

Beef



Trials show that adding molasses blends can reduce respirable dust.

Dustiness is a common issue with cereal-based diets, affecting performance in many ways. Dr Phil Holder, of ED&F Man, says that while molasses blends are widely acknowledged as a way to reduce dust, this undervalues the other benefits they can bring.

Achieving high feed intakes and feed conversion efficiency are the foundations of high daily liveweight gain, meeting specification and reducing days to finish, all of which drives returns.

Dr Holder says: "The inclusion of sugars is proven to help achieve a more consistent rumen pH and improve feed efficiency in beef cattle to improve growth rates and reduce days to finish while also reducing diet sorting. This is in addition to improving diet presentation, which can bring big benefits for beef finishers."

Dusty diets are less palatable and can have a poorer 'nose', making them less attractive and depressing voluntary feed intakes and the energy and protein consumed. This in turn will reduce daily liveweight gain and increase feed waste and costs.

If diets are inadequately mixed due to high levels of dust, there will be an increased risk of diet sorting, which can affect rumen pH and reduce feed conversion efficiency. In addition, dust can contribute to a higher incidence of respiratory disease, which will further affect performance.

Dr Holder says: "One way that is proven to help improve diet presentation is the addition of molasses-based liquid feeds. These effectively bind the dust and ingredients, giving a

Incorporating a molasses-based liquid feed can have a significant impact on diet presentation and performance in cereal-fed cattle. **Farmers Guardian** finds out more.

Using molasses blends in cereal beef systems

more homogenous feed. The sugars increase palatability and smell, helping stimulate higher intakes.

"The more consistent presentation also reduces the risk of diet sorting. Trials show that adding molasses blends can reduce respirable dust, the smallest particles that can get in the lungs and cause respiratory disease, by up to 90%."

Nutritional benefits

He adds that the addition of molasses also has nutritional benefits. Having an energy content similar to cereals, they will not reduce the energy density of the overall diet. Molasses blends can also include additional regulated release protein which can allow a reduction in other protein ingredients in the diet.

"Probably the biggest nutritional benefit is that when you feed molasses you are feeding six carbon sugars, which are proven to stimulate rumen function, feed efficiency and microbial protein production. This in turn will allow the starch in

the diet to be better utilised," says Dr Holder.

In a recent trial carried out in Italy, the effect of replacing some of the starch with sugar in the diet of nearly 200 fattening Charolais cross Limousin cattle was investigated. Half the cows received a diet containing 1kg/day of a liquid feed, replacing 1kg of cereals. Both diets had the same energy and protein contents.

The cattle fed the diet with the liquid feed had a daily liveweight gain of 1.486kg/day compared with 1.419kg/day for cattle on the traditional diet. The cattle started the trial at 418kg and were finished at 650kg.

Dr Holder says: "The benefit of the higher liveweight gain was that the cattle on the diet containing the liquid feed finished eight days sooner, resulting in a potential cost saving of £6/head. Alternatively, if all cattle were slaughtered on the same day, the increased carcass weight of the animals on the molasses-supplemented diet would have resulted in an additional £18/head in carcass price."

Rumen pH was also measured, and cows on the molasses diet had a more consistent and stable rumen pH, spending more time within the optimal range, which improved feed efficiency. There was also a 41% lower incidence of respiratory disease, where dust had been reduced with the addition of the liquid feed.

Potential returns

Dr Holder says: "Reducing dust and increasing sugars had a significant impact on performance and potential returns, and could help producers make the most of the higher beef prices currently available."

He stresses the importance of choosing the right product for the particular feeding system.

"Where a liquid feed is added using a dribble bar or equivalent, it will be important to use a less viscous, free-flowing product.

"But in total mixed ration systems it will be possible to use a product with more sugar, which can bring additional benefits," he says.