

# Grassland Farmer of the Year 2017

## Munster Regional Winner

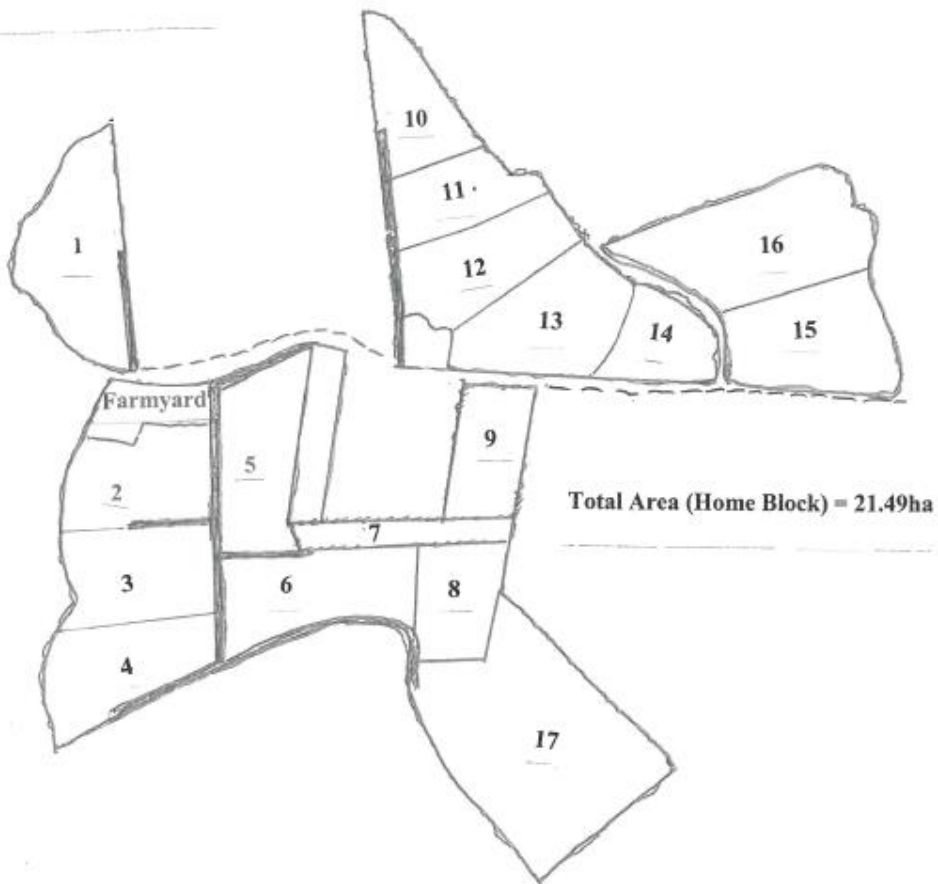
*Farm Open day at Clunes Farm, Tulla, Co.Clare*

Tuesday 11<sup>th</sup> September 2018



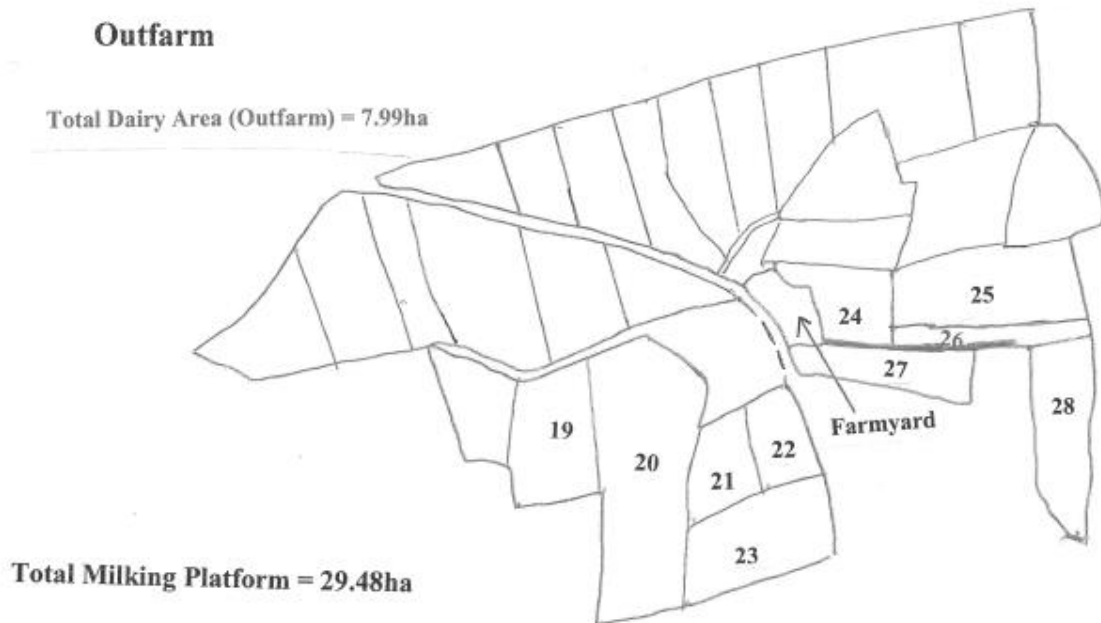
# Clune Farm Map

## Home Block



## Outfarm

Total Dairy Area (Outfarm) = 7.99ha



# Grass10 Campaign

## Introduction

Grazed grass is the cheapest and most widespread feed for ruminant production systems in Ireland. Grass enables low-cost animal production and promotes a sustainable, green, and high quality image of milk production across the world. Recent industry reports (Food Harvest 2020 and Food Wise 2025) have highlighted the important role grass can play in an expanding milk production industry. Through a combination of climate and soil type, Ireland possesses the ability to grow large quantities of high quality grass and convert it through the grazing animals into high quality grass based milk and meat products.

