

Irish Grassland Association

Quarterly Newsletter Issue No. 35 Spring 2017

"To advance the knowledge of good grassland management in Irish farming"

Special focus on improving grassland in 2017





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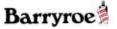


































































































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Irish Grassland Association Editorial

Dear Member,



Darren Carty Editor

I am delighted to welcome you to the spring 2017 edition of the Irish Grassland Association Quarterly Newsletter. The association's numerous committees have been in planning mode since our last edition.

The dairy committee kicked 2017 off in a very successful manner with the Dairy Conference, sponsored

by Yara, proving yet again to be thought provoking and relevant to the challenges and opportunities of the sector. A review of the conference including a preview of the pre-conference event held the previous evening and a taster of this year's dairy summer tour is outlined on pages 6 and 7.

The sheep and beef committees have confirmed the programme of events and host farmers with plans for the respective conferences and farm walks at an advanced stage. Both events are kindly sponsored by MSD Animal Health and Mullinahone Co-op. The sheep event is previewed on pages 9, 10 and 11 and the morning conference session includes a nice mix of farmer and industry views cumulating with a panel discussion on future opportunities and challenges for the sector. The visit to John Bell's farm in Westmeath is a must with the farm transforming from a high-input system to achieving high performance from a grass-based system with lots of tips and a first-hand view on ways to increase farm infrastructure and implement paddock grazing without having to invest large sums of money.

The beef conference is titled 'back to basics for beef' and aims to address some of the challenges facing farmers and ways to improve profitability at farm level. There is also a strong focus on what lies ahead for the beef market with the impact of Brexit one of the topics on the agenda in the conference and panel discussion. Well-known Teagasc/Irish Farmers Journal BETTER farm beef programme participant Tom Halpin from Meath is the venue for the afternoon visit and an outline of his system is detailed on pages 14 and 15.

The IGA has a long tradition in harnessing the enthusiasm and supporting the interests of future farmers and industry leaders. This year's student conference is previewed on page 18 while pages 20 and 21 detail reports from Cornelia Grace and Eamon Corcoran, winners of the 2016 IGA Student Bursary award. The IGA is delighted to be in a position to award two more bursaries for 2017 and the details of how to apply can also be found on page 17. Meanwhile Year in my wellies contributor Noel Claffey reports on a successful lambing on page 19 and outlines how the focus is turning to maximising performance form grazed grass.

Dr Roger McCarrick, RIP, was a great ambassador and leader of Irish agriculture. The IGA are delighted to have Roger serve as a past president and help grow the organisation. Dr Michael Drennan and Dr Sean Flanagan celebrates his achievements on pages 22 and 23.

Year of sustainable grass

2017 is a special year for the Irish Grassland Association. As well as it being the organisation's 70th year anniversary, there is a focus on increasing performance across all livestock sectors from grass-based systems. The Department has launched a campaign, Year of Sustainable Grass, which shines a spotlight on Ireland's ability to grow and utilise high volumes of grass as delivering a unique competitive advantage (page 25). Teagasc have also launched a campaign, Grass10, that dovetails with this aim (page 27) while the IGA are delighted to also be in a position to help drive this agenda.

Pages 28 and 29 give a preview of an exciting reseeding event which includes a strong line-up of industry experts. This is joined in our technical focus on grass by excellent articles from Teagasc's Mick O'Donovan on selecting grass varieties while the critical area of soil fertility is discussed on pages 30 and 31 by Stan Lalor, Grassland Agro and IGA committee member.

As always we welcome feedback on any aspects we can do better - e-mail secretary@irishgrassland. com.



Dairy Conference Review

George Ramsbottom, Irish Grassland Association Council Member and Teagasc





Paul Hyland IGA Dairy Conference chairman, Networking Evening chairman Matt Dempsey Irish Farmers Journal, Bernard Ging President of the IGA and quest speaker Sean Molloy Glanbia.



Members of the Irish Grassland Association Dairy Committee with sponsors Yara and conference quest speakers.

On the evening before the Dairy Conference, the first one hundred Irish Grassland Association members who booked tickets early met at our members Pre Conference Networking Evening and Dinner.

The 2017 guest speaker was Sean Molloy, Glanbia GII who was interviewed by former Irish Farmers' Journal Editor, Matt Dempsey. Both the conference and dinner sold out within days of the launch of the event last November.

Dates have been announced for the Dairy Conference 2018. Tickets will go on sale in October 2017 so don't delay and book early. The 2018 event will take place on the 16th and 17th January. A location will be announced in the coming months.

Packed attendance at dairy conference

The Irish Grassland Association Dairy Conference, sponsored by Yara, took place on Wednesday 18th January 2017 at the Newpark Hotel Kilkenny. The conference, which focused on the business of dairying, was divided into three parts: strategic development for the medium to longer term; tactics for the spring ahead; and budgeting for the current and future years.

The main take home messages from the speakers are outline below and all papers and presentations can be viewed at http://www.irishgrassland.com/Events-and-Reviews.

Mayo dairy farmer and Nuffield scholar **Sean O'Donnell** reviewed strategies for overcoming fragmentation in dairy farming and has opted to hire contract milkers to run his newly acquired second milking platform.

Dairy lecturer **Dr. Karina Pierce** outlined the rationale behind UCD's decision to investigate the high EBI, high yield, high stocking rate milking platform option. She reported achieving milk yields of 7,400 litres generating an estimated net profit of approximately 10c/litre for the herd in 2016, the first year of the experiment.

Welsh dairy farmer **Chris Mossman** described how he achieves 500kg milk solids from a crossbred herd stocked at 3 cows per hectare. Calving starts in midFebruary with 50% calved in 10 days. His costs of production which include heifer rearing costs were approximately 20 c/litre in 2016.

Shane Fitzgerald from Cork presented how he manages to calve 200 cows. Labour scheduling, disease monitoring and an excellent calf care programme are keys to his success.

Teagasc Moorepark researcher **Dr. Michael Egan** informed the audience that spring growth is a key determinant of the annual grass yield. He said that early Nitrogen application, grazing 1/3 grazed by early March and the whole farm by early April, and monitoring average farm cover to ensure 500kg DM/ ha or more is available at the start of the second rotation are all important in driving spring grass growth.

Patrick Gowing, expansion consultant with Teagasc outlined the key mistakes that new and expanding dairy farmers make. These include starting with too many heifers relative to cows and underestimating development costs.

Pig farmer **Paul Tully** from Co. Laois and Monaghanborn **Olin Greenan** who share milks in New Zealand discussed similar approaches to developing highly profitable businesses against a backdrop of highly volatile product prices. Careful financial planning and continuous monitoring of their budgets was their common approach to succeeding in a challenging marketplace.



Sean O'Donnell



Dr. Karina Pierce



Chris Mossman



Shane Fitzgerald



Dr. Michael Egan



Patrick Gowing



Paul Tully



Olin Greenan

DATES FOR YOUR DIARY 2017



SHEEP CONFERENCE AND FARM WALK

Westmeath 11th May 2017





RESEEDING EVENT

Munster 17th May 2017





BEEF CONFERENCE AND FARM WALK

Meath 21st June 2017





DAIRY SUMMER TOUR

25th July 2017

Kilkenny & Carlow





STUDENT CONFERENCE AND FARM WALK

Monday 9th October





Achieving high output from a grass based system in Co. Westmeath

John Bell is farming on the outskirts of Castletown Geoghegan, Co. Westmeath. Running a sheep only system on 46ha (114 acres) of grassland, John manages a flock of 480 ewes and 130 replacements equating to a stocking rate of 12.5 ewes per hectare. The farm itself is laid out in one block on a combination of dry and more peat-type soil, which John will admit has its pros and cons depending on time of year and weather conditions.

Good grassland management is now at the fore of John's system but this has not always been the case with the farm heavily reliant on concentrates in the past. It was after completing an e-Profit monitor with his advisor David Webster that it was confirmed and laid bare what John already knew, far too much of his profits were being swallowed up in escalating meal bills. Rather than keep doing what he had always done, John took the necessary steps to address the issue. He stepped up his game when it comes to grassland management.

With good levels of soil fertility grazing infrastructure was the first port of call. Larger areas on the farm were divided making good use of the TAMS grant to achieve some of the permanent divisions. Temporary fencing was then, and still is, used to good effect to achieve further divisions and

this has provided an economical way to achieve further progress in grassland management.

Fruitful experience

As with most things John puts a bit of thought and practical experience into his system and came up with his own method of deploying these fences to leave the process easier (see pic). The increased number of divisions allows John to more effectively manage grass, reduces the residency period and increases overall grass production and utilisation.

Now concentrate feed is only introduced in late August starting with the ram lambs first and gradually spreading to the remainder of lambs in September. This has led to a dramatic reduction in the farm's meal bill and an increase in overall profits. John will admit himself that he was feeding lamb's to sell them into a falling market, as opposed to drafting them off the grass his farm was capable of producing.

