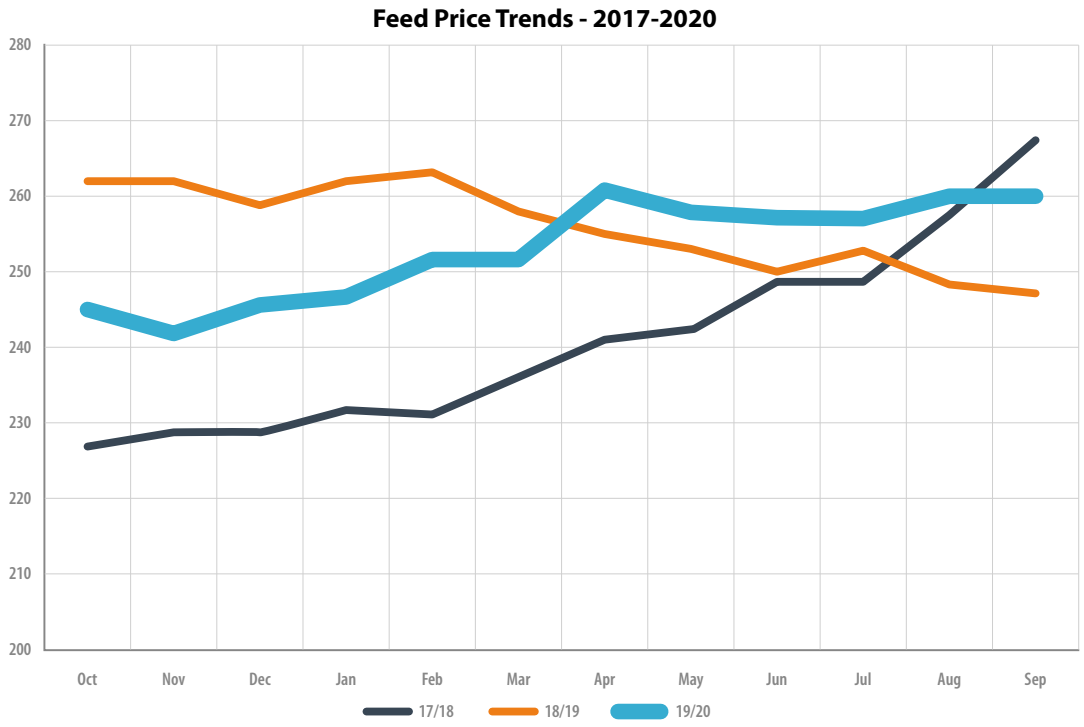
WHAT IS HAPPENING TO THE PRICE OF FEED?

A question many producers regularly ask and one Zoe Kay answers in this months Ranger, with the help of industry experts.

From weather, to trade disruptions and of course pandemics – there are many factors that affect feed prices. The main factor of course is the availability of raw materials, how much of each crop was planted and how good the yield was. With every £5 that feed increases adding a penny per egg to the cost of production –price volatility has a significant effect on the profitability of a flock.

Feed price changes over the last three years Jason Gittins, Technical Director, Agriculture and Land Management, ADAS explained how they monitor compound feed price trends in the free range sector. "We do this mainly by talking to a range of national and regional compounders each month, asking them to quote on the same basis each time so that the results are comparable from one month to the next. We also speak to a sample of producers too, so that we have additional feed price information."

In some cases, there is clearly a time delay between different compounders revising their prices, probably due to their raw material buying policies. "We create our average each month based on the prices quoted. Feed prices are constantly fluctuating and over the last three years, the monthly



average has varied as shown below. In general, prices gradually increased in the 12 months from October 2017, then went down over the next year, before heading upwards again over the last year."

"At present, the average price is around the 'three year high' and there have been times when prices were around £30 per tonne lower than they were in September 2020."

Futures prices

At a global level raw material prices are based on how much has been planted and will also take into account the weather conditions in areas that are key to production (eg. America, Europe and Australia). This will then affect the subsequent yield, if a shortage is predicted prices will be higher and if more is available prices will be lower. There are Futures prices for some of the raw materials used in feed, and they are traded on exchanges (markets) in many places across the globe, and they are significantly influenced by the fundamentals of supply and demand, as well as currency and other factors. Wheat and Soya, the most influential ingredients in feed are fundamentally affected by the movement in futures prices, and prices of each crop are also interlinked and can affect the price of others. However, predictions based on growing and harvest conditions in other countries, can be subject to political influence too. Extreme weather events, wars, political tension and trade embargoes have all been known to affect feed prices.

