

# Irish Grassland Association

Members' Information Booklet

Issue No. 48 Winter 2021



**“To advance the knowledge of good grassland management in Irish farming”**



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Corporate membership commences on the 1st January annually.  
Standard membership is deducted from all IGA members via direct debit on an annual basis.



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### SUGGESTIONS & FEEDBACK PLEASE!

If you have any suggestions for the members information booklet or any particular topics or features you would like us to include in our forthcoming issues, please send them via email to [office@irishgrassland.ie](mailto:office@irishgrassland.ie). We would love to hear from you!

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## Editorial



Matt O'Keeffe  
Editor and  
IGA Council Member



Mike Egan  
Editor and  
IGA Council Member

Welcome to the IGA Winter 2021 Members Information booklet

While farming and food production have continued through the past two years, and the key role that farmers play in our local community highlighted, farming families have been impacted, like all other members of our society. Farming can be a lonely occupation, and this has been exacerbated during the past two years of Covid restriction and now with environmental concerns, it is now more important than ever for the agricultural community to rally around one another to offer support and a friendly face.

In this newsletter Matt our outgoing editor sits down with the outgoing IGA president Stan Lalor as he reflects on his year as the president of the IGA in the middle of Covid restrictions and his return to Teagasc as head of Director of Knowledge Transfer.

Over the past 12 months, IGA has continued to offer its members a calendar of events, over the summer months of 2021, and once again, because of Covid restriction, attendance at these events was not permitted. However, that did not stop the organising committees show casing the base of what Irish farming is all about, with virtual events organised on some of the top performing grassland farms in Ireland. All the farms had a similar focus on managing grass in an environmental and sustainable manner to provide for their farming business and the land they farm. Our Annual Dairy Conference usually take place in the New Year. Due to the current Covid 19 uncertainly, we have taken the decision to tread with extra caution and hold this conference in July. We have assembled a strong panel of topics and speakers from across Ireland, as is always the case.

This event will be followed the next day by the Annual Dairy Summer Tour; and we have already chosen two excellent host farmers to share their inspirational stories with you. This two day dairy extravaganza will be held during the week of the 18th July 2022 (precise dates will be confirmed very soon).

Plans are already in the pipeline for our sheep and beef showcases this summer. We look forward to sharing these dates and locations with you in our next edition. These are key IGA events that should not be missed. We also commenced our 75th Anniversary celebrations at the AGM this year. Lots of nice throwbacks to the years gone by will be shared with you throughout the coming twelve months. We encourage you all to contact our office if you have an stories or photos of fond times at IGA gatherings.

Farming practices are continuously evolving and farmers looking for new and improved ways of improving their financial and environmental sustainability we hear from a beef farmer who has developed a novel way of improving the financial sustainability of their farm while working closing with dairy farmers across the county. Additionally we hear from a pilot group of farms in West Cork who are getting more from their grass and how it has the potential to enhance our sustainability credentials and reduce emissions from the sector.

In our Technical Focus, we outline the how best to get the most from your soil fertility results and with increasing cost of fertiliser and environmental restrictions, it is a key time to sit down and make a clear plan for the coming months. With the winter housing period upon us most livestock, farms have thousands of euros worth of silage in the yard, how best do we maximise the performance from our animals from silage.

We include an Archive biography of the past president of the IGA Louis Smith who was president from 1956 1957, a very significant presence in Irish agriculture for many years and was involved in establishing the IFA.

The Editorial Committee thanks everyone who contributed to this Information Booklet. Finally, we thank you for your continued support; a very happy Christmas and we wish you well in the coming year from all at the Irish Grassland Association.

Michael Egan and Matt O'Keeffe,  
Editors IGA publications.





The Presidential Team L-R  
 Alan Kelly IGA Vice President,  
 Christy Watson IGA President and  
 Stan Lalor IGA Immediate Past President.

## The 2021 AGM of the Irish Grassland Association

Maura Callery  
 IGA Office Manager



The 2021 AGM of the Irish Grassland Association (IGA) took place on Friday 17th September in the Horse and Jockey Hotel Tipperary. A presentation of the year's activities was presented to all by the outgoing President Stan Lalor.

Stan Lalor thanked the following outgoing council members on their outstanding contributions. Collectively they have given twenty-three years of commitment to the IGA council.



Jan Jensma  
**Past President 2017-18 and YARA**  
 Jan completed eight years on council and served as the IGA President in 2018



George Ramsbottom  
 Past IGA Council Member and Teagasc.  
 George completed six years on council.



Noreen Lacey  
 Past IGA Council Member and IFAC.  
 Noreen completed four years on council.



Eddie Connell  
 Past IGA Council Member  
 Sheep and Beef Farmer.  
 Eddie completed three years on council.



Finbarr Kiernan  
 Past IGA Council Member & Veterinary  
 Practitioner. Finbarr completed one year  
 as Co Opted Member.



Thomas O Leary  
 Past IGA Council Member and Sheep  
 Farmer. Tomás completed one year  
 as Co Opted Member.

Stan Lalor then welcomed the incoming President for 2021/22 Christy Watson Teagasc.

Christy Watson took over as the newly elected President. He gave a speech to all in attendance outlining the sterling stewardship of Stan Lalor during his term as IGA President. Alan Kelly beef farmer and lecturer in UCD was announced as the new Vice President of the IGA.

He then welcomed his chosen co-opted members to strengthen his council during his presidential term. Paddy Casey beef farmer and Target Fertilizer, Aoife Feeney Carberry, and Liz Duffy Teagasc. They will all serve one year and will be eligible for election next year.

Alan Bohan was deemed elected to council following a one-year co-opted term on the IGA council and will now serve his first full term on the council of three years. Paul Hyland, Ciaran Lynch, Fiona McGovern, Stuart Childs and Bryan Hynes were all deemed re-elected onto the IGA council after vacating their seats following a fully completed term, they will all serve a second three-year term on council.

The IGA welcomed some other new faces to the council. John Farrell beef and sheep farmer and AIB, John Pringle beef and sheep farmer and Patrick Gowing dairy farmer and Teagasc; were all deemed elected to council for their first term.

Since 1946, the IGA has played a central role in the development of profitable systems of lamb, beef and milk production from Ireland's abundant grasslands. Further-more the association is a non-profit making voluntary organisation. A motion was brought to the AGM and passed unanimously "That the council of the Irish Grassland Association should move to register the Association as a Company Limited by Guarantee and cease its current legal status as a charity". This process has started and will take some time to complete. After this motion being passed, there were some further motions relating to updating the constitution that were also passed unanimously. The updated version of the constitution is now available for all members to view on the website [www.irishgrassland.ie](http://www.irishgrassland.ie) in the "about us section". We encourage you to have a look at this in your own time.

The IGA continues to be one of Ireland's leading forums for discussing the science and economics of beef, sheep and dairy grass-based production systems and communicates this information to our members through conferences, farm walks and our members information booklets. All of this would not be possible without our voluntary council who work selflessly behind the scenes. The council members include some of the most progressive Irish agri-business personnel, agricultural scientists, consultants and highly efficient beef, sheep, and dairy farm producers.

On behalf of the new IGA President Christy Watson and the IGA Council, we would like to thank you, our loyal farming and corporate members for your overwhelming interest and continued support. We would also like to thank everyone else involved in running our organisation, the speakers at our conferences, those who make generous contributions to our publications, our host families, and our long-standing sponsors.



Christy Watson  
 IGA President 2021/22



Alan Kelly  
 IGA Vice President 2021/22

**We look forward to meeting  
 all our members over the coming months  
 with a return to face to face events in 2022.**



## Welcome to our new council members



**Paddy Casey**  
J. Grennan and Sons  
Target Fertiliser  
and beef farmer

Paddy has worked in the fertilizer industry since graduating from UCD in 1984. He initially worked with NET as a technical representative and subsequently became part of IFI following the merger with ICI.

In 2002, he joined the Grassland Kilkenny group and stayed there for 5 years before branching out to run his own successful schoolbook and office supplies business.

He subsequently joined J. Grennan & Sons and Target Fertilisers in 2012. He is a past president of the Fertiliser Association of Ireland and runs a beef finishing unit on his own farm.



**John Farrell**  
AIB Agri, Food & Fisheries  
Sector Strategy &  
Specialist

John works on the Agri, Food and Fisheries Sector Team in AIB. His role involves engaging with customers and industry stakeholders in each of these sectors and supporting the development of internal policies and strategy.

He has been a member of the Agri Team in AIB since he qualified with a degree in Animal Science from UCD in 2007 and is a qualified financial advisor. He is actively involved in beef and sheep farming on his home farm in Wicklow.



**Liz Duffy**  
Dairy Advisor, Teagasc,  
Knockgriffin, Midleton,  
Co. Cork

Liz is based in the busy Midleton Advisory office in East Cork. She is an Agricultural Science graduate of UCD (specialising in Agricultural & Environmental Science) and went on to complete a PhD in the School of Biological, Earth & Environmental Sciences of UCC. Liz also holds a Diploma in Leadership Development from UCC.

