Teagasc Advisory Newsletter

BEEF

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Fertilising second-cut silage

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Ensure that second-cut crops are fertilised adequately to provide a good yield.

Second-cut silage will be an important crop on many farms 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. 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. Low-emission slurry spreading (LESS) increases the recovery of nitrogen (N) by three units/1,000

UP TO

25%

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gallons 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 silage based on crop yield potential and farm nutrient management plan. **Table 1** 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.

LESS delivers nutrients precisely across the spread width.

Table 1: Second-cut silage N, P, K and sulphur (S) requirements (off-takes),[2,3,4,5,6] based on grass yield (DM) and fertiliser programmes.

Grass yield (tonne DM/ha)[3,4]	N kg/ha (units/ac)	P kg/ha (units/ac)	K kg/ha (units/ac)	S kg/ha (units/ac)	Fertiliser options[1]	
					No slurry[1]	Cattle slurry gal/ac[2,7]
2 (tonne DM/ha) (4t/ac fresh grass)[5,6]	50 (40)	8 (6)	50 (40)	8 (6)	2 bags/ac 15-3-20 + S 0.2 bag/ac pro urea	1,500 gals/ac 0.8 bags/ac pro urea + S
3 (tonne DM/ha) (6t/ac fresh grass)[5,6]	75 (60)	12 (10)	75 (60)	12 (10)	3 bags/ac 15-3-20 + S 0.3 bag/ac pro urea	2,000 gals/ac 1.25 bags/ac pro urea + S
4 (tonne DM/ha) (8t/ac fresh grass)[5,6]	100 (80)	16 (13)	100 (80)	15 (12) 0.4 bag/ac	4 bags/ac 15-3-20 + S 1.7 bags/ac pro urea	2,500 gals/ac pro urea + S

1. Protected urea (46%). 2. Protected urea + S (urea 38% + 7.5% + 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 (6-5-32).

Don't forget sulphur

Sulphur (S) is an important nutrient for grassland production, and is closely associated with N uptake and efficiency. It plays a key role in increasing grass DM yield, fertiliser N efficiency, and reducing N leaching. The response to S fertiliser increases with the rate of N fertiliser applied. S deposition from the atmosphere has gradually decreased due to improvements in air quality in recent decades. For second-cut grass silage crops, apply 8-15kg S/ha (6-12 units/ac) per cut.

Sulphur plays a key role in increasing grass DM yield.

Breeding review

How is your breeding season progressing? Where a stock bull is being used, it is still important to record when cows are showing heat, so that the number of repeats can be measured.

Up to 25% of breeding bulls are subfertile, with around one in 20 being completely infertile. The sooner these bulls are identified, the less damage they will inflict on a herd.

Have you decided when you are going to finish breeding? Cows served in the last week of June will not calve until well into April next year.

Ensure grass quality

The main aim over the coming weeks will be to maintain an adequate supply of high-quality grass ahead of the herd. Key targets at this time of year include:

- target rotation length: 18-20 days;
- pre-grazing yield: 1,400kg DM/ha; and,
- post-grazing height: 4cm.

It is very important to keep a focus on grass quality as we come into June, as quality can be poorer due to increased stem content. This will decrease the digestibility of grass. Therefore, the energy intake of the animal will decrease and this reduces animal performance. However, with the right approach to grazing management and using the above midseason grazing targets, high-quality leafy grass can be maintained throughout the season. Where sward clover content is ≥20%, N fertiliser application can be reduced.

Clover benefits

RESEARCH UPDATE

PETER DOYLE, PETER BENNETT, PAUL CROSSON, MICHAEL O'DONOVAN, NICKY BYRNE and MARK McGEE look at how grass-white clover grazing swards and red clover-grass silage improve suckler cattle liveweight gain.

Both red and white clover can fix atmospheric N and reduce the need for chemical N. White clover is better suited for grazing, while red clover is more suited to silage production. However, there is limited information on the benefits of incorporating both white and red clover into pastures in beef production systems. A study at Teagasc Grange evaluated the effects of grass-only versus grass-clover pasture systems on cattle performance in a spring-calving suckler calf-to-beef system. The grass-only system (grazed grass and grass silage) used 150kg N/ha, while the grass-clover system (grazed grass-white clover and red clover-grass silage) used 75kg N/ha. Progeny liveweight gain from birth to housing was greater (+13kg) for steers and heifers grazing grass-white clover compared to grass-only pastures, and liveweight gain over the first winter was greater (+13kg) for those consuming grass-red clover silage rather than grass-only silage, with no difference in liveweight gain over the 'second' grazing season. Overall, grass-clover cattle had a 27kg higher final liveweight and 18kg heavier carcass. Incorporation of red and white clover into pastures can reduce the requirement for chemical N fertiliser inputs and increase animal liveweight gain in suckler calf-to-beef systems.

Expanded wear and tear scheme

HEALTH AND SAFETY

The Acceleration of Wear and Tear Allowances for Farm Safety Equipment Scheme offers capital allowances of 50% per annum to be claimed over a two-year period for listed investments.
The list of items now includes fixed sheep/cattle handling units, cow calving gates, floodlights, livestock monitors, and sliding or roller doors. These complement the 60% grant aid, which is available under TAMS 3 for safety-related investments. Talk to your advisor to learn more.

Eligible items now include fixed cattle handling units.

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