



Project Aims: The participant farmers wanted to examine if multispecies leys (MS) could offer any advantages above traditional ryegrass/white clover leys in terms of yields, seasonality of growth, forage quality, animal performance and in the persistence of the leys.

The project provided funding to assist with establishment of the leys and for technical support to monitor the leys through the three year project and to provide mentoring to the three farmers.

- Establishment success –germination and weed levels
- Assessments of ground cover and species composition
- Dry matter yields – grazing cages cut every month through the grazing season
- Forage analysis for nutritional qualities (ME, CP) and mineral contents
- Animal performance – lamb weights recorded post weaning

All farmers were trained in assessing sward heights and on appropriate targets to avoid over and under grazing.

All farms initiated a winter break (Nov-Feb).

All of the leys were grazed on a semi-rotational basis – typically one week on, two weeks off.

Grazing was a mixture of cattle and sheep at Gellifeddfaer, predominantly cattle at Brynchwith and just sheep at Gilfach.

Gilfach took a silage cut from the new leys in both 2019 and 2020.

Fertiliser inputs varied slightly across the three farms – ranging from 30kgN/ha at Gellifeddfaer to 100kgN/ha at Brynchwith and 120kgN/ha at Gilfach.

None of the farms recorded any improvement in animal performance (Live Weight Gain) on the multispecies leys. Weighings indicated that often there was an acclimatisation period when stock were introduced to the multispecies leys. All farms reported that stock grazed the grass component of the sward ahead of the herbs. All farmers reported that the stock were cleaner on the MS leys.

Gellifeddgaer

Gilafach

Brynchwith

Legend:

- Ryegrass
- Timothy
- Plantain
- Chicory
- White clover
- Red clover
- weed grasses
- broad leaved weed
- bare ground

- Multispecies (MS) leys have performed as well as traditional ryegrass leys on a range of fields with challenging conditions.
- The greatest benefits of MS leys are in the early life of the ley – as often the herb content declines quickly
- MS leys have provided yield benefits in early and late season production.
- Wet soils and poorly drained land are probably not best suited for MS leys.
- Seed mixture selection is difficult due to the huge choice on the market.
- Establishment early in the year is beneficial
- Rotational grazing is preferred to continuous to prevent plants from being grazed out.
- Late autumn grazing and under-grazing in spring may have contributed to the decline in diversity.
- Winter rest period is important to allow the legumes and herbs to persist.
- A single silage cut (mid-season) seems to have no detrimental effect on the ley.
- Moderate N applications (<150kgN/ha) have not adversely affected the mixtures
- Forage quality and mineral status haven't been significantly altered by using MS leys
- Benefits for animal performance and animal health from grazing MS leys have not been evident from this project.

The project is indebted to the co-operation and dedication of the three farmers and their families; Richard Morgan, Gellifeddgaer, Ed Roberts, Gilfach and Phil Thomas, Brynchwith.