Liz's focus is to deliver a technical programme to clients to ensure the long-term sustainability and viability of the family farm business. Key to this is an effective discussion group programme including Grass 10 courses. With the majority of clients farming under derogation regulations, facilitating adoption of research-proven technologies on-farm will ensure clients can keep up with the pace of change in the coming years.



**John Pringle**  
Sheep and  
Beef Farmer

John farms with his family outside Aughrim in Co Wicklow. John operates a mixed sheep and suckler farm. All of the stock are finished off farm with both a closed flock and herd policy been run. John and his family hosted the Irish Grassland Association Sheep Farm Walk in 2016.

Johns primary focus on the family is running a sustainable production based system with particular focus on above and below ground biology.



**Patrick Gowing**  
Dairy Specialist,  
Dairy KT Team  
Teagasc

Patrick is from a dairy farm just outside Portlaoise. In 2002, he qualified from UCD with a BAgrSc. He then went on to be a technical sales rep for Gouddings and Albatros fertilizer companies, before joining SWS as a farm advisor in the Aurivo catchment. In November 2006, he was appointed as a Teagasc B&T dairy advisor in Sligo and Leitrim where he was charged with leading the dairy program in the region. In January 2010, he transferred to Westmeath as a B&T dairy advisor, where he spent 5 years up to the abolition of milk quotas in 2015. From September 2015, he took over the new Dairy Expansion Service within Teagasc, which was tasked with helping both existing dairy farmers and new entrants with their expansion plans. In his time in the dairy expansion service, he helped develop over 800 individual business plans for Teagasc clients throughout the country. In 2020, Patrick was appointed as a dairy specialist in the Dairy Knowledge transfer team.

Patrick also became a new entrant to dairying commencing to milk cows using an AMS system on 2014 with 50 cows and now milking 190 cows using 3 AMS units on a grass based system. Patrick is interested in farm development with a keen focus on efficiencies in particular on financials, grazing management and breeding.



**Aoife Feeney**  
Farm Sustainability  
Manager with  
Carbery Group

A Co. Longford native, Aoife Feeney is the is the Farm Sustainability Lead with Carbery Group in West Cork. Aoife holds a bachelor's degree in Agricultural Science majoring in Animal Science and recently completed her master's degree in Agricultural Extension and Innovation, both from University College Dublin (UCD). Aoife has recently been awarded a 2022 Nuffield Scholarship and her topic will look at 'Identifying key methods to influence behaviour change at farm level to improve water quality'.

Her role with Carbery began in 2018 and here she manages the Agricultural Sustainability Support and Advisory Programme (ASSAP), the Carbery Greenery Dairy Farms Programme and the farm sustainability strategy for Carbery which involves working closely with farmers on the ground on a wide range of topics including animal health and welfare and policy changes. Previous to her role with Carbery, Aoife worked as an Agricultural Advisor and Team Leader for the Farm Relief Services, on behalf of Teagasc covering Co. Cork.

Aoife is passionate about animal welfare, grass-based production and enabling farmers to implement practices that improve the economic, environmental and social aspects of their business.



# Meet the Team 2021 / 2022



## Christy Watson IGA President 2021-22.

Christy works as a Business and Technology Adviser with Teagasc based in Naas. He studied Agricultural Science in UCD, graduating in 1984 with an honors degree in Agricultural Science, and completed a master's degree with Teagasc/UCD and Department of Agriculture investigating the Factors affecting Flock Performance and Ovine Perinatal Mortality on Lowland Sheep Farms in South Roscommon, Christy also holds a diploma in Leadership Development from UCC.

Christy has a particular interest in grassland management, livestock breeding and believes there is tremendous scope for improvement of farm income through better utilization of grassland and improved animal breeding. Working with a large client base in Kildare Christy is a strong advocate of the discussion group model for delivering advice to his clients and has been involved in the design and delivery of many program's aimed at improving incomes of livestock farmers, often in collaboration with farm groups and the Agri Industry.

Christy served on the council of the Fertilizer Association of Ireland and was elected President in 2000.

Christy Watson  
IGA President 2020-21  
and Teagasc



Alan Bohan  
IGA Council Member  
and Sheep Ireland



Alan Kelly  
IGA Vice President 2021/22  
Beef Farmer and UCD



Aoife Feeney  
IGA Council Member  
Carberry Group



Bryan Hynes  
IGA Council Member  
and Dairy Farmer



Ciaran Lynch  
Past President 2018-19  
and Teagasc



Ed Payne  
IGA Council Member  
and Dairy Farmer



Fiona McGovern  
IGA Council Member  
and Teagasc



John Farrell  
Beef and Sheep Farmer  
AIB Bank



John Pringle  
IGA Council Member  
Beef and Sheep Farmer



Laurence Sexton  
IGA Council Member  
and Dairy Farmer



Liz Duffy  
IGA Council member  
Teagasc



Mary McEvoy  
IGA Council Member  
and Germinal Seeds



Matt O'Keeffe  
IGA Council Member,  
IFM and Dairy Farmer



Matthew Halpin  
IGA Council Member  
Beef Farmer and Dept Ag



Maura Callery  
Office Manager  
Irish Grassland Association



Mike Egan  
IGA Council Member  
and Teagasc



Niall Claffey  
IGA Council Member  
and Tradeforus



Paddy Casey  
IGA Council Member  
Target, Grennan + Sons  
Beef and sheep farmer



Patrick Gowing  
IGA Council Member  
Dairy Farmer and Teagasc



Paul Hyland  
Past President 2019-20  
and Dairy Farmer



Stan Lalor  
Vice-President 2020-21  
and Teagasc



Stuart Childs  
IGA Council Member,  
Dairy Farmer and Teagasc



Thomas O'Connor  
IGA Council Member and  
Beef Farmer



Vincent Griffith  
IGA Council Member, Dairy  
Farmer and Aurivo Co Op



## A look-back at 2020\2021 with former IGA President Stan Lalor

Matt O'Keeffe  
IGA Council Member  
and IFM Editor



Christy Watson recently took on the Irish Grassland presidency and will remain in the post until the next AGM of the Association in September 2022. The IGA's former president was Dr. Stan Lalor, who was appointed as Director of Knowledge Transfer in Teagasc earlier this year. Prior to that appointment, Stan was Head of Speciality Business at Grassland Agro, the fertiliser company. The role of president of the Irish Grassland Association is a year-long tenure and Stan Lalor reflected on the completion his term last September: "It was a busy year for me personally, having returned to Teagasc where I previously worked as a researcher at Johnstown Castle and as an advisor prior to that. The role of IGA president was a great honour, especially after experiencing the work of the Association first-hand as a member of its Council for the previous four years. When Covid first appeared in 2020 we had to look at new ways of interacting with our membership. We quickly adopted all the communication technologies possible to present a viable and interesting programme of events. The same was the case this year. Our series of virtual sheep tours was very positively received and our beef event in early July was also planned to make it as interactive and stimulating as possible. The third major IGA event of the Summer was our dairy tour in late July. The fact that none of our members could attend in person meant that we were able to facilitate two completely separate locations, one in Galway and the other in Cork, to look especially at the role of clover on Irish farms. The strength of the IGA membership is in its farmer base and the big gain from membership is the flow of information through our publications and, most particularly, the events that members can normally attend. These allow great opportunities for networking as well as social interaction. While that wasn't possible this year or last, we did preserve the essential elements of the Association's activities and that has been well recognised by the strong online participation figures."

### A broad church.

Stan reflected on the diverse membership of the IGA: "The IGA Council membership comprises individual farmers, industry and other organisations including Teagasc. That provides great diversity and with that comes a great spread of representation across the Irish agri sector and that, in turn, provides a breadth of ideas and understanding of what our membership

needs in terms of advice and information. That directly feeds into the programmes we run. Some activities had to be revamped because of Covid. Our student events, for instance, couldn't be run physically. Instead we developed a competition for students to submit photos on iconic grassland-related themes. That has proven to be highly successful in terms of both photo quality and student engagement and the initiative was repeated this Autumn."

"The IGA Dairy Summer Tour was again a virtual event this year by necessity. On the 21st of July we streamed live from farms in Galway and Cork. Kevin Moran's farm in Galway was the focus on the use of clover as was John Joe and Andrew O'Sullivan's farm in Cork which played host to our second virtual farm tour. The live-streaming provided a great sense of immediacy and involvement for viewers."

### Keeping communication open.

As Director of Knowledge Transfer in Teagasc, Stan Lalor is acutely aware of the critical role electronic technologies have played in facilitating ongoing communication right across the agri sector: "The novel communication technologies had been progressing in terms of their use across the Irish economy and society generally. What Covid has done is accelerate that progress. One assumption was that some of this technology was beyond the reach of many people. The challenge of Covid showed that so many people could adapt to new ways of communicating at a far faster rate than anticipated. That's not just in the farm-related sectors. Sports clubs, local communities, educational facilities all took the initiative of making it happen and happen quickly when faced with great adversity. In future, the key will be to strike a balance between electronic communication and personal and social interaction. The normal networking aspect of the Irish Grassland Association will resume as soon as possible because it is a critical aspect of the Association. The Association will also retain the best of the alternatives that we developed during Covid."