Our competitive advantage in milk production can be explained by the relative cost of grass, silage and concentrate feeds. Therefore, increased focus on grass production and efficient utilisation of that grass should be the main driver for expansion of the livestock sector. An analysis of farms completing both grassland measurement in PastureBase Ireland and a Profit Monitor demonstrated increased profit of €181/ha for every 1 tonne DM/ha increase in grass utilised. It should be noted that issues such as environmental sustainability (carbon footprint, nutrient use efficiency, etc.) are also improved by increased grass utilisation.

Future growth in the pasture based milk production in Ireland will depend on an effective grass-based system. However, Irish farmers are not using grass to best effect and there is thus a need to (1) increase grass production and (2) ensure efficient utilisation of that grass.



# Introduction and welcome to the Clune Farm

The Clune family farm,  
Newgrove, Tulla, Co. Clare

**Farm area:** 59 hectares – 46 owned 13 rented (5 Blocks)

**Milking Platform:** 29.5 hectares (21.5 hectares on home block, plus 8 hectares of out block used as milking platform)

## Background

I took over farm in 1989 when the herd size was 35 cows. While I worked off farm for many years my passion for dairy farming meant I would become a full time farmer. This meant I had to develop a sustainable dairy enterprise that has now expanded to over 100 cows.

To increase the herd I had to increase the land area from the 26 hectare block I inherited. I did this through land purchase of over 20ha and renting some land on out blocks for silage and replacement stock.

Over the years beef stock that would have formed part of the enterprise have been eliminated with the focus now on a profitable dairy unit.

## Farm Development

Initially the dairy enterprise was located on what is now the out farm. This farm has a 6 unit parlour together with some slatted and cubicle accommodation constructed 25-35 years ago. This was adequate when cow numbers were small but with land acquisitions and an expanding herd the decision was made in 2003 to develop a greenfield site with milking parlour, slatted and cubicle accommodation on the current milking platform. This platform has continued to be developed with additional housing, farm

roadways, reseeding and some drainage.

### **Grassland Management**

Increases in cow numbers meant feed demand increased. I didn't want my farm to become reliant of purchasing expensive imported feeds, so the focus has always been on improving the capacity of the farm to grow grass. This has involved land drainage and reclamation, farm infrastructure particularly roadways and access to paddocks, reseeding and soil fertility.

The biggest change I made to my grassland management happened in 2010 when having attended a grass management course in Clare I started measuring grass on my own farm. This has made an enormous difference to how my grassland is performing as I now have the information I need to make informed decisions on what to feed my cows need and when I can afford to remove surplus grass from paddocks. It's a simple process, I measure the farm at the weekend and walk the farm again midweek to assess changes in farm cover and make my decisions on what I find. It takes no more than an hour but in my opinion is a must for any dairy farmer looking to develop a sustainable business.

### **Discussion Group**

I am a member of the Tulla Dairy Discussion Group for 20 years. Group membership has been of huge benefit to me over the years as it allows me meet up monthly with like-minded progressive farmers whom I know. It is the discussion generated at these meeting's that gives the confidence to make decisions that will benefit your farm.

### **Farmer Quote**

“We have the farms we have, it’s our job as farmers to make the most of them, and while grass is an excellent and cheap feed it is only that if you manage it well.”



## **Current Grazing Performance on Dairy Farms**

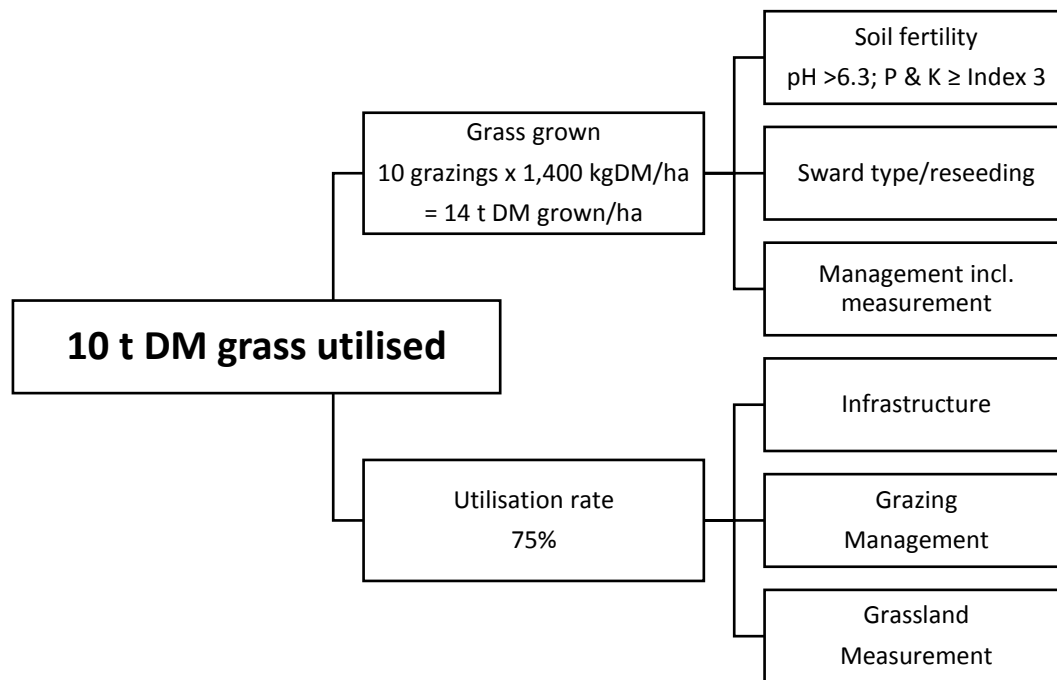
Currently, it is estimated that about 8 tonnes grass DM/ha is utilised nationally on dairy farms (Dillon, 2016). There are major improvements required in areas of pasture production and utilisation. Data from the best commercial grassland farms and research farms indicate that the current level of grass utilised can be increased significantly on dairy farms (greater than 10 t DM/ha utilised – i.e. 14 tons DM/ha grown and 75% utilisation rate).

