

## **Replenishing Silage Supplies**

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As we all know grass supply is in peak growth at present (May – July) and consequently supply is in surplus, particularly with recent rain, and therefore grass silage is made to match supply and demand. Grass silage accounts for up to 30 - 40% of total feed per cow on beef farms depending on the production systems in place.

The poor weather conditions earlier in the year led to poor grass growth and a lack of fodder on many farms. Some farmers may now get the opportunity to replenish their supplies. The biggest challenge is to achieve maximum silage quality for the production system on your farm while also achieving a good yield. Quality and yield alter rapidly as the summer progresses. Yield increases but quality reduces so a compromise must be reached before quality gets too poor.

The DMD value (Dry Matter Digestibility) is the percentage of silage dry matter consumed that is essentially digested by the animal and thus

utilised by the animal. Therefore the higher the digestibility (DMD) of a grass silage, the more efficiently animals will use it and the greater the production e.g. meat, milk. Grasses with a lot of stem, seed-heads or dead vegetation and crop lodging are much less digestible than those with a greater proportion of leaf. Harvest date is one of the key factors that affect silage DMD, for every one week delay from harvest date DMD declines by 3.0 units. This means additional concentrates must be offered during the winter to maintain animal performance.

**Baled Silage** – most farmers harvest baled silage however the same principles apply to both baled and pit silage. Aim to mow grass when dry and making it easier to preserve. If possible cut grass in the afternoon and evening when sugars are highest. Weather permitting, successfully wilting the grass for 24 – 36 hours reduces or prevents effluent production while increasing the sugar concentration as a result of higher dry matter therefore makes it easier to preserve. The target for good preservation is at least 2.5% (3% if wilting is not possible) sugar content in the grass. Only attempt to wilt a crop if it will be genuinely drying while on the ground. The main objective if wilting should be to obtain a rapid wilt and ensile the herbage within 24 to 36 hours after mowing.

**Bale Quality** – the aim is for a dense, well-shaped bale with over 220kg DM per bale. Bale choppers increase DM per bale by 10-15%. Bales made from low DM or very leafy grass will lose shape when stacked, increasing spoilage losses; store on ground level instead. Handle bales gently with machinery, avoiding puncturing or tearing of plastic. Bales can be stacked two high but preferably on their flat end.

**Fodder Requirement** – A suckler cow will consume approximately 1.7 bales per month, however depending on DM and quality. Therefore for a five month winter each suckler cow will require approximately 8.5 bales. Example, twenty suckler cows would require 170 bales for five months.

## Fertilising 2<sup>nd</sup> Cut Grass Silage

Second cut silage is planned on many farms to help replenish silage reserves for the coming year. This crop is generally lower yielding compared to first cut silage. Where 1<sup>st</sup> cut has been cut its important to ensure that 2<sup>nd</sup> cut crops are fertilised adequately to ensure a good yield at harvest time.

This provides an ideal opportunity for some farmers to apply cattle slurry and replenish P & K removed while also emptying slurry tanks before next winter. Where a 2<sup>nd</sup> cut silage is planned consult with Table 1. for N, P & K slurry nutrient values.

Table 1. Available N, P & K values for cattle slurry 7% DM (units/1000 gallons)			
Method	N-Nitrogen	P-Phosphorus	K-Potassium
Splash plate	3	5	32
Low Emission	6	5	32

Fertilise 2<sup>nd</sup> cut grass silage based on crop yield potential. Table 2. displays the fertiliser requirements based on grass yield – dry matter (DM) and fresh weight as shown. Programmes are shown with and without the application of cattle slurry.

Sulphur for 2<sup>nd</sup> cut grass silage should be applied at a rate of 10-15 kg/ha

Table 2. 2 <sup>nd</sup> Cut silage N, P & K Req. (off-takes) Based on Grass Yield & Fertiliser Programmes					
Grass Yield	N kg/ha (units/ac)	P kg/ha (units/ac)	K kg/ha (units/ac)	Fertiliser options	
				No Slurry	Cattle Slurry gal/ac
2 ton DM/ha (4t/ac fresh grass)	50 (40)	8 (6)	50 (40)	2 bags/ac 15-3-20	1,500gals/ac 1 bag/ac CAN
3 ton DM/ha (6t/ac fresh grass)	75 (60)	12 (10)	75 (60)	3 bags/ac 15-3-20 0.75 bags/ac CAN	2,000gals/ac 2 bags/ac CAN
4 ton DM/ha (8t/ac fresh grass)	100 (80)	16 (13)	100 (80)	4 bags/ac 15-3-20 0.75 bags/ac CAN	2,500gals/ac 2.75 bags/ac CAN