

Concentrate supplementation of cattle at grass

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As summer progresses, the quantity and nutritional quality of grass declines. In spring and early summer there is sufficient good quality grass for optimum animal production and for conservation as silage or hay. In late summer/autumn animal growth rate can decline on grass alone, especially in set stocked systems. At some stage it may be necessary to supplement the grazing in order to maintain growth rates. However, too much supplement may not add to the grass but may depress its intake, eventually resulting in very little improvement in production for a large level of supplement. So the trick is to use the right amount of supplement that will complement the grass and not replace it.

Cost-effectiveness

Grazed grass is generally around 20% of the cost of most concentrates. Therefore the cheapest weight gains will be achieved from grass, as long as it is well managed and is high quality with plentiful availability. There can be an over reliance on concentrates due to the difficulty of managing grass in varying seasonal conditions (both within a season and across different seasons). Feeding concentrates should only be considered when it will maintain or improve performance.

Target sward heights for cattle

Type of stock	Period	Rotational Pre grazing height cm	Rotational Post grazing height cm	Set Stocked cm
Lactating suckler cows	Turnout - May	10-14	5-6	5-6
	June - July	12-15	7-8	7-8
	August - November	12-15	8-9	7-9
Dry cows				4
Growing /finishing cattle	Turnout - May	10-12	5-6	5-6
	June - July	10-14	6-7	6-7
	August - September	10-15	7-8	7-8

Assessing grass quality

Grass often has a protein content which is above that required by beef cattle, so it is important that there is enough energy to utilise the protein. Metabolisable energy (ME) content is directly related to the digestibility of the grass (D value). Ensuring that there is a high percentage of perennial ryegrass and white clover (at least 75%) and that the grass is grazed at the levels suggested in the above table will ensure that the D value is in the mid-70s and ME will be over 11.5 MJ/kg dry matter (DM). Grass of this quality will not require supplementing until late summer and even then it may be more to do with the reduced availability rather than its quality.

Practical recommendations

Where grass is plentiful and high quality, concentrates should not be required. However, where the grass supply is moderate or poor, as is likely in the autumn or in drought conditions, feeding concentrates should commence at a low rate and be built up to 2-3kg or more depending on the animal. This would include animals that were being finished or in transition to a more intensive diet. The concentrate should be high in energy and have a moderate level of protein. Feeding amounts of over 2kg would need to be split into two feeds. Feeding concentrates at grass also allows contact with the cattle, which can be a useful benefit especially pre-housing.