It is important to recognise that improvements in the level of soil fertility, grazing infrastructure and level of reseeded are in achieving higher levels of grass production and utilisation. However to achieve greater change in the level of grass utilised, farmers will need to upskill their grazing management practices. This means regular measurement of grass cover, using specialised grassland focused software to analyse grass production and, making and implementing grazing management decisions. These are key drivers to increasing grass production on the farm. New technologies are now available which make grass cover assessment and the decision making process much easier.



## Grass10 Campaign

Grass10 is a new four-year campaign recently launched by Teagasc to promote sustainable grassland excellence. The Grass10 campaign will play an important part in increasing grass growth and utilisation on Irish grassland farms, thereby improving profitability at producer level and helping to ensure the long term sustainability of Irish beef, dairy and sheep production. Significantly, it can provide the platform or framework to enable various industry stakeholders to collaborate for collective action. Given the current performance in terms of grass growth and utilisation, the need for 'collective action' should be clear.



### Objective

The objective of the campaign is to achieve **10 grazing's/paddock/year** utilising **10 tonnes** grass DM/ha. In order to achieve this objective, we will need to achieve significant changes in on-farm practices, specifically:

1. Improved grassland management skills
2. Improved soil fertility
3. Improved grazing infrastructure
4. Improved sward composition
5. Increased grass measurement and usage of PastureBase Ireland





## Grassland Farmer of the Year Competition

With 2017 designated the Year of Sustainable Grassland, and a proven link between increased grass utilization and increased profitability, the Department of Agriculture, Food & the Marine, in collaboration with numerous industry stakeholders including Teagasc, launched a competition as part of the Grass10 initiative to find the Grassland Farmer of the Year. Teagasc research indicates that grass utilisation can be increased significantly on farm.

With this background Grass10 has launched a grassland competition to recognise those farmers who are achieving high levels of grass utilisation in a sustainable manner. Practises used by these famers to increase grass production and utilisation, include soil fertility management, sward renewal, grassland measurement and improving grazing infrastructure.

*The objective of the Grassland Farmer of the Year Competition is to promote grassland excellence for all Irish livestock farmers.*

***The Clune Family are the Muster Regional winners of the Grassland Farmer of the year Competition 2017.***

***Congratulations!!!!***



## Grassland Management



### **PastureBase Ireland: Technologies to assist grassland management**

Technologies which enable data-informed decision-making on the farm can help to increase farmers' confidence and greatly improve grassland management. Huge leaps have been made in developing decision support tools to improve resource farm efficiency, profitability and sustainability. The primary objective of most of these tools is to increase the information available to assist in farm-management decision making as well as to collect and collate large amounts of data in a centralised database.

Teagasc launched PastureBase Ireland (PBI) – an online grassland management decision support tool – in January 2013 and Grass10 will see the roll-out of the new PastureBase Ireland website as a key component of the campaign. Upon entering data from their own farm (e.g. grass measurements), the platform provides real-time and customised grassland management advice to the farmer to assist their decision-making. These reports are developed in such a way that allows farmers to benchmark their individual farm with farm in their discussion group or in their region. The data accumulated to date indicate that PBI participating farms have achieved improvements in grass DM production and grazing management.

PastureBase Ireland is informing us that farmers need to have a good control of current grass supply in order to manage grass well. Grass cannot be managed correctly without knowledge of farm cover, grass demand and grass growth. The crucial point on any farm is utilising the feed resource produced on the farm.

The average number of grass measurements by the finalists was 40 per year. This shows that the farmers are constantly monitoring grass growth and supply which enables them to graze grass at the right cover which in turn allows them to grow more grass as re-growths are faster. The table below outlines the average grazing performance of the Clune farm in 2017, Munster regional winner of the Grassland Farmer of the Year Competition.



### Grazing performance of Clune farm in 2017

Grazing Performance	2017
Grass production (t DM/ha)	16.31
No. grass measures completed/yr	48
No. of grazing's/paddock/year	11
Days at grass	284

The average number of grazing's being achieved was 11 including the paddocks cut for silage as well as grazing. Maximising the number of grazing's achieved on each paddock is a very effective method of increasing farm grass utilisation. Every extra grazing/paddock achieved increases annual grass DM production by 1.5 t DM/ha PastureBase Ireland enables the farmer to keep track of grass growth per paddock, the number of grazing's per paddock and the quantity of grass being consumed at each grazing. This highlights poor performing paddocks and deficiencies in grazing management.



## **Farm Performance**

This focus of output and profit on this farm is stemmed from high grass utilization. Francis fed 945kgs meal/cow in 2017 and the rest of the herds' diet was made up of grazed grass and grass silage. Francis sold 428kgs milk solids/cow to the co-op in 2017 or 1639kgs/ha on the milking platform. The target is to sell 1800kgs/ha of milk solids from a predominately grazed grass diet.

As with high grass utilization good herd genetics has also a role to play in the high performance of this farm. The herd EBI is €139. Calving interval was 381days in 2017 and the six week calving rate was 72%. Compact calving is key to profitability where Francis can get high numbers of cows to grass early in the spring, which increases the value of milk sales and reduces feed costs. Getting high volumes of cows out to grass in February is first key step to achieving ten rotations.



## **Soil Fertility Management**

Good productive soils are the foundation of any successful farming system and key for growing sufficient high quality grass to feed the herd. Therefore, the management of soil fertility levels should be a primary objective of every farm. A recent review of soils tested at Teagasc indicates that the majority of soils in Ireland are below the target levels for pH (i.e. 6.3) or P and K (i.e. Index 3) and will be very responsive to application of lime, P & K. On many farms sub-optimal soil fertility will lead to a drop in output and income if allowed to continue. Teagasc is highlighting 5 steps for effective soil fertility management.

1. Have soil analysis results for the whole farm (soil sampling every 2 years).
2. Apply lime as required to increase soil pH up to target pH for the crop
3. Aim to have soil test P and K in the target Index 3 in all fields
4. Use organic fertilisers as efficiently as possible
5. Make sure the fertilisers used are properly balanced

For those farmers aiming to improve soil fertility on their farms, following these 5 steps provides a solid basis for success.