### Change is the constant.

Grassland management has changed enormously since the IGA was founded in 1946. Stan Lalor believes further change can be anticipated: "The IGA has played a huge role in those developments because it has always been an organisation focused on the scientific development of grassland, incorporating the best of

research, advice and information available at any time. The IGA has always been a vehicle through which all of that can reach farmers across the country. One of the huge strengths of the Association down through the years has been the way in which farmers have always been an absolute central part of the IGA. Many of the key individuals involved have been farmers and they have ensured that the focus of the IGA has been on practical approaches and solutions to challenges and opportunities facing grassland farming. All IGA activities have to be relevant to the farmer in making the farm more profitable and more sustainable in the long term."

The former IGA President is in no doubt that there will be further changes and developments in grassland management in the coming period: "There is no doubt about that. Developments in science will drive change. Improvements in grass productivity are ongoing, driven often by improvements in grasses and pasture species. The increasing understanding of what is beneath in the soil as much as on the surface will drive change in how we manage pasture. We have huge challenges in terms of sustainability, economic, and social as well as environmental. It is not as if this is anything new. How has farming survived and thrived for centuries if not by adopting sustainable farm practices? The current questions are around whether we need changes to ensure we can farm without running out of resources, without depleting soils, while maintaining the high-quality environment around us. One of the most important aspects of sustainability will be to have the people available and capable of managing our farms. Food production must be balanced with all the other concerns. Ultimately, if a business such as food production is not paying its way then it has no future. Likewise, if it is operating in a way that is based on unsustainable practices or unsustainable resources, it cannot survive in the long term. There are lots of questions being asked about our traditional systems and how we farm. We also need to bare in mind the needs in terms of food production and future productivity. A balance must be struck. Water quality, GHG's and nutrient inputs are all up for discussion. Our efficient use of inputs is under scrutiny and improvements are being achieved. Maximising productivity from inputs is also a legitimate aim. As we gain greater understanding of soil health and biology, we can meet the challenges facing grassland management in the years ahead. The Irish Grassland Association will continue to promote best science and best practice around grassland farming in this country. And I am a proud to be a part of this process"



Stan Lalor  
former IGA President



# IGA Sheep Event Review 2021

Alan Bohan  
IGA Council Member  
and Sheep Ireland



As with many events across the past 20 months, the 2021 IGA Sheep event went online due to Covid-19 restrictions. As well as organising two virtual farm visits the committee also organised an international speaker for the IGA Sheep Event. Each host farm was showcased on evening online webinars running over the 22nd, 23rd and 24th of June. Sponsored by Mullinahone Co-op, virtual farm tours with Peter & Tom McGuinness in Trim, Co. Meath, and Alan Cole in Athy, Co. Kildare were followed by an online presentation and discussion with Neil McGowan of Incheoch farm in Perthshire, Scotland. The theme for this year's event was "The use of innovative practices to enhance flock management and performance" and each farmer highlighted innovative practices to drive flock performance on their farms. The video productions are available on the IGA website and on YouTube.

## Host Farms

### McGuinness Farm

The first farm visit was with Peter McGuinness who farms in partnership with his father Tom. IGA council member Alan Bohan visited the McGuinness farm and discussed the farm, the sheep enterprise, flock performance and grassland management with Peter. The 500 acre farm includes a flock of 800 ewes, a beef finishing unit, dairy heifers to graze surplus grass as well as a large tillage enterprise. All ewes are lambed outdoors from mid-March with all single and twin bearing ewes outwintered, and triplets housed. Grassland management is top class with 96% of lambs drafted for slaughter by the end of September and just 8kg of concentrates fed per lamb on average. Peter's excellent grassland management was acknowledged in 2020 when he received the Grass10 Grassland Farmer of the Year award in the sheep category. Once ewes are lambed, they are rotationally grazed in batches of 250 ewes and their lambs pre-weaning and then lambs are grazed ahead of the ewes in a leader-follower system post weaning. The farm has 20 permanent paddocks that can be subdivided to manage grass at different times of the year and this, along with 10% of the farm being reseeded annually, allowed Peter to grow 13.7 tonnes of grass per hectare in 2020. Peter spent some time in New Zealand on work placement and it was there that he realised the value and benefits of grass measurement which he has implemented on his own farm to great effect. The high standard of grassland management means that the 13.7 tonnes of grass produced on farm supports a stocking rate of 10.5 ewes per hectare, produces silage for a beef finishing unit and also supplies enough surplus grass to feed 100 dairy heifers that are grazed on the farm on a daily rate during the summer months.



### Cole Farm

On the second night of the event, we joined IGA council member Christy Watson on Alan Cole's farm in Athy, Co. Kildare where Alan runs a flock of 200 mid-season lambing ewes, contract rears 60 dairy heifers, and has a small tillage enterprise growing Spring Barley. Alan puts a big focus on grassland management with weekly grass measurements uploaded to PastureBase, enabling Alan to make best use of the grass grown on the farm. Grassland management is helped by an excellent infrastructure with the farm split into 20



paddocks averaging 1.3 ha in size that can easily be subdivided as required. Alan aims to finish as many lambs as possible off grass with concentrates only introduced from September to finish any lambs remaining. Alan discussed how the slow grass growth this spring had put a lot of pressure on the ewes that had to work very hard and as a result had a lower than usual body condition score. His aim was to use good quality grass to rebuild the body condition of the flock before the breeding season. Along with embracing grass measuring, Alan discussed how he uses faecal egg sampling to manage lamb performance and guard against anthelmintic resistance. He described how he carries out faecal sampling in the field without having to gather the flock. Alan uses this information to monitor his lamb worm burden and dose accordingly. This has significantly reduced the number of doses the lambs receive and is helping to mitigate the risk of anthelmintic resistance in the flock, which is a growing concern in many flocks across the country. Alan ended the interview by describing how useful on farm data such as grass measuring and faecal sampling are in assisting day to day management and in assessing farm performance from year to year.

### McGowan Farm


On the final night of the Event IGA council member Ciaran Lynch was joined by Neil McGowan via a Zoom call. Neil gave a fascinating presentation where he described his farm in Perthshire, Scotland where he farms alongside his wife Debbie. Neil described farming 1,200 breeding ewes and 220 suckler cows on 485 hectares of upland ranging from 400 to 750 feet above sea level. The focus is to produce lamb and beef from grass and forage crops. All ewes lamb outdoors from late April with minimal intervention. Of the 1,200 ewes on the farm, 1,100 are Lleys, 800 of which are performance recorded. The remaining 100 ewes make up a pedigree Texel flock which is also performance recorded. Neil and Debbie complete all the performance recording themselves utilising EID technology to record large amounts of data on each animal and use it to produce estimated breeding values for selecting top performing animals to breed the next generation. Neil spoke about the criteria they have for selecting breeding stock which was focused on "letting the sheep do the sheepy things" without need for intervention or without causing extra work for the shepherd. Traits such as lambing ease, maternal ability and ewe efficiency allows the McGowans to select for the most commercially viable ewes that need minimal shepherding. The careful selection for desirable traits has seen the twinning rate increase from 65% to 75% over the past 10 years and lamb liveweight at 150 days increase by 3.8kg in the same period. Grassland management is constantly assessed and improved with the aim of finishing all lambs off grass or forage crops with no concentrate supplementation while also outwintering ewes on swedes. An unique aspect of the McGowan's farm is that their breeding programmes are also used to select rams and bulls for an on-farm sale each year. Neil stated that the aim is to produce functional, efficient, and robust animals that will perform well for their new owners and ensure repeat custom. The achievements at Incheoch Farm have not gone unnoticed with Neil and Debbie awarded the 2018 AgriScot Sheep Farmer of the year award and the 2020 Farmers Weekly Sheep Farmer of the year award.



The Irish Grassland Association thanks our three farmer hosts for inviting us onto their farms and for being so generous with their time and information. We also thank Mullinahone Co-op for their generous sponsorship, which made this production possible.

We would like to thank our sponsors Mullinahone Co-Op for their continued support



to watch back our on line events please visit 



# IGA Beef Event Review 2021

Niall Claffey  
IGA Council Member  
and TradeForum



With Covid-19 restrictions preventing an on-farm tour again this year, the 2021 Irish Grassland Association Beef Event took an online format on Tuesday, July 6th at 8:00pm.

This year's event had something for everyone – for both Irish suckler and beef-finishing farmers.

Progressive Irish farmers led the visual video production showcasing and outlining the management practises and tools – and the strategies implemented – to make their systems tick. The last segment examined the development of Bord Bia's grass-fed standard for Irish beef.



## Tateetra and Rathmore Farms

The first farmer interviewed was John Kingham, the manager of one of Ireland's largest suckler enterprises - namely the Tateetra and Rathmore Farms - based in Co. Louth and Co. Meath. John and his team took the reins of the operation in September 2017 and have grown the herd size close to 500 cows – consisting of Simmental, Limousin, Shorthorn and Belgian Blue genetics. Beginning his interview, he said: "I love suckler farming; I like coming out in the morning and seeing that quality calf being born. And while dairy farming is going well at the moment – it's not for everyone, and it wasn't for me, so that's why I decided to go with the top end commercial cattle."

