

Irish Grassland Association

Members' Information Booklet

Issue No. 53, 2024





CORPORATE MEMBERS 2024



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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. We would love to hear from you!

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Editorial



Philip Cosgrave Editor and IGA Council Member

Welcome to the IGA Spring/Summer 2024 Information newsletter.

It has been an especially challenging spring for farmers up and down the country, and I hope that this edition of the IGA information newsletter finds you well. Council members have been busy over the winter and spring organising our three summer events, which you will have the chance to learn more about later. We have the usual interesting mix of content in this newsletter, covering event reviews and previews, farmer stories, an extended technical feature and a very helpful and practical piece on famer health and wellbeing.

An important reminder for those members who have not consented to joining the Irish Grassland association CLG. Please text 'membership' to 087 9626483, and we will contact you or alternatively complete and sign the membership application form at the back of this booklet and return it in our free post envelope.

Looking ahead to our AGM in September, Maura Callery outlines the protocol for the election of new council members. Joining council is a very rewarding experience, so if you've the inclination to put yourself forward, please contact Maura.

First up in the events section are the reviews of

the very successful Dairy Conference and Gala Dinner back in January. The Sheep event will be hosted in Donegal this year and promises to be a great farm walk, so worth reading Christy Watson's preview on the host farm. The Beef event in June will take the IGA to a farm outside Ballinrobe. Niall Claffey gives us a taste of what to expect on this farm selling high class bull weanlings for export. The final preview in this section is provided by Liz Duffy on what is always a highly anticipated event, the Dairy Summer tour. Read about these two Co. Laois farms and why they've been selected as hosts.

For our Farmer Focus section, Alan Bohan revisits former hosts of an IGA sheep farm walk in Roscommon to here of their experiences since establishing clover in 2022. With such interest in dairy beef systems currently, Declan Marron visits Co. Wicklow beef farmer Brian Doran to learn how he manages to successfully run a suckler to beef enterprise in tandem with a dairy calf to beef enterprise.

We're very fortunate to have Dr Tim Keady, from Teagasc write an extended technical feature on making high feed value silage. Silage is an important and cost-effective feed, but it tends not to receive the technical focus that grazing perhaps does. Tim outlines the importance that silage quality has on livestock performance, before giving practical pointers on making this high feed value grass silage.

Have you ever heard of 'psychological flexibility'? To learn more about what this term means, and how it could help you, then please have a read of this article written by the Agri Mental Health team at UCD. Finally, Sean Flanagan writes a tribute to Michael Ward, past president of the IGA, who passed away earlier in January. May he rest in peace.

Philip Cosgrave, Editor IGA publication.

TO MOVE YOUR MEMBERSHIP TO THE IGA CLG
PLEASE TEXT "MEMBERSHIP" TO 087 9626483 AND WE WILL CONTACT YOU



This year the Irish Grassland Association CLG (IGA) AGM will take place in September. A small number of seats on our council can become available on foot of existing council members terms expiring. These council positions are then filled through an election at our annual AGM. Our organisation would not be able to function without the expertise of our extraordinary voluntary team. When retiring council members vacate their seat upon retirement, this then gives us an opportunity to welcome more new and exciting personalities and expertise onto council.

Grassland Association CLG 2024/2025

Last year we welcomed three new people onto council, Aidan Murray from Donegal, Conor Holohan from Monaghan and Tom Coll from Leitrim.

We want to give you, our long-standing members, lots of notice to consider putting your name forward this year for election to our voluntary association. All fully paid-up IGA members are eligible to be nominated for election to the IGA council. If you think that this voluntary role appeals to you, then please contact us to express your interest by emailing office@irishgrassland.ie (no later than our administration deadline of 9am, 28th June 2024) with two supporting nominations (Constitutionally we also need to receive two supporting nominations for you in writing from two fully paid up current Irish Grassland Association members). Feel free to ring our office if you require some guidance in this process. We would love to hear from you.

While our AGM is a good time away, it is paramount to register your interest if you wish to attend, by emailing the office@irishgrassland.ie no later than 9am, 20th May 2024 as the summer is an extremely busy time in our voluntary organisation and we want to ensure we have all our AGM business in order in good time.

In memory of Michael Ward

Michael Ward, who died on Jan. 24th last, was President of the Irish Grassland Association (IGA) in 1974/75. This was only a year or so after Ireland's entry to the EU, a turning point in the fortunes of Irish farming and an exciting time to be involved in the dissemination and delivery of information for uptake on farms.