### **Phosphorus (P)**

The proportion of soils tested with low soil P fertility (i.e. P Index 1 and 2) has increased to approximately 62%. This overall trend reflects the soil P fertility status on many farms, and indicates a serious loss in potential productivity. Recent research has shown that soils with P index 3 will grow approximately 1.5 t dry matter (DM)/ha per year more grass than soils with P Index 1. Most of the DM yield response in these experiments took place in spring and early summer.

### **Potassium (K)**

Soil analysis also shows that the trend in soil K status, across dairy and drystock enterprises, broadly mirrors that for P. Despite no legislative limits on K fertilisers, K usage dropped in line with P fertiliser applications. Consequently soil test results indicate a sharp increase in soils with low K status between. Over half of the soil samples tested by Teagasc had very low to low soil K status (i.e. K Index 1 or 2)

## **Increasing Soil Nutrient Availability-Lime**

Lime is a soil conditioner and corrects soils acidity by neutralising the acids present and allowing the micro-organisms and earthworms to thrive and break down plant residues, animal manures and organic matter. This helps to release stored soil nutrients such as nitrogen (N) phosphorus (P) potassium (K) sulphur (S) and micro-nutrients for plant uptake. In addition, ryegrass and clover swards will persist for longer after reseeding where soil pH has been maintained close to the target levels through regular lime applications.

Liming acidic soils to correct soil pH will result in the following:

- Increased grass and crop production annually
- Increase the release of soil N by up to 60 units N/acre/year
- Increase the availability of soil P and K and micronutrients
- Increase the response to freshly applied N, P & K as either manures or fertiliser

Ground limestone is the most cost effective source of lime and can be applied throughout the year when the opportunity arises. Lime is the foundation of soil fertility and is a primary step to take when correcting soil fertility.



## **Clune Farm Grazing Infrastructure**

When Francis took over the farm in 1989, a herd of 35 cows were milked on a total farm area of 26 hectares. Over the years land has been purchased totalling over 20 additional hectares and with rented land currently farming 59 hectares. Of this 59 hectares, 29.5 is milking platform split between two farms.

The original milking block in Crowhill has a 6 unit parlour, with slatted and cubicle accommodation constructed between 25 to 35 years ago. In 2003 the decision was made to move the milking operation to the Newgrove farm and a nine unit parlour together with slatted tanks and 25 cubicles were constructed. Also the main farm roadway and paddocks were put in place at the time for the then 45 cow herd.

In 2007 the need to expand facilities at Newgrove was recognised, with further slatted accommodation, an additional 44 cubicles, calving pens and straw storage shed constructed.

Increasing the dairy enterprise was recognised as the best way forward for the farm and by 2008 the herd had increased to over 60 cows. As the additional stock increased feed demand, the farm had to perform better so 10 hectares in Crowhill were extensively drained and reseeded turning difficult land into good grassland.

Continuing increases in cow numbers meant that grassland management practices had to improve if the system was to remain low cost and extract the maximum margin possible. In 2009/2010 there was further investment in the farm roadway infrastructure which involved constructing a number of spur roads through paddocks from the main farm road. The herd starts calving relatively early in mid-January and cows will go to grass immediately if weather conditions allow. The spur roads allow maximise grazing days each year and minimise sward damage in difficult weather conditions, as cows can get out for short grazing bouts and do not have to cross over grazed areas again.



The farm has continued to develop, now milking over 100 cows. This has meant the ability of the farm to grow grass had to improve and exceeded 16 tons DM/ha in 2017. Like most other things on this farm such performance hasn't happened by chance, but is as a result of excellent grassland management. To achieve this level of growth requires the correct sward type, which on this farm is a ryegrass sward. The entire milking block has been reseeded over the past 15 years.

Soil fertility continues to be monitored and corrective action on nutrients and liming are taken on the basis of the soil analysis results. Current and future reseeding policy is based on individual paddock performance based on the information generated from continual grass measurement.

Grass measuring is carried out at the weekends and Pasturebase is used to record covers. Also the farm is walked a second time mid-week to assess changes to covers and make decisions regarding, feed levels, removing surpluses etc. This practice has been on-going since Francis started measuring grass in 2010.





## Investing in Grazing

In order for expansion to be successful, there will be a requirement for significant investment on many farms. The available capital for this investment will be a scarce as expansion happens and continues. Therefore, investment on farm should be prioritised at areas that increase efficiency and reduce the exposure of the business to external shocks such as lower price of product or higher price of inputs etc. All investments that give the highest returns should be prioritised.

Every ton of additional grass eaten by the grazing animal will add €180/ha additional profit to a dairy farm. Therefore it is important that investment in grazing is prioritised to give the maximum return. The table below summarises the potential return on investment for different investments in a dairy farm business. Bottom Line: The level of return to these investments is high because it is investing in grazing. These investments will either enable the farm to grow more grass or lengthen the grazing season or both.

Investment	Cost	Impact	Annual Return (%)
Increase soil P & K levels	P & K application of 20 and 50kg/ha	+1.5 t DM/ha/year grass growth	152
Reseed full farm in eight year cycle	€650/ha	+ 1.5t DM/ha/year grass growth	96
Improve grazing infrastructure	€1,000/ha for roads, fencing and water	+ 1.0 t DM/ha/year grass eaten/utilised	58



## **The need for reseeding**

As grass is our main feed during the main grazing season, and the primary source of winter forage in the form of grass silage, the low level of reseeding must be addressed. Reseeding must be combined with managing, and where necessary increasing, soil fertility. Ireland will continue to increase milk production and the focus on efficient production of this milk is critical to maintain our industry competitiveness. Teagasc have developed a national grassland database (PastureBase Ireland), and the initial results show that there is huge capacity on Irish farms to grow more grass. The objective of this handbook is to outline the key points in grassland reseeding and to ensure farmers making the investment in renovating grassland get the best possible result.

