates the relative abundance of the milling grade in question and/or a relative shortage of feed grain. Here the market's message is "there's plenty of milling wheat about so some grades are likely to be destined for the feed market"

It is the latter of these which really needs to be interpreted carefully. By its very name, the milling premium is immediately associated with the milling wheat price and triggers particular psychological responses. How about if we change its name to 'the feed wheat discount' – essentially the same thing, but a completely different psychology towards it. By being labelled as the 'milling premium', the risk is that the influence of the feed base price on the 'milling premium' is ignored – more on this later.

Milling premiums are likely to have more relevance to planting than marketing decisions, but are generally used for the latter as it is hard to know where the premium will be prior to a season. However, new milling varieties on the Recommended List open up options to postpone some decisions.

How should the milling premium be interpreted?

The milling premium should be used to inform but not dictate longer term decisions. It is an incentive to act, but understanding what is driving it – whether the actual milling wheat market from above or the feed wheat market from below – is vital for knowing what it is saying about the market.

Figure 1 compares UK wheat quality with global feed grain supplies – two important drivers of the milling

premium in a season. Each season since 2007/08 is taken into account. There are obviously stronger and weaker points within each sector (e.g. very good quality years and slightly good quality years etc.).

Figure 1 Drivers of the milling wheat premium

		Bullish for the milling premium Challenging UK quality	Bearish for the milling premium Good UK quality
Bullish for the milling premium	Ample world feed grain supply: Low maize price	A 2014, 2008	B 2009
Bearish for the milling premium	Tight world feed grain supply: High maize price	C 2007, 2012	D 2011, 2010, 2013
Key		Bullish	Neutral / mixed
			Bearish

Source: AHDB/HGCA

This is useful for interpreting what the milling premium is actually telling us. Essentially, since the milling premium is a by-product of the separate milling wheat and feed grain markets, it can be conveying messages about either the milling wheat or feed grain situation.

Take two examples from above:

• Zone D, 2013

The market had become used to low milling premiums and decent feed grain returns, incentivising switching from growing milling to feed wheat since 2010. Even the extremely poor quality season of 2012, when only 2% of nabim Group 1 samples made full bread wheat specification, was unable to produce higher than average premiums. However, the milling premium was a false indicator here, as it was reflecting fundamentally tight world feed grain supply rather than a domestic milling wheat surplus. But by responding with cuts to the UK milling wheat area, the market has been tipped into zone 'A' this season, where a challenging quality season (too much Group 4 wheat and generally low protein) has created substantial tightness in the UK milling wheat market.

• Zone A, 2008

On paper, a similar season to 2014 – challenges with quality, weak feed grain prices and a milling premium even higher than this season. The very high milling premium here was brought about by a mixture of quality issues and ample world feed grain supplies. This in turn incentivised an increase in the UK nabim Group 1/2 area from 31% of the total UK wheat area to 37% for harvest 2009. Although the weather and world supplies cannot be controlled, this increase added pressure to the UK milling wheat market in 2009 when average quality conditions returned. The high milling premium was misread as an indicator of milling wheat shortage, when in reality it was more an indication of the global feed grain surplus, creating the risk of an overcorrection in supplies.

Time to think again about milling premiums

In essence, the move in recent years toward 'barn filling' nabim Group 4 varieties has been driven by a strong feed grain base price, rather than a weak milling wheat price. However, as the milling premium was weak, we immediately associate it with a poor milling wheat price. Nonetheless, looking at the logical on farm economics of growing wheat, it was clear to see why there has been a shift into Group 4 varieties.

However, by appreciating that the premium was driven by a strong feed base price, which itself was driven by extreme weather i.e. the US drought of 2012 which wrecked maize yields, a different outcome could have been forecast. Factoring in that global maize yields could, and indeed did, return to normal post 2012, would have alerted on farm decision makers to the fact that the feed base was at risk of falling (as was well publicised) – lending support to the ultimate milling premiums for the 2013 and 2014 crops.