The suckler herd spans across 1,000ac, with calving split between spring and autumn. All cattle are housed over the winter period. Looking around the paddocks on the farm,

not one breed dominates in the herd, with a wide range of breeds visible and progeny are produced for several different markets. "If we went one certain breed, I wouldn't have something for all of our customers. We have all the different breeds that are in Ireland at the minute. It doesn't matter who comes to the farm, there's something for everyone – that's why we went with the different genetics," John said. While some heifers are kept for replacements on the farm, the backbone of the enterprise is the sale of these replacement heifers for breeding – with two very successful sales completed to-date.

During the breeding season, large teams of sires are introduced by way of AI and using stock bulls. The main breeds used are Charolais, Limousin, Simmental, Red Angus and Shorthorn. In addition to this - to produce as many heifers as possible - synchronisation is introduced on several cows and heifers each spring and sexed semen is used on these females. John said "all in all, we have about 85% of the herd back in calf. We used AI sire EBY on our replacement heifers this year and achieved at 65% conception rate. A 'Sympa' stock bull was used to pick up those that did not hold. These are all scanned back in calf and will be due from the start of October on". Touching on the workload during the calving season, John said "The calving season went very well this year. Obviously, there can be some busy days and long nights, but that is all part of it. "Like every farm, you have your ups and downs, but we're down to our last eight now so I'm looking forward to getting them out of the way."

Prior to John taking over the farm and growing the herd, existing stock could graze in large fields for long periods. This system has since changed and a paddock system were introduced. In the height of the grazing season, large groups graze paddocks for three days before moving onto the next paddock, with a rotation length of 18-21 days. "70% of the farm has been reseeded to date and you can see it – reseeding is key. And while it can be costly, it was the ground that kept us going this spring. Since we implemented the paddock system, we can grow more grass and the calves thrive much better."



## Allen Callagy

The second farmer showcased was Allen Callagy. Allen farms on the Meath/Kildare border. The farm - which is fragmented and laid out in three blocks up to 4km from the farmyard - is all laid out in permanent pasture. The beef system is based on the purchase of 100 continental weanlings each autumn, with all stock brought through to beef.

"I purchase all my weanling through a local dealer; he has a great eye for cattle and it lets me get on with other things on the farm. When they come in, I like to house them for three days to let them get used to me," Allen said.

Despite the difficulties of managing grass on a fragmented farm, Allen is determined to maximise live weight gain from grass and grass silage, and minimise the amount of purchased concentrate in the diet of the cattle.

Since joining a grass management course in Kildare, Allen has renewed his focus on grassland management. The Kildare-based farmer has substantially improved the grazing infrastructure on the farm and installed a new water system - with large water troughs and up to thirty additional paddocks.

"I used to have a set-stocking system. But now I have 42 grazing divisions on the farm, which has increased from 13 a few years back; this has really increased the quality of the grass that the cattle are grazing," he said.

He is already reaping the rewards of good grassland management, with not only more grass grown, but it is of a higher quality resulting in more cattle finished off grass without the need for concentrate input. In addition, grass silage regularly analyses over 73% DMD which is a great achievement from old permanent pasture.

The installation of additional paddocks and the new water system has revolutionised grazing practices on the farm. Allen gets great satisfaction from the fact that he is producing top-quality beef from predominantly home-grown resources - grass and grass silage.



## Rory Mannion

The final speaker from Bord Bia, Rory Mannion, dived into the inner workings of the Bord Bia grass-fed beef standard – outlining the potential benefits for Irish beef farmers.

This standard will be implemented at processor level and utilises information provided by farmers in their Sustainable Beef and Lamb Assurance Scheme (SBLAS) audits to determine the grass-fed status of animals.

The audit of standard will ensure processors are engaging with the Bord Bia database and performing checks correctly and - in turn - ensuring correct traceability, segregation and labelling of grass-fed product.

"Our research tells us that customers want grass-fed beef and that they are willing to pay a premium for that beef. Having data to back up this standard is a major strength that we have over our competitors," Rory said.

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## Dairy Summer Tour 2021

### The role of clover in the future of Irish dairy farming

**Ed Payne**  
IGA Council Member  
and Dairy Farmer



**Stuart Childs**  
IGA Dairy Summer  
Tour Chairperson  
and Teagasc



The Irish Grassland Association Dairy Summer Tour supported by AIB was an online affair again in 2021 due to COVID-19. However, while we couldn't bring people to farms, we decided to bring farms to the people. Following up on one of the key themes from the Dairy Conference in January and recognising one of the main objectives in the Farm to Fork Strategy under the EU Green Deal, achieving a 20% reduction in fertiliser use. We focussed on the role of white clover and how it is helping reduce chemical nitrogen inputs, on our two host farmers. The silver lining in the COVID cloud on this occasion was that online delivery allowed us to do something we couldn't otherwise do, visiting two excellent farmers that were almost 300km apart, Kevin Moran in Co. Galway and John Joe O'Sullivan, Co. Cork.

#### Kevin Moran

The first part of the proceedings came from the farm of Kevin Moran who is farming outside Caherlistrane in Co. Galway. Kevin started farming in his own right in 2013 with 75 cows and has grown the business in the intervening years to a scale where he is currently milking 270 cows. The milking platform is stocked at 2.89 cows/ha and in 2020 grew 15.6 t DM/ha. Kevin has focussed on having a labour efficient farm and is the only full-time person the farm. Good contractors, relief staff and contract rearers and help from family play a significant role in the labour efficiency of the farm, a point which Kevin was at pains to point out as he would not be where he is without all these.

#### Why focus on clover now?

Kevin has started on the clover journey in the last few years. Having reseeded most of the platform since he started farming in 2013, he acknowledged that he had missed an opportunity to have clover on his farm down through the years however, the plan is to correct that over the next few years. Why now; Kevin spoke of his farm's sustainability plan that manages the farms impact on water and air quality, reduces his carbon footprint and allows for increased biodiversity. The fact

that clover can give environmental returns which help achieve his sustainability objectives but also give an economic return makes it a wise decision in his eyes. Kevin's objective for the future is to continue to grow similar tonnage of DM/ha but using less chemical nitrogen and clover will be a key tool in achieving this objective.

#### Establishing clover

Kevin has learnt some lessons in terms of establishing clover in the last two years. Soil fertility is vital - pH 6.3 or greater and index 3 for P and K is the template for success. Oversowing works best with soil fertility correct and when swards are sown in April and May. Establishment is done by sowing 2 kg clover seed/acre with an Einbock grass harrow following a tight grazing. Grazing at low covers (1100 kg DM/ha) for the subsequent 2-3 grazings is a critical piece of the establishment jigsaw. This is because this grazing regime allows light to the base of the sward to help establish the clover. Kevin's main lesson from his first year of oversowing was not to bite off more than one can chew, emphasised the importance of only doing manageable amounts of area at any one time, as it allows him to focus on managing this area to successfully establish the clover. Large areas that requires grazing at low covers is just unmanageable and is not conducive to getting the clover established as grass growth will beat you and new clover seedlings will be denied light through shading which is detrimental to establishment. Chemical nitrogen applications remain the same in the year of establishment and again in the early part of the subsequent year, but once swards are 12 months established, he has cut nitrogen application by up to 50%.

#### John Joe O'Sullivan

In the blink of an eye, we moved from Galway to West Cork to the O'Sullivan family farm in Rosscarbery. John Joe O'Sullivan spoke of how clover has been a part of his farming system for generations but that they have really started to manage it in earnest since the mid-

2000s when he was part of the European Dairyman Project which was focused on reducing input without reducing output.

The O'Sullivan's farm had an interesting history with John Joe beginning his dairy farming career with 12 cows in 1975, expanding rapidly to 28 cows the following year. He continued to expand until the introduction of milk quotas brought a halt to his gallop. Curtailed by quota, John Joe turned his focus to improving cow genetics and performance a process that reached its pinnacle in 2000 when the farm was the winner of the Protein 350 award. This focus on breeding which continues today has underpinned the current milking herd which produce approximately 500 kg of milk solids annually from about 600kg of concentrate and his excellent grass clover swards.

Today, he and his son Andrew have 70 cows stocked at 2.35 cows/ha, carrying all young stock and the all-important five beehives (which are not counted for stocking rate purposes!). John Joe is also beekeeper and is passionate about the subject of beekeeping. On the day he discussed how the bees being on the farm make him feel more connected to nature and how he manages his farm to allow biodiversity on the farm cater for the bees needs at different times of the year. This variation in pollen sources throughout the year also influences the flavour of the honey produced.

#### Why did John Joe focus on clover nearly 20 years ago?

Through the European Dairyman project John Joe was monitoring the inputs into the farm. That coupled with quota constraints lead John Joe to thinking that the more clover he could establish, the lower his reliance on chemical fertiliser would be. This was reducing his carbon footprint but also benefiting the farm economically. Like the studies in Clonakilty, they notice an increase in protein percentage and volume when cows graze a high clover content sward.