Winter feed is produced in the form of pit silage with excess grass being harvested in the form of round bales. This fulfils another aim of keeping the system simple with silage dispensed via a Lucas blower along the feeding barrier and helping to keep labour input to a minimum. The mature ewe flock is the first to be housed with the ewe lambs kept out for longer to clean out paddocks. Overall labour input is kept low with help drafted in only at lambing and at key stages of the year.

Breeding programme

When it comes to breeding animal performance is key. All lambs produced on the farm are finished or retained as replacements. On the terminal side, high index Texel, Charollais and Suffolk rams make up the team, with Belclare rams making up the maternal component. Key to the performance is a high output ewe flock. Given the numbers on the farm, Johns aim is to achieve a high output ewe that will look after herself and her lambs. These ewes are lambing from early March onwards. The ewe flock consists of a mixture of maternal and terminal genetics with Belclare sires being used in a criss-cross programme with the terminal sires on the farm. This policy is delivering on the ground with a combination of genetics and good management. This year ewes scanned with a litter size of just over 2.1 with a pregnancy rate of 98% - impressive even by the highest standards. This high performance is carried through to weaning as the ewe flocks is delivering in excess of 1.7 to 1.8 lambs reared per ewe joined on a consistent basis.

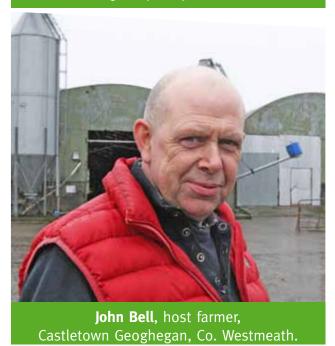
Post-turnout the majority of the ewes (i.e. rearing twins) are split into four grazing groups which is later reduced to two as the season progresses. Ewes rearing triplets are kept separate and offered supplementation for a number of weeks post lambing to help maintain condition and boost milk yield. Unlike a lot of systems lambs are not offered creep, again John feels the combination of good grassland and productive ewes should be capable of achieving high levels of lamb performance.

To further increase output all ewe lambs are joined each year with Charollais rams. These lamb the end of March when the pressure is reduced. John traditionally only retained the pregnant ewe lambs as he believes these are the more productive replacements - when you examine the performance there may be merit to this. These yearling ewes had a scanned litter size of 1.6 with a pregnancy rate of 82% after a joining period just shy of three weeks. Due to the shorter joining period John has retained the empties this year. Yearlings rearing twins are kept separate for a number of weeks and offered supplementation before being re-joined with their counterparts. Similar to the situation with the triplet ewes no creep is offered to the lambs produced.

The key features in John's system that is clear to anyone who visits the farm is keeping management straightforward and simple and focus on the factors you can manage. Combine grass, genetics and good management and you can achieve your targets.



Picture 1. Simple adaption to the quad leaves erecting temporary fences easie





An exciting conference line-up and panel discussion

This year's conference is slightly different from the norm with two sessions. The first session, which is chaired by Brian Nicholson, IGA council member and sheep farmer, includes a paper from Philip Creighton, Teagasc Athenry titled 'Grassland – unlocking its potential for sheep production. The second paper brings the views of a first-rate Tyrone farmer Isaac Crilly and is titled 'Embracing technology to increase production and improve efficiency on my farm'.

Session two is where the morning conference differs slightly as it takes the form of a panel discussion with industry experts. It provides a unique opportunity to hear the views and interact on important market issues for the sheep sector including the potential impact of Brexit, export market opportunities and Meat Industry Ireland's plan to grow Irish sheep output.

A profile of speakers is listed below.

Session 1:

Dr. Philip Creighton

Philip is a grassland and systems researcher based in the Animal & Grassland Research and Innovation Centre, Teagasc, Mellows Campus, Athenry, Co. Galway and is also a former council member of the Irish Grassland



Association. Philip's work focuses on many aspects, but principally improving grass utilisation and ultimately output through improved grassland management strategies. A keen emphasis of his ongoing work has been to deliver strategies that are practical, easily applied and profitable at farm level. The focus of his paper will be to discuss some of the key findings coming from the work undertaken in the Research Demonstration flock in Athenry during the course of the last four seasons.

Isacc Crilly

Isacc is a sheep farmer based in Castlederg Co. Tyrone. A well-known farmer to many in the sheep industry both north and south, he is a former finalist in the UK sheep farmer of the year and a long time focus farm partner



with AgriSearch NI. Isacc operates what has been

described as a lamb production powerhouse. He runs a 450 strong ewe flock including replacements on 28ha of grassland. Isaac's system has developed to operate at a very high stocking rate and level of output. He is adopting breeding strategies, using performance figures, to deliver a more a durable ewe capable of a high output whilst maintaining carcass quality. Another key aspect to the Tyrone farmers system is his approach to improving labour efficiency on the farm.

Session 2:

Declan Fennell

Declan is Sector Manager for Sheep and Special Marketing Initiatives in Bord Bia. He was also part of the EU sheep reflection group which aims to safeguard and maintain the EU sheep sector. Declan will give an insight



into Irish sheepmeat market prospects while also considering EU markets and sheepmeat imports from New Zealand.

Dr Kevin Hanrahan

Kevin is a principal research officer in Teagasc's Agricultural Economics and Farm Surveys Department. Kevin's research is mainly focused on the development and use of partial equilibrium models of Irish and EU



agriculture (the FAPRI-Ireland and AGMEMOD models). These modelling systems have been used to analyse issues arising in in agricultural, environmental and agricultural trade policy. Kevin's paper explores the potential impact of Brexit on the Irish Sheep Industry and wider agricultural economy.

Joe Ryan

Joe is Director with Meat Industry Ireland (MII), the sector organisation within IBEC which represents the Irish meat processing sector. Joe will outline MII's five-year Sheep Development Plan released in June 2016. This features a



number of ambitious targets including rebuilding the ewe flock to 3m head and producing an extra one million lambs annually which will grow exports by 20,000t in volume and €150m in value, while also generating an additional 500 jobs in processing and services.

We would like to thank our sponsors







As part of the Department of Agriculture, Food and the Marine Year of Sustainable Grassland initiative, the Irish Grassland Association are organising a Reseeding Demonstration event on Wednesday 17th May. The aim of this event will be to promote the benefits of reseeding and best practice procedures that farmers can follow to achieve better yields from their grassland. The Irish Seed Trade Association are kindly sponsoring the event and it will be held on the farm of Donald and Lucy Bateman, Ballylooby, Cahir, Co Tipperary.

The Batemans have been dairy farming in Ballylooby since 1999 and currently milk 230 cows on 82 hectares. Donald and Lucy's' focus has always been on utilising grass to help them to successfully reach their profit targets. Through adopting an ongoing program of reseeding, combined with good grassland management practices, the Batemans have maximised their overall farm output. The figures involved are very impressive - the farm grew 14.5 t/ha of grass dry matter (DM) and produced 440kg of milk solids per cow (1254 kg/ha) in 2016.

Event programme

On the day of the demonstration, leading experts will speak and give advice on a range of topics relating to reseeding grassland. All farmers should find this of interest regardless of their farm system or soil type as there will be numerous lessons and take-home messages delivered.

The schedule for the day is summarised below:

- Bateman will outline their history on the farm and discuss their experience so far of the reseeding program that has been implemented. Teagasc Business and Technology dairy advisor James Mullane will explore the reasons behind the need to reseed. In his discussion, James will highlight the key areas that contribute towards the decision making process when considering reseeding for any individual farm. James will also illustrate the benefits of reseeding such as improved grass yields and feeding quality of grass along with the potential for an extended grazing season, a key component of optimising the farm's profit potential.
- Weed control: reseeding represents a significant but worthwhile cost, though it's potential can be hampered by failure to take necessary measures to control weeds. The second section will discuss the post-sowing management of the new reseed. Chris Maughan of TP Whelehan will investigate best weed and pest control measures in a new reseed sown for the day. Chris will discuss the importance of good timing of post-emergence weed control while illustrating how weeds and pests can quickly and seriously reduce the quality and performance of the new sward if not addressed.
- Grazing management: Deirdre Hennessy of



Teagasc in Moorepark will then speak on Grazing Management of a new reseed to include areas such as grazing height of the sward and ideal stocking rates. Benefits of good grazing management are optimum establishment and tillering of the grass plants which long term will help set the sward up for positive persistency and the capacity for higher stocking rates.

- **Grass variety selection:** Selecting the most suitable grass variety or mixture of varieties to suit your system and land type can have a big influence on subsequent performance. Michael O'Donovan, also of Teagasc Moorepark, is a specialist in this area and will share his experience and selection criteria tips in selecting the most suitable varieties for any individual system. In doing this Michael will also refer to and explain the Department of Agriculture's Recommended Listing and the Teagasc Pasture Profit Index (PPI).
- Reseeded paddocks will not perform to their potential if soil fertility is not correct. The last presentation is therefore critical as Stan Lalor of Grassland AGRO and a member of the IGA council discusses the importance of soil fertility and shares valuable advice on liming and optimum fertiliser use when reseeding.

Unique opportunity

Unlike other reseeding events, attendees on the day will have an opportunity to see the results of three cultivation methods. Comparison blocks on the site will have been reseeded approximately four weeks in advance of the event using the following machines.

