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#### August G4ce newsletter, with an update on grass growth at the G4ce farms.

Although July was a month of mixed weather many farmers successfully harvested silage and hay releasing additional fields for grazing.

Grass growth varied widely across Wales and this will have been influenced by grass variety, soil fertility, soil moisture deficit, weeds and the amount of fertiliser used. Much of Wales was dry during July, with grass growth slowing down as a result.

For information on soil moisture levels in your area go to: <http://www.environment-agency.gov.uk/research/library/publications/104048.aspx>

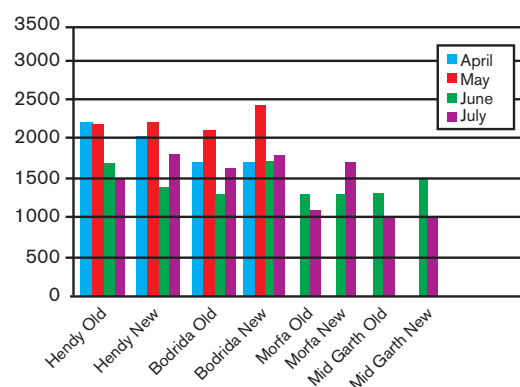


**Locations of the G4ce farms across Wales**

#### Grass Quality on the G4ce farms

One of the aims of the farmers taking part in the G4ce project was to maintain good grass quality throughout the grazing season.

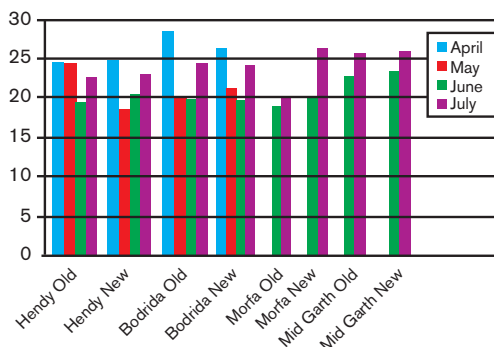
#### Energy Levels (Mega Joules) in Grazed Grass on all G4ce Farms



Generally energy levels have dropped over the grazing season. As discussed last month energy levels are highest where the grass is kept young and leafy, and drop dramatically as grasses mature.

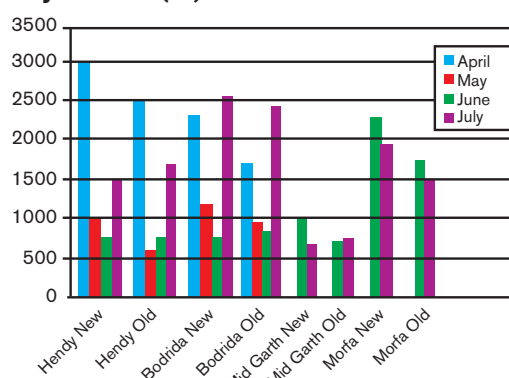
Where swards are beginning to head move productive stock onto high quality young re-growth such as silage aftermaths. Move currently unproductive stock (dry suckler cows or dry ewes) into fields where the grass is older so they can graze off the stems and seed heads. Once grazed down, aim to maintain at a sward height of 4cm.

#### Crude Protein Levels (CP%) in Grazed grass on G4ce Farms



Crude protein levels have been consistently high throughout the season and are affected by the variety of species in the sward, management and fertiliser use.

#### Dry Matter (%) in Grazed Grass on G4ce Farms



Dry matter levels throughout the grazing season have been good and will have led to high intakes of grass on the G4ce farms where the swards have been carefully grazed to provide the optimum sward height for grazing stock.



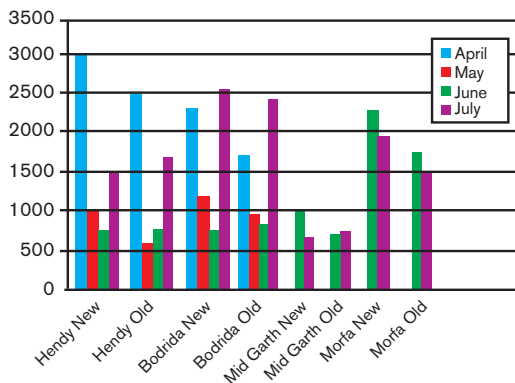
Cronfa Amaethyddol Ewrop ar gyfer Datblygu Gwledig: Ewrop yn Buddsoddi mewn Ardaloedd Gwledig  
The European Agricultural Fund for Rural Development: Europe Investing in Rural Areas



Llywodraeth Cymru  
Welsh Government

## Grass Growth on the G4ce farms

### Dry Matter Production (Kg/ha)



In the early season monthly yield in new leys was greater than old leys.