### **Why reseed?**

Productive grassland farms must have perennial ryegrass dominated swards. Recent Moorepark research shows that old permanent pasture produces, on average, 3 t DM/ha per year less than perennial ryegrass dominated swards. Old permanent pasture is up to 25% less responsive to available nutrients such as nitrogen than a perennial ryegrass dominated sward. Reseeding is a highly cost effective investment. With regular reseeding the grass growth capacity of the farm can be increased substantially and the annual return of investment is large.



**Objectives of reseeding are to create swards that:**

- (1) Increase the overall productivity of the farm
- (2) Increase grass quality
- (3) Are responsive to fertiliser - at least 10 kg DM/kg N applied
- (4) Allow higher animal output - 8% higher milk output per hectare relative to permanent pasture
- (5) Increase grass utilisation
- (6) Reduce silage requirement
- (7) Increase the productivity of the farm (carry a higher stocking rate)
- (8) Can allow clover to establish

**Reseeding Checklist**

- Identify paddocks for reseeding (poorer performing paddocks; low perennial ryegrass content)
- Soil test and lime
- Sowing date
- Method of reseeding
- Spray off paddock
- When cultivating - prepare a good seed bed
- Choose appropriate grass cultivars
- Sowing rate
- Roll
- Slug and other pests
- Control weeds early
- Graze at 2 leaf stage
- Avoid poaching and over grazing

**Cultivation techniques**

How paddocks are prepared for reseeding depends on soil type, amount of underlying stone and machine/contractor availability. There are many different cultivation and sowing methods available. All methods, when completed correctly, are equally effective.

## Key points

- Spray off old sward
- Graze sward tightly or mow to minimise surface trash
- Apply lime
- Choose a method that suits your farm
- Soil test
- Firm fine seedbed with good seed/soil contact is essential
- Roll after sowing



## Cultivation techniques

	<b>Do's</b>	<b>Do not's</b>
Ploughing	Shallow plough. Develop a fine, firm and level seedbed	Plough too deep (>15 cm). Cloddy, loose seedbed
Disking	Graze tight, apply lime. 3-4 runs in angled directions	Forward speed too fast - rough, uneven seedbed
One-pass	Graze tight, apply lime. Slow forward speed at cultivation	Forward speed too fast – rough, patchy seedbed
Direct drill	Graze tight, apply lime and slug pellets. Wait for moist ground conditions (slight cut in ground)	'Trashy' seedbed - no seed/soil contact. Use when ground is dry and hard

## Variety choice

The DAFM publish the recommended list, showing the Pasture Profit Index values and agronomic values of the evaluation on the same table (see <https://www.teagasc.ie/crops/grassland/pasture-profit-index/>).

The Recommended List has evaluated varieties across years and sites and is the only evidence available of the potential performance of grass cultivars in Ireland. Using varieties not on this list is basically poor decision making, as is buying grass seed on price. The varieties you use on the farm, will be there for 8-12 years, choosing to use cheap mixes, with non-recommended varieties will increase the chances of those varieties failing to perform on the farm.

When the decision to reseed is made, the next major decision is selecting the most appropriate grass variety or varieties. The first thing to consider is the primary target use of the field. Is it predominantly grazing or is it generally used as a silage paddock? How much tetraploid should be used? A balance between quality, dry matter productivity and sward density is generally what must be achieved.

The key traits in a seasonal grass based production system are:

- High quality
- High seasonal production
- Good persistency score

## Differences between diploid and tetraploid varieties

<b>Tetraploid varieties</b>	<b>Diploid varieties</b>
Tall upright growth habit	Prostrate growth habit
Create more 'open' sward	Create a denser sward with less "open" spaces
Higher digestibility value	Generally lower digestibility and yield

Combining diploids and tetraploids in a mixture will create a dense, high quality sward – ensure you select varieties which express high performance in the key traits. Increasing the proportion of diploids on heavier soils is recommended to create better ground cover. However, tetraploids should be used on heavy soils. Choosing all dense varieties will compromise DM production and grazing utilisation.

## Key points when formulating a grass mixture

- Decide what the end use is – **grazing or silage** – formulate based on this
- Focus on the key traits increase the proportion of the varieties with the key traits
- Minimum of 3 kg of an individual variety
- There should be no more than three to four variety in a grass mix
- Sow 35 kg/ha (14 kg/ac) of seed
- Less than 7 days range in heading date between varieties

## Grazing specific mixtures

- Varieties exhibiting high seasonal (Spring and Autumn) PPI values
- Varieties with high quality sub index values
- Use 40-50 per cent tetraploid varieties in mixtures on dry soils
- Use 15-20 per cent of highly persistent tetraploids on heavy soils
- Small/Medium leaf white clovers for dairy cows/cattle, small leaf white clovers for sheep

## Silage specific mixtures, e.g. 2-cut system

- Varieties which have high silage sub index values
- High level of tetraploid (40%)
- Ensure proximity of heading dates
- Avoid low silage sub index diploids and poorly persistent tetraploids

## Choosing the right white clover cultivar

White clover is used in grazed grassland. White clover cultivars are categorised by leaf size.

### Small leaf white clover

- Lower yielding
- More persistent
- Tolerant of tight grazing, e.g. sheep grazing

### Medium leaf white clover

- Intermediate for yield and persistency
- Suitable for cattle grazing

Large leaf white clover

- Higher yielding
- Aggressive and can dominate a sward

Small leaf white clovers are recommended for sheep grazing and medium leaf white clovers for dairy or beef cattle grazing.

In general to establish a sward with >25% white clover, which is the level required for an animal production benefit, 4 kg white clover seed/ha (1.5 kg/ac) should be included in the seed mix.



### Management of Reseeded Swards

It takes about 11 months for a new sward to establish and settle down; therefore the management of the reseed in this period is important.

