

Paul Connors, Conor and Jimmy Mulligan.



Lime applications are down – this young farmer decided to find out why

The Mulligan family farm in Killerguile, Co Waterford. Enhancing soil fertility – in particular by prudent use of lime – has always been a foundation of their system

Paul Connors,
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Jimmy and Conor Mulligan operate a 100-cow spring-calving herd supplying Tirlán. The farm overlooks the River Suir Catchment at the foothills of the picturesque Comeragh Mountains.

“The farm consists of undulating land that requires careful manage-

ment, particularly at the shoulders of the grazing season,” says Conor. A graduate of Agricultural Science, South East Technological University, Conor went on to complete a Walsh Fellowship master’s degree with Teagasc, focusing on lime use, nutrient management and farmer attitudes

towards soil pH.

His strong farming background enabled Conor to give a credible, knowledge-driven commentary on lime usage on Irish farms – as does the Killerguile farm itself. Conor's father Jimmy has always been highly progressive and a strong advocate of lime usage where needed.

The farm has maintained over 90% of soils at optimum pH above 6.2 for more than a decade and continues to prioritise soil fertility.

"Playing the long game in this area comes down to sticking to a simple, consistent nutrient plan backed by regular soil sampling," adds Jimmy.

Slurry and chemical fertiliser are targeted to where they are most needed, while approximately 10% of the farm is reseeded annually, with lime applied consistently as part of the process.

The benefits of this approach are clear. The Friesian herd, stocked at 2.1 cows per hectare, produces just under 500kg of milk solids per cow on 1.3 tonnes of concentrate. Early turnout and achieving over 300 days at grass contribute to annual grass production of approximately 12 tonnes of dry matter per hectare.

"We follow a nutrient management plan, fully utilising our allowance of 241kg of nitrogen per hectare and applying our phosphorus allowance in full," says Conor. This is achieved by using NPK compounds such as 18-6-12, alongside PK products like 0-10-20. Straight nitrogen and sulphur make up the balance.

Lime remains a central pillar of the system. Two loads of lime are spread annually across the Killerguile holding, equating to approximately one load per 60 livestock units.

This is a level of application that should be achievable on most farms, yet it reflects national lime usage rates more commonly seen in the 1980s when total lime applied nationally was about 50% higher than today.

So why has lime use declined so

significantly over the past 30 years? Conor's master's research provides insights into some of the reasons.

Research findings – what they mean on farms

Conor's research found that low lime usage is rarely due to a lack of scientific evidence, but rather how lime fits into everyday farm decision-making. "Nitrogen is highly visible, heavily promoted and delivers an immediate response," says Conor. "Lime is often viewed as a background input – important, but easily deferred."

- While many farmers soil sample regularly, pH results are not always fully understood or acted upon, particularly when competing priorities arise.
- A recurring theme across farmers, advisors and industry stakeholders was that lime remains strongly associated with reseeding, rather than being seen as a routine maintenance

input. Historical habits, long-held myths and the perception of lime as a "necessary evil" continue to influence behaviour.

- Because lime is relatively inexpensive, its importance is often underestimated, despite its well-established role in improving nutrient availability and grass utilisation. Practical barriers such as workload, timing and the perceived hassle of spreading lime were also commonly cited.
- Where lime is applied consistently, however, the benefits are clear. Farms that take a long-term approach to soil fertility – maintaining soil pH rather than correcting it occasionally – are better positioned to maximise fertiliser efficiency, grass growth and overall system performance.

This is the approach adopted on the Mulligan farm, where lime is applied annually as part of a planned programme, not as a once-off response to poor soil results.



Conor Mulligan says the importance of lime is often underappreciated.

Key messages from Conor's research

- Lime does not give the immediate visual response of nitrogen but its role is critical.
- Many farmers soil sample; not all fully understand the results. Consulting an advisor will be very worthwhile.
- Lime is still commonly associated with reseeding rather than being seen as a necessary routine soil maintenance for all fields.
- Historical myths and practical barriers continue to influence lime use decisions.

- Farms that maintain soil pH consistently get more value from fertiliser and grass.

The Mulligan farm demonstrates that maintaining soil pH does not require complicated systems or additional workload. Spreading a modest amount of lime each year, targeting it to where it is most needed, and treating soil fertility as a long-term investment has delivered clear returns in grass growth and animal performance.

Correcting soil pH is worth up to 80kg N/ha. A seven-to-one return on invest-



An investment in lime can deliver a return of 700%!

ment is achievable on low pH soils. For many farms, the first step is simply to revisit soil results, prioritise pH, and put a practical plan in place to keep it right. Getting the basics right, starting with lime, remains one of the most cost-effective decisions a farmer can make.