- Direct drill system with a power harrow and seed drill.
- Moore Unidrill
- Einbock Seeder

An assessment of the success and pros and cons of each of the methods should lead to an interesting discussion on the day. There will be a stationary display and discussion of the machinery used for each method. There will also be a discussion on ground preparation and the factors influencing choice of suitable cultivation systems.

This demonstration should be of interest to all grassland farmers and members of the agri-industry and will run on Wednesday 17 May from 10.30am until 1pm. Please contact the Irish Grassland Association for further details or keep up to date with our website www.irishgrassland. com for full details of all our events.

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IGA Beef Conference Preview Focus on grass drives profits in Meath IGA Council member Irish Farmers Journal

This year's Irish Grassland Association beef conference heads to the royal county in Kells, Co. Meath on Wednesday 21st June 2017. Beef farmers are facing uncertain times and this year's conference aims to provide a mix of technical and policy papers. Regardless of policy, more efficient farmers will always make more profit and this year's conference aims to provide beef farmers with some technical updates on how they can improve profit within the farm gate. An exciting line up of speakers has been arranged. Ciaran Lenehan, beef specialist with the Irish Farmers Journal will present a paper on how suckler farmers can recover €500/cow inside the farm gate from simple efficiency changes.

There is still huge uncertainty around Brexit and its implications for the Irish beef industry. Joe Burke form Bord Bia will present a paper outlining what we know so far and its likely impacts on the industry. Our second session sees Christy Watson from Teagasc present some very interesting data analysis from a number of finishing farms in Kildare. Christy will outline how 5 star terminal progeny compare with 1 star terminal progeny in terms of carcass gain, feed costs and profitability. Finishing the second session will be Mike Egan from Teagasc who will look at grass management on beef farms and the advantages and profitability gains to be reaped from managing grass correctly in beef farms. He will also outline a recent clover project he has been working on with commercial farms.

To wrap up the indoor session Justin McCarthy, editor of the Irish Farmers Journal will chair a forum discussion titled "Where to now for Irish beef farmers" A panel of farmers form north and sound including leading industry figures will participate in this debate. The afternoon session will visit the farm of Tom Halpin, Carlanstown, Kells, Co. Meath.

The Halpin farm is made up 62Ha of predominantly free-draining land in Roberstown, Carlanstown, Co. Meath. The farm is in permanent grassland and is situated in one block.

Tom took over the running of the farm from his late father, Tom senior, in the mid 1990's. Tom's mother Brigid still lives on the farm and takes an active interest in the daily activities. Tom's wife Anne, and their three children Matthew (20), Laura (17) and Claire (14), are also involved in the day-to-day activities on the farm.

Originally the farm operated store-to-beef and early lambing enterprises, however, in the early 2000's, Tom began the process of building up a suckler herd. There is currently 95 suckler cows in the herd and all progeny are reared through to beef. The farm

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operates a split calving system with 60 spring calvers (February and March) and 35 summer calvers (June and July).

In 2012, the farm joined phase two of the Irish Farmers Journal/ Teagasc BETTER farm beef programme. At the start of the programme, targets were set to improve the overall gross margin per hectare on the farm. The targets focused on three key areas; grassland management, breeding and genetics and herd health.

With the help of the programme, improved grassland management skills has really benefited the farm and helped in making the decision in dropping 28.3ha (70 acres) of rented land in 2013. Since then, the farm is actually carrying more stock. The first step in achieving this was to begin installing paddocks.

Each year, paddocks were installed on a portion of the farm and to date, there are 40 divisions, some permanent paddocks and some larger blocks that can be sub-divided. Soil samples on the farm were also taken to identify low index soils. The soil tests highlighted soils with low P and K and these divisions were then targeted with slurry and compound fertilisers as a result. A re-seeding programme commenced in 2015 and the plan is to re-seed 4ha (10 acres) of the farm annually.

Throughout the process of building the suckler herd, large emphasis was always placed on the breeding of the cows. The farm operates a closed herd and all replacements are bred from within. There are currently three stock bulls on the farm, a terminal Charolais bull out of Nelson, a maternal Simmental bull out of Shanehill Brandy and an easy-calving Limousin bull out of Roundhill Saturn. The farm is also in the Beef Data and Genomics Programme (BDGP) and the latest BDGP report shows that, based on the

reference number of animals, 99% of the females currently on farm are four or five star.

Operating a closed herd has been a solid foundation for implementing a successful herd-health plan. There is a strong emphasis placed on hygiene, both in the sheds and towards persons entering the farmyard. A vaccination programme is also being followed which includes vaccinating cows for BVD and leptospirosis and vaccinating calves for clostridial diseases as well as pneumonia prior to housing.

As it stands, all male progeny are slaughtered under 16 months of age with a target carcase weight of 400kg. The farm follows a replacement rate of 20%, choosing heifers with the highest maternal ratings for breeding. Remaining female progeny are brought through to beef, being slaughtered at 18 months to 20 months of age with a target carcase weight of 350kg.

The farm walk promises to be a major attraction at the conference with the farm now completely focused on grass to drive the profits. Tom has hosted many groups down through the years and visiting farmers always enjoy Tom's open and honest attitude when answering questions.



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Conference Speakers



Ciaran Lenehan is a beef specialist with the Irish Farmers Journal. He completed a B.Agr. Sc in UCD in 2014 and went on to study for a M.Agr.Sc in Teagasc, Grange, Co. Meath. Ciaran also farms in Co, Meath in partnership with his father on a suckling to finishing farm.



Joe Burke is Beef and Livestock Sector Manager with Bord Bia, which is responsible for market development, promotion and market information for Ireland's agri-food industry. He is also closely involved with the family's beef farm in Limerick finishing 200 cattle annually.



Christy Watson is a Teagasc business and technology advisor based in Naas, Co. Kildare. Christy deals with drystock clients in Kildare and co-ordinates a number of successful discussion groups. In 2014 Christy was awarded the Teagasc gold medal for his outstanding service to the industry



Dr. Michael Egan is a Teagasc researcher based in Moorepark, Co. Cork and comes from a drystock farm in Co. Roscommon. He completed a pHD in Teagasc, Moorepark in 2015 and his main area of research interest is grassland management and the incorporation of clover into grassland swards on commercial farms



Robin Talbot is the fourth generation of his family to live and farm in Coole, Ballacolla, Co Laois. He is a commercial beef and suckler farmer calving over 200 suckler cows annually, producing quality cattle for the Irish and European markets. He uses both Limousin and Belgian Blue stock bulls as terminal sires on his suckler cows.



Sam Chesney is a beef and sheep farmer based in Co. Down. He is a previous winner of the Farmers Weekly beef farmer of the year competition and runs a 150 cow suckler to beef operation on the Ards peninsula. He is the current chair of the beef and sheep committee in the Ulster Farmers Union.



The Irish Grassland Association Dairy Summer Tour Producing milk on leased land

George Ramsbottom, Irish Grassland Association Council Member and Teagasc



The Irish Grassland Association Dairy Summer Tour has become a key date in the farming diary. It affords farmers an opportunity to take a break from their own farm and gain an insight into how other farmers are overcoming relevant challenges facing the dairy sector.

The event, sponsored by AIB Bank, takes place on Tuesday July 25th. The major focus of the 2017 dairy summer tour will be on producing milk on a part leased or fully leased milking platform. Maximising the use of grazed grass in the cows' diet will feature prominently on both farms.

The tour heads for Kilkenny and Carlow with two top-performing grass-based dairy farms in Curraghlane, Skeaghvasteen, Kilkenny and Grange, Carlow kindly agreeing to host the event.

Speaking at the launch of the event, George Ramsbottom chairman of the tour said, 'Since milk quota removal, commercially focused dairy farms have increased stocking rate as a means of increasing milk output. One third of Teagasc eProfit Monitor dairy farms are stocked at greater than three cows per hectare on the milking platform. Nationally one third of dairy farms lease an average of 30% of the land they farm. With this in mind, the Irish Grasslands Association invited two milk producers farming on partly or fully leased milking platforms to host this year's Dairy Summer Tour'.

Cathal and Grainne Moran farm at Curraghlane, Skeaghvasteen, Co. Kilkenny. Cathal farms 144ha of which 57ha is owned. The milking platform comprises 120ha this year and includes land leased long term from three different farm owners. The milking platform is composed of a mixture of free draining Clonroche shales and grey brown earths. This year's overall stocking rate will be 2.5 LU/ ha with the 250-strong dairy herd stocked at 2.5 cows/ha on the milking platform. The farm grew an average of 14.6t DM/ha in 2016. Over the past four years Cathal has laid or upgraded 2.1km of roadways, constructed a 30-unit milking parlour, reseeded 50ha of the milking platform and built 345 topless cubicles and slurry storage to accommodate the rapidly expanding herd. Most of the leased land has been reseeded in the past five years. Improving soil pH and P and K indices is on-going. Cathal's herd produced 450kg milk solids per cow (4.30% fat; 3.67% protein) in 2016.