Joining the council of the Grassland in the late 1960's. Michael was actively involved in the Grassland's preparations and planning for Ireland's access to the new opportunities opening up in Europe's high priced markets. The talk of the day was about farm expansion, capital investment in slatted sheds, etc. and access to finance. Consequently, the thirst for new information amongst Grassland members and

the exchange of ideas for lifting farm profits reached a peak. This was the context of Michael's role and the role of his fellow council members for the delivery of technology transfer and financial know-how into commercial farming at that time.

Michael and his wife Terry were regular Grassland participants in the Farm Study tours, to research centres, commercial farms and to Northern Ireland arranged by Walter Smyth and the Ulster Grassland Society, to Britain and to Europe. The purpose of these tours was to fill gaps in farming knowledge and, in particular, to gain new perspectives on the technologies and finances for increasing farm profits.

In 1973 Michael travelled to Moscow on the occasion

of the X11 International Grassland Congress as a council member representing the IGA in its bid to bring the Congress to Ireland in 1977. But the deciding vote was taken in the presence of the massed Soviet



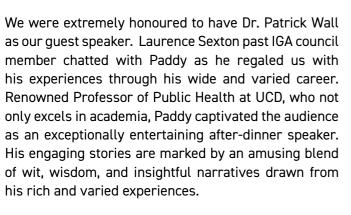
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IGA Members Social Night Review

Liz Duffy

Paddy's chat with Laurence was not only hugely through behavioral change. His ability to distill complex attended this Gala night.



On the evening of 9th January, IGA members and friends

gathered for our social night & gala dinner which was

very kindly sponsored by Yara. The night before the

dairy conference has been building year on year as

a highlight on the social calendar of the IGA and this

event was no exception. The night kicked off with lively

chat around the various tables of farmers and where

discussion groups and IGA corporate members also

availed of the opportunity to book their group tables.

As a seasoned professional in the realms of food safety and public health, Paddy seamlessly weaved together entertaining anecdotes and valuable insights. His remarkable career, from being the inaugural Chief Executive of the Food Safety Authority of Ireland to advising the Chinese government on food safety for the



Beijing Olympics, provided a treasure trove of stories.

entertaining but also educational, offering a unique perspective on managing lifestyle-related diseases topics into engaging stories makes him a standout speaker, leaving a lasting impression on those who

Dairy Conference Review 2024

The 2024 Irish Grassland Association Dairy Conference, sponsored by Yara, was held on Jan 10th following the highly enjoyable IGA social night event & Gala Dinner on the evening of the 9th. The Conference event was held, once again, in the excellent facilities of the Charleville Park Hotel in Co. Cork.

The theme of the Conference for 2024 was "Focusing on our strengths". Following a challenging year in 2023 in terms of milk price, input costs and periods of difficult weather, it was timely to encourage the attendees to reflect on and be motivated by what makes our dairy farms profitable and what can be controlled within the business. The focus of each of the 3 sessions aimed at encouraging all participants to focus on what happens inside the farm gate and to concentrate on the key elements of what make their business resilient and ultimately, sustainable. To fine-tune this focus the conference was divided into 3 sessions to address these topics:

- Managing Challenging Milk Prices
- Getting it right this spring
- Managing a system to suit your business

Session 1: Managing Challenging Milk Prices

The first session of the morning was chaired by IGA Council Member Patrick Gowing and opened with

a presentation by GD Young, Dairy farmer from Co. Westmeath. GD has a very interesting and diverse farming background and he gave us an overview of this journey from a high input, split calving, liquid milk system of 240 cows in the West of Scotland (along with beef/sheep & potato enterprises) to the spring calving, grass-based system he now runs with his wife Caroline and family outside Mullingar. GD's journey reflects a dynamic and adaptive approach to farming, with strategic decisions made in response to economic challenges and market opportunities. The major decision to uproot the family came from a very strong motivation to create a simple, grass based system that allowed for flexibility and a strong focus on work-life balance. Following major investment in land purchase, yard and infrastructure development on to what was a green field (former tillage farm) site, the Young's now run a highly profitable herd of 400 cows.

Tadhg Buckley, IFA Director of Policy/Chief Economist followed with a presentation giving a broad overview of the current position of the Irish Dairy Industry and a better understanding on the competitive advantage our grass-based system gives us in Ireland. The post quota era development in Ireland has seen a 33% increase in Dairy Cow numbers and a 65% increase in total milk solids and this has been done in a sustainable way.

Tadhg highlighted the value this has brought to the national and regional economies. Tadhg delved into the key drivers of the lower cost of production within the Irish system. The Irish Economy has one of the highest minimum wages (a reflection of the strength of the economy), highest electricity costs and the highest ratio when we compare concentrate and pasture costs (7:1) across the main dairy producing areas. Therefore, it is absolutely critical we do not lose focus on maximising the intake of grass within the production system and to do this it is imperative that we retain the nitrates derogation. Tadhg concluded with a discussion on the short to medium term outlook on global dairy markets.

