

► Multi-species swards play an important role

THERE is no single solution to reduce the impact of grassland farming on the environment, but several small measures can make a significant difference, said Ben Wixey, Germinal's agricultural director.

However, one element, he said, was to maintain swards in good condition.

He said: "Once the perennial ryegrass content of a sward has fallen below half, it will be about 25 per cent less efficient at turning nitrogen into forage, compared with a new reseed."

"Some of the nitrogen in an older sward will be absorbed by the plant, but a proportion will not be converted into dry matter which can be taken up by the livestock. This can lead to losses via the atmosphere and water."

If reseeding was being planned, he suggested the use of high-sugar grass varieties in the mix.

"High sugar grass species are one of the key aspects of climate change mitigation. On average, as much as 70 per cent of the protein which is fed to animals is excreted via urine and faeces."

"Therefore, the ability of high-sugar grasses to encourage rumen protein retention is a step forward."

Multi-species swards have an important role to play in reducing the greenhouse gas emissions linked to grassland production, said Mr Wixey.

"Multi-species swards usually contain a high percentage of clovers, which have the ability to reduce nitrogen inputs by fixing the nutrient for their own species and for others in the mix. The inclusion of a range of forage species in the sward will extend the grazing shoulder, as individuals will reach peak production at different times."

He cited research on mixed-species swards by Prof Tommy Boland, of University College Dublin.

He said: "The studies showed that lambs suckling ewes which grazed a six-species sward were 2.4kg heavier at weaning, compared with groups on a sward containing only perennial ryegrass."

"They also required 50 per cent



Ben Wixey



There are several reseeding options with the potential to improve grassland's environmental credentials.

'Climate-smart reseeding' was the subject of a recent webinar organised by seed breeder Germinal. Wendy Short reports.

Climate-friendly reseeding options

fewer drench doses over their lifetime. In addition, lambs kept on any mixed sward reached slaughter weights two weeks earlier, reducing the length of time they were producing methane emissions."

Mr Wixey predicted the inclusion of clover in reseeding mixes would increase as farmers sought to meet the challenges of climate change.

Dry matter intakes

He said: "Trials have shown that livestock dry matter intakes will go up when clovers are included in the sward. I would recommend that clovers make up about 25 per cent of any multi-species reseeding mix."

"They will come into a period of high production over summer; just at the time when grass growth and quality start to decline."

"Clovers have greater access to soil moisture in low rainfall situations compared with grass."

"White clover stolons stretch across the sward and can find water that may be inaccessible to grass species. Meanwhile, red clover has a deep tap root to reach down to find water which is well below ground."

"Red clover is an extremely valuable forage as it contains polyphenol oxidase, which protects the protein in the rumen. This means that protein is efficiently absorbed in the lower intestine."

"The only negative element of red clover is the risk of bloat, which can be overcome by good management."

Chicory and plaintain also had a lot to offer, he added.

"These two species have a large root biomass, which allows them to sequester greater amounts of carbon

compared with plants with smaller, finer roots.

"They also have good drought resili-

ence, as their root systems can access water below the first few centimetres of soil," said Mr Wixey.