Jamie and Lorraine Kealy are first generation farmers. Coming from a non-farming background, they purchased 12ha of land while he worked as a building contractor. Jamie commenced milk production on a 37ha fertile leased farm at Slaneyquarter, Grange, Tullow, Co. Carlow in the spring of 2014. The lease also includes cubicle accommodation and a milking parlour. Last year he farmed an average of 91 cows stocked at 2.5 cows/ha on the milking platform. The farm grew an average of 15t DM/ha in 2016. Jamie's herd produced 525

kg milk solids per cow (4.47% fat; 3.70% protein) on 780 kg meal that year. This year he plans to milk just over 100 cows on the same platform.

Common features of both farms are the following:

- Breeding the right cow both farmers believe that highly fertile, high EBI cows are most suited to grass-based milk production;
- Their focus on soil improvement through improving soil fertility;
- Their financial focus both carefully plan cash flow on a monthly and multi-annual basis.

Commenting at the launch of this year's Summer Tour, Patrick O'Meara, AIB Agri Advisor, said, 'We are delighted to continue our support of the Irish Grassland Association Dairy Summer Tour. This year's event is a further opportunity for farmers to learn first-hand from two progressive dairy farmers who are milking on leased land. The fundamentals of grass utilisation and maintaining efficiencies are key for all farmers, particularly in a period of volatile milk prices. Learning how both farmers managed to successfully work with land owners to lease land for milk production will be an important part of the day".

Tickets will go on sale shortly and the best discounted tickets rates will available for all bookings made online by Monday 3rd July. For further information about the event contact Maura Callery at (087) 962 6483 or visit the Irish Grassland Association website at www.irishgrassland.com.



We would like to thank our sponsors AIB for their continued support





Planning in motion for IGA Student Conference

Emer Kennedy, IGA Council Member Teagasc



The 8th annual Irish Grassland Association Student Conference will take place in Co. Offaly on Monday 9th October 2017. The conference has gained increased popularity among students in recent years and has established itself as a good opportunity for students to interact with contemporaries from other universities and Institutes of technologies throughout the country will attend, gain knowledge from specialist speakers and visit good commercial farms.

This year there will be two farm visits, the first visit will be to the newly established Irish Farmers Journal beef and sheep farm in Tullamore. Students will have the opportunity to interact with the farm manager Ger O'Dwyer and the team involved in running the farm. Topics of interest include how the farm lease has been developed in a manner that splits capital investment between the owner and lessee along with projected physical and financial performance of the mixed beef and sheep enterprises.

John Fagan, a sheep farmer and former IGA council member from neighbouring Westmeath will also be present to discuss his career path and what he has gained from being part of the IGA. John runs a large-scale mid-season lambing flock and has also developed a successful dairy heifer contract rearing enterprise.

In the afternoon all students will travel to a nearby dairy farm where again students will get a good overview of a high-performing commercial dairy enterprise. All aspects of the business will be discussed and it will also provide an ideal platform to move into another topic of the day – improving utilisation of grassland on livestock farms. Students will hear from the new Teagasc Grass10 campaign manager on the importance of growing and utilising as much grass as possible and the targets of the four-year campaign.

Teagasc analysis shows that soil fertility is a growing concern on Irish farms. In the region of 90% of soils tested have a sub-optimal fertility status with pH, phosphorus and potassium all deficient to varying degrees. This presents a significant challenge in increasing productivity and David Wall, Teagasc, will be in attendance to discuss this important area and answer any questions relating to soil fertility.

The Irish Grassland Association is very grateful to the host farmers for facilitating this important event in the IGA calendar. It will be an exciting and educational day for all the students in attendance. Once again, we would like to sincerely thank our sponsor, the FBD Trust, who have sponsored this event since its inception in 2010.

"FBD is very pleased to support various grassland initiatives and this Irish Grassland Association Student Conference is a great example of Ireland's young farming students benefiting directly from the real experience available in Ireland. It is a great opportunity for students to learn first hand from experts in this area and we know it will be a valuable day for all".



A Year in my Wellies

Noel Claffey, Kilbeggan, Co Westmeath



Introduction: Noel Claffey farms 140 acres (100 owned and 40 rented) with his father Tommy. Both Noel and Tommy have off-farm employment with Noel in his third year of a PhD with Teagasc Athenry and UCD. His research aims to uncover the effects of production factors on various meat quality attributes of Irish lamb. At home, the farm operates both beef and sheep enterprises. The beef herd consists of 60 suckler cows with calving split between autumn and spring. Progeny are predominantly sold as weanlings. The herd consists primarily of Limousin and Simmental crossbred cows, most of which are mated to a Charolais stock bull. Approximately 25 cows are selected for AI each year to either breed replacements or, in the case of highly terminal cows, to breed show quality calves.

Wrapping up lambing and calving for 2017

Lambing 2017 came and went with minimal problems. The main flock lambed down in early January with the hogget's lambing in mid-February and thankfully there was no major issues with either group. Ewes and lambs were released to grass between seven to 14 days old when weather permitted, which was quiet favourable in early spring. The focus now turns to preparing lambs for sale as Easter is fast approaching. Lambs will be drafted for sale from 40kg to 42kg liveweight upwards depending on fitness. All of our lambs receive creep feed to compliment grass supplies, a method which is a continuous gamble depending on lamb prices but is needed in early lamb production systems.

In the cattle sheds it has been a busy few months calving. To date 49 of the 58 cows are now calved with the remainder due to calve between now

(written 20 March) and mid-May. The goal would be to have all cows calved by the end of April in 2018. Although weather conditions have been reasonably favourable up until recent weeks we have not made the move to let any stock to grass yet. This will be high on the agenda in coming weeks but given the fragmented nature of our farm and the fact that both my father and I work off farm, when stock are released we need to be relatively sure the weather is favourable and they can remain at grass and do not need to be re-housed.

Fodder supplies on the farm are plentiful. Autumn cows as well as a group of seven replacement heifers were scanned in calf last week. The spring calving herd will all be scanned pre-breeding to identify any problematic cows that may need treatment to help them cycle. Routine jobs such as foot pairing, vaccine administration and replacing missing tags/Genomic tagging will also be carried out before stock are released to grass.

Two spring-2016 born pedigree bulls are being prepared for sale in May. These bulls are washed regularly to help maintain hair growth and a clean coat, while we wait to see how this year's crop of calves develop to see if there is anything worthy of wearing a halter.

Urea was spread on the 19th of January at a rate of half a bag/acre. Slurry was also spread on all silage ground as well as on the ground that the sheep have grazed where possible and further fertiliser will be spread in the coming weeks. As grass covers on the farm are relatively good the attention is also focused on setting up the farm again for maximising grass growth and utilisation by ensuring paddocks are still in place and carrying out some general fencing maintenance.



A chance to witness Europe's latest grassland research

Cornelia Grace

Cornelia Grace reviews her trip to the European Grassland Federation Conference held in Trondheim, Norway as part of her IGA Student Travel Bursary.

The Irish Grassland Association's travel bursary facilitated my attendance at the European Grassland Federation (EGF) Conference in Trondheim, Norway in September 2016. The title and theme of the conference this year was "The Multiple Roles of Grassland in the European Bioeconomy". The EGF is the biggest, most renowned grassland conference in Europe and was attended by delegates from over 30 countries with its aim to promote the exchange of knowledge among stakeholders and raise new challenges for grassland use by identifying or initiating new research questions.

This trip provided me, as a young researcher, with an ideal networking opportunity and exposed me to new research ideas. Furthermore as a final year PhD student in UCD, this conference gave me a fantastic opportunity to present my work and meet with some of the leading scientists in my field. The title of my presentation was "The effect of grazing multispecies swards on lamb performance and herbage production". This work was also one of the main topics presented by UCD Associate Prof Tommy Boland at the recent IGA sheep conference and farm walk in Wicklow last April.

At the EGF, I presented at a session entitled "Forage Potential in Ruminant Nutrition" which opened with two invited presentations firstly from Prof. Pekka Huhtanen from Sweden who discussed improving the utilisation of forage protein in ruminant production and the second from Dr. Michael O'Donovan from Teagasc speaking about increasing the quantity of grazed grass in the dairy cow diet. Interestingly, seven of seventeen speakers in this session were Irish researchers, highlighting the research emphasis in Ireland on forage production for ruminants.

What I found remarkable about this session was during the Irish presentations the audience were intrigued with and really admired what can be achieved from grass in our country. Our climate is ideal for grass production and utilisation and contrasts with countries from northern European, such as Norway who have only a three month growing season and eight hours of sunshine per day and are thus restricted to certain grass species and a subsequently reduced potential for pasture based production.

On some of farms where the climate permits, they sow grass mixtures (more common than grass monocultures) and when visiting a farm in Ostborg, we saw a timothy, meadow fescue, red clover and perennial ryegrass mixture, quite different to a standard mixture in Ireland. Despite the challenging climatic conditions, these mixtures were achieving dry matter yields of between seven and ten tonnes per hectare and are used in a threecut silage making system. As well as this, Italian ryegrass was under-sown into a barley crop and the animals were allowed to graze the grass after the crop was harvested which was a very efficient practise as two crops were produced from the same area of ground. What I took from the conference was that grassland means something different to everyone from different environments and play an important role in agriculture despite geographical location.

