



IGER Grassland Development Centre

Monitoring of Grass Quality for Ensiling



Reporting on samples collected on **7th May 2007**

Producing a high quality, well fermented, stable silage will only be possible if the grass at cutting time is of suitable quality.

Targets

High sugars (above 3%@20%DM) to provide an energy source to drive fermentation

- *low nitrate N% (below 0.1)* to prevent the production of ammonia nitrogen that will increase buffering capacity and restrict fermentation
- *D value* – the digestibility of grass is directly related to its energy level – target above 67D for growing/fattening animals and dairy cows.

This weekly GDC update will allow you to gauge how swards are progressing across Wales - to help you make the best quality silage. The majority of samples are currently from lowland dairy farms – as the weeks progress the samples will increasingly come from beef/sheep farms and from higher altitudes

GDC GRASS TEST RESULTS (May 7th 2007)

Crop type/ Test	Younger PRG Ley	Hybrid and IRG Leys	Last weeks average (30/04)	Change *
Dry Matter	18.6	16.3	17.3	-0.3
D value	70	68.5	69.2	-0.2
Crude protein %	19.1	18.4	20.3	-1.7
Nitrate N %	0.01	0.08	0.02	0.04
Soluble sugar %@20% DM	3.4	3.7	3.2	0.4

* (Figures in the "change" column above are the average from samples received from farms this week compared to the average of last weeks results)

Quality Issues

It's been cloudy and wet with fresh gusty westerly winds most of the week. Temperatures have been around the 14-15°C mark all week feeling distinctly cool. The *outlook* is for rain to spread north eastwards with unsettled weather until Tuesday getting drier on Wednesday but wetter by the end of next week again.

So the chances of getting silage making weather are slim! Saying that, you may find that your silage leys have, or will go flat in the field, some certainly have

already, so the message is: if your crop is ready get busy on the driest day we get (possibly Wednesday?) and steal the field for big bales.

With young leys that were sown last year, the danger is that we don't take a good number of cuts this year the sward won't thicken up for next year; tiller density will suffer and so will the yield if the sward remains too open.

If we do have to take a crop in less than ideal conditions and dry matters are low beware of chopping grass too short. When the grass gets to the clamp it can get over compacted and result in a rapid release of larger volumes of effluent.

Dry matter, D-value and proteins have tended to fall slightly this week if anything, with the wetter cooler weather we've been having. Sugars are up and down too- some results showing high values which influence the average which is still around 3.4% at 20% DM. Averages reflect how many samples come in each week and from which type of ley. The table above shows results for three leys this week.

Nitrate N% is slightly up also reflecting the wet weather and care will be required on cutting and ensiling to minimise the effect of ammonia release on fermentation

Tips for dealing with effluent

- check and clean your effluent drains
- make sure you can cope with storing the volume of effluent that could come off the clamp
- if you're feeding the effluent, do so quickly before it loses its sugar value and starts producing moulds
- if spreading effluent take care to avoid contaminating water courses (10m buffer zone) as effluent is an extremely powerful pollutant. Dilute at least 1:1 with water to prevent grass scorch. Aim for a rate of between 25-30m³/ha (2200-2700gl/acre).
- using an acid on silage will speed up the release of effluent from the clamp

If you have any concerns about the capacity of your clamps and tanks to handle large volumes of effluent consider baling instead and storing the bales in a suitable area at least 10m from a water course.

Soil contamination can be a major issue when taking silage in wet conditions

- aim to move the grass around as little as possible when it is in swaths and avoid driving over the swaths
- make sure that the clamp area is kept clean and that soil from trailer wheels is not carried into the clamp on the buck rake
- if making bales it is far better to bring them back to a clean yard to wrap rather than wrapping in the field

Sulphur levels

There were no results for sulphur this week; however we expect some for next week.

Atmospheric deposition has declined significantly in recent years – resulting in many areas of the country no longer receiving enough sulphur to adequately supply a multi-cut system. Last year our early samples all came back indicating a sulphur deficiency – suggesting that an application of sulphur ahead of the 2nd cut would result in increased yields. This application may be from the bag or in the form of slurry; 50m³/ha of slurry will supply around 20kg/ha of available SO³ – which would supply enough sulphur for the following silage crop.

Additive use

It is recommended that where silages are high quality targeted for growing/fattening stock or milking cows that an additive should be used to maximise protein quality. Additives would be advisable on all silages where

conditions may restrict rapid fermentation; low sugars, high nitrates, wet crops and poor harvesting conditions.

A good inoculant (one with a million + bugs/gram dry matter) will help to achieve a good fermentation in wet conditions – there should be no need to resort to an acid unless there are high nitrates or significant soil contamination.

Weather forecast

For the latest 5 day forecast follow this link

http://www.metoffice.gov.uk/weather/uk/wl/wl_forecast_wind.html

For more information contact:

IGER Grassland Development Centre on 01970 823058

<http://www.iger.bbsrc.ac.uk/Practice/GTT/Events.htm>

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The Grassland Development Centre, based in IGER is managed by the Welsh Assembly Government as part of Farming Connect.

