

## Fertilising second-cut grass silage

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Second-cut silage will be an important crop on many farms in 2022 to build silage reserves for the coming winter. It is important to ensure that second-cut crops are fertilised adequately to provide a good yield of grass at harvest time. Where cattle slurry is available, it will be a valuable source of phosphorus (P) and potassium (K) to replenish soil reserves, and possibly supply P and K depending on soil fertility levels. Aim to apply cattle slurry after first-cut silage and empty slurry tanks before the winter period. Where a second cut of silage is planned, consult **Table 1** to see what level of nitrogen (N) cattle slurry can supply depending on application techniques. Low-emission slurry spreading (LESS) increases the recovery of N by three units/1,000gals and

reduces N losses as ammonia. LESS delivers slurry nutrients more precisely across the spread width, giving a more targeted nutrient placement. Fertilise second-cut grass silage based on crop yield potential. **Table 2** shows the fertiliser requirements based on a grass dry matter yield of 2-4t DM/ha (4-8t fresh grass/ac). Suggested fertiliser programmes are shown with and without cattle slurry at various rates depending on grass yield.

### Don't forget sulphur

Sulphur (S) plays a key role in increasing grass DM yield, fertiliser N efficiency and reducing N leaching. For second-cut grass silage crops, apply 8-15kg S/ha (6-12 units/ac) per cut.

**Table 1: Available N, P and K values for cattle and pig slurry (units/1,000gals).**

Manure type	Application method	N	P	K
Cattle slurry (6% DM)	Low emission	6	5	32
Cattle slurry (6% DM)	Splash plate	3	5	32
Pig slurry (4% DM)	Low emission	19	7	20
Pig slurry (4% DM)	Splash plate	13	7	20

**Table 2: Second-cut silage N, P, K and S requirements (offtakes)<sup>2,3,4,5,6</sup> based on grass yield (DM) and fertiliser programmes.**

Grass yield (tonne DM/ha) <sup>3,4</sup>	N kg/ha (units/ac)	P kg/ha (units/ac)	K kg/ha (units/ac)	S kg/ha (units/ac)	Fertiliser options <sup>1</sup>	
					No slurry <sup>1</sup>	Cattle slurry gal/ac <sup>2,6,7</sup>
2 (4t/ac fresh grass) <sup>5,6</sup>	50 (40)	8 (6)	50 (40)	8 (6)	2 bags/ac 15-3-20 + S 0.2 bags/ac protected urea	1,500 gals/ac 0.8 bags/ac protected urea + S
3 (6t/ac fresh grass) <sup>5,6</sup>	75 (60)	12 (10)	75 (60)	12 (10)	3 bags/ac 15-3-20 + S 0.3 bags/ac protected urea	2,000 gals/ac 1.2 bags/ac protected urea + S
4 (8t/ac fresh grass) <sup>5,6</sup>	100 (80)	16 (13)	100 (80)	15 (12)	4 bags/ac 15-3-20 + S 0.4 bags/ac protected urea	2,500 gals/ac 1.6 bags/ac protected urea + S

1 Protected urea (46%). 2. Protected urea plus S (urea 40% + 6% + NBPT). 3. Apply 4kg P and 25kg K per tonne of grass dry matter (DM). 4. N, P and K advice for crop offtakes based on grass DM yield at harvest time. 5. Apply additional P and K for soil fertility build-up after grass harvest. Refer to Teagasc Green Book for specific rates. 6. Fresh grass at 20% DM. 7. Slurry applied with low-emission applicator.

## HEALTH & SAFETY



### Keeping children safe on the farm



The health and safety of children is paramount on farms, especially during the busy summer months. In recent years, there has been an increase in children dying on farms.

What can be done? Firstly, a farm childhood safety code of practice is available on the Health and Safety Authority (HSA) website, giving authoritative guidance. Parents or guardians have the key role to play in motivating, instructing and guiding children and youth about farm safety.

A recent Canadian study clearly shows the positive motivational influence of parents. Key approaches include ensuring that farmyards are free of hazards to children, and that they do not have access to farm locations when hazardous work is in progress. A secure play area is a crucial requirement for younger children. The Teagasc Jessy's Smart Kids newsletter series for children can be downloaded from the Teagasc website. These provide enjoyable and motivating puzzles and quizzes for kids related to farm safety.

## RESEARCH UPDATE



### Sward height and performance

PETER DOYLE, EDWARD O'RIORDAN, MARK MCGEE and AIDAN MOLONEY examined the effect of post-grazing sward height on beef cattle performance.

Despite the rising cost of fertiliser, grazed grass remains the cheapest food resource and, consequently, maximising individual animal liveweight gain (LWG) from pasture is still a key objective in grass-based beef production systems. In two separate years at Teagasc Grange, suckler steers (12 months old) were turned out to pasture and rotationally grazed to a compressed post-grazing sward height of either 4cm or 6cm during a 209-day grazing season. Steers were housed indoors in November and offered a grass silage-based finishing diet until slaughter (March)

at 24 months of age. Production system stocking rate was 2.5 livestock units (LU)/hectare. Averaged over the two years, increasing post-grazing sward height from 4cm to 6cm resulted in:

- increased individual animal LWG at pasture by 0.14kg/day, equivalent to 29kg liveweight at the end of the grazing season (mainly due to greater intake);
- 15kg heavier carcass weight at the end of the subsequent indoor finishing period (liveweight differences from pasture were retained until slaughter);
- no difference in grass 'quality';
- decreased annual grass production by 512kg DM/ha, or 5%;
- decreased grazing stocking rate by 15%; and,
- no difference in LWG/hectare.

# BEEF2022

We are delighted to invite all beef farmers and stakeholders in the Irish beef industry to BEEF2022, on Tuesday, July 5, at the Teagasc, Animal & Grassland Research and Innovation Centre, Grange, Co. Meath, C15 PW93. The theme of this year's event is 'Supporting Sustainable Beef Farming'. There are significant challenges in relation to overall profitability, market disturbances, Common Agricultural Policy (CAP) reform, climate change policy and input price rises; however, the market for grass-fed beef as a high quality, sustainable human food protein source is strong. In the afternoon there will be a forum on the sustainability of Irish beef farming. With a global reputation for

its high standard of production and nutritional benefits with regard to human health, Irish beef is predominantly grass fed, pasture raised and fully traceable from farm to fork, and has a very low carbon footprint. Our panel of experts will discuss the opportunity and challenges facing the sector. On the day, we will have eight technology villages covering areas such as suckler and dairy beef, environment, farming lifestyle, grassland and meat quality. With a number of live demonstrations throughout and Teagasc advisors and researchers on hand, it promises to be a hugely enjoyable and informative day for anyone involved in beef farming. More information is available on: [www.teagasc.ie/beef2022](http://www.teagasc.ie/beef2022).



Cut N fertiliser rate on grass clover swards

Apply N on grassland at 0.5-1.0 unit per day for a range in growth rate of 50-100 kg DM / ha / day

If applying slurry for 2nd cut remember to use LESS

Check your fodder stocks after 1st cuts are harvested



Use Dairy Beef Index (DBI) when using beef bred AI bulls on your dairy cows

Monitor breeding performance to ensure fertility targets are met