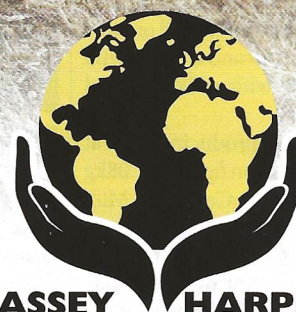


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## AHDB Dairy's five-year sector plan

by  
Lyndon Edwards,  
AHDB Dairy Sector Council Chair

Sector plans for the Dairy sector have been published as part of a commitment to outline how the levy will be invested over the next five years.

Sector councils revealed the priorities to all levy payers at the Delivering the Future of Farming online event on Thursday, 10 November. The meeting was recorded and can be watched on our YouTube channel.

This work is the culmination of the responses provided to the sector councils through our Shape the Future campaign, which gave levy payers the chance to say what work should be carried out by AHDB on their behalf. Levy payers were asked to rate how important a range of priorities were on a score of 1 to 5.

As a result of the Shape the Future results, you will see a change in what AHDB does for the Dairy sector.

Over the next five years, there will be a focus on what levy payers said was most important. And all existing work has been scrutinised to ensure it aligns with those priorities; where it does not, it will be stopped.

The sector council has factored in your feedback on work areas and individual comments and taken into account the available budget for the next few years plus the immediate and likely future opportunities and challenges for the sector.

As a result, the sector council has directed AHDB to focus on three themes of work:

- Promoting the sectors reputation at home and abroad (consumer advertising, consumer education, reputational defence, exports)
- Practical support for farmers
- Data and Evidence to underpin Dairy's reputation (centred on animal health and welfare, environment and genetics/genomics)

CEO Tim Rycroft said: "This is an important milestone in our progress towards delivering our promise to put levy payers at the heart of all we do.

"The outcome of the last few months allows us to have a strong understanding of what our farmers and processors believe will benefit them most in terms of the work we do.

"The decisions that have been taken by our Dairy sector council also take into consideration added financial pressures faced by the sector in this difficult economic climate.

"We are looking to continue building on the positive engagement this has produced."

The full plans for the Dairy sector are available to read at [ahdb.org.uk/sector-plans/dairy](http://ahdb.org.uk/sector-plans/dairy)



# Time to cut the apron strings on soya?

The dairy industry seems to be wedded to soya in cow diets. But with increasing pressure to reduce this, can we move away from soya? British Dairying reports.

Soya, which primarily relates to high protein, or 'hipro' soya, is almost ubiquitous in dairy diets. Virtually every dairy farm feeds it to a greater or lesser extent, either as straights or in compounds and blends. And with good reason, as it is an ingredient which ticks many boxes.

"Hipro soya is undoubtedly a good feed and has served farmers well for over 50 years," says David Wilde, National Ruminant Manager at Massey Harpers Feeds. "It has a protein content of about 48%, is a good source of rumen bypass protein and of lysine, which is a significant limiting amino acid in dairy diets. It has generally been price competitive and has played a significant role in balancing dairy diets for a considerable time."

## Protein source

"It was in the 1970s that soya inclusion rates began to increase, fuelled by the desire to push milk yields as the proportion of Holstein genetics increased. Protein drove yields, soya was a good source of protein, and it was comparatively cheap. At the same time, products like fishmeal were coming under pressure and alternative proteins like rapeseed and distillers' grains were not as widely available. While many producers panicked about fishmeal's removal, the impact was negligible."

Soya is still a common ingredient, with an estimated 110,000t fed to UK dairy cows/year, comprising around 10% of total annual imports for animal feed. But its use is coming under pressure because of the environmental lobby. Since the 1960s, global soya production has increased 13-fold and has doubled since 2000, resulting in significant deforestation.

Many environmental pressure groups have zeroed in on soya use in the ruminant industry, leading to pressure in the supply chain to reduce its use. To this end, many milk processors are considering removing soya products altogether from dairy diets, with some even looking at incentivising this switch.

"The reaction has been farmers looking to make a change but questioning whether they can feed cows without the inclusion of soya," says David. "The good news is, thanks to advances in our understanding of protein nutrition, the tools are there to allow nutritionists to ration cows effectively and to reduce or eliminate soya from diets."