Participation and appearance at relevant conferences is an important aspect in the development of a postgraduate student's career and provides an opportunity for Irish research to be presented to international audiences. It also allowed me to familiarise myself with the most up to date research in grassland science which will help me in the writing of my thesis. Attending the EGF was a great experience which would not have been possible without the bursary from the Irish Grassland Association so, for that, I am very grateful.

Eamon Corcoran My trip to European Grassland Federation Conference 2016



The 2016 Irish Grassland Association student bursary gave me the opportunity to attend the 26th general meeting of the European Grassland Federation entitled "The Multiple Roles of Grassland in the European Bioeconomy". This event took place over five days from the 4th to the 8th of September 2016 in Trondheim, Norway. This conference was attended by 277 delegates from 30 countries making it the largest conference of its kind.

Attendance at this conference gave me a fantastic opportunity to present my research work to fellow researchers, advisors, industry representatives, farmers and policy makers. It also gave me a great insight to other research work that is ongoing internationally in the areas of grassland and forage production. My work was presented as a poster on the third day of the conference as part of the theme Forage Potential in Ruminant Production.

The title of my poster was "Maize yield and composition affected by rate and timing of nitrogen fertiliser and mulch type". It was very supportive to get such a positive response from all who expressed an interest in my work in the improvement of agronomic practices based around the production of forage maize in Ireland. Also having the foresight to understand the future potential of forage supplementation to the expanding sectors and the huge ability it possess to complement the grass based production systems that predominate in Ireland.

This strategic supplementation of forages could be seen in the Norwegian agricultural system. On day three I attended the mid-conference tour where we visited three neighbouring farms, all of which were located 100km north of Trondheim. We visited two dairy farms where a big emphasis is placed on forage production which is supplemented with cereal production. Both dairy farms operated indoor systems housing dairy cows year round so continual supply of forage was essential but posed a huge difficulty with such short growing seasons and long winters.

The herd size is steadily increasing up to 60 cows from a current national average of 25 cows. This is taking place in conjunction with increasing production per cow which is rising to a high of 8000kg/M per cow. In contrast we visited a conventional beef production farm who has a herd of 60 predominantly Charolais cows where all offspring are finished for beef except for those retained for replacement purposes. His stock graze outdoors once conditions allow, however supplementation with forage occurs throughout the year if deficiencies in grass supply occur. Swards on farms are predominantly contained mixes of timothy, meadow fescue and red clover, sometimes mixed with perennial ryegrass but persistency issues exist with cold winters.

Attendance at this conference was an excellent experience and has been extremely important in allowing me to display Irish research on an international stage. I would recommend any post-graduate student, if the opportunity is given, to attend such a conference to accept. Without this bursary granted by the Irish Grassland Association it would not have been possible to attend this outstanding conference. It was an experience I will never forget and, to the society, I am extremely grateful.

Closing date looming for IGA Student Travel Bursaries

Since its foundation, the Irish Grassland Association (IGA) have worked alongside the most progressive individuals in the farming, research, advisory and agri-industry sectors for the betterment of Irish grassland farming. This relationship has been significant in bringing Irish grassland technology to the forefront as an international science.

We are particularly interested in supporting young people prepare for their agricultural careers. Along with our other events we host a Student Conference and award two student travel bursaries annually. The Irish Grassland Association awards these student bursaries to support travel to conferences or events deemed to be of benefit to students undertaking postgraduate studies in grassland or grass-based livestock systems research in Ireland. A maximum of two bursaries of up to €500 each are available in 2017 and this year's closing date is fast approaching on the 28th of April.

Application procedure:

Applications are invited from members and nonmembers of the Irish Grassland Association and must be received at least two months prior to the funding being required. Interested persons can apply for the bursary by completing an application form which can be assessed at www.irishgrassland.com

The successful applicant(s) will be notified within one month of the closing date. The successful applicant(s) will be required to provide a written report for the Irish Grassland Association Council which will be published in the Association's Newsletter.

Applications can be submitted to: secretary@ irishgrassland.com with the subject line 'IGA bursary application 2017'.

Closing date for applications is 5pm on Friday 28th April 2017.



Dr. Roger McCarrick (1933 – 2016)

Scientist, beef processor and farmer

Dr Michael Drennan, IGA president in 1989/1990 and Dr Sean Flanagan Past Secretary of the IGA reflects on the life of a man who left a positive on Irish agriculture.



Roger McCarrick, who died recently, was President of the Irish Grassland Association in 1971/72. He made an immense contribution to the development of the agri-food industry. It began with his ground breaking research in Grange in the 1960s, continued during his employment in the beef industry in the 1970s, followed by the establishment (with a colleague) of his own innovative meat products business in the 1980s and culminated in the development of a top quality pedigree Limousin herd on his farm at Drumree, Co. Meath.

Following graduation from University College Dublin in 1956, Roger joined the Department of Agriculture and was based at Johnstown Castle. With the establishment of An Foras Taluntais he moved to Grange Beef Research Centre where he worked as a research scientist until 1969. His main area of research was grass silage conservation which was then in its infancy in Ireland. In a 1957 farm survey, only 0.25% of farmers made silage. Hay was then the main winter feed for cattle and even though it was weather dependent and often of poor quality, it was the only method of grass conservation available at the time. Many of the early attempts at silage making ended in failure due to inadequate knowledge of the processes of fermentation and preservation. Roger changed that and underpinned silage making with good science and practical recommendations. At a time of limited farm mechanisation, relatively simple practices such as rapid filling, proper consolidation and immediate covering played a big part in making silage a reliable source of winter feed on cattle farms.

Exposing some prevalent myths about silage making was as much a challenge as developing the science. Amongst these was the belief that an additive was always required to ensure good preservation. Another belief was that, when filling the silo, a small quantity of herbage should first be allowed to heat up before the rest was added. Having discovered

the secret of consistent silage preservation, Roger next turned his attention to the nutritional value of the silage. With hay making, harvesting was usually delayed until July and silage making initially followed the same time line. This resulted in feed of low nutritional value. Roger studied the relationship between growth stage and digestibility and from that he determined the optimum growth periods and times of harvesting to yield silage of high feed value. All the principals that he enunciated then are still the basis of silage making today. Based on his fundamental research and the spin-off technology on silage making, Roger was awarded a Ph.D. degree. Afterwards, he spent a post doctoral year at lowa State University in the USA.

Once good quality winter feed could be reliably produced for beef cattle, Roger then turned his attention to the other major problem on Irish cattle farms - a shortage of winter housing. Nationally, over 50% of beef cattle were still out wintered and this exceeded 60% in the main store cattle producing areas. This resulted in a glut of cattle in marts and factories in autumn and depressed prices and a shortage of factory cattle in spring, thus making it impossible for meat factories to retain markets. Cattle housing was scarce because margins in cattle production were insufficient to repay investment in conventional housing. To address this dilemma, Roger researched and developed topless cubicles as an interim solution. These, together with a simple dung stead, could be erected by the farmer with the help of a local handyman. He now had a complete cattle wintering package. The cattle could be removed from the land in winter thus boosting early spring grass growth and overall annual grass production. Small to medium sized cattle herds. which were then the norm, could be easily fed and managed in a simple wintering facility and good animal performance could be achieved with good quality silage and a modest input of meals.

Roger took this wintering package into the cattle industry when he joined the Cork Marts/IMP group in 1969. There he promoted increased winter finishing thus evening out beef supplies across the year and helping the meat plants retain their markets. He also set about developing relationships between cattle producers and meat processors to their mutual benefit. Over the succeeding years there was rapid change in the meat industry and Roger shortly found himself manager of the Cork Marts/ IMP Meat Division. This was a challenging role in a period of much change and restructuring in the industry and Roger decided it would be more rewarding doing this for himself - rather than for an employer. Accordingly, he left the Cork Marts/IMP group and together with a colleague, established Rangeland Meats in Castleblaney, Co. Monaghan. This was a meat processing company that was in line with developments in the meat industry at the time, moving from direct marketing of carcasses to further downstream processing into wholesale and retail cuts and products. Rangeland Meats excelled in this area, producing an array of high quality products for both the home and export markets. During his years in the meat business Roger undertook extensive international travel promoting and selling Irish beef into a diversity of markets.

Roger's year as President of the Irish Grassland Association coincided with an era of high expectations generated by Irelands forthcoming entry to the EEC(EU). The association were strongly in favour of entry to the EU. However at a number of grassland meetings it was considered that there was a lack of commitment to development of the very industry which hoped to benefit most from joining the EU.

Thus, the Council of the Grassland set up a Study Group, chaired by Roger, to formulate a plan for the development of agriculture in Ireland. The resulting document entitled 'The Potential Development of Milk and Beef Production' was submitted to the Government.

Separate from his work in the meat industry and together with his late wife, Clair, Roger perfected the art of pedigree cattle breeding at their farm in Drumree. The Pelletstown Limousin herd was genetically improved with emphasis on temperament, ease of calving and conformation. He won numerous cattle shows and industry prizes, including the prestigious SBV (Suckler Beef Value) award for his cow, Pelletstown Racquet ET, at the 2008 RDS Champion of Champions Awards.

