



Bryan Daniels
with his wife Gail
and son Eli.

Getting grazing right

John Douglas
Teagasc Animal and
Grassland Research and
Innovation programme.



John Kilboyle
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Mullinavat



1 Grassland excellence rewarded
Last December, the Overall and Sustainability Farming Grassland Farmer of the Year was awarded to Bryan Daniels from Kilkenny. The Kilmoganny native farms alongside his wife Gail and their three children Shannon, Toby and Eli. They operate a spring-calving system, milking just over 300 cows.

Over the last three years, they have grown an average of 17t of grass DM/ha, while achieving an average of 10 grazings per paddock on their grazing platform. This was the highest number of grazings per paddock achieved in the competition. This is particularly impressive, as some paddocks are up to 1,000ft above sea level. While they excel in all areas of

grassland management, this has been achieved while maintaining a strong focus on the sustainability of their farm system.

The incorporation of clover on the farm has led to a considerable reduction in compound nitrogen fertiliser usage. In addition, the Daniels are strong advocates of using Low Emission Slurry Spreading technology (LESS) and protected urea. The GFOY competition promotes excellence in grassland management and farms are scored on soil fertility, grazing infrastructure, grazing management, grass measurement, reseeding and sustainability.

2 Making the most of grass in spring

Bryan's spring grassland management involves spreading slurry using LESS technology, applying protected urea and getting out to grass early. From experience, Bryan knows the grazing decisions made in the coming weeks can increase grass utilised and reduce the level of meal fed in 2020, by starting the second rotation on time.

"It hasn't been the easiest spring, given challenges with weather, how-

ever the cows have been out grazing every day since 30 January, with the exception of only two days where snow prevented grazing. We have been using on/off grazing to good effect to keep grass in cow's diets, getting two by three-hour grazings in each day.

"To help achieve this, we have targeted drier paddocks with multiple access points using back fencing to minimise damage on grazed sections. Initially, all lower covers were targeted and this really helped reduce damage and get through more area. Keeping grass in the diet has limited silage feeding for February to 1kg DM silage/cow/day, along with 3kg meal/cow in-parlour, with the remainder of diet comprising of grazed grass.

"For ourselves on the farm, getting out to grass in spring has had huge benefits in terms of reducing cost of production, while improving cow performance. It also takes pressure off labour on-farm at a very busy



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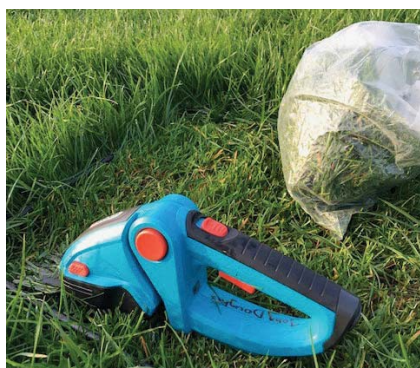
time of year. Milk solids percentage has increased to an average of 3.8% protein and 4.74% fat for February, which is new high for this farm for the time of year. As of the 1 March, we have 33% of the milking platform grazed, which has put us in a good place for having enough grass back on these paddocks for start of the second rotation on 10 April.”

• **Getting it just right.** This means starting the second rotation when there is a cover of 1,100-1,200kgDM/ha back on the first paddock. There must also be three other paddocks around 1,000kgDM/ha. The grass wedge should be shaped like a step of stairs, where there is a continuous supply of quality grass coming on.

This should also coincide with ‘Magic Day’, the day that grass growth is equal to the demand for grass. When to start the second rotation will depend on how early you started grazing, when fertiliser was applied, soil type, climate and stocking rate. As a rule of thumb, early, dry farms should target early April and heavy, late farms should aim to start two weeks later.

• **Starting too early.** The first paddocks grazed will not have recovered and livestock will be forced to graze low covers, which will reduce their performance. Grass growth will also struggle to meet the demand for grass if the AFC drops below 500kgDM/ha, as it takes grass to grow grass. It will require additional supplementation to bridge the gap. This leads to lower grass utilisation and increased feed costs.

• **Starting too late.** Bryan highlights: “The target during the main grazing season (April to August) is to graze covers of 1,300-1,400kgDM/ha every day. If the start of the second rotation is delayed, the pre-grazing yields will be too high. Hence it will be difficult to graze these paddocks out, grass will become stemmy and animal performance will suffer. Increased concentrate supplementation would be required, therefore spring grassland management is key to controlling cost of production on-farm.”



Carry out a farm cover and check regrowths.



3 Graze the ‘right’ grass on your farm

Follow the spring rotation plan. This is a grazing plan that calculates the area that can be grazed every day to keep grass in the animals’ diet during the spring, until the second rotation begins. Every day at grass is worth €2.70 per cow.

