Feeding straw to combat forage shortage

In areas where forage stocks are limited, dairy farmers should make plans now to minimise the impact of changes on production over the winter. British Dairying reports.

In many parts of the country, 2025 has been a challenging forage growing season. While in some regions of the country there are ample forage stocks, elsewhere shortages are a real concern.

Making small changes now will be more beneficial than major changes later in the season, warns Dr Phil Holder from liquid blend specialist ED&F Man. "Cows perform their best on a consistent diet, and it can take the rumen up to two weeks to adapt to a significant change in ration composition, so it is best to avoid major sudden changes," he explains.

"Adopting a strategy of hoping forage stocks will be adequate and then having to implement major changes will be less effective than facing up to the situation now so that the diet can remain as unchanged as possible throughout the winter."

With grass silage cuts largely taken and maize crops harvested, it is imperative to carry out a stock check of forages in the clamp.

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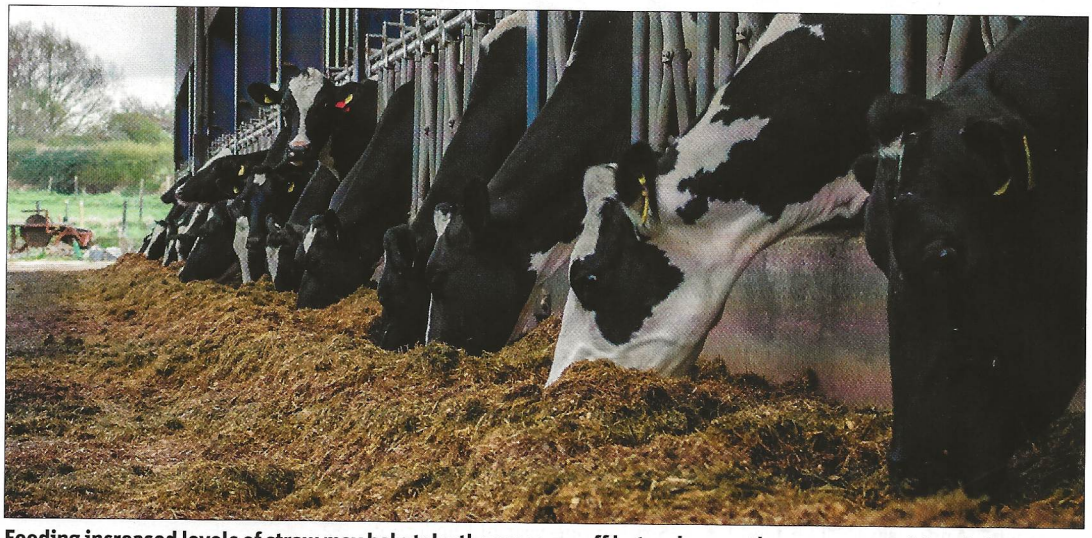
The sooner this is done and farmers have a realistic picture of how stocks relate to expected requirements, the easier it will be to plan how to manage the situation.

"Once you know the forage available, you can compare this to what you need and identify any shortfall. Then you will be in a position to plan how to tailor rations to meet this shortfall most effectively," says Phil.

"It might be that you feed less forage to all cows throughout the winter. Alternatively, you might decide to prioritise silage, particularly the better-quality material, to freshly calved cows, cutting silage to later lactation animals. Finally, it might be an option to exclude silage altogether from dry cow and youngstock rations. But the sooner you start planning, the more effective the changes will be."



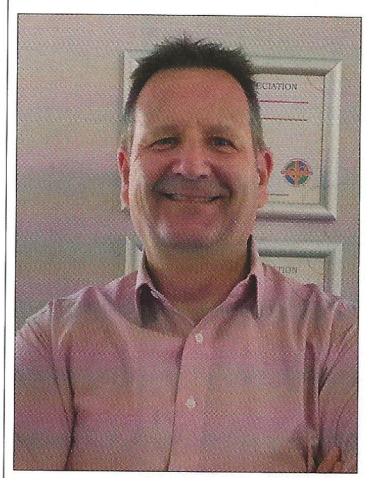
Feeding increased levels of straw may help take the pressure off but make sure there are no nutritional shortfalls

One option to help stretch silage stocks will be adding straw, with every kilo of straw able to replace 4-5kg of silage depending on silage dry matter. However, straw alone will not fully replace silage.

"While straw will produce fibre and bulk, it is low in many key nutrients," explains Phil. "It is lower in metabolisable energy than grass silage and, in addition, straw-based rations need to be carefully balanced in terms of protein - specifically rumen degradable protein."

The key to replacing silage with straw is maximising intakes and digestibility and promoting high levels of rumen microbial activity. Molasses-based liquid feeds will help overcome the shortfalls when feeding straw.

Molasses contains sugars and numerous organic acids. The sugar fraction is a blend of different sugars including sucrose and glucose, which are the important six carbon sugars. These are proven to be more beneficial to dairy cows, being highly rumen fermentable, increasing microbial protein production and stimulating rumen fungi to improve fibre digestion.



Dr Phil Holder, ED&F Man

To help meet the shortfall in protein, ED&F Man has developed a range of high protein products utilising a Regulated Release protein technology.

Slower release of nitrogen

Regulated Release is a urea-based source of protein which behaves in the rumen more like conventional protein than urea. The slower release of nitrogen in the rumen ensures optimum utilisation.

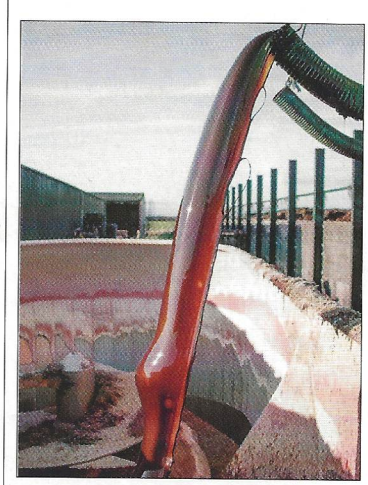
Trials at the South West Dairy Development Centre, in conjunction with Kingshay, showed that it is possible to successfully replace 2.5kg of silage dry matter (DM) in dairy diets (around 7-10kg freshweight [FW]) with 2.2kg FW of straw and 1kg of Regumix, an 18% crude protein molasses blend.

Assuming cows had been fed 12.5kg DM of silage, moving to 10kg DM of silage and the straw/molasses blend alternative would mean every four days on the new diet would save enough silage to allow an extra day of winter housing from current silage stocks.

"The molasses blend plays a crucial role in maintaining good rumen function," notes Phil. "The blend used in the trial also contained Regulated Release protein, which releases nitrogen at a steady rate to optimise rumen microbial activity. Coupled with a high sugar content, they promote rumen fermentation and activity to utilise straw effectively."

Part of a total mixed ration

The ideal way to feed straw is as part of a total mixed ration, but it can be fed free access and top dressed with a molasses protein blend. When implementing a straw-based diet, it is important to provide good access to a plentiful supply of clean water, he adds. Additionally, the transition from a silage-based diet to a straw-based one must be controlled, by introducing more straw into the diet and reducing silage over a few days to give the rumen microbes time to adjust to the new forage. Finally, straw is deficient in minerals so additional mineral supplementation could be necessary.



Molasses blends add ration value