Roger Bernard McCarrick was born in Coolaney, Co. Sligo in 1933 and grew up on his parents' farm. He played football with the local Coolaney/ Mullinabreena GAA club and was captain of the team that won the Sligo Junior Championship in 1957 for the first time since 1910. He was again a team member when they won the Senior Championship the following year.

During his long career he was involved in many farming and meat industry organisations, and he featured frequently in the media. In his early career he presented a full series of programmes on beef production on RTE and he also published widely in the scientific and technical literature.

He is survived by his wife Gabrielle, his sons Neil and Peter and his grandchildren.



Grass – too valuable to overlook

Bernard Ging, GA President 2016-17 Dairy Farmer



It is fitting that the year in which we celebrate our 70th anniversary (September 2016 to September 2017) is the same year that there is an industry-wide renewed focus on improving grass utilisation. Since the Irish Grassland Association was formed in 1946, the organisation has centred on ways to help drive and shape profitable systems for dairy, beef and lamb production from a grass-based system.

We are therefore delighted to be in a position to support the Department of Agriculture, Food and the Marine's Year of Sustainable Grassland initiative for 2017 and also look forward to giving our backing to the Teagasc Grass10 campaign as it builds momentum. We wish both organisations every success in what is a very worthwhile challenge and also look forward to hosting a reseeding event of our own on the 17th of May. The event has an excellent line up (page 12/13) and along with delivering the latest reseeding advice, it will also demonstrate the success of various reseeding methods.

Bringing our members the latest advancements in grassland research through conference events and newsletters and demonstrating practical ways to improve farm efficiency through our network of farm walks will continue to be our ambition. The IGA council has been blessed with dedicated people who give selflessly of their time and also benefit from strong industry support, which we are very grateful off.

There has never been a more important time for the industry to work together. Brexit has cast a shadow on trade with Britain, a vitally important market for beef and cheese exports and a principal market for sheep meat exports. Respective industry personnel are busy assessing the impact that any barriers to free trade may have with most of the potential outcomes leaving Ireland in a worse off trading position.

As farmers, there is unfortunately little that we can do apart from striving to make our business as efficient as possible. Volatility is a term we are having to get more used to hearing in recent years and no doubt a term we will continue to hear more about as global trading avenues increase. I, or the IGA, are not naïve enough to think that grass can solve all problems but it can certainly help to put more money in your pocket. For this reason I am encouraging all our members to put more focus on grassland in 2017. It doesn't have to be massive transformations – small steps like improving soil fertility, dividing paddocks and implementing a rotational grazing system, reseeding under-performing areas or measuring grass growth can all bring about real change.

The IGA council will continue to strive to bring you the latest advice to make your systems more profitable, hopefully you can respond and make the changes that will benefit your farm.





2017 Year of Sustainable Grassland initiative

Niall Ryan,IGA Council Member
Department of Agriculture



The importance of grass in Irish agriculture is clearly represented by the fact that over 80%, or 3.6 million hectares, of our agricultural land is devoted to grassland, either for fodder or as grazing. It was for this reason and to give added emphasis to the importance of this critical resource, that as part of the Food Wise 2025 programme, 2017 is designated as the Year of Sustainable Grassland.

The aim of this year-long initiative is to improve both grass utilisation and productivity and to promote the awareness in Ireland also of the sustainability of our livestock and dairy grass-based production systems. These sectors possess a significant cost advantage in the form of an environmentally sustainable, rain-fed, grass based production system. It is this grass based system that provides Ireland with its most comparative advantage in increasingly competitive international markets.

Research and experience has shown that while grassland is the predominant farming system there is significant potential to improve both production and efficiency of utilisation. More effective utilisation of the national grassland resource also has the potential to further reduce negative environmental impacts while supporting increased productivity. Efficient utilisation of grassland through greater emphasis on soil health can increase the carbon efficiency of increased production; reduce loss of nutrients and release of gasses into the atmosphere, while improving its capacity to act as a carbon sink.

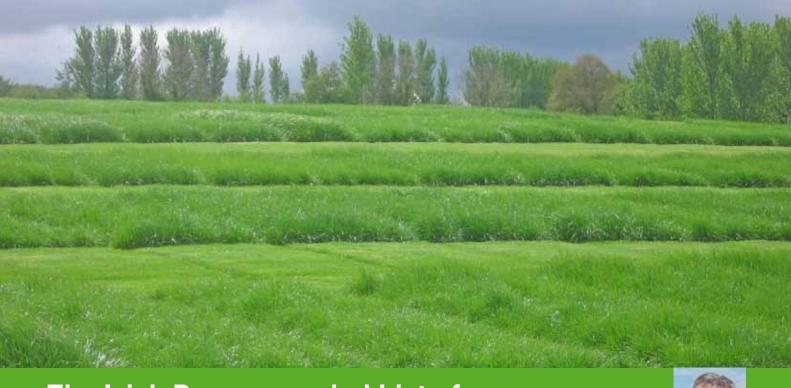
The initiative is being delivered primarily through the roll out of a calendar of events across the year. In order to highlight the range of activities and provide a contact point, a Year of Sustainable Grassland webpage has been created on DAFM website. This webpage gives

some background and context for the initiative and provides a link to 'Upcoming Events' and 'Review of Events'.

Since the launch there has been events in both January and February, most notably the launch by the Minister of the Teagasc Grass 10 initiative and the updated Pasturebase Ireland grass measurement database. A successful spring conference on fertilisers, including sustainable use in grassland was held under the auspices of the initiative by the Irish Fertiliser Association, while the Irish Grassland Association annual dairy conference in January included a focus on economic sustainability of grass production in the post quota dairy sector.

DAFM has just launched its 2017 Recommended List of Grasses and White Clover varieties. This will incorporate developments in the Teagasc Pasture Profit Index and will be one of the most innovative recommended lists for grass varieties in Europe. Some other events in the coming months include the publication of a grass reseeding booklet together with an on-farm reseeding demonstration being organised by the Irish Grassland Association which will take place in May.

The Fertiliser Association of Ireland is hosting an event in the next few months under the banner of Year of Sustainable Grassland and in association with Teagasc in Kildalton Agricultural College. The focus will be on precision fertiliser spreading to minimise environmental impact while maintaining optimum pasture productivity. An Bord Bia plans to support the Year of Sustainable Grassland initiative in its international marketing campaigns throughout the year. In this context the Department will liaise with An Bord Bia to provide appropriate material for selected events. Many other events to support the initiative will take place throughout the second half of the year.



The Irish Recommended List of Grass and White Clover Varieties

Niall Ryan, IGA Council Member Department of Agriculture



An information note on how the varieties are evaluated

The Department of Agriculture Food and the Marine is the official testing authority for new crop varieties submitted for marketing in Ireland. New grass varieties are evaluated in field trials at five centres: Backweston Farm, Lexlip Co. Kildare, Kildalton College, Piltown, Co. Kilkenny, Ballyderown (Moorepark), Fermoy, Co. Cork, Athenry Co. Galway and Tops Centre, Raphoe, Co. Donegal.

Varieties are evaluated over a minimum of two separate sowings, with each sowing being harvested for two years after the sowing year. Each year more than 100 new varieties are in test and those that offer an improvement to Irish farmers over existing varieties are published in the official Recommended List of Grass and White Clover Varieties.

Ireland is one of the few countries in Europe where variety evaluation is carried out directly by the Department of Agriculture. This is one of the reasons why the evaluation programme here receives such strong support from both industry and breeders alike. In most other countries recommended variety list evaluation is carried out by private bodies as a commercial undertaking for which industry and farmers alike generally have to pay for.

A significant development in the Irish grass evaluation programme has been the development, together with Teagasc, of the Pasture Profit Index (PPI) and its inclusion now in the Recommended List. The PPI assigns an economic value to grass varieties for the following traits:

- Spring, Summer and Autumn Dry Matter (DM) vield.
- Grass Quality,
- Silage DM production and
- Varietal Persistency.

The Recommended List incorporating economic values allows farmers to combine this information with other traits such as ploidy type and heading date. Ireland is again the first evaluation system in Europe to include economic values and is likely to spark a move in this direction in other member states.



Increasing grass utilisation by 1t grass DM/ ha/year under Teagasc's Grass10 initiative is worth €181/ha for dairy farmers and €105/ ha for drystock farmers.

In line with the Year of Sustainable Grassland led by the Department of Agriculture, Teagasc have also launched their own initiative, Grass10 – Grassland Excellence for Irish livestock. Teagasc explain the four-year campaign (2017 to 2020) has been taken to address current low levels of grass utilisation on livestock farms.

The campaign has two key targets which it wants farmers to put plans in place to achieve over the next four years – utilise 10t DM/ha/ year and achieve 10 grazing's per paddock per year. The reward for reaching the milestones set is significant with Teagasc estimating that an additional tonne of dry matter utilised on dairy farms is worth €185/ ha while beef and sheep farmers will benefit to the tune of €105/ha for each additional tonne of dry matter utilised.

