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#DiverseForagesStudy

A DiverseForages Project Workshop   North Wyke, 28th February 2018

Grazing Multi-Species Swards Workshop Report

Our Project >>>

An update on the DiverseForages Project

The workshop began with a summary of preliminary findings from the first year of the DiverseForages Project: A five-year study funded by the Sustainble Agriculture Research and Innovation Club (SARIC).

In 2018 the project will enter it's second year. So far, one year's measurement of biomass yield and species persistence have been made on agronomy trial plots throughout South-West England. Multi-species mixtures comprising 6, 12 or 17 species were compared to a ryegrass control. The project team now prepare to start a two-year grazing study using beef steers and will use information learnt at this workshop to inform their management approaches.

For more information go to
www.reading.ac.uk/DiverseForages

Workshop summary
Learning from each other's experiences

The aim of this workshp was to bring together farmers, industry representatives, and researchers with an interest in the management of multi-species (herbal) leys to discuss best practice for grazing these pastures with cattle and sheep. With over 45 delegates, the day proved to be a great success with lively debate relating to the pros and cons of diverse forages.

After a welcome and update from the DiverseForages project team, Rob Richmond, a dairy farmer from Gloucerstershire, was the first to describe how growing diverse forages had enabled him to more than double his soil organic matter over a number of years which in turn allowed him to increase stocking rate. Rob called on the researchers present to better quantify animal impacts on diverse leys, and for plant breeders to develop plant varieties that were designed for low input situations. Following Rob, William Waterfield (independent consultant), shared his experience of seeing diverse leys working in practice and reminded the audience that the economic value of herbage produced in late autumn is much higher than that produced in spring when grass grows plentifully.

How do you measure yield and then decide when to graze?

What is the best seed mixture to maintain diversity long-term?

Sam Lane of Cotswold Seeds highlighted the growing interest in herbal leys over the last decade which was indicated in total sales.

In the afternoon session, attendees heard about the latest research from Dr. John Finn (TEAGASC), and Dr. Tommy Boland (UCD), who presented data from their 'EU Cost' and 'SmartGrass' projects respectively. Results from the EU Cost study showed that 98% of the mixed swards tested outperformed the yield of the average component species sown in monoculture, whilst the SmartGrass project indicated reduced requirement for worming lambs fed on multi-species pasture. Finally, Dr. Suvarna Punalekar (University of Reading) showcased her exciting research into utilising satellite imagery to predict biomass and feed quality of mixed leys.

Mixtures and management to preserve diversity

Two breakout discussion groups were held during the day to enable attendees to debate best practice approaches to diverse sward management and grazing.

How to establish?

The farmers present agreed that spring sowing, combined with a firm seedbed produced the best results for diverse forages. Whilst there were mixed opinions over the use of ploughing, all agreed that taking the time to produce a quality seedbed was worth it considering the cost of the seed.

Which species?

"Experimentation is key" was the message from this breakout group with farmers suggesting "try out different mixtures and see which species thrive". Red clover and chicory were thought of as key long-term contributors whereas less-competetive herbs may not last the duration of the ley, but still bring benefits to soil whilst present. Many expressed that more guidelines were required for species selection, perhaps in the form of a smartphone app or user-driven 'wiki' site (e.g. Wikipedia).

When to reseed?

Aiming for long term leys lasting at least 4 years was the predominant opinion of the group. The question was posed "If the ley is still good quality, why reseed even if some species are no longer present?". Few had positive experiences with overseeding into established grass leys. To sum up, the group expressed concern over contradictory sources of management information and made a plea for simpler management guidelines from the research community.

Questionnaire Results
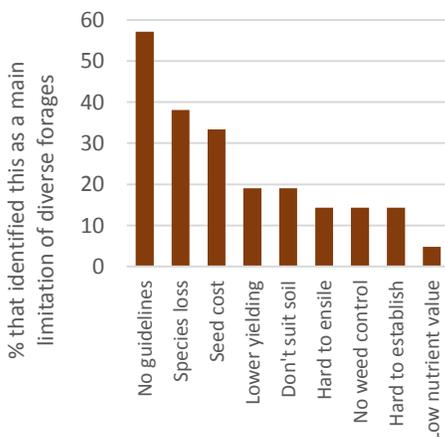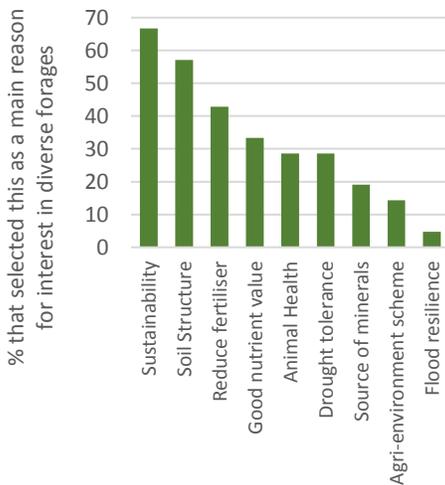
Grazing practicalities

When to graze?

How to measure biomass and judge the readiness of diverse swards for grazing was the first topic of discussion for the second breakout group. Columb Anderson-Hague, demonstration farmer for the DiverseForages project, spoke about using a rising plate meter and waiting until biomass is at least 3000 kg/ha DM before beginning to graze an area, then leaving a residual height of 1500 kg/ha DM. The group noted that waiting longer to graze (up to 6000 kg/ha DM) often resulted in poorer milk yield, likely due to lower digestibility of the ley. Sam Walker, also a demonstration farmer, warned new growers of diverse forages to expect to see more bare ground after grazing than in grass leys. Round lengths starting at ~20 days in spring and extending to ~60 days in autumn were common amongst the farmers present. Farmers supported the idea of allowing the leys to set seed at least once in the season for persistence.

Best grazing management?

Columb also discussed how grazing hard for short periods of time and back-fencing was the preferred method as more relaxed grazing allowed species such as cocksfoot to be avoided. Livestock breed is also an important factor as higher yielding animals graze harder. To sum up, the group agreed there is no specific 'one size fits all' rule for grazing diverse leys and that farmers should find a method that suits their conditions.

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