

303.01 MEASURING SWARD SURFACE HEIGHTS

Sward surface height has been shown to be a good practical indicator for use in grazing management which will enable achievement of good grass utilisation and livestock performance.

WHY MEASURE SWARD HEIGHTS?

Knowing how much grass you have and how it is changing will help you to make management decisions:

- Setting the right stocking density
- Putting the right class of stock on to a field
- Gauging how long a piece of grazing should last
- Making the most of fertiliser applications
- Taking fields out of grazing rotations and into silage areas
- Identifying a potential shortfall in grass before animals/milk yields are affected
- Efficient use of supplementation at grass

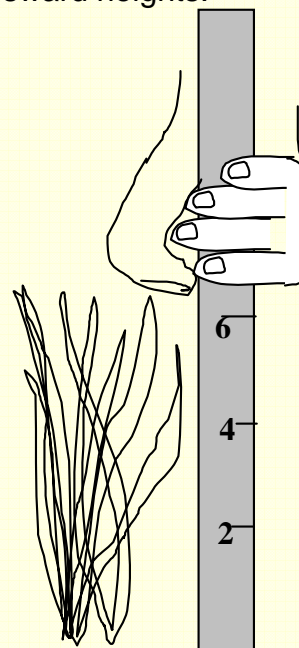
Walking across a field in a W pattern you should aim to take at least 40 readings in each field. Write them down as you go and then work out the average. Avoid gateways, hedgelines and any areas that are not representative of the field in general. If the field has a definite split between wet and dry areas it would be a good idea to measure them separately. Measure to the top of the grass leaf – don't measure stems and flower heads and don't measure weeds.

During the peak of growing season sward heights can change fairly rapidly so consider measuring twice a week.

HOW TO MEASURE SWARD HEIGHTS?

At IGER we use a sward stick for accurate measurements. This is essentially a ruler with a sliding pointer that can be raised to the level of the sward – showing a reading to the nearest 0.5cm. A cheaper alternative is to use a ruler, walking stick or even your boots with a scale drawn up the side.

With plenty of practice you will be able to make rough judgements by eye, but there is no real substitute for walking fields and measuring sward heights.



USING SWARD HEIGHTS AS A MANAGEMENT TOOL

By recording sward heights and using the tables overleaf you should be able to improve the use of grass on your farm by maximising animal intakes and reducing grass wastage. Grazing down to the recommended 'post-grazing' height will prevent swards becoming stemmy and maintain sward tiller density and quality through the grazing season and produce high levels of livestock performance.

Aftermath swards will respond differently to grazing pressure than normal grazing fields. They must be conditioned by grazing to encourage tillering before sward height guidelines can be applied.

Table 1 DAIRY COWS

Livestock Type	Graze Period	Rotational			Continuous	Notes
		Pre-graze cm	Post-graze cm	* Interval days		
Lactating	Turn-out-May	10-15	6-7	16-20	6-7	Top to 5 cm if SSH is exceeded
	June-July	12-15	7-8	20-24	7-8	Swards above target SSH in May should be topped by early June
	Aug-Sept	12-18	8-9	24-28	8-9	
	Oct-House	12-15	6-7	Variable	6-7	All early/mid lactation cows will need supplement at this time
Dry cows		NA	4-5		4-5	Note cow condition score

* Rotation interval given as a guide only, they may need to be varied. Post graze SSH is the primary decision driver. Pre-graze Sward Surface Height and Rotation Interval give information to assess 'paddock skipping' and 'buffer grazing' in forward planning of grazing area.

Table 2: BEEF CATTLE

Livestock Type	Graze Period	Grazing after rest on un-adapted sward		Continuous	Notes
		Pre-graze cm	Post-graze cm		
Suckler Cows Lactating	T'out-May	10-14	5-6	5-6	
	June-July	12-15	7-8	7-8	
	Aug-Nov	12-15	8-9	7-9	Graze to 5cm with dry stock Nov/Dec
Suckler Cows Dry				4	Note condition. Increase to 5-6cm for thin cows; restrict grazing for fat cows
Growing/ Finishing Cattle	T'out-May	10-12	5-6	5-6	Increase by 1-2cm for finishing cattle through season
	June-July	10-14	6-7	6-7	SSH should be gradually increasing
	Aug- Sept	10-15	7-8	7-8	

Table 3. SHEEP

Livestock Type	Grazing Period	Grazing after rest on un-adapted sward		Continuous	Notes
		Pre-graze cm	Post-graze cm		
Ewes and lambs	T'out-April	8-10	4-5	4	Feed until 4+ gradual increase if possible
	May-wean	8-10	4-6	4-6	
Dry Ewes	July Aug			3	Reduce to 6cm for Condition Score >3
Pre-tupping	Sept-Nov	8-10	4-5	6-8	
Weaned lamb for finish	July-Sept	10-12	5-7	6-8	Allow gradual increase
Store lambs	July-Start of finishing period	NA		4	

FURTHER INFORMATION

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