To conclude the session Patrick Gowing facilitated a broader discussion on a comparison between GD's grass-based system in Mullingar to the high input/high output system he left in Scotland. The case study figures showed that in a high milk price scenario the high input system is relatively profitable however when adjusted for the on-going milk price volatility that is the Irish reality this high input system can come under serious financial pressure. The parting points highlighted that Ireland is an excellent place to continue with our grassfocussed system and it is critical that a change of focus due to nitrates implications and a limit on cow numbers does not lead to system drift.

Session 2: Getting it Right this Spring

This session brought us 3 excellent presentations on key areas of animal health and milk quality. Ger Cusack, practicing vet in Co. Waterford, gave us valuable insights into the effects of lameness within the dairy herd. In grazing herds, white line issues and sole bruising are the most common hoof lesions that he sees. Many vets and hoof trimmers also report anecdotally that Mortellaro (also known as Digital Dermatitis) has become more prevalent in recent years. Ger outlined key areas for action that can be easily implemented in a proactive way on farm. As with many issues, prevention is better than cure and on-going observation, prompt intervention where needed will reduce the overall impact lameness has within the herd.

Don Crowley, Teagasc Milk Quality Specialist, focussed his presentation on early lactation management of SCC and milk quality issues. Set against the backdrop of the requirement to reduce antibiotic use within herds (for example through the use of selective dry cow therapy SDCT) due to anti-microbial resistance (AMR), Don highlighted key areas important for this: the benefits of good information to assessing and managing the first 100 days incorporating the first milk recording within 60 days of the first cow calving, servicing the parlour

& changing liners. Cubicle allocation and hygiene are hugely important as is the management of cows within 2 weeks of calving and those freshly calved - these are the groups that are most susceptible to infection. High SCC in February is not normal so vigilance is critical as is the management of cow body condition with milk fever being a gate-way disease to an animal developing other problems. Analysis of ICBF reports will be crucial to get to the root cause of any on-farm issue e.g heifer mastitis, use these in conjunction with your Vet/Advisor to keep on top of things. For the year ahead Don urged a policy that all cases of mastitis will be sampled for potential culture and sensitivity. Identification of chronic cows is a crucial part in the control or prevention of mastitis. A lot of these cows are at best marginal in profitability and they should be culled out of the herd.

Laura Hannon, former Nurse now farming in partnership with her parents in Co. Meath, outlined her approach to calf rearing and calf health. Laura is a recent winner of the 'Animal Health Dairy Farmer of the Year' award and from her clear demonstration of attention to detail she was a very worthy winner. Housing facilities on her farm, as she described, are not state of the art but her management approach is. For example scour treatment protocols have been developed with her Vet as have very clear SOP's for all staff on the farm. Laura is meticulous about hygiene particularly in the areas of calf bedding and feeding equipment. Newborn calves are tube-fed colostrum as needed and blood tested for antibody levels. Calf weights are monitored every 4-6 weeks and Laura was clear that looking at average weights of groups of calves in not ideal. She uses the maintenance sub-index (with the EBI) of each calf to guide her as to the target weights and to monitor weight gain. This facilitates identifying additional care a calf may need and Laura highlighted that early identification of poor performing calves is a huge benefit. Routine dung sampling is used to identify whether calves require dosing. Laura concluded how she has resolved issues with summer scour in calves and 3 cases of CCN in 2023 through vigilance and early intervention and developing a programme that works for her farm.

Session 3: Managing a System to suit your Business

The final session of the conference took the form of a facilitated panel discussion with an audience Q&A. Chaired by IGA Council member, Michael Egan. We first got an overview from the 3 dairy farmer speakers on their career to date. The focus of the session discussions revolved around how each of the farmers have adapted their farm businesses to reflect key focus areas within their systems.

David Dolan, farms alongside his parents Louis and Bernie near Claremorris, Co. Mayo. The 50 ha farm carries 110 crossbred cows. The farm has undergone significant change over the last 6 years going from a split calving high output system with multiple out blocks, to a spring calving medium output system on a single block. David is focusing on reducing the environmental impact of the farm and making more room for biodiversity. 20% of the farm is now in high clover swards with plans to introduce multi-species swards in 2024. David has just completed his Nuffield Scholarship, titled 'Net Zero Emissions Farming: Challenges and Opportunities for farmers and co-ops'.

Mark Collins is farming in Tipperary in partnership with his parents, Padraig and Ena. The partnership is milking 450 crossbred cows on 170 ha with a 10 ha out block and all youngstock are contracted reared. Mark has a strong focus on a simple efficient system that produces quality milk solids from resilient pasture in a sustainable manner, and this year he implemented a 10 in 7 milking routine. There is a strong emphasis on keeping a positive working environment, to achieve the farm's goals and the personal development of staff.