Domestic market

Cereal prices in the UK are always affected by availability. It was a poor planting season last autumn and significantly less wheat was sown. This was followed by a wet early growing season, meaning that root development was poor. Then when we had periods of drought in the spring crops couldn't take up the water they needed. This meant that yields were lower – just at a time when demand was high. Between November and March some livestock are taken inside and feed requirements go up, which affected price. Wheat is used is the key

raw material for both for nutritional value and price in least cost formulation. If the price of wheat goes up so does the price of other connected raw materials. On the other hand, if there is a good wheat harvest, prices will be lower. However, when there is a significant drop in the value of the pound it becomes attractive to export wheat and barley from the UK, leading shortages and hence increases in domestic prices.

Spike in wheat prices

Another factor that contributed to the large and fast increases in wheat prices this autumn was the lack of farmers selling wheat. As yields were low, they held on to their crops until they were sure how much excess they had to sell. Whereas in previous years they would be more confident in the tonnage they had to sell. These amounts would be booked in with feed producer, often before harvest if they don't have room to store it all.

Feed mills might typically be buying 80% of their wheat directly from arable farmers at this time of year but this year it is nearer to 40%. Farmers usually like to sell their wheat before Christmas, as they have contractor and fertilizer bills to pay and may need the storage for other farm activities. Therefore, feed companies are more reliant on the cereal trade at the moment. However, even the price of wheat bought directly is influenced by the futures market. A positive or negative premium is applied to that baseline figure depending on availability of the crop.

This issue has also affected grain suppliers who are struggling to buy wheat – so they hold onto what they've got. If prices are going up by a pound or more each day then it makes sense for them to wait until the margins are greater if they aren't confident in supply.

Again, the cost of wheat affects the cost of other raw materials that increase in line and then similarly will go down over around a three-month period if the price of wheat falls.

Soyabean meal

In poultry diets the second most important raw material, after wheat, is high pro soya. This product has a tight supply chain as it is all imported. Confidence in the market is based on what is on boats or in store at any one time, so it is a sellers' market. Currency obviously affects imported materials to a greater extent than UK grown crops. For example, a move of 3 pence in the value of the dollar to the pound on one day can result in a £10 change in the price of soya.

Buying forward

People question why feed mills didn't buy forward in July when prices of wheat and soya were lower. The issue is that it is difficult to predict what will happen to prices as the year progresses and it was too bigger risk. If they'd bought everything they need for Autumn and then prices had dropped, then they wouldn't have the backing of the market. Meaning that they would be pricing feed in the autumn based on raw material costs they'd bought in July. But if the market value of the raw materials had dropped then their feed would either be expensive, so customers would be lost. Or they'd have to sell it with a significant reduction in margin or even at a loss. It is these issues that can have significant financial impacts on businesses. Currency also affects futures markets and there are many international events and policies that can influence it.

Others influences

Technical shortages of a raw material create a quick and a large increase in price. For example, when the crusher of rape had a fire in London, rapeseed meal prices increased by £20 per tonne. Even though the product may have been available from other places, suppliers weren't keen to sell as they knew

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they might not be able to replace stocks. Similar spikes in prices are seen in imported materials when storms delay the arrival of ship. If a 40,000-tonne vessel is two weeks late arriving, you may see price increases local to that port. And these can result in national price increases in the short term too. Prices of additives have been similarly affected with problems at factories in China or shipping issues related to the pandemic.

Market forces

Going back to the demand period – November to March – when many livestock are inside. This time is a seller's market, where the prices can be inflated as people, hold onto stocks looking to maximise their margins and fulfil target prices. At this time, it is not usually worth feed companies buying forward as they know demand will reduce come April. However, if people hold onto stocks for too long the prices will drop along with the reduction in demand.

The aim of feed companies is to reduce volatility so that feed is as consistently priced as possible. Increases are inevitable as raw material prices rise but the aim is to do so slowly on the way up. Feed prices will also come down slower than future prices, as feed producers will have to buy in advance to cover requirements. This also ensures margins are maintained over time so that businesses stay solvent. It makes sense that as feed prices go up so does the price of milk and eggs, due to the increased cost of production. This is where feed tracker contracts come into play. It is in the interest of feed companies for egg producers to be profitable, otherwise they wouldn't have anyone to sell feed to.

Organic feed

The price of organic materials is usually loosely linked to those of the conventional crops. Martin Humphrey explained that, you would normally expect to pay either double the amount or at least £100 per tonne more

for organic wheat as for conventional. "However, currently that premium is only £60, the lowest it has ever been. This is because there is more organic wheat available this year, due to increasing in plantings in Eastern Europe and Black Sea States – coupled with potentially better growing seasons." The organic wheat that is grown in the UK is used for bread flour milling, or pasta making in the case of Italian sourced wheat. "And unfortunately, without a significant premium it will not encourage UK farmers to grow more organic feed wheat."