#### **Management of New Reseeds**

	<b>Do's</b>	<b>Do not's</b>
First 8 weeks	Graze at 2-3 leaf stage Spray weeds before grazing Nitrogen and P & K Slug pellets (if required)	Graze at high cover (>1400 kg DM/ha) Do not harvest for silage
Second grazing onwards	Graze at 1,200 - 1,600 kg DM/ha (6-8 cm) Re-spray weeds if necessary	Allow high covers to develop Graze in really dry or wet conditions
Autumn	Keep grazing at 1,200 - 1,600 kg DM/ha Graze off well before first winter (>4 cm) Light slurry application	Overgraze or poach Apply excessive slurry
Second year	Ensure the new sward receives adequate nitrogen Monitor soil P and K status	Overgraze or poach

**Graze the new reseed as soon as the plants do not pull out of the ground. Plants will normally be 6 – 8 cm high.** It is especially important that autumn reseeds are grazed before the first winter.

The first grazing does not have to be completed by the main grazing herd, calves or young stock may be a better option, particularly during poor grazing conditions.

#### **All the benefits of reseeding can be lost after sowing due to:**

- Poor soil fertility - poor establishment and tillering
- Grazing at high grass covers or cutting for silage – tiller/plant death
- Weed infestation (especially docks) – loss of ground cover
- Pest attack (frit fly, leatherjackets and slugs) – tiller/plant death



## **Tillering**

- Tillering is the production of new grass plants by the main grass plant established from the seed
- The process of grass tillering is critical for successful sward establishment
- Tillering helps reduce the space available for weeds
- To encourage tillering:
  - Apply 40 kg N/ha 3-4 weeks after sowing
  - Graze the reseed when it is about 6-8 cm high
  - Continue to graze the reseed in the first year of production
  - Avoid cutting the new reseed for silage in the first year (if possible)

## **Weed Control**

- Weeds in new reseeds are best controlled when the grass is at the 2-3 leaf stage
- Docks and chickweed are the two most critical weeds to control in reseeds
- High populations of other weeds such as fat hen, charlock, redshank, and mayweed can cause problems.
- It is essential to control docks and chickweed at the seedling stage and this is achieved by applying a herbicide before the first grazing
- To achieve the best lifetime control of docks in a sward, eradicating the dock at seedling stage in a reseed is the best opportunity
- Herbicide choice for dock control will depend on the presence of clover in the reseed (see Herbicide Guide)
- Chickweed can be a problem particularly where regular grazing is not expected to take place (silage fields), therefore herbicide choice is important
- You should consult your local adviser or merchant representative for correct herbicide choice
- Remember to keep the prescribed cross-compliance records and follow the instructions on the product label

## Reseeding Investment

Reseeding is one of the most cost effective investments that can be made on a grassland farm.

	Projected costs
	€/acre
Spraying	10
Glyphosate (Gallup 360) (Round-up (2 litre/acre)	16
Ploughing (€30)/ Till & sowing (one pass) (€30)	60
Fertiliser (2 bags × 10:10:20)	37
Fertiliser spreading	10
Levelling	10
Rolling	10
Grass seed	60
Post emergence herbicide sprays	30
Spraying	10
<b>Costs (ex- post emergence sprays)</b>	<b>253</b>

### Useful Links

#### National Recommended List - sources

DAFM <http://www.agriculture.gov.ie/publications/2018/>

Teagasc <http://www.teagasc.ie>

## **Clune Farm Autumn Grazing Plan**

The objectives of the autumn rotation planner are:

- To keep grass in the diet of the animals for as long as possible.
- To set up paddocks for grazing the following spring.

The simple rules are:

- Dry farms – start closing 10<sup>th</sup> October; 60% of the farm grazed by first week November; remaining 40% grazed by 1 December.
- Heavy or slow grass growing farms – start closing 1 October; 60% of the farm grazed by 20<sup>th</sup> October; remaining 40% grazed by mid-November or earlier
- If you want to make best use of grass as a feed for your animals, you need to walk your grazing area on a weekly basis.

### **Autumn grazing – objectives**

- ✓ Keep grass in the diet for as long as possible this autumn.
- ✓ Allocate a portion of the farm for grazing each week.
- ✓ Start closing paddocks from the 10th October onwards (1-2 weeks earlier in wetter areas).
- ✓ Aim to have 60% farm closed by the end of the first week of November (1-2 weeks earlier in wet areas).
- ✓ Leave the grazing area with an “adequate grass cover” when the animals are housed.

The key to providing grass for your cattle next spring is to graze 60% of your grazing area by end of the first week of November. The paddocks grazed by this date will have an opportunity to grow grass before growth rates decline in November.

### **Autumn Grazing Targets**

**10<sup>th</sup> Oct:** Start closing up

**7<sup>th</sup> Nov:** 60% closed

**Mid-Nov:** Closing cover of 600 kg DM/ha

## Autumn Grazing Targets

Date	Cover/Cow (Kg DM)	Average Farm Cover (Kg DM/Ha)	Rotation Length
<b>STOCKING RATE OF 2.5 LU/HA</b>			
1 <sup>st</sup> August	180	450	20 Days
Mid - August	200	500	25 Days
1 <sup>st</sup> September	300	750	30 Days
Mid-September	400-450	1,000-1,100	35 Days
1 <sup>st</sup> October	400	1,000	40 Days
1 <sup>st</sup> November	<b>60% of your grazing platform should be closed for Spring at this stage</b>		
Fully Housed		550-600	
<b>STOCKING RATE OF 3.0 LU/HA</b>			
Mid - August	250	750	25 Days
1 <sup>st</sup> September	330	990	30 Days
Mid-September	370	1100	35 Days
1 <sup>st</sup> October	380	1150	40 Days
1 <sup>st</sup> November	<b>60% of your grazing platform should be closed for Spring at this stage</b>		
Fully Housed		600-650	
<b>STOCKING RATE OF 3.5 LU/HA</b>			
Mid - August	220	770	25 Days
1 <sup>st</sup> September	280	980	30 Days
Mid-September	340	1200	35 Days
1 <sup>st</sup> October	335	1175	40 Days
1 <sup>st</sup> November	<b>70% of your grazing platform should be closed for Spring at this stage</b>		
Fully Housed		700-750	



