

Dairy farm switches to grazing fodder beet as high-quality winter feed

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Grazing fodder beet as a winter crop for beef and dairy cattle is reducing wintering costs at a Pembrokeshire farm.

The James family currently grow 10 hectares (ha) for wintering dairy beef stores produced by their dairy herd at Stackpole Home Farm, but are scaling that up to 45ha to provide feed for lactating and dry cows.

Cows are currently wintered on deferred grazing or kale with baled silage but switching to fodder beet will provide a cheaper, higher quality source of feed.

During a recent Farming Connect open day, George James, who farms with his parents, Chris and Debbie, said growing kale was getting trickier because of periods of prolonged drought following drilling in late May or early June.

"The earlier drilling dates for fodder beet give it an advantage, and we can comfortably get 20 tonne dry matter (tDM)/ha from it so it is by far the highest yielding winter grazing crop," he said.



At around seven pence per kilogramme of DM, it works out at around half the cost of silage therefore the new system will reduce winter feed costs, plug feed gaps in late and early lactation, and capitalise on the farm's free-draining sandy soils.

But transitioning the herd onto the crop and correctly allocating it will be crucial to animal health and performance.

During the open day, fodder beet expert Dr Jim Gibbs, a veterinarian and research scientist in ruminant nutrition at Lincoln University, New Zealand, and Marc Jones, an independent grass and forage consultant, shared important advice on how to get that right - and how to avoid some of the common pitfalls.

Fodder beet has a high sugar and water content so sufficient time must be given for feed intakes to adjust.

Dr Gibbs warned that dairy cows are the livestock class most susceptible to transition acidosis due to gorging, a situation which occurs if too much fodder beet is allocated too early in the transition process.

To prevent this, he advised feeding low amounts of fodder beet initially, building up intakes slowly, and providing supplementary feed to keep the cow's rumen fully fed.

Feeding grass or silage as the supplement initially is advisable as if less palatable feed like straw is offered, cattle won't eat the quantities they need to maintain condition and performance.

A marker for whether cattle have properly transitioned is if they are leaving beet behind - Dr Gibbs suggested this should be around 5-10% a day.

"There is no risk of acidosis after full transition providing intakes are adequate," he pointed out.

A lactating cow needs 15-18kg DM in total therefore 5-6kg DM of fodder beet plus grass or silage should be the target for lactation feeding as the crop should not make up more than a third of their feed.

"Start by offering them 1kg DM/day and, once all the animals are eating the bulb, move up 1kg DM/day every two days," said Dr Gibbs.

He recommended transitioning until target intakes are met.

For dry stock weighing 500kg and for in-calf heifers, the daily feed requirement is 14kg DM - as fodder beet can make up 80% of their diet, they can be allocated 11-12kg DM of fodder beet and 2kg DM roughage once they have transitioned.

Build them up to this in stages, 1-2kg DM at day one, increasing 1kg DM every other day, with 7-8kg of supplement until day seven, gradually dropping supplement to 2kg at 14 days when they have fully transitioned.

If feeding 2kg of supplement, careful consideration needs to be given as to how the supplement will be fed to enable all animals to access it; if feeding bales in ring feeders, increasing to 3-4kg is needed due to the restricted feed space.

For youngstock aged from six months, Dr Gibbs recommended starting with a daily intake of 0.5 kg DM a head of fodder beet, increasing this by 0.5kg every other day, fed with 3-5kg of grass or silage. At day 14 that mix should be 5-6kg of fodder beet and 1-2kg of grass or silage.

Marc Jones, who shared details of how he operates his system of growing and feeding fodder beet on his farm at Trefnant Hall, Berriew, said matching fodder beet varieties to class of stock is important.

He said Lactimo and Geronimo are excellent grazing varieties because they have a high proportion of leaf and more of the bulb sits out of the ground, which allows for a high level of utilisation.

A lower DM variety such as Brigadier is more palatable and will achieve better utilisation in smaller calves weighing around 200kg, he added.

Delana Davies, Cross Sector Manager at Farming Connect, who facilitated the event, said growing fodder beet provides real opportunities for reducing winter feeding costs in all classes of stock.

"Added to this there are savings to be made on housing and straw requirements plus reduced slurry and manure production and spreading issues, making growing the crop a worthwhile consideration for many dairy, beef and sheep farmers," she said.