The next step in grass seed mixture selection

Much more to grass mixtures than just yield

Grass seed mixtures can now combine outstanding nutritional traits, designed specifically to meet the needs of individual units and herds. We spoke to a grassland specialist and some Dutch producers, who have been using these new-generation mixtures, to find out more.

text **Karen Wright**

Grass seed mixtures are evolving. It's no longer just about selecting varieties for their ease of establishment, yield potential, drought resistance or longevity. Nutrition has stepped into the mix – literally. Producers can now select a grass seed mixture that combines varieties with top performances and that complement each other for grazing and/or silage making, but that also add to the nutritional value of the crop – perhaps for more protein rich silage, or perhaps a higher energy forage or grazing crop.

This development, from Limagrain, has been possible due to the implementation of new technology, such as NIRS (Near Infra Red Spectroscopy) that measures the nutritional properties of a plant variety. The company has introduced accreditation for its grass seed mixtures to provide producers with reliable data to help the selection process.

Grass mixtures offer improved yield, quality and cow performance

A trial carried out by NIAB at its Dartington Centre, on behalf of Limagrain, showed consistently high results for LGAN grass seed mixtures across a range of yield and quality criteria.

LGAN mixtures are all made up from high quality varieties formulated by Limagrain using varieties from the recommended list identified in its quality trials as having strong nutritional attributes. The mixtures trialled included Silage & Grazing, Intensive Grazing and Extended Grazing.

Sown in autumn 2013, nine cuts were taken in 2014, starting on April 10 and following the NIAB Simulated Grazing management protocol.

Total dry matter yields, digestible fibre yields and ME yields were measured and for quality comparisons, averages for digestible fibre (dNDF), ME, protein and water soluble carbohydrate were also noted. These were compared with results from a mixture that combined four recommended varieties of grass selected for relatively low nutritional quality.

"We wanted to show that the high quality varieties could be combined to give high quality results across a range of important factors that would not only yield well, but would also perform well as a feed and contribute to improved animal performance," says Limagrain's grassland specialist Ian Misselbrook.

Results show particularly strong performances from LGAN mixtures for yield. The four LGAN mixtures out-performed the low quality mixture for quality criteria with exceptionally strong ME results and digestible fibre. The LGAN Silage and grass mixture also had the highest water soluble carbohydrate content, protein and ME.

"The relative performance of the LGAN mixtures in these trials shows the value of combining varieties based on their yield and quality values to provide producers with mixtures that not only grow well but contribute cost-effectively to feed quality and improved animal performance."

The new Limagrain Genetics Animal Nutrition (LGAN) range currently comprises five grass seed mixtures that meet the requirements for today's range of dairying systems: Intensive Grazing, Extended Grazing, Quality Silage, Protein Silage and the dual-purpose Silage and Grazing.

More milk

"Regular reseeding is a must if grassland productivity is to remain high," says the company's grassland specialist Ian Misselbrook. "There are financial rewards for any reseed, with most easily paying for themselves in extra milk yield – typically an extra 1.25 litres per cow per day – by the end of the first year. We're urging producers to take a look at these new seed mixtures, which have been formulated for enhanced nutrition, as well as their agronomic strengths."

Trials carried out at the independent Schothorst Feed Research Institute, based in The Netherlands, compared a Limagrain LGAN dual-purpose tetraploid grass seed mixture with a good quality conventional grass mixture fed in a TMR. Results showed that cows fed on the LGAN grass silage averaged 1.4 litres a day more than cows fed silage produced using a conventional grass seed mixture.

"Feed value was also better," adds Mr Misselbrook. "The digestibility and energy value of the diet improved by 3% and there was a 5% improvement in overall feed efficiency. This would add 427 litres per cow to a 8,500-litre average, which would contribute to a higher milk income and margin per cow."

The grass seed mixtures' enhanced nutritional benefits are particularly relevant as producers look to reduce production costs to help curb some of the effects of the volatile milk price. "More milk from forage is key and nutritional benefits have a real role to play here."

Producer feedback

The LGAN mixtures were launched in April 2014 but most were not sown until the autumn in the UK, so they are yet to see their first grazing season. But Dutch producers have been using the mixtures for several years now.

Producer Walter Bree is impressed with the yields he has seen. He swaps land with his neighbour, who is an arable producer, for crop rotation purposes. "I always sow LGAN Quality Silage – I want to achieve the best possible yield and silage quality. And that's what I get with this grass seed mixture. The yield is super."

He has tested a number of different grass mixtures during the past couple of years. "I think that land availability will be the new 'milk quota'. That is why it's important to me to maximise yield from my land. LGAN mixtures never disappoint in yield or quality."

Fellow Dutch dairy producers André Hupkes and Joris Oosterink have expanded their herd to 300 cows and are focused on maximising milk yield per cow. "For this we need a lot of high quality grass off our land," says Joris. "We sowed LGAN Intensive Grazing for the first time seven years ago and it boosted yields. It's now the only mixture we use," adds André.

"You can't afford to make any mistakes when it comes to grassland. If you do something wrong, you instantly notice this in intakes and milk production.

"The composition of this LGAN mixture is exactly right for us. We get a strong, closed sward and high yields. So this mixture really does help to ensure that we get more milk from our cows." |

Ian Misselbrook

Walter Bree

André Hupkes and Joris Oosterink