John Joe was keen to point out that fertiliser nitrogen is an important part of managing the clover plant and that the half bag of urea or its equivalent in the form of slurry (2500gals when using LESS) in the spring is important to get the farm growing as the clover only gets to work later in the year. However, as the clover kicks in to gear those paddocks will get no more chemical nitrogen only dirty water or watery slurry after grazing which allowed the farm to keep its chemical input at just 138kg of N/ha (110 units/acre) in 2020.

While the farm at this stage has up to 20% clover content across the board, John Joe has an objective of getting this closer to 30% to allow for further nitrogen fertiliser reduction. Wearing his beekeeper hat, he also told us that his high clover swards are also a great source of

pollen for his bees, which of course leads to good honey!

#### Managing clover on the farm

John Joe uses a little and often approach with water slurry to provide P and K on the farm. Almost double the required slurry storage capacity allow them to store nutrients to use more appropriately throughout the season. Interestingly, this little and often approach is working at maintaining clover on the farm despite indexes for P and K being more 2's than the recommended 3's. The fact that the pH of the farm is 100% correct is a significant factor in retention of clover on the farm, a lesson that John Joe had to learn the hard way when clover failed on newly purchased ground many years ago as it was 'starving for nutrient and pH was on the floor'. This taught John Joe the importance of regular soil samples and he samples regularly now in order to have the information needed to target lime and P & K applications.

John Joe has established clover through conventional reseeding and oversowing. Oversowing takes place after a cut of silage being spread on top of the ground and rolled in order to insure soil contact. They spread the seed with the quad and spreader with great success. When it comes to conventional reseeding John Joe stressed the importance of the seed being left on top of the soil and just rolled in and not buried as it is such a small seed compared to grass.

Maintaining clover in swards on the O'Sullivan farm is driven by never damaging the ground (through on-off grazing in poor conditions), grazing appropriate covers (<1400 kg DM/ha) mid-season, and strict silage management which ensures clean and early cuts. John Joe considers any cover > 1400 kg DM/ha too strong for grazing and will skip it for bales about a week later. This cutting also plays a part in driving clover content.

While at different stages of the clover journey both farmers are getting environmental and financial benefits from their clover. The message is clear from both, grass clover swards fit well into Irish dairy farming systems and can yield fantastic results in terms of grass growth and performance from reduced input as well as helping to produce great honey too!



The Moran Farm Co. Galway

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# Irish Grassland Association

## DAIRY CONFERENCE 2022



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# Irish Grassland Association

## DAIRY SUMMER TOUR 2022



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**3 Events will be held over 2 days  
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(Dates will be confirmed very soon)**



Donal O'Leary,  
Professional Agri  
Photographer and Judge  
of the #igafbdstudent  
photo competition 2021



## #IGAFBDSTUDENT Photo Competition 2021

Following on from the success of our 2020 #IGAFBDSTUDENT photo competition, we were excited to relaunch the interactive project among the student constituency. We are very thankful to have the ongoing support of FBD with all of our student initiatives. They have been the sole sponsor of our Student Conferences since their inception. We look forward to returning to in-person events with FBD and our Students in 2022.

The 2021 photo competition centred on images that best captured the theme "Grass through a lens". Submissions were entered through Facebook, Twitter, and which attracted lots of discussions and interactions. With a generous prize fund attached, the competition was yet again an immediate success with over one hundred images submitted from students enrolled in college and university's right across the island of Ireland. The competition was also taken up by many of the Colleges Agricultural Societies, with their endorsement it became a key activity that successfully generated discussion and debate among their membership and the wider student population.

Professional Agri photographer Donal O'Leary kindly acted as our Judge, making independent decisions on the winners. Commenting on the event Donal said: "I am honoured to act as judge for this ever-popular competition. I was totally blown away by the incredible standards. The pictures shortlisted showed their appreciation and passion for grassland family farming in addition to the artistic talents of the student. I was looking for something that stood out immediately in capturing the brief and theme outlined. The photos had to display certain attributes like creativity, planning and most importantly to appreciate the art of photography in telling and capturing the grassland farming story. It was again no easy task, given the exceptional standard of images submitted this year. Nonetheless, it was very enjoyable experience. For my winning images, the images needed to be of a very high quality both technically and compositionally. The winning images have certainly ticked all these boxes. Outside of the three winning pictures, I also selected notable merit awards across the Dairy, Beef, Sheep, and industry farming categories to recognize some of the exceptional entries.

We would like to thank FBD Insurance who have sponsored our student conferences since their inception in 2010



*2nd Place:*  
*Sheree Jordan Monaghan*  
*Student in Sustainable*  
*Agriculture*  
*Dundalk Institute*  
*of Technology*



*3rd place:*  
*Sarah Armstrong Cavan*  
*Student in Sustainable*  
*Agriculture*  
*Dundalk Institute*  
*of Technology*

*1st Place: Fionnuala Godwin Dublin*  
*Masters student*  
*University College Dublin*

I come from a dairy and beef farm in Tuam Co. Galway. From a very young age, I was heavily involved in helping my father with the general day to day running of the farm, where we operate a spring and autumn calving dairy herd. The farm is a family farm enterprise, with a milking platform of eighty acres and two out farms for silage production and a dairy calf to beef enterprise. For the breeding season we carry out A.I for the first six weeks before introducing two of our Hereford stock bulls to the cows for the final six weeks. We keep all the beef (HeX) calves for our dairy calf to beef system. Grassland management is key on any farm and ever since I was able to walk, I remember walking alongside my father on the weekly farm cover. I think in recent years farmers have seen the importance in taking control of their grassland management as its vital in making decisions for the weeks ahead. Currently we have 10% of the grazing platform sown with clover, we hope over the next two years to have 25% of the farm reseeded with the inclusion of clover.

From growing up on the farm, I knew I wanted to pursue a career in the agricultural industry. Therefore, after my leaving cert I completed a four-year level 8 Agricultural Science degree in the Institute of Technology Tralee. During the degree, I had a keen interest in the areas of grassland management and dairy and beef production systems and the technical principals that underpin them. This led me to where I am today which is completing a research masters in University College Dublin. My research masters is investigating the impact of sward type on animal performance in a dairy calf to beef system. The sward types are perennial ryegrass only, perennial ryegrass and white clover and a multispecies sward. Clover and multi-species swards have become topical in recent years as they represent an opportunity to enhance the environmental sustainability of grassland production systems through reducing nitrogen fertiliser inputs, and potentially enhancing the environmental footprint of ruminant farming systems.

This photo is of some of the dairy beef calves used in my research trial. During the grazing season I would be out herding or moving cattle daily so whenever I see a good photo opportunity, I take my phone out straight away to capture it. The calves are used to seeing people daily so are very curious and docile. I think this photo was fitting for the theme "grass through a lens" as it highlights the ever-increasing importance of clover in our farm grazing systems in terms of reducing chemical N.





## Taking a road less travelled and targeting a premium market for Irish beef

Niall Claffey  
IGA Council Member  
and Tradeforus



Tucked away just outside the village of Donard, in a picturesque region of Co. Wicklow, lies the home of Ridgeway Wagyu, a family-farm enterprise set up by husband-and-wife duo, John and Michelle Hourigan. Originally home to a herd of pedigree Limousin cows and a small beef-finishing system, John, after first trying Wagyu beef while spending some time in New York, started to investigate if there was potential to produce these animals his home farm. "We wanted to produce premium beef, something different in the marketplace and try a different approach here on our farm" Michelle said.



After some time, the Hourigans decided to give it a go and purchased their first Wagyu cattle in Co. Cork, before importing some Wagyu semen from Australia. A steep learning curve followed, and both John and Michelle realised that an improvement in the genetics was required to produce a superior animal in terms of its meat-eating quality. In the earlier days, imported semen was used on predominately on dairy cows, but has since been used on Shorthorn and Aberdeen Angus females. "With Wagyu, it's all about eating quality, it's not necessarily about what the animal looks like, what shape it is or how heavy it weighs. That's what makes it completely different to the conventional beef market here in Ireland," John explained.

### An integrated supply chain

As the business grew, John and Michelle set up an integrated supply chain – working with other dairy and beef farmers to both breed and rear Wagyu-cross animals from birth to slaughter. This unique contract is flexible. Typically, AI straws from top-quality sires are sold to dairy farmers at a set cost, with a guarantee buy-back clause for the calf at a set price, which will be agreed 10-12 months in advance. This way, the dairy farmer already has a price and home for their Wagyu-cross calves – both bulls and heifers at 14-21 days-of-age, which in turn gives Ridgeway Wagyu a continued supply of suitable animals for its markets. John targets the top 1% Wagyu genetics in the world and this can be an expensive practice, but Ridgeway Wagyu often subsidises the cost of the semen that is sold to farmers. The calf is reared to either weaning, store or beef on the dairy farm, or goes on to other contract rearing farms where they can be either finished or brought to a certain stage and moved on again. "There is flexibility for the farmer in terms of the type of contract that's on offer. There is the

calf contract and the beef contract. We then oversee the slaughter, processing and breakdown of the animal," Michelle said.