Owen Ashton is farming in a cow leasing/contract milking deal with Kevin and Margaret Twomey in Castlelyons, Co. Cork. Not from a dairy farming background, he has always had a passion for dairy farming, and this partnership with the Twomey's has allowed him to realise his goal. Owen has a strong focus on producing high quality milk from a grass based production system, with a good work life balance.

Each farmer showcased a unique approach, highlighting adaptability and innovation. Together, they serve as compelling examples of the industry's future driven by youthful energy and commitment.

Conclusion

Overall the conference was an excellent mix of technical presentations, panel discussions, Q&A sessions, with opportunities for networking to facilitate the exchange of ideas and experiences among dairy farmers, industry

experts, and event sponsors Yara. Overall, the theme "Focusing on our strengths" showed it is clearly possible to adopt a proactive approach to overcoming challenges and building a sustainable future for the Irish dairy industry.

Thanks to all our speakers and session chairs for their time in preparing their papers and talks and for such high quality presentations on the day.



Session 1: Tadhg Buckley speaker, Eva Ross Yara (event sponsor), Bryan Hynes IGA President, Patrick Gowing session chairperson, GD Young speaker



Session 2: Ger Cusack speaker, Don Crowley speaker, Karina Pierce session chairperson, Bryan Hynes IGA President, Eva Ross Yara (event sponsor), Laura Hannon speaker



Session 3: Michael Egan session chairperson, Mark Collins panelist, David Dolan panelist, Owen Ashton panelist, Vincint Griffith IGA Dairy conference chairperson, Bryan Hynes IGA President, Eva Ross Yara, event sponsor

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





Top class Donegal flock to host 2024 Sheep Event



This year the IGA is travelling to the Stevenson farm in southeast Donegal for the on-farm Sheep Event which takes place on the 14^{th} of May, and is proudly sponsored by Mullinahone Co-Op.

This award-winning sheep and cattle farm is run by mother and son team Margaret and Jack Stevenson, and is located midway between Castlefinn and Killygordon, Co. Donegal.

In 2023, the Stevensons won the suckler to weanling category in the National Livestock Show Sustainable Farmer Awards. The IGA are delighted to be hosting the sheep event on a superb sheep farm which is also an award-winning beef farm.

To say that the Stevenson farm ticks all the boxes in relation to best practice in sheep production hardly does justice to the level of flock management.

The Stevensons sheep enterprise comprises a midseason flock lambing just over 500 mature ewes and 60 ewe lambs, the mature ewes consistently scan over 2 lambs per ewe with the most recent scanning results achieving 2.04 lambs per ewe joined. Because of the high scan rate, up to 17% of the ewes bear triplets, after cross fostering about 50 triplets are artificially reared on the farm. There is a mix of sheep breeds on the farm including Suffolk X Texel, Charolais, Roubex and Dutch Spotted. Mature ewes and ewe lambs are all mated to lamb at the same time, and breeding female replacements are kept from within the flock.

The cattle enterprise comprises a herd of 29 spring calving suckler cows with all progeny sold as weanlings. A good portion of the suckler herd is comprised of first cross dairy beef cows with plenty of milk producing very impressive growth rates up to weaning with bulls gaining 1.47 kg/day and heifers 1.35 kg/day. Similar to the sheep enterprise, faecal sampling is used to determine whether cattle require anthelmintic dosing. Cows are condition scored and a comprehensive vaccination programme is in place for the suckler herd.

Thanks to the great foresight of Margaret's late husband Nicholas, the sheep handling facilities are first class with sheep housed in a slatted house with plastic sheep slats, a roofed handling unit with washdown facilities, and permanent individual pens for ewes after lambing. The cattle handling facilities are similarly very good.

Lambs are marketed through a producer group, with the majority achieving U3 grades. Due to very careful selection of lambs for sale, carcass weights are remarkably uniform. The average carcass weight for lambs sold in 2023 was 21.25 kg with no meal fed prior to weaning. Lambs are not castrated and only ram lambs are fed meal after weaning.

Faecal sampling is used to determine if lambs require an anthelmintic drench. Mature ewes never receive a dose for worms but receive a fluke dose.

The foundation for achieving this high level of lamb output is excellent management by Margaret and Jack, concentrating on good animal nutrition through excellent grassland management. They regularly make silage with a DMD of 75% from cutting in the third week of May. Attention is paid to soil health and fertility with regular whole farm soil analysis. They use protected urea and slurry is spread using low emission equipment.

