

## **FARMING CONNECT OPEN DAY**

**1<sup>st</sup> June 07 at CAMAES Farm, Llangernyw, Llanrwst.**

### **Introduction**

Alwyn Jones farms Camaes, an 81ha sheep and beef demonstration farm in Llangernyw near Llanrwst. His farm comprises 76 ha of grassland, with some woodland and rough ground. Alwyn also rents 16.2 ha of rough summer grazing.



This was Camaes' final open day as a Hybu Cig Cymru Beef and Sheep Demonstration farm and focussed on activity relating to:

- Feeding live yeast to lambs (Peter Gillard, Biocell)
- Protein supplements for grass silage fed store cattle and improving clamp silage quality with by-products (David Peers, ADAS)
- Benefits of silage additives (Dave Davies, IGER)
- CLIK pour-on demonstration (Ieuan Davies, Youngs Novartis)
- Farm tour and Red Clover (Huw Powell, IGER)

### **Grassland activity**

The open day, provided a valuable opportunity for farmers to find out more about the Grassland Development Centre's (GDC) involvement with Alwyn Jones in growing red clover, which Alwyn will use to finish lambs.



Alwyn undersowed 12 acres to a mixture of high sugar perennial and hybrid Italian ryegrass (AberDart, 4kg/acre, AberEcho 5kg/acre) and the red clover variety Milvus (3kg/acre) to barley in May 2006. After taking wholecrop silage in August, over 200 lambs were finished off the aftermath in the Autumn.

This Spring in 2007 Alwyn again grazed the field with couples for three weeks from the third week in February until the field was closed for silage on the 20<sup>th</sup> April. The field received 50 kgN, 9 kgP and 9 kgK per ha (as 27:5:5) on the 10<sup>th</sup> March.

### **Red clover**

Two aims of the Open Day were to demonstrate the quality of a red clover sward and to see whether or not there is a benefit to applying nitrogen to the sward in the spring.

In April, Phosphate and Potash were applied to the whole field and 63kg N/ha (50 units/acre) to one half only. There was a increase in dry matter yield of only 500 kg/ha (from 4.6 to 5.1tDM/ha) where N was applied (equivalent to around 1.6t silage/ha).

The cost of applying this 63kgN/ha was £27/ha – so the extra yield cost £17/t to produce. The poor response to applied N indicates that the clover in the sward was producing almost all of the crop's requirement. In a year with a cooler, wetter spring the response to bag N would have probably been greater.

Although applying nitrogen for 1<sup>st</sup> cut increased yield it is likely that yield differences would be even less if you applied N for second cut as clover fixation increases markedly through the summer.

Remember Red Clover is capable of fixing 150 kg/ha of N through the season and this is reason enough to use it in the sward to offset the costs of fertiliser application which, also include labour time and machinery costs to apply.

Other benefits of using red clover in the sward were also discussed at the Open Day; a cheap source of home grown protein, improving soil structure and fertility, harvesting for quality silage, and aftermath for finishing lambs. Concerns were voiced about bloat, ewe fertility, disease, pests and persistence and must be considered in each farm situation.



### Grass for silage analysis

GDC carried out grass analysis to assess the quality of the sward before the Open Day and cutting for silage (6<sup>th</sup> June), the results of which are given below.

Determination	21 <sup>st</sup> MAY 07	28 <sup>th</sup> MAY 07
Dry Matter Content	20.6	18.7
Total Crude Protein	18.4	18.6
MAD Fibre	23.3	28.8
Sugar	20.5	11.0
Sugar @ 20% DM	4.1	2.2
Protein: Sugar Ratio	0.9	1.7
Nitrate – N	0.01	0.02
Digestibility D	72	66

Analysis showed a crop with good dry matter, protein, sugar and D values for ensiling.

### Benefits of silage additives

The importance of carrying out good ensiling practice was re-iterated alongside the fact that under ideal conditions inoculation is the 'icing on the cake'. This is because, even under ideal conditions, there are more undesirable bacteria (often 1000 fold greater) on the forage than the desirable lactic acid bacteria. The results of many years work at IGER have indicated an average benefit of 26% in live weight gain in steers with inoculated silage over untreated silage. Red clover is a crop that should always be inoculated and again IGER research has indicated that the amount of Nitrogen retained within the body of lambs fed inoculated silage was 33% greater than those fed untreated red clover silage. This nitrogen is then available for productive growth rather than being wasted as urine. So the take home message was that inoculation was definitely cost effective especially when silage making conditions were ideal.

For further information on Red Clover and its use please contact a member of the Grassland Development Centre Team (Heather, Chris, Charlie or Huw) at IGER and request a factsheet or further information. Details supplied on our website.

Huw Powell (Extension Officer) GDC

01970 823028 or email

[huw.powell@bbsrc.ac.uk](mailto:huw.powell@bbsrc.ac.uk)