In terms of pricing, there is a premium paid for the finished animal. Again, this premium is drawn up in a contract between the finishing farmer and Ridgeway Wagyu and is based on the marbling score of the animal. "The marbling score ranges from 1-9. There's a premium from 1-2, 2-3, 4-5, 6-7 etc. so the higher marbling score the greater the premium and that is decided in the contract." John noted. Additionally, the premium is paid over the Average Quoted Price (AQP) on that given week. The market price or AQP is calculated through relevant agri-media sources that report that price on a weekly basis.

When it comes to choosing sires, John bases his decision on gestation length (minus) and ease of calving, both of which are very favourable for the dairy farmer, and the genetic potential for marbling. This model has been proven and is working extremely well for the Hourigan's, who are now locating suitable autumn-calving dairy herds that may be interested in this type of arrangement - ensuring a constant supply all-year-round. The supply chain is set up in a way that all parties involved work together to produce the finished product, whether that be nutritional advice or market understanding. "We're farmers dealing with farmers," Michelle outlined. "Our customers want cattle that are grazed outdoors; that's market driven. The end customer really appreciates this."

### Wagyu beef and genetics

In Ireland, you could count on both hands the number of farmers breeding and feeding Wagyu cattle. However, with meat-eating quality becoming more fashionable worldwide, is there a chance it could become more popular? There is little difference between rearing a Wagyu-bred calf and the typical calf for the first 12 months-of-age. The calf is reared on milk, grazed outdoors on good-quality grass ensuring an adequate thrive and weight gain, and fed grass silage during the winter months.

However, for John and Michelle's system, while there is no specific diet, there are a number of feeds that need to be avoided from 12 months on. These, John says, are anything from the "cabbage" family – namely beet, rape etc. as this can taint the flavour of the meat. Additionally, olive feed is fed on certain farms for meat destined for a specific market. "While the last four months are very important to ensure a good marble score, it's 70% genetics and 30% feeding to get the desired score," John said. "When you have good genetics, you can have serious marbling. Typically, the marbling gene is most prevalent at 30 months. However, with poorer genetics you may go older, but with better genetics you can slaughter earlier and still have a very good marble score."

Many of the beef is destined for higher-end restaurants here in Ireland. However, a swift change in strategy was needed when the Covid-19 lockdown forced restaurants to close in early 2020. This led to the establishment of an online shop where customers can purchase burger and steak boxes. "While this was our long-term plan, it was accelerated due to Covid-19 and has been working well ever since," Michelle concluded.

If you are interested in trying Wagyu beef, you can visit the online shop at [www.wagyu.ie](http://www.wagyu.ie)







## Biorefinery Glas – A grass-based approach to the bioeconomy

**Aoife Feeney**  
IGA Council Member,  
Farm Sustainability Lead, Carbery Group  
& 2022 Nuffield Scholar



### Introduction

With a growing population and increase in the need of finite resources, attention is turning to the use of renewable, biological resources with a key focus on sustainable primary food production. The bioeconomy encompasses the sustainable production of these resources, particularly from land, fisheries and aquaculture. With 80% of Ireland's agricultural area devoted to grassland, it makes sense to leverage this for the bioeconomy. In 2018, a project called Biorefinery Glas received funding by the EU innovation partnership (EIP-Agri) to demonstrate the use of small-scale biorefineries to convert freshly harvested grass into a range of high value products. The project led by Munster Technological University (MTU) and in partnership with University College Dublin (UCD), Carbery Group, Barryroe Co-op and Grassa BV, demonstrated the use of a small-scale biorefinery across five dairy farms in the West Cork region. It is one of the first bioeconomy initiatives in Europe focusing on farmers becoming bio-processors and contributing to the bioeconomy. Through this approach, farmers are demonstrating the use of an automated, low-cost biorefinery model, which integrates well with traditional beef and dairy farming and could be replicated across Ireland helping to further enhance our sustainability credentials and reduce emissions from the sector.

### Demonstration & Co-products

Over the summer of 2019, five dairy farms located

across West Cork and supplying Carbery Group in Ballineen, Co. Cork, were selected to provide grass to demonstrate the biorefining process, developed by project partners Grassa BV. The grass was harvested using a zero-grazer machine and presented to the small-scale biorefinery. Step one was to isolate the proteins that cows use most effectively, from the grass while separating the remainder of the protein, which cows do not process as efficiently, for use as a co-product feed for monogastrics. This improves the efficiency of nitrogen use for milk production, while providing pigs and chickens, a natural source of protein concentrate. The grass provided was refined into four products at approximately 2 ton per hour with the liquid separated from the grass, resulting in a press cake fraction and a liquid fraction.

### 1. Press Cake

This solid fibrous fraction resembles silage and contains protein that can be consumed by animals, which was trialled over a 77 days period in UCD Lyons Estate. Two groups of 15 cows were selected; one group was fed a 16% crude protein (CP) concentrate and second were fed a diet where with containing 40% press cake on a DM basis, with a CP concentration of 10%. Feeding the press cake did not reduce animal milk yield or milk solids, compared to the control. Additionally, it has previously been reported that feeding the press cake has resulted in a 15% reduction in methane emissions, which could have significant impact on environmental emissions.



### 2. Liquid Fraction

During the refining process, a protein concentrate, fructo-oligosaccharides and a whey fraction are produced. The protein concentrate was trialled with a pig farmer with Barryroe co-op. The trial replaced 30% soyabean meal and 30% barley with the protein concentrate extracted, in the diet of 54-day old weaners. The results show that the protein concentrate from the grass has the ability to replace soybean meal in the diet of pigs. The fructo-oligosaccharides are essentially the sugars that remain after the protein and solids are removed from the grass. These have the potential to be an effective prebiotic in pig feed and pet food. The efficacy of these are showing to have comparable performance and could add high value to low volume products. Finally, the remaining liquid fraction of the biorefinery process is the grass whey. This was evaluated as a potential bio-fertiliser that could be spread back on the land and also as a feed stock for anaerobic digesters. The grass whey portion of the liquid contains nitrogen and phosphorus and the content resembles that of soiled water. This was trialled on three of the five farms. All products in the trial were spread at a rate of 3000 gallons/acre and were spread using low emission slurry spreading

equipment on the equal strips on the ground that had been harvested for the biorefinery. The first received grass whey, the second received soiled water and the third received slurry. Grass measurements were recorded weekly on PastureBase Ireland, with no significant difference reported in herbage production between the grass whey portion and soiled water.

### Conclusion

The Biorefinery Glas project has shown us that as a nation, we have an incredible opportunity to do more with a commodity we thought would only feed ruminant animals. The entire trial was hugely positive and demonstrated that four products can be produced from one and all utilised effectively and efficiently. The next steps of the project are to look at the feasibility of a large scale biorefinery for grass. The project team see this working as small-scale stationary models across Ireland. They could mean that protein for monogastric diets could ultimately come from grass products in the future. The Biorefinery Glas project will also form part of the the Farm Zero C project in Shinagh, Co. Cork. For more information on the project, you can check out [www.biorefineryglas.eu](http://www.biorefineryglas.eu)







## Understanding Soil Test Results

Mark Plunkett  
Teagasc, Johnstown  
Castle, Wexford



### Introduction

Soil analysis is a well-proven science and is the first step to improving nutrient use efficiency on grassland and tillage farms. By optimising soil fertility for all three major nutrients (pH 6.3, P & K Index 3) on mineral soils, nitrogen (N) use efficiency will increase from 35 to 65%. This means for every 100kg N applied we utilise 65kg's for crop production. And with increasing fertiliser costs and environmental concerns, now more than ever is the best time to increasing N use efficiency on farm, by optimising soil fertility.

Regular soil testing is the first step to attaining farm specific field-by-field information on soil fertility. This will be the basis for recommended rates of ground limestone, a more targeted approach to the use of cattle slurry and selecting the most suitable fertiliser type and formulation to ensure all nutrients are in balance.

It is very important that soil samples are taken correctly for example sampling to a depth of 10 cm and taking 20 representative soil cores per soil sample. A good exercise to do when results come back is to compare old and new results and see how nutrient levels have changed over time. This gives an insight into the effectiveness of the fertiliser programme on the farm over the last number of years.

However, when standard soil test results come back, they can be difficult to understand. Often soil fertility results are reported in mg/l and need to be converted to a soil P & K index, which we are more familiar with.

### Reading the soil test report

Soil test results (pH, P & K) will be presented in a similar format to the example soil report as shown in Table 1. In the example, soil test results are presented in a bar chart to show how they fall within the nutrient ranges. It shows the associated soil P and K index (1 to 4) and the soil nutrient supply as very low, low, medium or sufficient (colour coded), and appropriate action should be taken for each index.