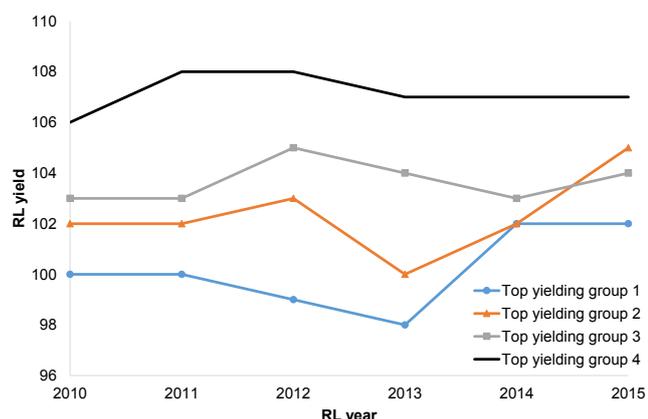
Relevance to decisions

Interpreting what the milling premium shows should inform planting and agronomy decisions. These of course, also depend on other factors such as geographical location, but an idea of the relative gross margins of feed and milling wheat as alternative crops is important when making planting decisions.

Or is it? If we move away from associating nabim Group 1/2/3 wheat varieties solely with milling demand, then the 'costs' of going for milling wheat over feed come at the growing stage, not at planting. Consequently, gross margins then factor into agronomy decisions as much as they do into planting decisions.

The milling premium in the coming season can never be known at planting, but the current premium can at least be better interpreted later in the season when agronomic decisions are made. With new milling varieties on the AHDB/HGCA Recommended List offering increasingly little yield penalty compared to nabim Group 4s (Figure 2), there is little yield loss by making the decision of which market to target after planting.

Figure 2 The narrowing yield gap between feed and milling wheats on the AHDB/HGCA Recommended List



Misleading uses

Once wheat crops are in the barn and the quality is known, it is too late to change any costs incurred or yields foregone compared to feed wheat to achieve those crops. For your marketing strategy, these are effectively irrelevant – it should seek to achieve the best possible returns regardless. Basing marketing decisions on achieving a premium that pays these costs back is misleading and perilous. In some seasons the premium may never reach sufficient levels to cover these costs, which can leave you a forced seller at low prices. In high premium years it can lead to complacency – selling at a premium which just covers these costs when there may have been a better price available.

If you are trying to achieve the best possible price when marketing your grain, you are effectively looking for signals that it is a good time to sell milling wheat. The milling premium is only a proxy for this, as it is the actual milling wheat price that matters. Once you have milling wheat to sell, the price of feed wheat is about as relevant as the price of coffee – except insofar as it remains an outside option.

Closing comments

The milling premium is a by-product of the separate milling wheat and feed grain markets. On a gross margin level, it has relevance for choices between growing milling wheat and feed wheat, but it is important to interpret it correctly.

A high premium one season is not necessarily an indication of a milling wheat surplus and vice-versa. However, with new milling wheat varieties on the AHDB/HGCA Recommended List offering increasingly narrow yield gaps from feed varieties, decisions to grow milling wheat can be postponed to the growing phase with little yield lost if these are eventually grown for feed.

Ultimately, the more flexibility accessible to deal with the vagaries of UK wheat quality from year-to-year the better. In essence, once all the unknowns of the feed grain and milling wheat markets are known, it's a lot easier to sell milling wheat as feed, rather than to sell feed wheat as milling.

Key Points

- Milling premiums are a by-product of separate markets and do not exist to compensate for the cost of going for quality
- Milling premiums are relevant for planting and growing decisions, but not necessarily for post-harvest marketing decisions
- The milling premium alone is misleading as a market indicator, so should be interpreted in the context of both milling and feed markets

India's two harvests affected by poor weather

Both the “kharif” and the “rabi” harvests in India are forecast lower. The “kharif” crops (harvested in 2014 and include rice, maize, millet and pulses), were affected by the poor 2014 monsoon. “Rabi” crops (including rapeseed and wheat), sown in late 2014 and currently being harvested, were adversely affected by heavy rainfall and hailstorms in March and April. Recent official estimates indicate food grain production 14Mt lower year on year.

Sarah Nightingale, External contributor

21 May 2015

Introduction

India, the second most populous country in the world, is also the **second largest producing (and consuming) country for both wheat and rice** on a global level. With regard to other cereals, India also produces millet (35% of world production), maize, sorghum and barley.

It also accounts for around 28% of global cottonseed production, 13% of global copra production, 12% of groundnut production, 10% of the world's rapeseed output and 3% of global soyabean production. In recent years the country has been an important exporter of rice, wheat, maize and groundnuts and a significant importer of vegetable oils (notably palm oil, soyabean oil and sunflower seed oil).