The Stevenson farm story is very impressive for both the sheep and cattle enterprises. Good grassland management is a key driver of this high output operation, with paddock grazing central to this. Mixed grazing is practiced when possible.

All farmers are welcome to come along to the event which promises something for all sheep farmers and indeed suckler farmers.



Margaret and Jack Stevenson

This free event is very kindly sponsored by Mullinahone Co-op. Food and refreshments will be available upon arrival from 6:00 pm. The event will start at 6:30 pm sharp and finish at 8:30 pm.



Ken Graham, IGA council member with Niamh Bambrick, Mullinahone Co-op

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



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This year's IGA Beef Event will take place on the farm of Martin and Caroline Shaughnessy, on the 11th of June. Martin runs a suckler-to-weaning system, while also lambing approximately 150 ewes – a typical suckler and sheep operation in the west of Ireland.

The farm, which is located east of Ballinrobe town, Co. Mayo, consists of 36 ac of owned and 10 ac of rented, good-quality ground. Originally starting off with a Simmental-type cow, Martin now runs a herd of 16 three-quarter-bred Limousin dams mated to Belgian Blue sires each year. Maiden heifers are crossed back to Limousin genetics, while sexed semen was also introduced in 2023.

Martin - who also works part-time in local Aurivo marts - moved away from using a stock bull in the early 2000's; he now uses 100% AI with the aim of breeding males for the export market and females for the domestic trade.

The sheep enterprise consists of Suffolk and Texelcross ewes - split lambing at the start of February and then again around St. Patrick's day each year. The ewes are sychronised to leave the management during lambing easier. Lambs are sold through the South-Mayo Lamb Producer Group. The suckler system is quite simple – a herd of topquality E and U-grade cows capable of calving a topquality calf and the ability to feed that calf with an abundance of milk. Also, that cow must calve every 365 days – a calving interval of 363 days was achieved in 2023/2024.

Calving starts on January 1st annually with all cows calved in six weeks. Top-quality grass is introduced at the end of March when the pairings are turned out for the year. While this might be considered late, early spring grass is prioritised for the early lambing ewes.

The cattle rotationally graze a 10-12 ac block on the home farm which is laid out in paddocks under a leader-follower system. The calves graze ahead of the cows allowing them to utilise quality, leafy grass before the cows. This also allows Martin to introduce meal prior to weaning. In 2023, average 200-day weights stood at 315 kg for the males, while the females weighed 271kg at that stage.

An early application of protected urea is applied where possible. As Martin needs to prioritise grass early on in the year, first-cut silage is aimed for early June, with Martin closing paddocks which go too strong for grazing throughout the grazing season – providing a top-quality winter feed source.

Second-cut silage generally takes place in July. The farm grew 10.6 t DM/ha in 2023 – well above the national average quantity grown on Irish drystock farms. Slurry is also spread in spring at a rate of 3,000 gals/ac.

Most of the machinery work is contracted out – allowing the Mayo-based farmer to focus on other important tasks around the farm.

With his relatively small herd of cows, Martin definitely operates at the higher end of the market for both males and females. In 2023, his average price for both males and females stood a €1,700/head – an impressive price for weanlings weighing between 300-400kg.

Martin is also involved in the Teagasc Agricultural Catchments Programme – with the farm located in the Cregduff catchment.

We will also be joined by Peter Howard, technical veterinary advisor with Boehringer Ingelheim Animal Health who will speak to us on the topic of animal health on beef farms.

This is a national event and all farmers from across Ireland are very welcome to attend. The event will deliver key learnings for suckler farmers and indeed sheep farmers.

This free event is very kindly sponsored by FBD Insurance. Food and refreshments will be available upon arrival from 6:00 pm. The event will start 6:30 pm sharp and finish at 8:30 pm.



Martin Shaughnessy



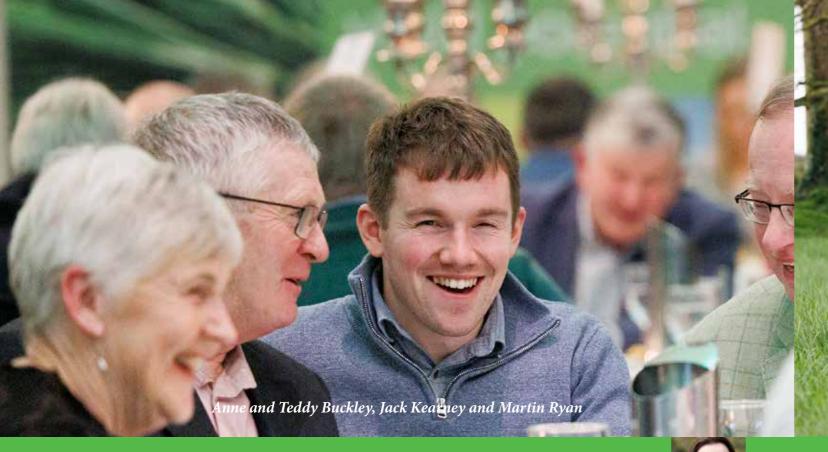
FBD, proud sponsors of the Beef Event

We would like to thank our sponsors FBD Insurance for their continued support



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IGA Dairy Summer Tour Social Night