The launch of the campaign, supported by AIB, Department of Agriculture, FBD Trust, Grassland Agro and the Irish Farmers Journal, is also a platform to highlight the recently revamped PastureBase Ireland programme.

Targeted campaign

Four areas have been highlighted as being central to bringing about change;

- 1) Delivering best practice;
- 2) building capacity;
- 3) building awareness; and,
- 4) setting standards.

Delivering best practice: The starting point is delivering extensive resources that are easy to access and navigate. This includes reviewing current materials, developing new materials and the design of a training module.

Building capacity: Three groups have been highlighted for the dissemination and uptake of new material – farmers, students and advisers/teachers/consultants. A plan is also been put in place to support the rollout of the revamped PastureBase Ireland facility which will give farmers concise information to manage their enterprises. Building awareness: Building momentum and attracting a following of farmers committed to increasing grass utilisation will be key to gaining traction across all farmers. Regular events and demonstrations will take place over the next four years while there will also be new features with the creation of a network of Grassland Champions and the launch of a new Grass10 website.

Setting standards: An annual progress report will allow farmers to monitor their advancement while Teagasc say the launch of a Grassland Farmer of the Year and an Annual Grassland Awards event will help keep the spotlight on the campaign.

What can farmers do?

A combination of simple steps can deliver huge change at farm level. Soil fertility is below optimum levels on nine out of 10 Irish livestock farms. Returning to regular lime applications and addressing soil fertility deficits by better use of organic and chemical nutrients has the potential to significantly increase grass growth. Reseeding strategies and increasing the clover content of swards while managing swards to promote persistency of more productive grasses will help deliver long term benefits.

With regards to achieving 10 grazing per paddock, farm infrastructure will be critical. Implementing a paddock grazing system which allows grass to be managed precisely does not however need to cost a fortune. Temporary fencing or single strand electric fencing can transform a farm and combined with regular measuring and budgeting can combine increased animal performance with greater grass utilisation.



Reseeding – what's the best variety to select?

Michael O'Donovan, Teagasc, Moorepark, Fermoy, Co Cork



Reseeding levels in Ireland are low ranging from 250,000 acres to 320,000 acres annually; in general approximately two per cent of our annual grassland area is reseeded. As grass is our main feed during the main grazing season, and the primary source of winter forage is grass silage, the low level of reseeding must be addressed. Ireland will increase milk production following the abolition of milk quotas in 2015, and the focus on efficient beef and sheep meat production was never as important as it is now due to high input costs.

Teagasc have developed a national grassland database (PastureBase Ireland), and the results show that there is huge capacity on Irish farms to grow more grass - the current annual tonnage is 13.7t DM/ha for dairy farms. In recent years, on farm grass variety evaluation has been established. The most recent results of these evaluations show close to a 2t DM/ha difference between varieties with large differences in digestibility and grazing utilisation. This article is focussed on variety choice for the coming season and given the new format of the Irish Recommended list, variety choice should be based on using the DAFM Recommended list and the Pasture Profit Index.

Variety choice

This year, DAFM have published the recommended list, showing the Pasture Profit Index values and agronomic values of the evaluation on the same Table (Table 1). 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 eight to 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

Tetraploid varieties	Diploid varieties
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 also be used on heavy soils. Choosing all dense varieties will compromise dry matter 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 and increase the proportion of the varieties with these key traits
- Minimum of 3kg of an individual variety
- There should be no more than three to four varieties in a grass mix
- Sow 35 kg/ha (14 kg/ac) of seed
- Have less than seven days range in heading date between varieties

Grazing specific mixtures

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

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 and research has shown that it can provide significant benefits in lifting sward and animal performance. In general to establish a sward with $\rightarrow 25\%$ white clover, which is the level required for an animal production benefit, 4kg white clover seed/ha (1.5 kg/ac) should be included in the seed mix.

White clover cultivars are categorised by leaf size. Small leaf white clovers are recommended for sheep grazing and medium leaf white clovers are most suited to dairy or beef cattle grazing.

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

Table 1. DAFM - Recommended Intermediate & Late Perennial Ryegrass Varieties 2017

Aberclyde	Ploidy T	Heading Date	Total	ı	Pasture Profi			/ear					Yield	DMD	Silage	Silage	Cover
Name F Aberclyde	T	Date	Total			Sub-Ir	dicas							DMD			1
Name F Aberclyde	T	Date	Total			Sub-Ir	rdicas			(t DM/	(t DM/	(t DM/		DIVID			
Name F Aberclyde	T	Date				Total Sub-Indices							(t DM/	(g/kg)	(t DM/	(t DM/	Score
Name F Aberclyde	T	Date								ha)	ha)	ha)	ha)		ha)	ha)	
Aberclyde	T																
			PPI	Spring	Summer	Autumn	Quality	Silage	Persist.								
	D	26-May	206	44	49	34	59	19	0	1.27	7.39	2.22	10.88	857.0	4.71	3.85	5.6
Abermagic		31-May	199	36	51	68	33	11	0	1.22	7.43	2.53	11.19	849.6	4.46	3.94	6.3
Nifty	D	27-May	191	70	53	57	-7	16	0	1.43	7.50	2.43	11.37	838.6	4.74	3.71	6.4
Fintona	T	22-May	178	58	39	50	11	21	0	1.36	7.12	2.36	10.84	842.0	4.97	3.55	5.8
Aberchoice	D	09-Jun	175	11	49	47	63	6	0	1.07	7.40	2.33	10.80	855.4	3.98	4.40	6.3
Aberwolf	D	31-May	171	58	39	34	29	12	0	1.36	7.11	2.22	10.69	846.9	4.54	3.86	7.0
Rosetta	D	24-May	170	89	29	40	2	11	0	1.55	6.86	2.27	10.68	838.7	4.68	3.60	6.4
Abergain	T	05-Jun	169	17	44	42	64	20	-19	1.10	7.26	2.29	10.66	858.0	4.49	4.19	5.9
Aberplentiful	T	09-Jun	167	39	50	40	29	9	0	1.24	7.42	2.28	10.94	847.5	4.11	4.34	5.7
Seagoe	T	28-May	167	33	40	43	19	33	0	1.20	7.15	2.30	10.66	845.5	4.94	3.98	6.1
Dunluce	T	30-May	165	17	44	46	41	17	0	1.11	7.25	2.33	10.68	849.8	4.23	4.45	5.6
Meiduno	T	06-Jun	163	43	45	41	32	12	-11	1.27	7.29	2.29	10.84	848.7	4.34	4.12	5.2
Solas	T	10-Jun	151	8	43	55	30	15	0	1.05	7.23	2.41	10.69	846.0	3.92	4.78	6.0
Magician	T	22-May	141	46	33	33	6	23	0	1.29	6.96	2.21	10.46	841.0	4.73	3.94	5.7
Astonenergy	T	02-Jun	131	-9	36	38	61	5	0	0.95	7.06	2.26	10.26	857.2	4.38	3.85	5.3
Xenon	T	11-Jun	130	7	37	30	45	10	0	1.04	7.08	2.19	10.31	852.1	3.90	4.66	6.4
Kintyre	T	07-Jun	126	10	37	53	32	6	-11	1.06	7.06	2.39	10.51	846.0	4.03	4.36	6.0
Solomon	D	21-May	125	65	30	31	-24	22	0	1.40	6.89	2.19	10.48	834.2	4.98	3.58	6.5
Alfonso	T	04-Jun	113	-5	36	34	50	-2	0	0.97	7.06	2.22	10.24	853.8	4.28	3.73	6.0
Aspect	T	06-Jun	110	6	40	24	37	5	0	1.04	7.14	2.13	10.30	851.8	4.05	4.27	6.3
Boyne	D	22-May	107	55	31	26	-39	34	0	1.34	6.92	2.15	10.41	828.9	4.99	3.97	6.5
Carraig	T	24-May	105	37	39	32	-12	9	0	1.23	7.13	2.20	10.56	838.8	4.81	3.38	6.1
Navan	T	06-Jun	98	-6	38	48	20	3	-5	0.96	7.09	2.35	10.40	844.9	3.99	4.31	5.8
Drumbo	D	07-Jun	96	13	33	32	43	-6	-19	1.08	6.96	2.20	10.24	847.7	4.02	3.94	6.5
Kerry	D	01-Jun	93	19	40	39	-1	2	-5	1.11	7.15	2.26	10.52	837.8	4.04	4.20	6.2
Glenroyal	D	05-Jun	92	11	39	39	2	2	0	1.07	7.11	2.26	10.45	838.2	4.05	4.18	6.9
Delphin	T	02-Jun	91	2	39	25	16	15	-5	1.01	7.12	2.14	10.27	844.6	4.43	4.10	5.3
Clanrye	D	06-Jun	76	21	39	15	-10	11	0	1.13	7.13	2.05	10.31	834.9	4.08	4.44	7.0
Majestic	D	02-Jun	65	22	30	37	-16	-8	0	1.14	6.89	2.25	10.27	833.0	4.20	3.64	6.9
Glenveagh	D	02-Jun	51	8	32	20	-12	3	0	1.05	6.95	2.10	10.09	835.3	4.26	3.94	6.9
Stefani	D	02-Jun	50	4	25	21	-3	3	0	1.03	6.76	2.10	9.89	837.4	4.29	3.88	6.5
Piccadilly	D	03-Jun	46	10	29	16	-24	15	0	1.06	6.86	2.06	9.98	831.1	4.65	3.79	6.7
Tyrella	D	04-Jun	23	24	17	14	2	-7	-28	1.15	6.55	2.04	9.74	839.9	4.26	3.61	6.4



Getting your soil to deliver its potential

Dr. Stan Lalor,IGA Council Member
Grassland AGRO



Ireland - Good at Grass - but could be better

Ireland has an enormous competitive advantage on global markets for dairy, beef and sheep products due to our potential to grow high quantities of highly nutritious grass. This is reflected at farm level by the consistent and convincing message that the more feed (i.e. forage in the form of grass) that can be grown and utilised within the farm-gate, the more profitable and sustainable the farming system.