Figure 1 Supply and demand for cereals and oilseeds in India (Mt)

	Wheat		Coarse grains		Oilseeds	
	14/15	15/16	14/15	15/16	14/15	15/16
Beg. Stocks	17.8	16.5	2.3	1.9	1.9	1.7
Production	95.9	90.0	39.3	41.4	35.6	38.1
Imports	0.0	0.5	0.0	0.1	0.0	0.0
Total supply	113.7	107.0	41.6	43.3	37.5	39.8
Domestic use	93.8	94.6	37.7	38.9	35.0	37.0
-feed use	4.5	4.8	14.1	14.5	5.2*	5.4*
Exports	3.4	0.5	2.0	2.5	0.8	1.0
End stocks	16.5	11.9	1.9	1.9	1.7	1.8

*Direct feed use not inc. crush

Source: USDA

Wheat production affected by late season rains

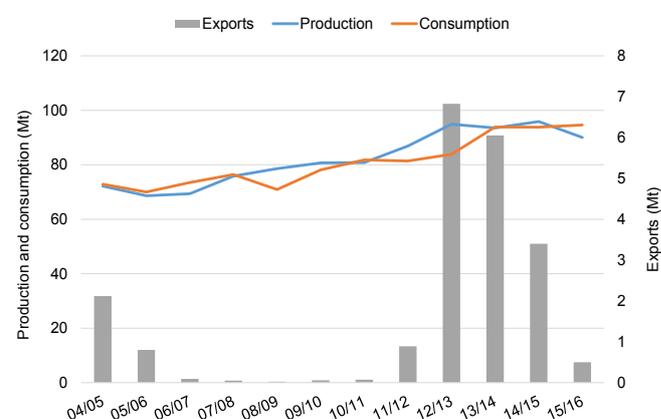
India plays an important role in the world's wheat market and accounted for around 13% of world production in 2014/15. Consumption has been steadily increasing from around 70Mt in 2005/06 to a forecast 95Mt in 2015/16 (Figure 2). Furthermore, production has been increasing to meet this demand, encouraged by government price support policies.

Wheat production in India this season is forecast lower year on year, following unseasonal heavy rain and hail across the important North-West and central regions in March and April.

The poor weather occurred during the critical flowering and grain filling stages, which led to damage to the crop. In April, the Ministry of Agriculture in India reported that around 6.3Mha out of a total sown area of 30.2Mha had been affected by the rain and

winds, with some states experiencing more than three times the normal amount of rainfall in March/April. Problems with lodging have been reported, and farmers are **expecting both the quantity and quality of the 2015 wheat crop to be affected.**

Figure 2 Production, usage and exports of wheat in India



Source: USDA

As a result of the poor late season weather, the USDA's first forecast for 2015 wheat production was put at 90Mt, 6% lower than production in 2014. Furthermore, harvest in the affected states started two to three weeks behind normal in April, and government procurement in early April was well behind that of last year. During April however, the government relaxed its quality specifications for wheat procurement in the worst affected states (with reductions in the government price). Consequently, by the first week of May, procurement for the food programmes in India had nearly caught up with the previous year's figures, particularly in Punjab and Haryana.

Total government procurement of wheat by 8 May had reached 22.5Mt, which is only slightly lower than the 23.4Mt procured by the same time last year. A total of 28Mt of wheat were bought by the government in 2014/15 and the procurement target in 2015/16 is 30Mt, despite the large quantity of government-held stocks in the country and the poor quality of this year's harvest.

While the quantity of government stocks is sufficient to meet the various food programme requirements, there continues to be a delay in the implementation of the National Food Security Act 2013. Under the act the government has committed to provide subsidised grains to around 820M people.

Due to the reduction in wheat production this year, USDA figures suggest that **India's wheat exports will decrease from 3.4Mt in 2014/15 to 0.5Mt in 2015/16.** Imports are also expected to be higher, particularly in view of the fact that the worst hit areas are the high protein wheat producing regions.

