

Forage palatability and consumption increased through tailored nutrition

Providing grassland with nutrition as well as nitrogen this season will help farmers boost forage quality across the farm.

Making your fertiliser work harder should be a key focus for farmers before committing to spring grassland nutrition, and a balanced fertiliser blend targeting nutrient deficiencies could offer increased forage quality.

Tom Oates, nutrition agronomist at Origin Fertilisers, says the investment required in nutrition means growers should be aware of all the options, and a tailored fertiliser, such as Sweetgrass from Origin, will offer crops more than just nitrogen.

“Matching nutrients to soil and crop requirements can increase nutrient availability in the soil profile and help to produce higher-quality grass. Farmers looking to buy fertiliser for the season ahead should be making sure that any purchase is maximising their investment. Applying the correct fertiliser will result in the most efficient fertiliser,” comments Mr Oates.

Balancing nutrition

Testing the soil is key to understanding where deficiencies are, and this will help inform decision-making when purchasing fertiliser. The inclusion of secondary and minor nutrients, such as sulphur and sodium, allow the potential to reduce nitrogen, which is commonly the most expensive part, and a broader balanced nutrition will have a positive influence on quality.

“Soil testing results allow farmers to take a tailored approach to fertiliser via Origin’s Nutri-Match range. A balanced fertiliser can correct the specific nutrient deficiencies and provide the crop with sufficient levels of the main nutrients involved in protein formation and forage quality.”

While the addition of sodium will not directly influence grass growth, a minimum level in the diet is essential to maintain livestock health and performance, and its role in improving palatability shouldn’t be forgotten when deciding on fertiliser strategies.

“Much of the sodium consumed by livestock is used in the production of saliva, which is secreted into the rumen to maintain a constant pH by neutralising acids formed by bacteria. Sodium supports synthesis of glucose and converts it to fructose, therefore making the grass more palatable, as the sodium has converted the sugars into more soluble carbohydrates,” adds Mr Oates.

Farmer viewpoint

Two years ago, Midlands farmer Andrew Hall decided to change his fertiliser from a straight CAN (calcium ammonium nitrate) product to Origin Fertilisers’ Sweetgrass, after he realised his herd of 160 Ayrshires were too loose at the start of the year and struggled to retain quality forage in the rumen.

The cows still produced a good milk yield, but low fat content in the milk was becoming an issue, as Mr Hall explains. “We aim for 4.3% fat content in the milk, but this had dropped to 3.8% in the past, incurring penalties of 2ppl, which has had a big impact. Since we started

using Sweetgrass it has remained constant, never dropping below 4.1%, and milk yield has increased, too.”

An investment in a larger tank has been required as the increased milk yield has outgrown the original tank. Part of the reason for the extra milk has been the reduced looseness from cows thanks to the addition of sulphur in the fertiliser blend. In the past, Mr Hall had never applied sulphur directly, but its presence has allowed more nitrates to be converted to useable protein and has helped the cows retain forage in the rumen. “The fertiliser has reduced looseness and kept the better-quality forage in the cows for longer. We have increased the value of grass across the farm and our milk yield,” says Mr Hall.

He has seen further benefits from the cows grazing the swards tighter as the plants are more palatable further down the stem. This has also meant there are no long stems left that Mr Hall has previously needed to mow. Part of this is down to the addition of sodium in the fertiliser and, after the second year of use, the residual levels in the soil profile have started to increase and influence palatability.

“I believe plants can only use so much straight nitrogen, so it is about balancing the inputs. Our herd of Ayrshires milk well from a mainly forage diet, so getting as much nutritional quality consumed early is essential, and changing the fertiliser approach has helped achieve this,” adds Mr Hall.

The Sweetgrass blend Mr Hall chose was a 23N, 0P, 0K + 5Na + 5SO₃. It was applied across three applications of 50kg N/ha, at monthly intervals in the spring. The benefits to cow health and increased milk yield has meant the change to Sweetgrass fertiliser has enabled Mr Hall to maximise his home-grown forage.

What is Sweetgrass?

Origin Fertilisers' Sweetgrass is a grassland fertiliser with increased sodium and sulphur content designed to raise sward palatability and nutrient availability to the plant. Improved palatability of swards allows cows to increase their intake from grass, graze swards tighter, and improve digestibility through consuming better-quality forage.