The price of organic wheat has meant that less volatility has been seen this season in the organic feed market. However, feed producers have had other challenges. "Most of the organic soya normally comes from China, with some from India – as opposed to conventional soya that comes from Brazil. However, there is a lot of political influence in the Chinese raw material markets and this year they decided that due its potential explosion risk, they didn't want to handle soya export from their ports. Ignoring the fact that they import nearly 200 times as much conventional soya from other countries through similar port facilities! This meant that this year, everyone was buying from India and the shortage resulted in extremely high prices. China have now tentatively started selling soya again but the volume available isn't clear."

The problem with sourcing organic raw materials is that as it is a small part of the market there are limited suppliers and sources. Meaning there is less choice if problems occur with one source. "The market is also a lot less transparent as there aren't specific organic futures markets. When you ring round suppliers of conventional wheat you might get a price variation of between 50 pence and a pound but for organic wheat that difference can be £10 a tonne."

Effects of feed cost on financial returns

Jason Gittins described how a good way to look at this is to consider how much feed costs per dozen eggs produced. "This takes account not only of the price of the feed and the amount used but also how many eggs are produced. In a high performing flock, feed costs can be spread over more eggs and so the feed cost per dozen eggs is lower. The following scenarios show the effects of different egg output and feed intake combinations, based on an example feed price of £265 per tonne."

The two extreme figures are circled in red. For a flock producing 320 eggs and using 132g of feed, the feed cost per dozen is 55.1 pence. A flock producing 345 eggs on 124g of feed has a feed cost of 48 pence per dozen.

"Comparing these two, the flock with both

Effect of feed intake and egg output combinations on the cost of feed (pence per dozen eggs)

Feed intake	Egg numbers to 76 weeks		
	320 (low)	330 (medium)	345 (high)
132g (high)	55.1	53.4	51.1
128g (medium)	53.4	51.8	49.6
124g (low)	51.8	50.2	48.0

low feed intake and high egg numbers therefore has a cost advantage of around 7 pence per dozen over a flock with **high feed intake and low egg numbers**. Over a full laying cycle of 60 weeks, this difference would be worth around 90 pence per bird." Each of the individual steps in the table above represents a cost difference of between 1 and 2 pence per dozen, so even marginal changes can have a noticeable effect on the bottom line.

Feed consumption conundrum

This is supported by those in the field who see a clear relationship between flock performance and feed intake. If the flock has a high egg mass output (egg weight x egg numbers) then you will see higher feed intakes. Hens eat to produce eggs and if they aren't laying as much they eat less. Lower feed intakes are seen in lower performing flocks, or those facing challenges. Differences in housing types also affect feed intake, as does climate and nutrition strategy. Birds will eat more of a lower nutrient dense, and cheaper diet, than they would a high protein diet, for example. And where producers are heating houses, the energy required for maintenance reduces and hence the hens need to eat less feed.

Mirroring the data presented in the costings section of the magazine; every gram increase in feed intake reduces margin per bird by around 11 pence. Multiplied up to a 16K unit it affects over all flock profitability by £1,760. So, it is important to have an accurate value for feed consumption and monitor egg mass output. It is this calculation of efficiency that will have effect profitability – coupled of course by egg price.

Unpredictability

One way to avoid the some of the effects of external factors is to grow your own feed or buy some materials directly from local farmers. Certainly, is it becoming an increasingly popular option for free range egg producers and one that will be explored in a future article. However, even if some homegrown pulses are used in diets, an amount of soya will still have to be purchased. And growing cereals for yourself is not without risk as you are still subject to weather conditions affecting yields, which may mean you have to buy in. Feed cost increases also affect pullet prices, so even home mixers aren't immune to the vagaries of raw material costs.

Two factors that are currently at play in the market are Brexit and COVID – they are clearly having an impact on feed prices. But it is anyone's guess how they might be affecting the market next year, along with a potential US trade deal. Some things are out of everyone's control; therefore, feed producers take a cautious approach of following the market and staying safe – rather than taking big risks that could affect the solvency of their companies. Come February or March there could be good news or a catastrophe, but companies hope for a safe middle ground. What we do know is that is pubs and restaurants are forced to close, less whole chickens required and hence less wheat and soya is being fed. This is likely to reduce the price of those commodities and as was seen earlier in the year, egg consumption increases as people eat at home more. However, if feed prices continue to rise an increase in egg price needs to follow to keep producers in business.

What we do know is that a much greater amount of wheat has been planted this year compared to last. Coupled with the fact most areas haven't seen critical rainfall following sowing, root development should be good – setting up for good yield. This should hopefully mean significant reductions in wheat prices come next autumn, unless other influences usurp it.