

Helping choose lower carbon compounds

With farmers facing the challenge of reducing net emissions from feeding cows, **David Wilde**, National Ruminant Technical Manager with Massey Harpers Feeds, believes the feed industry should take every step to help them.

David Wilde proposes that agreeing a national system for being able to clearly compare the relative carbon contribution of compounds and blends could be a significant step forward. “Reducing emissions on the way to net zero will require a total system approach, but with all feed contributing around 30-40% of total emissions as calculated by CIEL, it is clearly a priority area,” he says. “But all systems are different so how do you know how your feed contributes to your total emissions and how you could make changes to reduce the total impact?”

“Many processors are leading the drive to remove soya which is a good starting point and is why, in 2019, Massey Harpers launched the Planet range of compounds with zero soya and palm kernel.”

Wilde says that currently you could be offered two compounds with identical energy and protein contents that will feed identically but contain different ingredients. There is currently no way to compare these feeds in terms of carbon contribution and thus choose the feed which will help reduce emissions without compromising performance. He suggests the feed trade should commit to making greater use of publicly available data on feed ingredients to help farmers make the best decision.

“The Global Feed LCA Institute (GFLI) is an independent animal nutrition and food industry institute with the purpose of developing a publicly available Animal Nutrition Life Cycle Analysis (LCA) database to support meaningful environmental assessment of animal nutrition products. In simple terms, it gives an emissions value for all feed ingredients depending on where they have been sourced and processed.



“Our proposal is to implement a national equivalent system for compounds and blends”

“This means that it is perfectly possible to calculate the total carbon contribution of any compound or blend. And being independent data it is free from commercial intervention.”

Wilde concedes that putting a carbon figure on the label or delivery ticket does have the potential to be confusing, especially if differences between feeds are small. This is why Massey Harpers are in discussion with others in the feed industry about the adoption of an easily understood, and familiar graphic to allow feeds to be compared. “Anyone who has bought an electrical appliance will be familiar with the energy rating diagram where

appliances are placed into one of eight categories based on their energy rating. When making a choice it is possible to choose an appliance which is more energy efficient.

“Our proposal is to implement a national equivalent system for compounds and blends, giving a carbon rating based on the carbon contribution of the ingredients. Feeds would be placed in one of seven categories, A-G with category A having the lowest carbon contribution (see diagram). Selecting by category will simplify the decision about which compound or blend to buy.”

To illustrate the potential benefit to a dairy farmer of selecting a compound taking account of carbon contribution, he has compared feeding a feed formulated for low carbon in Band A and a more typical compound in Band C or D. The difference could be 500g/kg between these two feeds. “Using the Kingshay average of 2760kg of purchased feeds per cow, feeding the lower carbon feed would reduce the emissions by 1.335 tonnes of carbon per cow per year or 257 tonnes for a 200-cow herd which is a significant saving.

“Defra and CIEL calculate the average carbon cost of UK milk production is 1.1kgCO₂-e/litre. So using the Kingshay average of 8456 litres per cow, swapping compounds as in our example would reduce CO₂-e by 0.158kg per kg of milk which is a 14% reduction. Even swapping from a compound rated D to one rated C would see a beneficial reduction in CO₂-e per litre.”

Wilde accepts that the system would not be able to take account of transport emissions but would be a significant step forward. “By providing a quick and simple way to compare manufactured feeds, an industry adopted scheme could play a big part in helping farmers in the drive to net zero,” he says.