Grassland systems in Ireland have enormous potential to deliver high levels of output in a profitable way. On-farm studies being conducted by Teagasc are showing that annual grass growth rates of above 18 t/ha/yr of grass DM are being achieved on some farms. By comparison though, the national average grass growth and utilisation on farms is less than half of this potential. There is incredible scope for productivity improvements on farms.

Good Soil Fertility is critical

Teagasc soil analysis data shows that only 10% of fields being tested have results showing optimum soil fertility. That means 90% of fields are missing something. Soil management is a key factor that will determine the farm's potential to grow grass. In any year, weather is obviously critical. There will be good years and bad years when grass production on all farms will vary upwards or downwards. However, what will be consistent year on year is that well managed fields with fertile soils will perform best. Farmers are at the mercy of the weather, but do have control over the management and fertility of their soils. It is essential that soil is fertilised and managed so that it

is in the right condition to give the grass whatever it needs whenever the weather comes for good growth.

Getting the Basics Right is essential

Thinking about managing soil fertility in a simple stepwise approach has been well developed by Teagasc through the five steps of soil fertility management. Setting targets for the farm based on these steps is important.

Soil Fertility Targets that every farm should aim for:

- Have soil sample results for the whole farm.
- Apply lime and manage the soil pH at close to the target of 6.3 (clay soils) in every field.
- Maintain soil test P and K levels in Index 3 in every field.
- Don't waste slurry! Target cool moist weather to maximise nitrogen value, and apply in fields with low fertility or being cut for silage to maximise the P and K fertiliser value.
- Use the right fertilisers to balance the overall nutrient supply. Major nutrients (N, P & K) need to be balanced with all the essential nutrients, including Sulphur (S), Magnesium (Mg), Calcium (Ca) and trace elements where required.

Prepare and implement a fertiliser plan

Doing the same thing with the same fertiliser products year on year just because it is what you have always done won't improve the grass production potential of the farm if those products are not right for your situation. Fertiliser accounts for approximately 20%

of the variable costs on most farms, and costs of up to €500 per hectare are realistic on highly stocked farms with low P and K fertility. Despite this, decision making on farms around product choice and application rates and timings can be improved. Making sure this money is spent on the right products to suit your soils and your farm, and applying them at the right rates and times, is vital to ensuring that this money yields a return in productivity and profit. Properly fertilised soils will give results.

It is worthwhile to sit down with soil sample results at the start of each year and think about fertiliser for the year ahead. This will help in terms of cost budgeting as well as making the right decisions for the soil.

Information required to do a fertiliser plan:

Soil sample results for each field.

- Fertiliser applications from previous year in each field or block of land.
- Plan for land use in the year ahead. For example, if areas to be cut for silage or fields to be reseeded are known.
- Grass growth figures from previous year, or at least some assessment of relative areas of the farm that are performing well versus the weaker areas. Compare strong and weak areas for both fertiliser and slurry application and/or soil differences.
- How much slurry is available on the farm, and what areas are suitable to get slurry (wetter ground or far away blocks may not be feasible for application).

Tips for preparing a plan

Any plan needs to be simple and workable if it is going to work and be carried out. The following tips can help:

- 1) Work out a standard 'maintenance programme' for the farm that would meet basic N, P, K and S requirements over the whole year. Nitrogen (N) rates will vary with stocking rate. Phosphorus (P) rates for grazing will typically be in the range of 10-25 kg/ha, depending on stocking rate. Drystock also have slightly lower requirements than dairying as dairy cows remove more P from pasture. Potassium (K) is normally required at twice the rate of P (i.e. if applying 15 kg/ha of P, then normally 30 kg/ha of K would be required). Sulphur (S) requirements can be estimated by dividing the annual nitrogen rate by 12.
- 2) Divide the year into three sections (Jan-Apr / May-Jun / Jul-Sep) and plan each round of fertiliser. Prepare a simple plan that would meet the nutrient needs across the year.

 In January to April, aim to apply 50-75% of the total annual P application. One round of a compound fertiliser in this period can do this. Alternate with N products in other rounds. Aim to apply approximately 10 kg/ha of S in this period as well.

 In May to June, rounds or straight nitrogen are common, but at least one round of a low P/K compound can help to boost the P content in the grass. At least

one round in this period should also include sulphur. - In July to September, a final round of a low P/K compound in late summer alternating with rounds of nitrogen will help give the sward a final drip-feed of P. Like in the May to June period, at least one round in late summer/autumn should also include some sulphur. Where being used, products that address other issues, such as soil conditioners, lime, or the need for some trace elements should be factored into this simple overall programme.

- 3) Divide the farm into blocks that are similar in soil fertility. The standard programme (above) will suit the good fertility areas. Pick out the blocks of land that need extra attention or something different (they might be very high, or very low in something!). Different land uses, for example, areas planned for silage or reseeding, should also be separate.
- 4) Adjust the 'different' fields or blocks with one or two different products or timings to address low or high fertility situations. Keep the number of changes simple so the overall farm plan keeps shape and is simple to use.
- 5) Low P: Target extra P in spring on low P ground. Low P in soil will hit yields in spring. So, get P out early in advance of spring growth. Autumn P application (in the final round of the previous year) can also achieve this.
- 6) Low K: Target extra K in late summer or autumn. Avoid rates of K in spring above 90 kg/ha, as it can impact on magnesium uptake by grass and increase the risk of grass tetany.
- 7) Slurry: Target slurry to silage ground. Slurry is generally too high in K to be used for grazed ground, except where paddocks are taken out for bales, or where soil P is moderate to high but soil K is very low.
- 8) Reseeding: Apply P and K at reseeding to support sward establishment. Application of P is especially important to support root development and tillering.

Best Practice with fertilisers

2017 sees the fourth review of the Nitrates Action programme in Ireland. This programme is in place to promote best practice around nutrient management on farms to minimise the impact of farming on water quality. The derogation afforded to Ireland under this programme to permit grassland farming at higher stocking rates (increase from 170kg to 250kg organic nitrogen/ha) has been critical to the development of the grass-based farming systems in Ireland, and its continuation is essential to the sector.

It is therefore vital to manage fertilisers responsibly to minimise any impact on pollution or water quality. Clear observance of application timings in good weather conditions, and application rates in line with soil and sward requirements are important, not only to minimise nutrient losses, but more importantly to make sure the fertilisers and manures/slurries give the best results for growing grass on the farm.

Spring health and safety tips







Spring and summer are very busy periods on Irish farms. A high percentage of accidents occur when farmers are under pressure, with a significant number also unfortunately involving kids. Here are some tips to keep in mind to stay safe this spring.

- Young children are inquisitive about machinery and livestock. A farmyard is not a playground and children should never be allowed to come onto the farm unsupervised. Teaching children the dangers of farming is beneficial and this extends right up to young adolescents.
- Getting trapped or crushed by machinery is one of the greatest causes of farm deaths. Never leave a vehicle without applying the handbrake and only work under equipment where there is additional safety supports to jacking equipment.
- Check that all field work equipment has a PTO shaft intact and in good working order. Servicing equipment before the busy silage season is highly recommended.
- Calving is nearly finished but don't get complacent. Treat every freshly calved cow with caution and never allow a dog to accompany you near calving pens.

- Breeding on dairy and suckler farms presents a risk where bulls are run with the herd. Ensure that the bull has a nose ring and herd animals with a tractor or jeep during breeding. Never turn your back on a bull or freshly calved cow, no matter how quiet you think they are.
- Where AI is being used, it is best not to isolate animals on their own. Leaving another animal in the pen will help settle the heifer/cow in heat.
- There is always repair and maintenance work to be carried out with fences in spring. Wear safety goggles when using a hammer and nails and personal protective clothing if using a chainsaw.
- Always keep chemicals and animal remedies in a secure area that can be locked. Invest in a good mask, gloves and safety clothing.
- Never enter a shed when tanks are being agitated. Lock dogs indoors or secure on a lead to prevent the risk of dogs entering the shed or falling into tanks. Keep the agitation point closed when not in use and locked once spreading is finished.
- Animals and field work take all the attention in spring but remember that you are the farm's greatest asset. Take time to recoup and visit the doctor for a yearly health check.