Trade reports suggest that millers in India have already bought some cargoes of Australian Prime Hard wheat

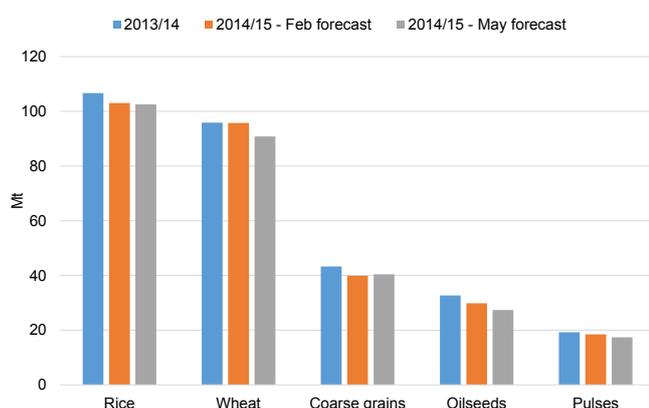
India's two harvests affected by poor weather

for May shipment because of the domestic quality problems. **India could in fact be a net importer of wheat in 2015/16**, with exports limited to road deliveries to neighbouring Nepal and Bangladesh. Previous buyers of Indian wheat, including Bangladesh, South Korea, UAE, Indonesia, Djibouti, Yemen and Oman, will therefore need to source their import requirements elsewhere.

Ministry of Agriculture lowers official estimates

The Indian Ministry of Agriculture recently issued its third advance estimates for crop production in 2014/15 (which include the “kharif” crops harvested in late 2014 and the “rabi” crops harvested during the first half of 2015). As Figure 3 shows, **production of all the main crops are now seen lower** than in 2013/14, with total food grain production put at 251.1Mt, 5% down on the record 265.0Mt produced in the previous year.

Figure 3 Official Ministry forecasts for crop production in 2014/15* have been lowered



2014/15 Ministry figures include the “kharif” crops harvested in late 2014 and estimates for the 2015 “rabi” crops currently being harvested.

Source: Ministry of Agriculture, India

“Kharif” crop production was lower due to the late and relatively poor monsoon in 2014, which produced 12% less rainfall than the long-term average. Initially, there had been some good prospects for the “rabi” crops. However, due to rain and hailstorm damage at the end of February, the Ministry reduced its forecast for wheat production in May (from the previous February forecast) by 5Mt to 90.8Mt.

The official May estimates also put **oilseed production down by 5.3Mt** compared to 2013/14. Reductions included 3.1Mt in groundnut production to 6.6Mt, a 1.2Mt reduction in soyabean production to 10.7Mt and a 1.1Mt reduction in rapeseed production to 6.8Mt.

A reduction in production could adversely affect the growing high-value export market for peanuts from India to neighbouring Asian markets, as well as the country’s oil meal export trade to Asian and Middle East countries.

Demand continues to increase for vegetable oils in India and in March the **Solvent Extractors’ Association**

of India forecast vegetable oil imports to increase by around 1Mt in 2014/15. In view of the recent official reductions to production estimates for oilseeds, there may well be an even larger increase in import demand for vegetable oils this year.

Will El Niño affect the 2015 monsoon?

The Indian Meteorology Department (IMD) issued its initial long-range forecast for the 2015 monsoon in April. Seasonal rainfall is forecast at about 93% of the long-term average. An El Niño weather event is currently underway, which could lead to a deficient monsoon season in India. The possibility of a second poor monsoon period is a concern for farmers and the government, which is striving to keep inflation down. The next IMD forecast will be issued in June, and in the meantime reports on the **development and severity of the 2015 El Niño will be highly important for the outlook for India’s 2015 “kharif” crops**. Keep an eye on Grain Market Daily for more El Niño updates ([subscribe here](#)).

Concluding comments

While wheat and rice production are seen lower in 2015 compared to 2014, the **large quantity of government owned stocks carried over from last season means that there is no immediate concern about availability of the main food grains** in India. The Food Corporation of India reported that it held 34Mt of wheat and 17Mt of rice on 1 May, which is sufficient to meet its food programme obligations.

The reduction in oilseeds and pulse production is likely to lead to higher import requirements for these products. A **second year of production problems arising from a poor monsoon could have more serious implications**, particularly in view of the anticipated drawdown in government stocks of food grains during 2015.