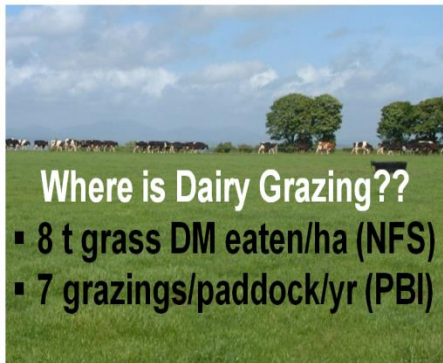


# Grass10

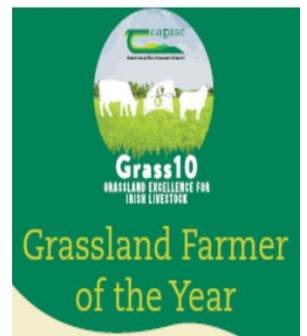
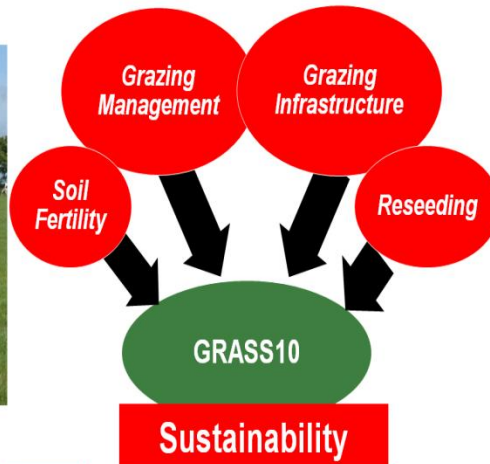


## Objective:

To increase the amount grass eaten to 10 t DM/ha/year  
& Achieve 10 grazings per paddock per year



Where is Dairy Grazing??  
▪ 8 t grass DM eaten/ha (NFS)  
▪ 7 grazings/paddock/yr (PBI)



## Francis Clune Grassland Farmer of the Year Winner



### Farm Details

- 1 herd of cows
- 2 Parlours & 2 Milking Platforms
- Total : 59 ha: 13 ha leased
- Milking Platform: 30 ha

#### 2017 Farm Performance:

- Overall Farm Stocking rate: 2.7 LU/ha
- 16 + tons Grass DM/ha grown
- 1766 kg MS/ha produced on Milk Platform

### Our focus

- Grass Based System
- Profitable

### Current Stock Numbers

- Cows – 101 (EBI: €139)
- Stocking rate – 3.4 LU/ha on Milk Platform
  - Replacements 0-1 yo - 35
  - Replacements 1-2 yo - 26

47  
Grass Walks  
Completed





## Clune Farm Grassland Farmer of the Year Winner 2017



### Farm Details:

- **Milking Platform: 30 ha**
  - **Owned Land: 59 ha**
  - **Leased Land: 13 ha**
- **2 Milking Parlours**
- **2nd platform for start end of grazing year**

### Grazing Platform:

**Current Cows: 101**  
**Stocking Rate on MP: 3.4**  
**Meal Fed (kg/cow) 2017 947 (TB)**

### Financial Performance (c/l) 2017:

<b>Dairy Output</b>	<b>37.7</b>
<b>Total Costs</b>	<b>20.8</b>

Year	Cows No.s	Farm Stocking Rate LU/ha (Milking Platform)	Herd EBI €	Milk Solids/ha (kg/ha)	Six Week Calving Rate %
2014	103	2.31 (3.43)	170	1483	76
2015	99	2.40 (3.36)	183	1459	66
2016	110	2.99 (3.73)	109	1526	70
2017	113	2.67 (3.83)	130	1766	81
2018est.	101	2.43 (3.40)	139	1650	72



## Munster Winner Grassland Farmer of the Year



### Dairy Herd Performance Report Jan - Dec 2017



Herd Owner: FRANCIS CLUNE

**Table 3: Kerry Agri/ICBF Performance Score Card**

	Your Herd	Kerry Agri Average	Kerry Agri Top 10%	Your Rank out of 100	Your Star Rating
<b>Milk performance for 2017 (Jan - Dec) based on Kerry Agri data</b>					
<b>Fat + Protein (Kg/cow)</b> Average Fat and Protein yield per cow for your herd	428	368	469	76%	★ ★ ★ ★
<b>Litres per Cow per Day</b> Avg litres of Milk per cow from Jan - Dec 2017	14.84	13.16	16.6	72%	★ ★ ★ ★
<b>Fat % to end December 2017</b> Weighted average Fat % from Jan - Dec 2017	4.23	4	4.23	90%	★ ★ ★ ★ ★
<b>Protein % to end December 2017</b> Weighted average Protein % from Jan - Dec 2017	3.44	3.44	3.59	51%	★ ★ ★
<b>Average Milk Price (cpl) Incl. VAT</b> Average milk price received from Jan - Dec 2017, (Includes Bonuses/Penalties, Excludes Levies)	36.7	36	38	68%	★ ★ ★ ★
<b>SCC (,000 cells/ml)</b> The weighted average Somatic Cell Count for Jan - Dec 2017	155	205	110	67%	★ ★ ★ ★