Since soya's popularity first increased, rationing dairy cows for protein has evolved, allowing greater precision. "Nutritionists and rationing systems



An estimated 110,000t of soya is fed every year

in the 1970s went no further than rationing on digestible crude protein but now take account of how protein is utilised in the rumen, the digestive tract and ultimately by the cow," explains David.

A well-balanced diet will ensure cows' requirements for metabolisable protein are met, providing the necessary quantities of the three different fractions – metabolisable protein from by-pass protein (MPB), metabolisable protein (MPN) and rumen degradable protein (MPE).

Table one shows how some commonly used different protein sources vary in the supply of the different fractions.

## Dietary needs

The MPN value is the total protein available to the animal, driven by the feed crude protein level. The MPE value of the ingredient drives milk production. Enough MPE is needed but the MPN must be limited to avoid over-feeding nitrogen and causing many other issues – affecting the cow and environment.

"Hipro soya stands up well as a good total source of protein at 48% crude protein (CP) and it is high in both MPN and MPE. Rapeseed is lower CP and also lower in both MPN and MPE, but when fed in a protected form, the MPE level is closer to that of soya," says David. "There is often way too much MPN in diets, so this being lower is not a problem." Prairie meal is a better source of both protein fractions than either soya or rape but is more costly and lacks some key amino acids.

"There used to be concerns that feeding too much rapeseed would predispose cows to laminitis due to high levels of MPN," he adds. "In reality, any problems were not due to too much rapeseed but an imbalance in the total diet. Soya contains more degradable protein than rapeseed. The key message is that by understanding the

**Table one: Comparison of popular protein sources**

	CP (%)	MPB (g/kg)	MPN (g/kg)	MPE (g/kg)
Hipro soya	47.5	174	340	212
Rapeseed	34.2	112	237	158
Distillers' wheat	30.0	94	191	139
Prairie meal	60.0	349	472	369
Beans	24.5	88	175	139
Novapro	30.5	172	237	203

cow's requirements for specific protein fractions it is possible to feed a balanced range of protein sources to meet these requirements while reducing the diet's total protein content. We are increasingly seeing diets performing adequately with closer to 16% CP, whereas previously it was more common to see diets with more than 18% CP. And this can be achieved without hipro soya."

Recent research confirms that soya can be successfully replaced by a balance of protein sources, including protected rapeseed, says Richard Waters, Ruminant Specialist and Development Manager at Harpers Feeds. In a trial at Nottingham University in 2021, led by Professor Phil Garnsworthy, cows were either fed a diet containing hipro soya and standard rapeseed or one containing rumen-protected rapeseed and distillers' wheat.

"The cows fed the diet excluding soya produced 1.7 litres/day more than those fed soya, in part due to increased dry matter intakes," explains Richard. "But the key point is that removing soya did not cause performance to fall, because the diet had been properly balanced to supply the metabolisable protein fractions required."

**Alternative ingredients**

"Nutritionists now have a wide range of ingredients available to ensure cows' protein requirements are met without necessarily feeding as much, if any, hipro soya, and many have a smaller carbon footprint," he adds.

"Rapeseed and rumen protected rapeseed can be used alongside feeds like distillers' wheat from the bioethanol production industry, and beans. Beans are particularly interesting as in addition

to a good protein content and balance, they also provide quality starch."

Milk producers should be confident about meeting processors' requirements to reduce the use of soya products, says Richard. "In addition to a wider range of balanced protein sources for inclusion in total mixed rations, it is now possible to use dairy feeds that are zero soya.

"In 2019, we decided to take the lead and launched the Massey Harpers Planet range, the first UK dairy compound formulated to help meet the sustainability demands being placed on dairy farmers."

**Environmentally friendly**

The range of compounds and blends has been formulated to eliminate use of ingredients linked to environmental damage, in particular hipro soya, soya hulls, biscuit meals and palm kernel. They have been replaced with ingredients with a lesser impact on the environment, including protected rapeseed, distillers' wheat, rapeseed, sugar beet pulp and wheatfeed. Non-palm-containing fat supplements are also available.

"Developments in the past few months highlight that processors' demands for dairy farmers to reduce the carbon contribution from milk production will intensify," says Richard. "Many schemes have already singled out soya and soya derivatives as a problem to be addressed, and by careful rationing there is no reason why the use of soya in dairy diets cannot be reduced, bringing to an end a 50-year relationship."



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