Maura Callery IGA CLG Office Manager and Director



The Dairy Summer Tour visits Co. Laois

Bruce Thompson host farmer, Bryan Hynes IGA President and Dairy Farmer,

Mick Conlon AIB event sponsor, Trevor and Roy Cobb host farmers





The IGA are hosting an additional member's event on Monday the 8th of July, the evening before the Dairy Summer Tour at the Midlands Park Hotel in Portlaoise. This evening is open to all members, regardless of industry. This event is kindly sponsored by *ifac*. Commenting on the evening John Donohoe *ifac* said *'We are delighted to be associated with this event. We are looking forward to another very enjoyable night with the IGA members."*

The positive feedback and the increasing number of requests from members to facilitate a social element to our calendar, is testimony to the popularity and success of previous social nights. The evening will kick-off at 7:30 pm with a 3-course Gala dinner. The menu as always, is of a very high standard using quality assured local Irish Produce.

Slow Cooked Beef Feather Blade, Red Wine Jus
Melody of Market Vegetables, Creamed Mashed Potato
Heritage Style Meringue

served with Seasonal Fruits, Whipped Cream and a Duo of Sauces

Freshly Brewed Tea or Coffee

Tickets to this social night are only €55 per person and can be purchased on our website www.irishgrassland.ie or by calling our office on (087) 9626483. A special rate of €500 is available for tables of 10. WhatsApp or call Maura on (087) 9626483 to make a group booking. Booking is essential as places are limited. Bedrooms can be secured by contacting the hotel directly on 057 8678588 and quoting "IGA". 24-hour free parking is also available for all delegates staying at the hotel. Please don't delay as accommodation always sells out quickly for this event.

We would like to thank *ifac* for their kind sponsorship of this event



The IGA Summer Tour for 2024 will be held on Tues 9th July in Co. Laois. Join us as we head to two exceptional farms where there will be a wide range of themes showcased on the day. Bruce Thompson who is farming outside the village of Ballyfin is an 8th generation farmer. The farm which was traditionally a mixed farm is now a commercial dairy farm with a herd of 275 cross-bred cows. Bruce is a popular and well-known Farming for Nature Ambassador and Nuffield Scholar.

Roy and Trevor Cobbe are farming in partnership. The family has a long history in farming, with this the 3rd and 4th generation farming at Doolagh, outside Portarlington. Trevor was the 2021 FBD Young Dairy Farmer of the year and since returning home has consistently adopted best farming technologies and efficiencies and has been hugely supported and encouraged by his father Roy. They run the Doolagh pedigree registered Holstein Friesian herd of 120 cows.

AIB again sponsors the IGA Summer Tour, and Mick Conlon, AIB Agri Advisor said "AIB is delighted to continue our long association with the Irish Grassland Association. This year's summer tour is a great opportunity to see and hear from two progressive farms. Bruce is running a large-scale commercial

dairy farm, with a focus on the environment while the Cobbe's are an excellent example of the typical intergenerational partnerships that are in place on many farms around the country. Both farms will have very different stories and insights to share but the fundamentals of cows, management and grass are key to the success of both farms.

Roy & Trevor Cobbe

The Cobbes' are managing this 120 spring calving, grass based, cow herd on a total land block of 81 ha. The milking platform consists of 43 ha and is stocked at 2.7 LU/ha. Young stock and silage are managed on supporting blocks of land. Trevor came home farming full-time almost 15 years ago



to a herd of 40 dairy cows operating as a mixed farm. The herd has grown and developed since then with a critical focus on herd performance through breeding improvements with a strong focus on EBI. Current EBI of the herd is €235 with a fertility value of €125 (top 2% of herds) and a milk figure of €49. In 2023 the herd

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supplied 543 kg/MS/cow which due to the difficult year experienced by many, and was a 6% drop on the 578 kg/cow supplied in 2022. Fat and Protein in 2023 were 4.48% and 3.55% respectively with and average SCC of 129K. Fertility performance of the herd was excellent with textbook KPI's of 90% calved in 6 weeks and a 366 day calving interval. Meal input to the herd was approximately 1.1 t/cow. Trevor has a very clear focus when it comes to breeding management and attention to detail. The EBI of the calves born in 2024 was €292 with significant improvements in % fat & protein whilst raising fertility to €125 and milk to €81. Roy & Trevor will discuss the progress in their herd, the suitability of the cow type to their system while optimising output and stocking rate to drive the technical efficiency and financial sustainability of the business.