In July two new leys did not produce as much grass as the old leys, this is likely to be because of a shortage of plant nutrients.

At Hendy the new ley was cut for silage in June removing large amounts of nutrients and no fertiliser or manure was applied to the aftermath because farm grass supply was good. In contrast, the old ley was grazed and was continually receiving nutrients from livestock manure.

The old ley at Middle Garth received more nutrients from farm yard manure in the spring and Andrew Owen has noted the old ley is a denser sward than the new which will give improved yield. The density of the new ley could be improved by tighter grazing with unproductive stock such as dry ewes.

**For more information on this project contact Sue Buckingham, Grassland Development Centre, IBERS, Aberystwyth, 01970 823058, e-mail seb2@aber.ac.uk**

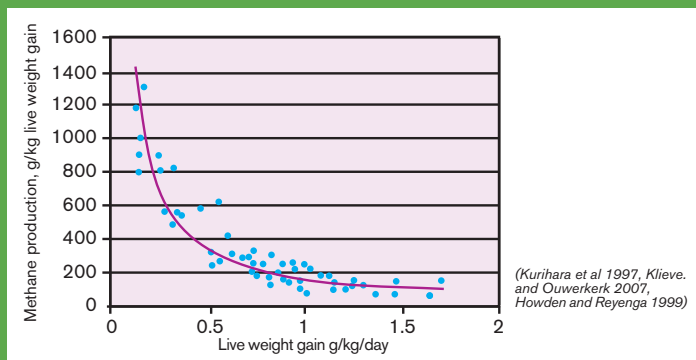
**The Red Meat Development Programme is delivered by Hybu Cig Cymru (HCC) on behalf of Farming Connect. For further information, ring 01970 625050 or visit [www.hccmpw.org.uk](http://www.hccmpw.org.uk)**

## Monthly G4ce Question

**How can I improve my grazing to cut the carbon footprint and methane emissions of the meat produced on my farm if I am already using sward height to maintain optimum grazing conditions?**

Feedstuffs with high digestibility (D value) will give better growth rates and lower methane emissions so choosing a grass variety with a high D value can help reduce methane emissions and cut your carbon footprint.

**The relationship between live weight gain (LWG) of cattle and methane production per kg of gain**



Choosing high D value grass varieties with high-sugars can further reduce an animal's methane emissions; by 20% for every kilo of weight gain. This is because the readily available sugar in high sugar grasses allows the rumen microbes to process more grass protein into meat and milk.

Cattle and sheep are generally poor converters of grass protein into meat and milk. A major reason for this is an imbalance between the amount of readily available energy and the protein within the grass. To overcome this high sugar grasses have been bred to contain

readily available sugars in the plant cells; these provide energy to capture the protein as soon as forage enters the rumen.

The G4ce project has demonstrated the benefits in herbage yield from reseeds compared to older leys, incorporating high sugar grasses in a seeds mix will also help deliver reduced methane emissions and can be used as part of a farm strategy to reduce the carbon footprint.

There are high sugar grasses across the range of perennial and hybrid ryegrasses e.g. late heading perennial AberDart, intermediate heading AberGreen and hybrid AberEcho.

The choice of seeds mix depends on how the ley will be used and when reseeding. All seed varieties should be on the Herbage Varieties Guide recommended list:

<http://www.herbagevarietiesguide.co.uk>

Grazing high quality grass can also reduce carbon footprints through:

- Achieving live-weight targets with lower concentrate input.
- More efficient use of nutrients from manures and fertilisers.
- Better animal health, livestock fed on high quality balanced feed are more able to cope with disease challenges resulting in good growth rates and fertility.
- Improved growth rates through reduced parasite intake, maintaining grazed grass above 4cm can affect the parasite burden as most of the larvae are found in the bottom 3cm of the sward and above 4cm the concentration drops rapidly.