Vincent O'Brien, Liam Quinn and Conor O'Brien agree that clover is key

Clover today for a cooler tomorrow

Clover can boost sward growth and farm profits while helping reduce global warming; but fertility must be right

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White clover can capture atmospheric nitrogen of 50-150 kg/N/ha/year when incorporated into grassland swards. Reach 20-25% clover content and you can cut your annual N by 100 kg/ha. Incorporating white clover in grassland swards can also increase milk solids by 20-48kg/cow/year, and increase net profit by €108-€305/ha compared to grass only.

Clover essentials

1. Soil Fertility

Only about one quarter of soils on dairy farms are optimum for soil fertility. White clover needs good fertility, worth considering when selecting paddocks for reseeding. A pH of 6.5 – 6.8 is essential for good white clover establishment and phosphorous and potassium must be at least index 3. Recent soil samples will show where you are.

2. Timing of sowing

Whether it is a full reseed, or oversowing clover, aim for April to early June when soil temperature is high and there's moisture in the soil. Reseeding early will allow grazing and post emergence weed control.

3. Management

A high grass cover over the winter will have a detrimental impact on the clover content. A tight grazing is essential before closing off paddocks in autumn.

First grazing at 700kg/DM/Ha and frequent tight grazing's at 1,100kg/DM/ha are required to allow light to get down to the base of the sward and reach the new clover plant.

Study the paddocks to ensure there is adequate clover in the sward before reducing chemical nitrogen.

Red Clover

Red clover can fix 150 - 200kg/N/ha/year with yields of 12-16t/DM/ha achieved with excellent management.

But it's a hungry crop. Each tonne of red clover DM harvested for silage contains 25 kg of K and three kg of P which needs to be accounted for when replacing nutrients through either slurry or compound fertiliser.

Red clover silage has high crude protein content of 16-20%. This leads to high palatability and intake resulting in a positive effect on milk and protein yield and liveweight gain.

Almost 20,000 farmers part of the Signpost Advisory Programme

George Ramsbottom,
Teagasc Oak Park

Emissions from Irish agriculture are on a downward trend, with 2024 marking the third consecutive year of reductions. This progress is a vital step toward meeting the sector's target of cutting greenhouse gas emissions by 25% by 2030.

The Signpost Advisory Programme (SAP) plays a key role in this national effort, complementing the Signpost Farm Programme. Drawing on research and the practical experience of Signpost Farmers, more than 20 Teagasc Climate Advisors assist participating farmers to develop tailored plans that reduce on-farm emissions.

To date, almost 20,000 farmers have joined the programme. Teagasc climate advisors are also collaborating closely with industry partners – including Dairygold, North Cork Creameries, and Arrabawn-Tipperary – to deliver one-on-one consultations to over 3,000 milk suppliers. These sessions focus on reducing greenhouse gas emissions but also on improving water quality and overall environmental performance.

Reflecting on the strong engagement from farmers, Billy Cronin of Dairygold said: "The feedback from our milk suppliers has been very positive, and the strong uptake among our supplier base shows the deep passion our farmers have for achieving long-lasting, sustainable change in how we farm."

You can sign up to the Signpost Advisory Programme by visiting the link to our website or by scanning the QR code below:

Erratum: In the September-October edition of Today's farm Sarah McPherson authored the article *What is AgNav Tillage? T*his should have been attributed to her.

Signpost farmers: Conor and Vincent O'Brien

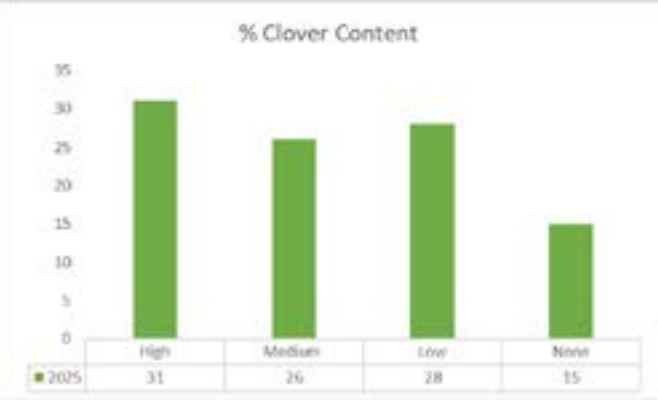

Figure 1: Clover content on milking platform

Table 1: Slurry and soiled water results per 1000 gallons

Nutrient Content / (1000gl)	Nitrogen	Phosphorous	Potassium
Soiled Water	3.96	2.45	4.2
Slurry	10.8	7.38	34.15

Teagasc/Arrabawn Tipperary Signpost farmers Conor and Vincent O'Brien milk 145 high EBI cows in Kilmurry, Tynagh, Co. Galway. "Since joining the Signpost programme in 2021 we have been taking steps to reduce emissions and improve the farm's overall sustainability," says Vincent. The O'Briens won an award for improving soil health at the 2025 Teagasc/FBD Sustainability awards.

The O'Briens participated in the "Eurograss" project throughout 2024. Led by PhD Walsh Scholar Karla Burke, the aim was to assess the soil microbiome mediated nutrient cycling potential in Irish grasslands under different management systems.

Conor says: "We have been monitoring our soils for many years and we act on the sample results. We have 94% of the farm optimum for pH and we are continually working to get phosphorous and potassium levels up to index 3 or 4.

"We build on the farm's slurry and dung and apply the likes of 18-6-12 and 10-10-20 to make up the balance." All straight nitrogen applied is NBPT protected urea.

White clover plays a pivotal role on the farm with 57% of the milking platform scoring high to medium for clover content (Fig 1). Throughout the grazing season in 2025 the milking platform has received 138kg/N/ha with 11.6t/DM/ha grown as of October 1st.

Conor says: "We monitor paddocks that are under performing and target them for reseeding having ensured pH, P and K are in order."

Conor says: "High clover content paddocks are prioritised for soiled water throughout the main grazing season. This ensures the clover and grass are still receiving a small amount of nutrients and we can reduce the chemical nitrogen.

Slurry and soiled water have been tested on the farm through the Signpost programme (Fig 2), so we know exactly what is going out on each paddock."

Four hectares of red clover with perennial ryegrass and white clover were sown on an out block in 2023. Conor says:

"The crop receives 2,500 gallons of good quality cattle slurry and half a bag of 38% protected urea with sulphur for each cut. This provides high quality feed in the shoulders of the year. This year the red clover silage achieved yields of 5,344 t/DM/Ha in mid-May, 6,160 t/DM/Ha in early July (Fig 3). Since then, it has been grazed with the 2025 weanling heifers."

Conclusion

Lime and potassium can be applied at any time of year where ground and weather conditions are suitable. Now is the time to focus on correcting pH by applying lime and building potassium indexes with muriate of potash (0-0-50) in preparation for next year.


Red Clover Silage baled on Conor and Vincent O'Briens farm 3-7-2025