Normally, 30% of the farm should be grazed by March 1 (to have 1,100-1,200kgDM/ha covers on them in early April), another 30% by St Patrick’s Day and the final 40% grazed by early April, when the second rotation starts. With the difficult grazing conditions, many will have to aim for 30% by St Patrick’s day, 60% by 1 April and 100% by mid-April, as a suggested plan.

• **Walk the farm.** Identify which paddocks need to be grazed by St Patrick’s Day to reach your grazing target. With stocking rate and animal intake increasing, the heavier grass covers should be grazed before St Patrick’s Day, as sward quality declines rapidly after this.

Silage ground can also be grazed in March, but be careful and ensure the first 30% grazed will be available

for grazing in the second rotation. Tackle the wetter paddocks when the weather is drier and pick out a couple of dry paddocks that can be grazed on wet days to keep grass in the diet, and meet the spring grazing targets.

• **Carry Out a Farm Cover.** Use PastureBase to complete a farm cover. The Average Farm Cover (AFC) should not drop below 600kgDM/ha by 1 April and never drop below 500kgDM/ha at any stage.

Breaking this rule will limit grass growth on the farm in April, when demand for grass is high. Aim to have AFC 550-600kgDM/ha and 180kgDM/LU (12 days ahead) at the start of the second rotation. Five farm covers should be carried out before May 1, which are detailed in Table 1.

Table 1: When to do a farm cover.

Farm Cover
March 17
April 1
April 10
April 17
April 24

Grassland winner farm open day



LEFT: Pictured in Teagasc Moorepark, Fermoy, Co Cork at the Grassland Farmer of the Year Awards 2019 are overall winner Bryan Daniels, Kilmoganny, Co Kilkenny, his wife Gail and son Eli with sponsors Tadhg Buckley, AIB; Liam Woulfe, Grassland Agro; Michael Creed, Minister for Agriculture, Food and the Marine; Padraig Walsh, FBD Insurance and chair, Teagasc Grass10 stakeholder committee; Aidan Brennan, Irish Farmers Journal; Liam Herlihy, Teagasc chair; and Professor Gerry Boyle, Teagasc director.

As winner of the Grassland Farmer of the Year award, the Daniels family will host an open day on their farm on Wednesday, 15 April at 11am. On the day, there will be a selection of demonstrations, discussions and displays.

The emphasis is on highlighting the technologies and management tools the Daniels use to operate a sustainable farming system. Technologies related to low-emission slurry spreading, protected urea and the benefits of clover will be on display. The open day will provide an opportunity to meet with the Grass 10 industry stakeholders, with a selection providing various display stands on the day.

According to local Teagasc dairy advisor John Kilboyle: "The Daniels farm open day will provide an excellent opportunity to witness first-hand the key technical efficiencies involved in operating a high-performing, family-run dairy herd that has consistently achieved top results over the last number of years sustainably. Looking forward to seeing you."

“ We have been using on/off grazing to good effect to keep grass in cows diet, getting two by three-hour grazings in each day

• **Check regrowth on St Patrick's Day.** If you aim to start the second rotation in early April, you need to assess what regrowth is back on the first grazed paddock on St Patrick's Day. See Table 2, which shows two scenarios that will help determine when to start the second rotation.

Assuming a growth rate of 25kgDM/ha/day, Scenario 1 shows the regrowth is on track to be at 1,100kgDM/ha on 5 April, which is ideal. Scenario 2 is when growth rates have been poor, where the spring rotation plan has to be stretched out to

the 12 April by grazing a smaller area and increasing supplementation.

• **Accelerate grass growth.** Demand for grass in April is high, so dairy farms should have 70 units N/ac spread by April 1 and drystock farms should have 46 units N/ac out by the same date. If 23 units N/ac was applied in January or early February, dairy farms should apply another 46 units and drystock farms should apply another 23 units.

This can be in the form of slurry or protected urea. In the spring, LESS slurry contains 9 units of N per 1,000 gallons of slurry, compared to 6 units of N per 1,000 gallons using the splashplate. So, 2,500 gallons/ac of slurry applied by LESS will supply 23 units N/ac.

Follow the guide above or contact your local Teagasc advisor and get grass right in 2020. Best of luck from all on the Grass10 team.

Grass 10 upcoming events:

- **Wed 8 April:** Paudie O'Brien, Disadvantaged Land Winner, Ballinvarrig, Fries, Killarney, Co. Kerry Eircode V93 HE02
 - **Wed 15 April:** Bryan Daniels, Sustainable Farming and Overall Winner, Raheenarran, Kilmoganny, Co. Kilkenny Eircode R95P202
- Both events begin at 11am. Discover how these farmers are growing and utilising high levels of grass, and reaping the benefits it provides for their families. These are public events open to everyone. All are welcome!

Table 2: Calculating when to start the second rotation.

First grazed paddock	St Patrick's Day regrowth (kgDM/ha)	Growth rate (kgDM/ha/day)	Start second rotation (Cover at 1,100kgDM/ha)
Scenario 1	650	25	5 April
Scenario 2	450	25	12 April