

dairy

In clover with a strategy

Clare dairy farmer Diarmaid Fitzgerald has established clover on two thirds of the family farm as part of a strategy to reduce N fertiliser usage

John Maher,
Grass10



Aidan Bugler, Dairy KT,
Teagasc Office, Ennis

Diarmaid Fitzgerald farms in partnership with his father, Sean in Cratloe, Co Clare. They will milk about 170 cows this year and supply Kerry Agribusiness. The herd is largely Friesian X Jersey with an EBI of €228. The parlour is in a central location on the grazing platform of 66ha (163 acres). The farm has a mix of soil types.

About 60% of the farm is free draining and 40% Corcus which is challenging, low lying, damper land under the levees of the Shannon estuary.

The farm has averaged over 13 tonnes of grass DM grown/ha over the last few years achieved with an average of over 8.0 grass 'events' (grazings and/or silage) per paddock. In 2023, the farm grew 12.5 tonnes DM/ha with a fertiliser N input of about 100 kg N/ha. Total nitrogen input was 120 kg N/ha.

Reducing N fertiliser nitrogen input is one of the objectives that Diarmaid is trying to pursue. "A lot of clover has been established on the farm both through oversowing and reseeding," says Diarmaid. "This strategy will continue as we aim to reduce our environmental footprint.

"To me the greatest contribution of white clover tends to occur from May onwards as sward white clover content increases."

He says the main benefits of white clover in grass swards on the farm are:

- Reduced need for nitrogen fertiliser application
- Increased grass quality
- Higher cow performance – extra milk solids production.

Clover development milestones on the Fitzgerald farm

2021	Spring:	15 acres oversown with 4 kg of coated clover/acre 25 acres reseeded with 2kg white clover/acre
	Autumn:	17 acres reseeded with 2kg white clover/acre
2022	Spring:	22 acres reseeded with 2kg white & 2kg red clover/acre 10 acres oversown with 4 kg of clover/acre
2023	Spring:	22 acres reseeded with 2kg white & 2kg red clover/acre

Clover establishment

There was very little clover on the farm at the end of the quota era in 2015. By the end of 2021, a lot of the farm had clover on it. At present, over two-thirds of the farm has clover in the sward.

"I have used many varieties of white clover but all are working well. These include a lot of Aberherald, but also some Buddy, Aberace and Crusader," says Diarmaid.

Most of the clover has been established through reseeding. "Our approach to sowing clover is to cross-drill the paddock and not to sow the seed too deep," says Diarmaid. "While reseeding with clover has been successful in establishment, oversowing has not always been as successful. But when it does work, it works well.

"I have tried different oversowing techniques such as the fertiliser spreader approach and direct drilling and both can be successful. The weather conditions post-sowing (preferably wet) and grazing management are key to success.

"It is a quick and relatively cheap method of establishment. Currently, I have one paddock that has only average clover content and I will oversow this paddock this April.

"If I plan to oversow I will graze the paddock tight and try and target damp conditions in mid- April.

"The contractor will do this for me using his Terra machine to sow the seed at a rate of 2-2.5 kg/acre. I will graze the sward at a cover of about 800 kg DM/ha and do this for 2-3 more grazings.

"I will continue to graze the paddock well for the rest of year and not allow it reach a high cover. I reduce the amount of nitrogen fertiliser during the summer and use dirty water/



collecting yard tank instead of fertiliser.

"The following grazing season I will graze it early but it is important to avoid carrying a high cover over the winter on oversown paddocks as this does not help the clover."

Good productive soils are the foundation of any successful farming system and key for growing sufficient high quality pasture to feed the herd. Therefore, the management of soil fertility levels should be a primary focus on every farm.

to cut nitrogen usage



Diarmaid Fitzgerald
Aidan Bugler.



Sean Fitzgerald has passed management of the farm to Diarmaid.

“

Our approach to sowing clover is to cross-drill the paddock and not to sow the seed too deep...While reseeding with clover works well, oversowing has not always been as successful. But when it does work, it works well



Even in late January, clover is readily visible on the Fitzgerald farm.

Soil fertility

“Even though the soil fertility on the farm is very good, I will focus even more on Potassium (K) and Sulphur (S) as clover needs these to be right,” adds Diarmaid. “I will use sulphate of potash this year to help improve K and S levels.”

To continue the reduction in Nitrogen fertiliser usage, Diarmaid is now going to sow some red clover for silage production on some new land.

“I am looking at establishing red

clover pastures on a new leased out-farm about two miles away. The plan in 2024 is to reseed about 66% of the farm. I will apply some lime soon and some more at sowing.

Spraying

“The sward will be sprayed off with glyphosate. I will cut some of this off to help clean the seedbed before sowing. It will need some time to die off before cultivations begin.

“We’ll use a Terra machine to sow

the mix of 4kg/acre of red clover seed with the rest being intermediate heading ryegrasses. P and K fertiliser will be applied using 3-4 bags of 10:10:20/acre.

“There is a slatted shed on this farm and I will use the slurry on the silage ground. I will also bring some of the best slurry from the home farm and spread after cutting.

“Some compound fertiliser (without nitrogen) will also be used for the later season cuts.”