



Knowledge grows

Late summer grass management following the extended dry weather

With some rain forecast for many areas over the coming days, now is the time to consider how to optimise this last opportunity to grow some winter feed. Consider the following questions:

1. How much winter feed (e.g. silage/maize) do I have compared to what I need?

If through doing this calculation a shortfall is revealed then growing some more of the cheapest feed, grass, could be an option providing some rain is forecast.

2. Will I need a fresh fertilizer application to optimise growth?

The answer to this is not black and white, but we can consider some key points to inform the decision.

a) How much nitrogen did I apply in the most recent application?

b) What form was that nitrogen in i.e. a nitrate based (N,NS,NPKS) or a urea based fertilizer?

This is important as the greatest loss in the dry conditions will come from ammonia emissions. Nitrates will have typically lost only 2% of the total N applied (maximum loss 13%), whilst for urea, the typical loss is 27% (maximum loss 58%). (Data taken from the NT26 research project).

c) Did I have rain within 24 hours of the last application?

If the answer is NO then you should expect the maximum loss stated above could have occurred.

d) How much has been used by the grass?

Consider how many days growth has occurred since the last application and multiply this by 2.5 to give the amount in kg N/ha used by the grass.

e) Have I lost any P & K?

If P & K was applied then the K will not have been lost apart from that taken up by the grass if growth has occurred, whilst the phosphate may have been 'fixed' in the soil.

3. How much Nitrogen is required for a 3rd Cut?

The optimum nitrogen requirement is typically 80 kg N/ha.

4. How much should I apply to satisfy a month of grass growth?

Product Recommendation and Guidance

- ✓ Choose a nitrate based fertilizer product for an immediate and reliable response to this application.
- ✓ Choose a uniform compound NPKS to apply a small amount of fresh PKS to avoid these limiting the growth / response to the nitrogen application.
- ✓ Choose a YaraMila with 'P-Extend' to provide a consistent, reliable supply of phosphate.
- ✓ Apply in advance of a rain forecast to give immediate, new grass growth.
- ✓ On lower K index soils ensure adequate K has been applied.
- ✓ As the cutting date approaches take leaf samples to assess cutting date and forage quality.

Fertilizer Product	Recommendation	Nutrient Application kg / ha				
		N	P ₂ O ₅	K ₂ O	SO ₃	Na & Se (as selenate)
 YaraMila Stock Booster S	@ 100 kg/ha	25	5	5	5	Yes
	@ 250 kg/ha	63	13	13	13	Yes
 YaraMila Silage Booster	@ 100 kg/ha	20	4.5	14.5	7.5	Yes
	@ 315 kg/ha	63	14	46	24	Yes

Example calculations:

Factor	Nitrate based fertilizer	Urea based fertilizer
How much nitrogen did I apply in the most recent application?	100 kg N/ha	100 kg N/ha
Loss from ammonia emission	13 kg N/ha	58 kg N/ha
Number of days growth since the last application?	10	10
Nitrogen uptake by grass	10 days X 2.5 = 25 kg N/ha	10 days X 2.5 = 25 kg N/ha
Balanced left for a 3rd Cut	100 - 13 - 25 = 62 kg N/ha	100 - 58 - 25 = 17 kg N/ha
Nitrogen required for a cut following one month of grass growth	80 kg N/ha	
Fertilizer Nitrogen Recommendation	18 kg N/ha	63 kg N/ha