Trevor has clear discipline when it comes to grassland management. This starts with a farm walk every 5 days from late March on. This allows both Trevor and Roy to make the right grazing decisions for the week ahead and have an effective plan for keeping quality grass in front of cows throughout the season. They invested in LESS slurry spreading equipment a number of years ago and this combined with clover inclusion to reseeds has allowed them to better manage available slurry and reduce their chemical nitrogen usage. This has been assisted through regular soil sampling, a liming programme and addressing P & K where needed. PastureBase records show 15.2 t/DM/ha grown in 2023.

Increasing the herd from 40 to 120 cows has required investment and development in key areas of: grazing infrastructure (paddock system and farm roadways), additional animal housing and slurry storage and calf rearing. This investment has been clearly planned and carried out on a phased basis. The final piece of the jigsaw now is the upgrading of the milking facilities. In 1994 Roy installed a 4-unit parlour for the 40 cows he was milking at that time. Since then, he added an additional 2 units, and they now have a 6 unit doubleup system. Milking time in spring was taking up to 5 hours with both Roy and Trevor in the pit. On the day of the event we will present a financial appraisal of the options that are available to Trevor and Roy. Our audience will have a unique opportunity to participate in the decision-making process, weighing up the pros and cons of the various milking systems and how they might best suit the running of the farm and the longerterm labour needs of the partnership.

The Cobbe family's success is a testament to the power of intergenerational collaboration. They exemplify what is possible within a family partnership structure when the pre-existing solid foundation laid by one

generation gives the next an excellent opportunity to grow and develop the business. Clear and open communication, compromise when needed and a clear set of objectives have led to a sustainable business for two farm families into the future. We look forward to hearing their story in July

Bruce Thompson

Bruce operates a grass based, spring calving herd of 275 cross-bred cows. Bruce is an 8th generation dairy farmer and a 2020 Nuffield Scholar. He is married to Laura and they have two young children, Keelin and Cooper. Leaving secondary school in 2001 in very different



economic times, he studied engineering before returning home to help his father, Ian, on the home farm through a difficult TB breakdown. Since then, they have leased land and housing facilities, purchased quota and grown the herd steadily to the 275 cows that will be milked for 2024. Total land area farmed is 250 ha with 100 ha on the milking block. The 12-unit herring-bone parlour was upgraded to a 40 bail rotary parlour in 2018 around the time when the decision was taken to incorporate Jersey genetics into the mainly British Friesian herd.

The Herd EBI currently stands at €233 with milk at €77 and fertility at €101. 2024 calves have an EBI of €295 and €91 for milk and €131 for fertility. Physical performance of the herd in 2023 was 461 kg/MS per cow delivered on 1.1 tonne meal per cow at 4.95% fat and 3.71% protein and an average SCC of 128K. Bruce commented 'The herd is young, but we've consistently increased production over the last 3 years so I'm looking forward to maturity!'

310 cows were carried on the 100 ha block in 2023 but Bruce has taken the decision that 275 cows is a more appropriate stocking level for his system in 2024. 2023 fertility performance checked all the relevant KPI's: 86% calved in 6 weeks with a 362 day calving interval. In 2023 PastureBase grass records show 14.1 t/DM/ha grown.

Key areas for focus at the event will be:

- Development of the farm business since Bruce took over
- Grassland management and the breeding performance goals for the herd

- Farm labour management people and effective communications
- Biodiversity space for nature within a profitable system.

Bruce has 2 full-time members of staff, Nick and David. He takes a student every year and has 2 relief milkers for weekends. The bulk of the slurry and silage operations are carried out by contractors but due to the fragmented nature of the farm most of the fertiliser spreading is kept in-house. In order to effectively manage and prioritise day to day and seasonal tasks, Bruce is very keen to assess and adopt any technology that can streamline the labour input on the farm. Morning milking starts at 6am and evening at 2.30 pm, meaning that each day and week must have clear structure and planning. Bruce and his team use phone apps such as Trello and TimeTree which offer shared calendars, identification and notification of tasks, scheduling/checklists etc. This allows all rosters to be shared, with clear responsibility for tasks which minimises any possible breakdown in communication amongst team members. Along with this Bruce has installed heat detection collars and converted the calf feeding system to reduce the amount of time needed to train young calves. Bruce and Nick also take a unique approach to grass measuring again with the goal of

doing the job more efficiently. We will delve fully into Bruce's approach to time management with his team on the day.

