

Teagasc Notes for week ended Friday May 31st 2019

Fertilising Second Cut Silage Crops

First cut silage is well under way and it is time to begin planning for the second cut. It is important to plan this carefully in conjunction with a winter feed budget. With first cut completed, you will know what is in the pit and it gives you an idea of how much 2nd cut ground to close up. Keep in mind that 2nd cut tends to be lower yielding compared to first cut silage. It is important to ensure that 2nd cut crops are fertilised adequately to ensure a good yield of grass at harvest time.

On many farms, cattle slurry may not have been applied to 1st cut silage crops due to heavy grass covers this spring. Plan ahead to spread cattle slurry after 1st cut silage to replace the Phosphorus and potassium removed by the crop.

Table 1 shows the nutrient value of cattle and pig slurry based on the method of spreading. Using a trailing shoe or dribble bar is good for the environment and saves you money as you can reduce the amount of chemical nitrogen applied for 2nd cut. For example, cattle slurry spread with trailing shoe at a rate of 2,500 gallons per acre can reduce the chemical nitrogen required by 15 units per acre. When slurry is spread with a splash plate, the saving is only 7-8 units per acre and more nitrogen is lost to the atmosphere. It is also important to maximise cattle slurry application at this time of the year while growing conditions are good so that slurry tanks are emptied before next winter.

Table 1:- Available N, P & K values for Cattle & Pig Slurry (units/1,000)				
Manure Type	Application	N	P	K
Cattle Slurry (7% DM)	Low Emission	6	5	32
Cattle Slurry (7% DM)	Splashplate	3	5	32
Pig Slurry (4% DM)	Low Emission	19	7	20
Pig Slurry (4% DM)	Splashplate	13	7	20

Chemical fertiliser for 2nd cut grass silage should be based on the potential yield of the crop. The quality of the grass sward on the silage ground can have a big impact on this yield potential. Table 2 shows the fertiliser requirements based on a yield of between 4-8 tonnes of fresh grass per acre. Suggested fertiliser programmes are shown with and without cattle slurry.

Table 2:- 2 nd Cut Silage N, P & K Req. (off-takes) ^{3, 4} Based on Grass Yield & Fertilizer Programmes					
Grass Yield (ton DM/ha) ²	N kg/ha (units/ac)	P kg/ha (units/ac)	K kg/ha (units/ac)	Fertilizer Options ¹	
				No Slurry ¹	Cattle Slurry gal/ac ⁶
2 (4t/ac fresh)	50 (40)	8 (6)	50 (40)	2 bags/ac 15-3-20 0.25 bag/ac	1,500gals/ac 0.8 bags/ac
3 (6t/ac fresh)	75 (60)	12 (10)	75 (60)	3 bags/ac 15-3-20 0.4 bag/ac ProUrea	2,000gals/ac 1.2 bags/ac
4 (8t/ac fresh)	100 (80)	16 (13)	100 (80)	4 bags/ac 15-3-20 0.5 bag/ac ProUrea	2,500gals/ac 1.6 bags/ac

¹ Protected urea (Urea 40% + 6% + NBPT). ² Apply 4kg P & 25kg K per tonne of grass dry matter (DM). ³ N, P & K advice for crop off takes based on grass DM yield at harvest time. ⁴ Apply additional P & K for soil fertility build after grass harvest refer to Teagasc Green Book for specific rates. ⁵ Fresh grass @ 20% DM. ⁶ Slurry applied with low emission applicator.

Grass Covers Nationally:

Recent figures from PastureBase Ireland (www.pbi.ie) show a large variation in grass supply nationally. Areas that have received rain and have a surplus of grass (more than 10 days ahead of stock) should cut surplus bales. It is crucial that you make high quality surplus bales to supplement in difficult weather in the spring and autumn time or they can be used to make up part of next winters feed requirement. Grazing heavy grass will reduce milk yield and milk solids in dairy cows, while also reducing daily weight gains in cattle and sheep. It also makes it hard to graze out paddocks well which will lead to poorer quality grass on the next round of grazing or the need to go in with a topper.

Soil Moisture Deficit– Actions if Growth Declines:

Current Met Eireann measurements on soil moisture deficits are indicating soil moisture deficits on moderately drained soils. Where the deficit is greater than 25-30mm (1 inch), it will have a negative impact on the rate of grass growth. Growth rate is significantly reduced at 50mm (2 inches) or more.

A proactive approach must be adopted to tackle drought conditions in these areas. If growth rates decline on your farm, consider the following actions:

- Grass is the main source of feed on our farms. It is important to quantify how much grass is on the farm and make every effort to get the most out of the grass available. If you are measuring grass, continue to do so in this period.
- Avoid under-estimating grass covers as dry matter is very high. Feeding meal should be secondary to utilising grass that is available on our farms (supplement, don't substitute).
- Work out what your demand for grass is and match your demand with the growth rate of grass by making more/less ground available where possible or increasing/decreasing meal feeding depending on the situation. No decision can be made until you know the demand for grass on your farm. If your growth rate is 50 kgDM/ha, hold rotation length at 25 days. Where growth rate is length is 30 kgDM/ha or less, hold rotation length at 30 days. Demand must reduce by increasing grazing area or filling the gap with supplementation.
- It is important to graze out paddocks well (4 cm) to ensure that you keeping quality in the sward for the next round. Ground conditions are excellent to allow this to happen. With good management, topping can be avoided. It is a cost in terms of time and money. Topping may also waste the feed available to livestock and may also inhibit regrowth in grass swards.
- If dry conditions continue to persist and grass growth has not increased, the sale of surplus stock may also need to be considered.
- Fertiliser N application should continue in a "green drought" until 25 days has passed without rain.
- Water intake of animals will double where grass is dry and silage and meal are being fed. Therefore it is important to check water supplies regularly to ensure stock are getting enough water.

Don't Forget Sulphur (S)

Sulphur deficiency arises mainly during the summer months but you need the "money in the bank" before the summer arrives. Every paddock needs about 15-20 units/acre of Sulphur applied to it by the end of June. For 2nd cut grass silage crops apply 10 to 15kg S/ha per cut.