# Munster Winner Grassland Farmer of the Year

## Current Farm Performance



**Milk Yield (kg/cow/day)** \_\_\_\_\_

**Farm Cover (kg/ha)** \_\_\_\_\_

**Fat %** \_\_\_\_\_

**Farm Cover (kgDM/cow)** \_\_\_\_\_

**Protein %** \_\_\_\_\_

**Growth Rate (kg DM/ha)** \_\_\_\_\_

**MS Yield (kg/cow/day)** \_\_\_\_\_

**Rotation Length (days)** \_\_\_\_\_

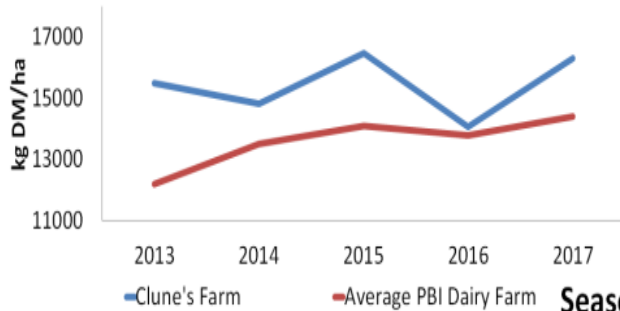
**SCC (cells/ml)** \_\_\_\_\_

**Meal Feeding (kg/cow)** \_\_\_\_\_

**Cover on Paddock Grazed:** \_\_\_\_\_ **Fertiliser:** \_\_\_\_\_

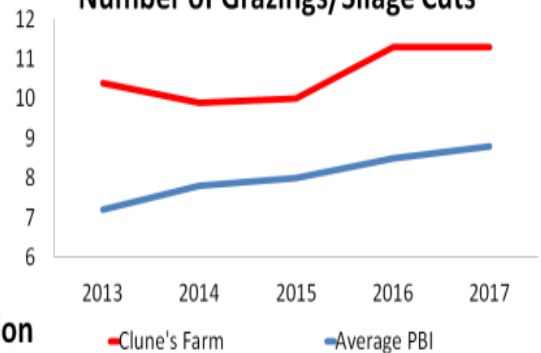


## Grass Dry Matter Production

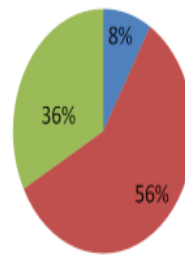
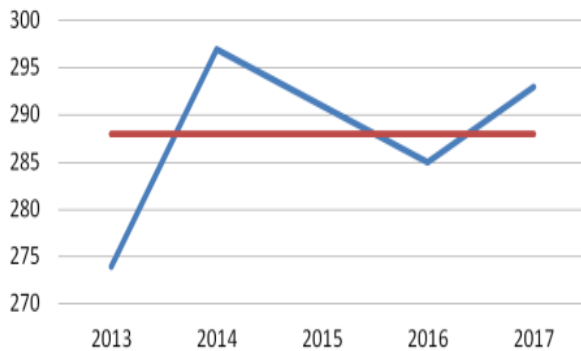


**47 Walks Completed**

## Number of Grazings/Silage Cuts



## Grazing Season Length (days)



**Take home messages**

- Measurement is key to managing grass
- Potential to grow & utilise more grass
- Target >10 grazings per paddock

# Winter Fodder Plan

## 2018 Fodder Requirements

100-Cow Herd. Farm: **52Ha** (130ac)  
Farm Stocking Rate: **2.3LU/Ha.**

Animal Type	No. of stock for winter	Number of Months	Pit silage per animal per month	Total Tonnes
Dairy cows	100	5	1.6	800
0-1 Yr. old	30	5	0.7	110
Heifers	25	5	1.5	190
<b>Total required (Tonnes)</b>				<b>1100</b>

## What Fodder is Available?

Silage	2018
1 <sup>st</sup> Cut (60ac @ 10T/ac)	600 t
2 <sup>nd</sup> Cut (20ac @ 7T/ac; 50% normal area - drought)	140 t
Bales (80 @800kg)	60 t
<b>Total (Tonnes)</b>	<b>800</b>

**Deficit: 1100-800= 300 T**  
**300T/1100T =27% Deficit**

## Plan;

1. Sell 15 cows before the winter => **120T silage saved.**
2. Purchase 30T Ration to feed to weanlings, heifers and cows to stretch remaining silage => **180T silage saved.**
3. If possible buy 20 bales hay or straw to feed 10 late calvers for 2mths with 50% silage => **16T silage saved.**
4. Review plan on 1<sup>st</sup> March



**One extra tonne of grass DM utilised/ha = €181 extra farm profit/ha**

2003                      2008                      2009                      2010                      2017                      2018

**2003**  
Construction sheds and cubicles (45 Cows)

**2008**  
Drainage work carried out

**2009**  
Spur roads developed

**2010**  
Started measuring grass

**2017**  
Redeveloped paddock size (60 Cows)

**2018**  
Reseeding

**Key points**

- Increase length of grazing season
- Increase grass grown
- Increase grass utilised
- Increase sward quality
- Increase stocking rate

*"My farm is my farm, it's up to me to make it as profitable as possible.  
Growing more grass is the best way to achieve this"*

An Roinn Talmhaíochta, Bia agus Mara  
Department of Agriculture, Food and the Marine

Grassland AGRO

AIB

IRISH FARMERS JOURNAL

FBD INSURANCE

## Setting the farm up to grow & utilise grass!

Investment	Cost	Impact	Annual return%
Increase soil P & K	20 kg/ha of P 50 kg/ha of K	+1.5 t grass DM/ha/yr	152
Reseed farm (8yr cycle)	€650/ha (€260/ac)	+1.5 t grass DM/ha/yr	96
Improve grazing Infrastructure	€1000/ha (€400/ac) for roads, fencing & water	+1 t grass DM/ha/yr	58

***"Walking onto this farm, it was obvious Grazing Infrastructure was prioritised"***  
Judges Report

- Paddock Size (Clune Farm)**
- ✓ 2 grazings/paddock
  - ✓ 1.2ha (3 acres) for 100 cows
  - ✓ As square as possible
  - ✓ 2-3 entrances & Some Multiple access to paddock

- Farm Roadways(Clune Farm)**
- ✓ 4.5m wide for 100 cows
  - ✓ Above the height of the field
  - ✓ Ideally not shaded & crossfall
  - ✓ Many Spur roadways & 3m

- Water System (Clune Farm)**
- ✓ 2 gals/cow (250 gal trough)
  - ✓ Main: 1" pipe (100 cows)
  - ✓ Central location
  - ✓ 5 cows/access at 1 time