

Should you consider co-products?

Unconventional feeds can cut costs, as well as increase dry matter intakes and production

Co-products can play a valuable role in dairy cow diets, but producers need to be sure of exactly what they are feeding – and ensure that it forms part of a balanced ration – in order to realise true value for money. And that's just what one producer has done.

The availability of co-products is increasing with the biofuels sector joining the brewing and food processing industries as the latest source of potential livestock feeds. "But producers need to be careful before committing to something new, even if it seems price competitive," warns Promar consultant Chris Foster.

He believes that co-products can have a place in dairy rations so long as they are bought and managed well. "It is essential that you learn all you can before committing to large quantities and then monitor herd performance closely. And remember that co-products are usually priced to compete with more conventional feeds on a dry matter basis and are seldom a bargain."

The starting point when considering co-products is a complete feed analysis. "Don't accept a declaration based just on dry matter, energy and protein," says Mr Foster.

"To ensure a feed represents real value, and is going to complement other ingredients in the ration, you need to know fibre levels as well as a full breakdown of minerals and vitamins. If in doubt, get an independent nutritionist to interpret the results for you.

Proper storage

"And if you decide, on balance, to go ahead with the product, make sure you are able to store it properly. Wet feeds need to be clamped and then sheeted properly and make sure you keep birds and wildlife out of the clamp."

Once the feed is in the clamp, watch for changes in physical nature. "Many co-

products will deteriorate over time and some will become covered in yeasts and moulds, which will reduce feed value and may compromise intakes as well as having an impact on cell counts and mastitis," he adds.

Before feeding the co-product for the first time, he urges producers to check the actual dry matter of the product. "A variation in dry matter can have a huge impact on herd performance.

"For example if you are keeping 5kg fresh weight of a product that you thought was 40% dry matter but was actually only 30%, the difference would equate to a loss of roughly one litre of milk per cow per day. For a 200-cow herd and a 200-day winter this would amount to a loss of £10,400 at 26ppl."

Domestic microwave

Dry matter content can be assessed using a domestic microwave and Mr Foster advises checking the dry matter of each load when delivered and then to check dry matter in the stored feed as a guide to moisture losses.

"When bulk feeds are added, watch milk quality carefully as changes in fibre levels, for example, may have an impact. This will be important on constituent-based contracts.

The acid test with bulk co-products should be whether they complement the core diet. "If they do, and are priced sensibly on a dry matter basis and the analysis is good, then they are worth considering. Purchasing decisions should never be made on the basis that a feed has always been fed or because it is cheap on a fresh weight basis," he adds.



Brewers' grains contain no starch, but mixed with other feed ingredients can make a cost-effective contribution to herd rations

It's fair comment to say that the nutritional value of co-products will be variable, but it's not dramatic, according to James and Son's national nutritionist Sion Richards.

"And, if they're analysed accurately, they will provide an invaluable addition to TMR rations, not least due to their

ability to push up dry matter intakes and reduce ration costs while, at the same time, increase milk production.

"Co-products prove very cost effective when added to dairy rations. They can reduce the cost of producing a litre of milk and boost dry matter intakes," he adds.



Mark Simpson: "Adding the moist mix results in a highly palatable and cost-effective TMR"

"It's typical to see dry matter intakes increase by 0.5kg per cow per day in herds where co-products are fed. They will drive dry matter intakes and milk production – there's no doubt about that", says Dr Richards.

Increased intakes

Feeding a balanced mix of moist feeds is the key to success. "Brewers' grains, for example, contain no starch, but by adding other co-products, such as biscuit meal or moist shredded wheat, we 'build' a product that's cost effective, consistent, increases dry matter intakes and encourages performance.

The company produces moist mixes of co-products at its plant in Northamptonshire and these are nutritionally analysed and balanced to allow efficient and effective inclusion in dairy rations. Producers can order 28-tonne lorry loads, which can be delivered across the UK, and these come with a full nutritional analysis.

One producer who's seeing the benefits of feeding a moist mix is Devon-based Mark Simpson. He runs a 500-cow herd, in partnership with his father-in-law David Moore at Cleave Farm near Bideford, and a moist mix replaces some

of the potatoes, caustic wheat and soya and rape meal that forms part of the milkers' ration.

"I was struggling to secure a supply of potatoes and the price of wheat was going through the roof so I was looking for a way to reduce the cost of feed without compromising production, health or fertility.

"In fact, I actually wanted to improve the ration and make it more palatable in order to increase dry matter intakes and produce more milk," says Mr Simpson, who houses his high yielders all year round and feeds a TMR.

Custom mix

And feeding a custom moist mix, comprising moist citrus pulp, brewers' grains, biscuit meal and two different wheat starch syrups, allowed him to do just that. He also feeds moist shredded wheat – a ground version of the popular breakfast cereal – as part of the ration. Since first adding the moist mix of co-products in January he's seen dry matter intakes increase by 10% and this has resulted in a 20% increase in milk production. Mr Simpson says that the cows are also much healthier and more fertile – he's seen fewer health problems and improved conception rates.

"The cows simply look better since we changed the ration – they've a lovely bloom to them and we're seeing fewer cases of mastitis, lameness and poor fertility."

As if this wasn't enough, he also seen a 25% reduction in feed costs. "What more could I ask for? The mix does exactly what James and Son said it would do and all the ingredients combine to produce a highly palatable TMR, which has a subtle hint of orange to its aroma. "It includes high quality biscuit meal with milk chocolate in it and it smells good enough to eat – and that's just what the cows do," he adds.

Rachael Porter