### Soil pH & Lime Requirement

The first place to look, is at the soil pH result and lime requirement. On grassland soil aim for a target soil pH 6.3 and pH 5.5 on peat soils (see table 2). The lime advice will be reported in t/ha or t/ac. The recommended lime rate (5.0 t/ha) is of lime required to correct the soil pH from pH 5.9 to the target pH 6.3 as shown in the example in table

### Soil Buffer pH

There is a second soil pH test done by the lab called the Buffer pH (or SMP pH). This is a measure of how much lime is required to correct the soil pH to the target soil pH as shown in table 2 depending on the crop type. In the example (table 1) the soil has a pH of 5.9 with a lime requirement of 5.0t/ha. A further useful piece of information

when deciding on lime type is the Mg reading. The Mg reading is 25mg/l and equates to very low (Index 1) soil Mg supply. Therefore, magnesium limestone is the type of lime required to correct soil pH and build soil Mg levels.

**Table 1: Example of a report containing soil test results & lime advice**

Nutrient	Soil Test Result	Nutrient Test Results - Mineral Grassland Soils - Dairy Enterprise				Nutrient Advice	
		Index 1	Index 2	Index 3	Index 4	/ha	/ac
Soil pH	5.9					5.0t	2.0t
N	--	Farm Stocking Rate - 170kg Org N/ha				Complete farm fertiliser plan to determine N, P & K advice	
P	2.1mg/l						
K	100g/l						
Mg	25g/l						
Buffer pH	6.3						
Soil Index		Index 1	Index 2	Index 3	Index 4		
Soil Nutrient Supply		Very Low	Low	Medium	Sufficient		

**Table 2: Target Soil pH levels for a range of crops**

Crop	Target pH	Crop	Target pH
Grassland	6.3 - 6.5	Maize/OSR	6.8
Barley/Wheat	6.5	Potatoes/Oats	6.0
Beans/Peas	6.8	High Mo Soils	<6.2
Beet	6.8 - 7.1	Peat Soils	5.5 to 5.8

### Soil Results & Soil P, K & Mg Index System

The soil test measures the plant available P, K & Mg in the soil. The results are categorised into a soil index for each nutrient as shown in Table 3. The soil index system comprises of four indexes (1 to 4) which indicate the soil nutrient supply and the expected response to applied nutrients. For example, index 1 soils (deficient) have a very low nutrient supply and a definite responsive to applied nutrient. While index 4 soils have sufficient nutrient reserves and do not respond to applied P or K.

### Soil Index & Fertiliser Strategy

Index 1 and 2 soils have a very low to low nutrient supply and are very responsive to applied P and K. The fertiliser strategy on these soils is to apply P & K to build soil fertility plus maintenance rates of P and K to replace off-takes. Where possible supply 50% of crop requirements by organic fertilisers (slurry and FYM) and the remaining 50% by chemical fertilisers.

Index 3 is the optimum index for production and soils will supply sufficient P and K during the growing season. To maintain the soils at index 3, P and K applications should replace the P and K removed in milk, meat or grain. For example, every 1,000 litres of milk or 100kg live weight gain removes 1 kg P & ~ 2 kg of K.

Index 4 soils are very fertile and soil reserves will supply sufficient P and K to meet crop nutrient requirements throughout the growing season. Omit P and K applications with the exception of certain crops such as potatoes, beet, and some horticultural crops. Where grass and tillage crops are grown on index 4 soils omit P for 2 to 3 years while only omit K for 1 year and revert to index 3 K advice until fields are re-sampled.

### Next Steps & Fertiliser Planning

To realise the full value of farm soil test results complete a whole farm fertiliser plan annually. For example information on farm livestock type & numbers, concentrate feed usage, slurry storage requirements, method of slurry application etc... will form the basis of the fertiliser plan to enable a more precise field-by-field lime, N, P & K advice and maximise the organic fertiliser on farm and strategic use of chemical fertiliser on farm. In addition, it will ensure compliance with farm nutrient legislation.

**Table 3: Soil Nutrient Index, response to fertilisers and soil test range for P, K and Mg.**

(Source: Teagasc, 2020)

Soil Index	Response to fertilizers	Fertilizer Strategy	P (mg L-1) Grassland	P (mg L-1) Tillage	K (mg L-1)	Mg (mg L-1)
1	Definite	Build - Up + M	0 - 3.0	0 - 3.0	0 - 50	0 - 25
2	Likely	Build - Up + M	3.1 - 5.0	3.1 - 6.0	51 - 100	26 - 50
3	Unlikely	Maintenance (M)	5.1 - 8.0	6.1 - 10.0	101 - 150	51 - 100
4	None	None	> 8.0	> 10.0	>150	>100





## Accurate silage analysis is worth waiting for

Joe Patton  
Head of Dairy Knowledge Transfer Department,  
Teagasc



Routine forage analysis used to be laborious and expensive, with digestibility, protein, and fibre fractions all requiring various wet chemistry steps in the laboratory. Thankfully, the advent of Near Infrared Spectroscopy (NIRS) has radically changed the game in recent decades. This technology operates on the principle that a sample of material absorbs light differently depending on its chemical make-up. An NIRS analyser shines light of a specific wavelength on the sample, the absorption characteristics are measured, and this is converted into a predicted sample result using computer software. It is a simple, rapid, and reliable means of testing large volumes of samples.

While NIRS is a well-proven technology, there are a number of factors that should be borne in mind when using it for forage analysis. First and foremost, any NIRS system can only ever be as good as the calibration being used to convert the scan results into feed values. In other words, for NIRS to give an accurate prediction, it first must be 'trained' to predict values of a given type of feed by scanning hundreds (or thousands) of similar samples, testing these same samples by the wet chemistry, and then building a calibration that can then predict the value of similar samples.

If a calibration has too few samples, has too narrow of a range of forage types, or perhaps has been developed using unrepresentative samples (e.g. from a different climate or grass type), it may not give accurate readings. We saw a good example of this some years ago in Moorepark where a nice equation for predicting fresh grass quality was built using about 600 grass plot samples. However, when we tried it out to test some grass from commercial farms, the system could not recognize the range in quality or grass type and gave unreliable results. The key point? Make sure the NIRS being used is validated for Irish grass silages.

A second important point to check is that the NIRS system being used to test your silage (or any feed sample) is part of a ring-testing system for quality control. This means that the lab/operator should be part of a system that checks the performance of the system against silage samples of known lab chemistry results. This will help to correct changes in the NIRS readings over time that can occur due to hardware issues etc. Check that your analysis is being carried out using an accredited system. This is important for hand-held units and lab-based units alike.

Finally, there are simple things to consider which will improve the accuracy of testing and the interpretation of results. For example, make sure to take a representative sample. This is best achieved by obtaining samples in a W-shape across the pit face. Also, be sure to check that results are reported in the measurement units required. For example, 'D value' and DMD are very closely related but are not technically the same measure (D value is typically a 3 to 4 units lower than DMD). Therefore, issues may arise when one is taken to mean the other.

In summary, most livestock farms have thousands of euros worth of silage in the yard at the start of winter and will spend thousands more on feed supplements to ensure good performance of stock. Having an accurate reading on forage quality is a critical part of addressing winter feed costs. Investing a small amount of time and money to get it right is doubly worth it.



## The role of high-quality silage in dairy-beef systems

Nicky Byrne  
Beef Systems Research Officer,  
Teagasc



The current focus of the dairy-beef research herd at Teagasc Grange is on reducing age at slaughter, while maintaining high levels of carcass output within an intensive grass-based system. An important factor in achieving a reduced age at slaughter is silage quality, as 30% of a dairy-beef animal's lifetime feed requirement is met with conserved grass silage. Silage is a relatively expensive feed to produce, however, where its supply and quality are optimised, returns can be maximised through improved animal performance and a reduced requirement for purchased feeds, particularly concentrates. Dairy-beef systems generally consist of multiple animal groups (weanlings and finishers) who have different growth requirements. To satisfy these different growth requirements it is important to have an accurate measure of forage quality to devise a feed plan which offers the best balance of animal performance and feed cost.

Managing weanling's performance over the first winter to hit target growth rates and liveweights is crucial to the overall success of a dairy-beef system. Hitting these targets over the first winter can also influence subsequent growth rates of the animals. If this combination of winter and post-winter target weights are met, animals then have the potential to be slaughtered at younger ages than what is being achieved nationally. Dairy-beef animals need to grow at a rate of 0.6 kg/day over their first winter to achieve target weights. Above or below this target will limit the level of compensatory growth at pasture the following grazing season. Dairy-beef animals over their first winter at Teagasc Grange are generally offered second-cut silage of 70-72% Dry Matter Digestibility (DMD) in addition to 1.5kg/head of concentrate per day to achieve an average daily gain (ADG) of 0.6kg over a 100-day housing period. On a Dry Matter (DM) basis, these weanlings will consume 2% of their body weight per day. This year's weanlings, when housed in November/December, will be offered perennial ryegrass and red clover silage of 72% DMD and 12% Crude Protein (CP).

