



## Benefits of a multi-cut forage system

By Mark Gorst, Ruminant Specialist at Advanced Nutrition

My colleagues and I at Advanced Nutrition are often asked the question, “How can I get more from the forage part of my diet?”

Our natural response is to ask, “How many cuts do you take and how early do you cut?” The answers to these questions vary from unit to unit, but “anything from two to three cuts” and “we always take first cut on or around the same day each year” are the usual responses.

Having researched the benefits of taking more cuts closer together and the opportunity for cost savings this can provide, I know how it can save money. As a result we are encouraging our clients to adopt a true multi-cut system.

### What is the multi-cut forage system?

The multi-cut system we have adopted with our clients involves cutting silage every 28-30 days to ensure we have four to five cuts of high quality grass silage.

Dairy cows perform at their best when they are fed consistent quality forage. The multi-cut system produces silage that is more often than not higher in energy and crude protein than the more traditional systems.

A key to gaining high quality silage is to ensure the percentage of leaf in the sward is high; having less fibre is a positive to clamp management and enables a higher energy density product in the pit. The secret is to feed more - up to 15kg DM - of this lower fibre silage. This allows the cow to get the forage fibre it requires to be a healthy ruminant. The first thing people think is they will be feeding high levels of straw in the ration; this is not the case providing forage is not in short supply.

When I am rationing the herds I work with I choose the feed inputs that will complement the forages and are the most economic, in order to achieve the business targets that are set. The key is to select the raw material combinations to promote rumen health and the utilisation of high quality forage; it's all about balancing the total ration.

Advanced Nutrition have seen the dry matter intakes on herds moving to multi-cut systems increase by 1 to 3kg DM per cow, and this has allowed these herds to target in excess of 35% of milk from forage.

### How do we achieve a multi-cut system?

Preparation to adopt this philosophy needs to take place well before the cutting season.

Look at your system and do the forage budget, making sure you have a good cropping plan. Are the current cutting swards adequate and will they give you the opportunity to get five cuts of high quality silage? Remember, good grass managers treat grass like an arable crop with multiple harvests!

Winter is preparation time. Grass grows in the winter, so ensure you have an early first cut, and the quality you are aiming for, the cutting ground needs to be managed. Ensuring that the dead base of the sward is cleared is essential to achieving optimal early tillering. Sheep can be used to make this happen.



Fertiliser needs to be used in a controlled manner; overdoing the nitrogen may result in poor feeding characteristics. Calculate what is required so that you are ready to go when the plant is. Slurry policy may need a rethink; if you are aiming to cut every 30 days it may change what you do currently and/or how you do it.

### When is the correct time to cut?

The plant will tell you. Cut early and regularly at 28 to 30 day intervals and remember, rye grasses are at their highest quality with three leaves. A fourth leaf indicates that one of the leaves has died and is already rotting, which may result in the energy density of the crop being lower and will increase the risk of bringing potentially harmful yeasts and moulds into the clamp.

Mowing height and chop length need to be considered to achieve high forage intakes out of the silage clamp. The density of the clamp influences the quality you take out.

If we think about what we are trying to achieve, grass silage is at its highest quality just before the mower cuts. We are aiming to get as much of that quality into the clamp as possible, and to conserve it there.

A silage additive won't make poor quality silage better. A good one, such as Safesil, will make high energy density, high sugar silage stable. The additive needs to work over a range of pHs as the grass ferments to become silage and hold it in suspension while the clamp is open, so the face is protected from deterioration.



*Mark Gorst has been involved in the feeding of dairy cows with Advanced Nutrition for the last 10 years and focuses on maximising milk from forage.*

Three-cut versus five-cut silage systems (across 100 acres)	Three-cut system	Five-cut system
Acres to harvest	100	100
Total yield (t DM/acre)	4.5	5.625
Total DM tonnage	450	562.5
ME/kg DM	11.0	11.8
MJ harvested/1t DM	11,000	11,800
MJ harvested/acre	49,500	66,375
Potential litres milk harvested/acre	9,519	12,764
Concentrate equivalent/acre (kg)	842	1,130
Total MJ harvested	4,950,00	6,637,500
Concentrate equivalent harvested (t)	430	577
Potential reduction in concentrate fed (t)		147
Total cost of silage making inc. slurry, fertiliser and foraging (£)	£18,000	£30,000
Total cost t/DM (£)	£40.00	£53.33
Cost/unit ME (p)	0.364	0.452
Extra cost (£)		£12,000
Potential concentrate* savings (£)		£29,348
Financial benefits (£)		<b>£17,348</b>

If you would like to discuss how to adopt a multi-cut forage system, please contact Advanced Nutrition on 01524 263139 or email [mark@arn-ltd.com](mailto:mark@arn-ltd.com)

\*Concentrate cost £200/t



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