

Measuring Grass

Principles of Grazing Management;

- Maximise pasture growth rates
- Maintain pasture quality
- Achieve high pasture utilisation
- Ensure average covers are achieved at critical times of the year
- Feed cows to their requirements

What is high quality pasture?

High quality pasture is green and leafy with minimal seed head and dead matter. Dead matter is the main driver in the loss of pasture quality. To look at high quality pasture has;

- Less than 20% dead matter in the base of the sward
- Less than 10% seed head
- Greater than 60-70% green leafy material
- With the highest quality pasture having more than 80% green leaf.

Why measure grass?

Grazed grass provides a major source of nutrients for ruminant animals. It is the cheapest source of feed available, and it is cheaper for cows to graze the grass than to ensile it. However we must ensure that animals have sufficient grass to reach appetite so that their potential production can be achieved. This means that we must know how much grass we have available, so that it can be factored into any calculations that are made.

Grass Measurement

Grass is measured in kgDM/ha. Below are listed different methods of measuring grass

Cutting Drying and Weighing

Advantages – Accurate the same cutting technique needs to be applied

Disadvantages – Only gives a reading on a small area – requires a representative sample

Rising Platometer (RPM)

Advantages – Reasonably quick, you have to walk the farm and it gets your eye in

Disadvantages – Can over read in summer

By Eye

Advantages – Quick and easy

Disadvantages – Can be inaccurate if your eye is not properly 'in'. It's best to start with another method to refine your technique.



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The Rising Plate Meter

The rising plate meter works by measuring the compressed height of the sward. One click on the rising plate meter is equivalent to an average height of 0.5cm. For example a reading of 8 clicks is equivalent to an average height of 4cm.

In order to convert the height to kilograms of dry matter an equation is used

The RPM Equation

'Average compressed pasture height' x 125 + 640 = KgDM/ha

Where

Average compressed height = Readings from the RPM

125 = the multiplier

640 = the adder

Using a Platemeter

There are two types of plate meter available manual or electronic.

Manual

Record the start reading and take a minimum of 30 plonks, more if in a large paddock, record the end reading. Subtract the start reading from the end reading and divide by the number of plonks. This gives the average compressed height, apply the RPM equation to convert to KgDM/ha.

Electronic

Already has formula loaded and takes readings as you plonk.

Operator Technique

A good technique is to set off diagonally across the paddock taking readings every 2nd step. It is important to avoid areas around water troughs and gateways.

Sources of Inaccuracy

- Rolling the plate meter
- Placement by looking at the clumps - hand will follow eye
- Using the plate meter as a walking stick – the plate meter will have additional mass

Conclusions

- Get out into the fields to see what grass you have.
- Choose a method of measuring that you are happy with.
- Regularly measure to build up a picture.
- Be consistent with your measuring technique.
- Use the information that you gather.