Following their first winter, high animal performance over the second grazing season (ADG >1.0kg) ensures animals are at an advanced liveweight and body condition to facilitate a short finishing period indoors. The highest quality silage - 76% DMD - is offered to finishing steers. Feeding silage of increased DMD over the finishing period improves the level of liveweight gain along with a better-feed conversion efficiency. In most instances, silage alone is insufficient to support the growth and fleshing requirements of finishing beef cattle, meaning concentrate supplementation is required. However, the quality of silage offered can determine concentrate level needed. Typical dairy-beef steers from the research herd require a short finishing period of 62 and 93 days on a diet of ad-lib silage (75% DMD) and 5kg/head of concentrates per day to achieve a carcass fatness of 3+ for Angus and Holstein-Friesian steers. Over the finishing period, these animals are consuming 1.9% of their body weight per day on a DM basis.





## The challenges of mental health in Irish Agriculture

**Peter Hynes**  
Dairy farmer and  
mental health advocate



**In every farming community across the world there is a hidden challenge, a challenge that isn't spoken about yet the one of the solutions to that challenge is in fact speaking. Depression, anxiety and suicide all of which are influenced by so many factors that affect agriculture.**

Myself and my wife Paula founded Ag Mental Health Week in 2020 mainly due to the fact that whilst farm safety has its own dedicated week and needs prioritization, the reality is we lose more farmers to suicide than we do to farm accidents. On average 26 farmers a year are lost to suicide in Ireland, in the UK that figure for 2019 was 133 farm related suicides versus 21 lives lost to farm accidents, with research showing that the rural suicide rate in Northern Ireland is higher than the republic or mainland UK. Unites States statistics show the suicide rate in Agriculture is 54% higher than any other manual labour job. Frightening statistics but they are so much more than that; they are individuals that could not reach out for help, loved ones of families who are left devastated. I have learned through many conversations across the world that the agricultural industry needs to openly have the conversation around suicide. We as an industry need to normalize the conversation otherwise those who are contemplating ending their life, are left in a position where they do not feel they can say they are considering suicide as an option, these are the very people we need to reach out to, ensuring we support them.

Could I be wrong in saying the above? Research in the UK, with over 15,000 members of the farming community surveyed shows that no one wants to talk about the elephant in the room which is suicide, every member of the agricultural sector has a responsibility to deal with this challenge. That very report also stated that 36% of the farming community are possibly suffering from depression. I've struggled myself with depression in the past, it was one of the toughest parts of my life yet it is always vital to seek out the positives and now I am a lot more proactive in how I manage my mental health. Yes, there are times when I find life tough, my work schedule can be extremely hectic yet I always know where my limits are. I always make time for myself and family and I will quite happily milk the cows at 3pm in the afternoon to ensure I get home early, and this is a priority for me and my family.

We can learn so much from other countries when it comes to mental health in agriculture. In the UK they have so many rural support services, thankfully Embrace Farm in Ireland now have funding to allow them tackle issues around rural mental health. In New Zealand, all milk tanker drivers are given mental health first aid training, to know the signs to look out for when farmers are struggling. Likewise in Canada the Ministry of Land and Agriculture have made mental health a priority, it is on the agenda at every monthly meeting discussing what

challenges farmers currently face. Further to that all ministry field staff are trained in mental health first aid, a program which will be expanded to ensure all ministry vets are trained in the next 12 months.

Climate change itself challenges farmers around the world, droughts, floods and wild fires all have an impact on mental health. In Ireland our deeply engrained love of the land is to some extent an issue, farms do not have succession plans in a lot of cases and has led to a lot farmers struggling and even loss of life. Fluctuations in world markets, which can have a huge impact on farm financials, which ultimately lead to farmers being put under serious pressure. Then there are disease outbreaks, take micro plasma bovis in New Zealand, which devastated some farms, here at home TB is a huge issue and leaves farmers in despair when they see their livestock being taken away. Many of us remember the Foot and Mouth outbreak of 2001, in the UK the incidence of farmer suicide increased tenfold that year yet that was a hidden side effect, the media will remember Foot and Mouth as piles of burning livestock, did a headline ever say over 1000 farmers ended their lives.

I mentioned farmers but let's not forget the Veterinary surgeons, they too face the same challenges, increased regulation, long lonely hours. Losing an animal on farm can equally; affect a vet, like farmers, their job is to keep livestock fit and healthy. The spring calving pattern in Ireland has become so hectic that vets can often hit burnout. We as farmers can be of great help, a simple cup of tea carried out to the vet before they dash off to the next call, even a small thing like "thank you, you did a great job treating that animal" can ease a vets burden on a hectic day.

**"Does all this stark reading portray agriculture in a poor light, certainly not, farming is the best job in the world, working outdoors, caring for livestock, producing quality food."**

Make no mistake though, you will be challenged in your farming career hence we need to change the mind-set and we need to go right back to grass roots and educate young farmers on the importance of prioritising their mental wellbeing which in turn will place them in a much stronger position in times of crisis.

***Mental wellbeing is about doing the simple things in life, eating well, getting adequate sleep. Taking time out even in a busy schedule, going for a coffee with a mate. Being honest with ourselves is so important, if you are struggling; by facing up to it can be the first step to seeking help. Making time for friends and family, we all need a break from the farm. The 'Tackle Your Feelings' app is a great tool in keeping track of how you manage your daily life. As an industry we need to train so many more staff in mental health first aid, farmers will always be isolated, having those who visit farms trained in knowing the signs to look out for when a farmer is struggling is crucial, many including Driving Change offer this training online. As an industry, we need to be proactive in facing up to the challenges of mental health.***



**If you have been affected by this article please contact Samaritans 116 123**



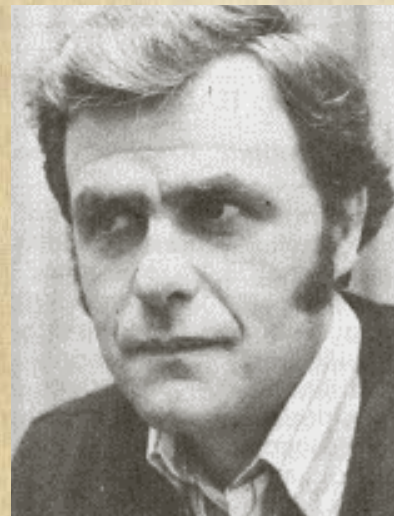
# A LOOK BACK ON 75 YEARS of the Irish Grassland Association

## WA (LOUIS) SMITH President of the Irish Grassland Association 1956/57



We would like to invite you to submit some stories, or loan us some keepsakes from your earliest memories of the Irish Grassland Association.

Please call 087 9626483 or email [office@irishgrassland.ie](mailto:office@irishgrassland.ie) if you have items that you feel would interest our archive team.



Matt O'Keeffe  
Editor and  
IGA Council  
Member

Wood College and studied economics and history in UCD and law in King's Inns. Louis received a first-class honours MA in economics (1948), writing a thesis comparing agriculture in Northern Ireland and the Republic. After passing his bar exams he spent a year at Manchester University researching British agriculture and getting lecturing experience.

In January 1949 Louis sat the civil service examination for the position of third secretary of the Department of External Affairs. Despite otherwise coming first by a distance, he failed the oral Irish test, which he retook unsuccessfully in August and then September. The Irish government intervened by temporarily appointing him economic assistant in the trade section of the Department of External Affairs. This was at the behest of the external affairs minister, Seán MacBride, who wanted Smith to explore the potential for trade liberalisation.

In 1951 Louis Smith joined the Irish Agricultural Organisation Society (IAOS) for which he organised agricultural cooperatives in the northern counties of the Republic. That year he married Sheila Brady and they went on to have three sons and three daughters.

Drawing upon his training as an economist and

Prof Louis Smith was an economist and lecturer who also played a key role in the co-operative movement, and in establishing the National Farmers Association (IFA). The youngest of eight children, Louis Smith was born in Crossdoney, Co Cavan to Isabel and Dr Fredereick Smith in December 1923. He was educated in Clongowes

personal experience of cooperatives, he later wrote 'The evolution of agricultural co-operation' in 1961, which examined the application of the cooperative principle in various countries with a characteristic emphasis on the practical over the theoretical. He exerted an important influence over young farmers, most notably by persuading them of the advantages of cooperative livestock marts over cattle fairs.

In 1954 he left the IAOS to join Macra na Feirme. He directed its activities in economics and marketing and became involved in efforts underway towards creating a farmers union spanning all commodity interests. Appointed economics adviser to the National Farmers Association (NFA), formed in January 1955, he helped establish the system of commodity committees that served as the basis of the NFA's organisation. In 1956 Louis was elected president of the Irish Grassland Association.

Louis Smith initially combined his NFA work with lecturing in UCD's Department of Political Economy before leaving the NFA and eventually becoming the emeritus professor of economics (international trade). He retained his interest in all things agricultural and in the 1960's/70's wrote a column in the Irish Independent, under the pen Agricola, which is the Latin word for farmer. Smith was one of the seven original signatories of the articles of association that founded the Irish Council of the European Movement in 1954, other signatories included Dr Garret Fitzgerald and George Colley.

Other writings of Professor Smith included a co-authorship of Elementary Economics in 1963; Milk to Market – A History of Dublin Milk supply in 1989 and Farm Organisations in Ireland – A Century of progress in 1996. Louis Smith died in Nov 2012, just short of his eighty-ninth birthday.







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