Key Points

- Heavy rain and hailstorms has affected wheat and other “rabi” crops currently being harvested
- Lower “kharif” production year on year due to poor 2014 monsoon
- Forecast for a poor 2015 monsoon could mean serious implications for 2015/16

The evolution of global production estimates

USDA estimates are key indicators of global supply levels. However, an important factor to take into consideration is that the figures evolve as the season, and crop develops. While how much the figures will vary remains an unknown, we can use previous figures to help understand some historical boundaries.

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 26 May 2015

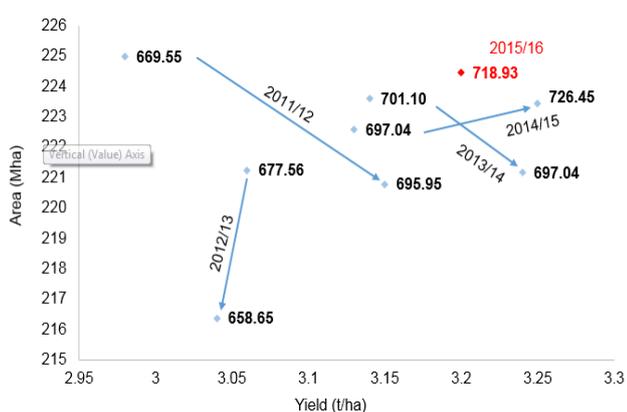
Introduction

The USDA recently (12 May) released its first estimates for the 2015/16 season in the latest World Agricultural Supply and Demand Estimates (WASDE) report. Although currently very tentative, as we move through the season more information becomes known about the upcoming crop and the estimates are typically revised. This article takes a look at how crop production estimates have developed in past seasons, from the initial release in the May WASDE report, to now.

Wheat

Three out of the past four seasons have seen global wheat production estimates increase since the release of the May WASDE. The largest increase was for 2014/15, with the initial estimate being increased by 29.41Mt, from 697.04Mt to 726.45Mt. The rise in the level of production was influenced by an increase for both the area (0.84Mha) and the yield (0.12t/ha) estimates (Figure 1).

Figure 1 World wheat area/ yield/ production* (Initial May estimates vs. now)



* production figures in bold in million tonnes Source: USDA

It is apparent that the yield figure for wheat is more influential on the overall production figure, than the area figure. This was demonstrated in both 2011/12 and 2012/13, when despite a decrease in the initial area figure, the production estimate still increased from what was initially forecast.

Looking at wheat production estimates independently, there has only been one season in the last four for which the figure has been revised downwards. In 2012/13, the estimate was revised down by 18.91Mt. A

fall was also seen for both the area and the yield figures that year.

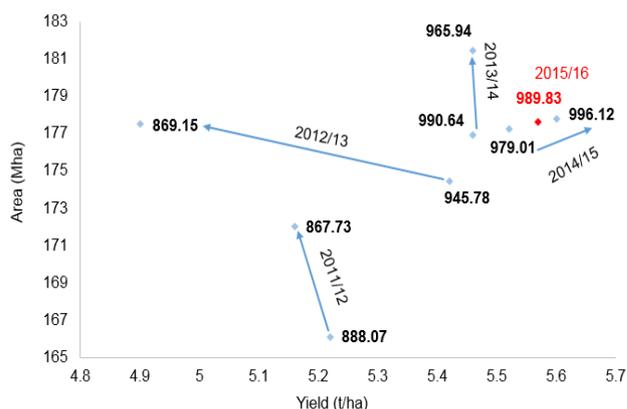
Interestingly for the 2015/16 crop, the 'starting' area and yield (as forecast in the May WASDE report) are relatively high. Indeed, both are ahead of the 'starting' point of the 2014/15 forecasts (made back in May 2014). This makes the current season forecasts more dependent on good weather through to harvest to minimise area abandonment and preserve yield potential.

Maize

Maize production estimates have varied by a fair amount over the past four years, and similarly to wheat, the yield estimate appears to be the more influential component behind the production figure.

The largest variation over the past four seasons was seen for the 2012/13 estimates. Since the initial figures were released in May 2012, the production level for 2012/13 was decreased by 76.63Mt, from 945.78Mt to 869.15Mt. The downward revision came despite an increase (3.05Mha) in the size of the area figure (Figure 2), which reiterates the strength of the yield estimate over the area.

Figure 2 World maize area/ yield/ production* (Initial May estimates vs. now)



* production figures in bold in million tonnes Source: USDA

However, 2011/12 estimates go against this trend of yield variations being more influential on production estimates. For this season, the increase in the area (5.91Mha) offset the decrease in the yield estimate (0.06t/ha). Although estimates for this season buck the trend, the area figure must be increased/decreased by a fairly substantial amount to have an overriding effect on the variation of the yield figure.

For 2015/16 USDA expect to see further progression in the global maize yield versus the initial forecast for 2014/15 made a year earlier, which is in line with the recent trend. In contrast though, the global area appears to be subdued with the crop losing area to soybeans in the Americas. This makes production more reliant on yield and so weather in 2015/16.

The evolution of global production estimates

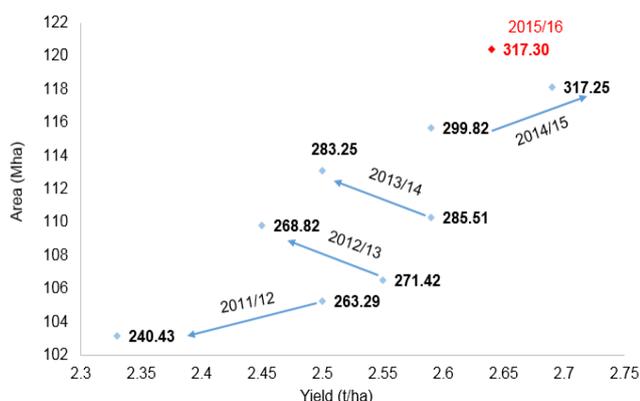
Area estimates should be expected to develop further as time progresses, especially once US areas become known and the 'fight for dirt' in South America between maize and soyabeans takes shape through 2015.

Soyabeans

Since 2011/12, three seasons have seen reductions to the initial soyabean production estimates, which leant significant support to global oilseed prices. 2014/15 has been the only season for which the production estimate was increased due to increases for both the area and the yield estimates over time.

The largest revision has been seen for the 2011/12 estimates (Figure 3). Since the initial figure was released, production was reduced by 22.86Mt following a 0.17t/ha decrease to the yield figure and 2.11Mha decrease to the area figure.

Figure 3 World soyabean area/ yield*/production (Initial May estimates vs. now)**



*Yield calculated using soyabean area/production

** production figures in bold in million tonnes

Source: USDA

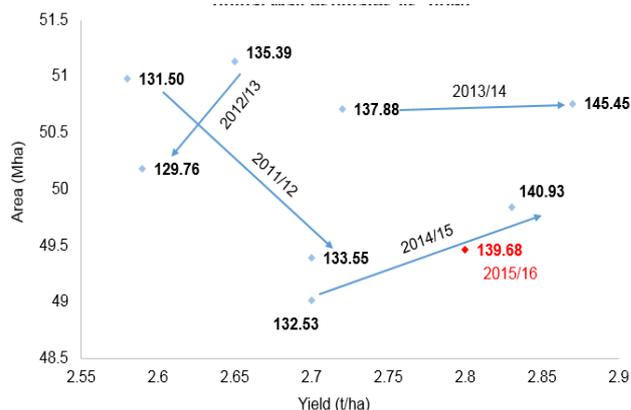
For 2015/16, the initial forecasts continue to follow the trend of increasing area and yields year-on-year. However, there has to be less confidence around soyabean forecasts as opposed to grains due to the dominance of the yet to be planted South American crops (grain production is largely driven by the Northern Hemisphere).

Barley

For barley over the past four seasons it has been more common for the production figure to be increased over time, with 2014/15 seeing the largest upward revision of 8.4Mt (Figure 4).

Over the previous two seasons, yield has driven increases to global barley production and shows the impact of good weather. Production growth is becoming increasingly reliant on yield with barley area struggling.

Figure 4 World barley area/ yield/ production* (Initial May estimates vs. now)



* production figures in bold in million tonnes

Source: USDA

Concluding comment

From looking at the past four seasons of USDA supply and demand estimates, it is clear that the new crop forecasts will undergo a fair amount of revision. With this in mind, it is important that the 2015/16 estimates released in the latest WASDE are treated with care as we have a long way to go until the new crop is harvested. This is especially important as the USDA is forecasting finely balanced supply and demand for grains in 2015/16 ([read more here](#)) with no clear indication whether the world will see grain surpluses or deficits.