As part of his farming practices Bruce focuses heavily on what he can do for wildlife and enhancing habitats on the farm. In 2020 he undertook and Nuffield Scholarship focussing on the plight of the dung beetle. By reducing anthelminthic use he has not only helped build a thriving dung beetle population but also reduced costs without compromising on animal performance. Bruce has gone on to co-ordinate an EIP project within his discussion group that focuses on a targeted and selective approach to animal wormers in order to protect and increase dung beetle populations on the land. Other nature actions taken on his farm include planting and managing hedges for biodiversity, planting native trees and installing 2 ponds. Bruce is recognised as a strong advocate and champion for biodiversity within farming circles. In 2023 Bruce was conferred as an ambassador as part of the Farming for Nature network. The aims of the organisation are to promote and work with farmers to enhance the natural health of the countryside. Bruce stands as a testament to the impact an individual can have in adopting sustainable practices into profitable farming operations.

Booking event tickets is essential as bus spaces are limited. You can purchase tickets online www.irishgrassland.ie or call 087 9626483. Accommodation always books out very early so we urge you to act very quickly and secure your b+b immediately.





We would like to thank AIB for their continued support



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Clover in Curraghboy - IGA returns two years on





In May 2022 the IGA sheep conference was held in the Hodson Bay Hotel Athlone and was followed by a farm walk on the farm of Peadar and Aoife Coyle near Curraghboy Co. Roscommon. The father and daughter team have multiple enterprises on the farm with 40 sucklers, 50 dairy calf to beef bullocks and a flock of over 550 ewes. The sheep flock was the main attraction for the IGA farm walk with excellent flock performance on display. The flock consistently scans 1.9 lambs and weans 1.7 lambs per ewe joined with all lambs finished on farm.

Grassland management

Along with the excellent flock performance the other aspect that stood out was the impressive grazing infrastructure on the farm which allowed for good grassland management. The home farm, consisting of 80 acres, was well stocked at 2.57 LU/ha supporting 40 sucklers and their calves along 300 ewes and their twin lambs. These animals were kept in three grazing groups which were rotated through the 17 paddocks, with some paddocks sub-divided when grass growth was very strong. This high level of grassland management results in all lambs being finished on farm with grazed grass making up the majority of the diet.

The farm has excellent soil fertility, a testament to Peadar's dedication to improving it over the past number of years. The whole farm is soil sampled every three years with lime and targeted P&K applications occurring each year. At the time of the farm walk the vast majority of the farm was in index 3 and 4 for P and K and the average soil pH was 6.1 ranging from 5.9 to 6.4. The Coyle's used the soil sample results to great effect ensuring that the use of slurry and farm yard manure was targeted to optimise its benefit and to also reduce the farms dependence on chemical fertiliser.

Clover establishment

When the IGA team first visited the farm to assess its suitability to be a host farm, they were very impressed with the willingness to try new technologies and practises to improve the grassland management on the farm. One area that Peadar had a keen interest in was the incorporation of clover into existing swards but he admitted that it was something he had tried previously with little success.

It was decided that with the help of the IGA team, the Coyle's would over sow a paddock of clover ahead of the farm walk with the hope that it would be established so the visitors to the farm on the day could assess the success of the trial. With the advice and guidance of IGA council member and Teagasc clover expert, Michael Egan, Peadar embarked on his mission to get clover established and to retain it in the sward. The first port

of call was to select the most suitable paddock with good soil fertility and a low weed burden. Luckily this was an easy task on the Coyle's farm and with the help of a local contractor the clover was stitched into the paddock in early April. Peadar had previously tried to over sow clover with a normal fertiliser spreader with little success and so this time around it was decided that stitching in the clover seed would be required as the sward was quite dense due to sheep grazing the paddock. A small leaf clover variety was also chosen to avoid over grazing by the sheep and was sown at a rate of 3kg per acre.

Getting clover established in an existing sward is no mean feat but maintaining the clover in the sward is where the real difficulty lies. It was at this stage of the process that the Coyle's were most keen to pick up new knowledge and implement it to ensure the clover was retained in the sward. The first change that was needed to their usual grassland management was reducing the level of chemical nitrogen applied with the paddock receiving zero chemical nitrogen in 2022 and only 20 units in 2023. This lower level of nitrogen allowed the clover to compete with the grass as it has the ability to fix its own nitrogen and then when the plant is established excess nitrogen produced is available to the grass around it. The second change in management that was needed was reducing the pre-grazing height to 6-7 cm (approx. 1,000 kg DM/ha) and to avoid heavy covers of grass building up on this paddock. The aim here was to increase the level of sunlight that was able to reach the clover plants which have a more horizontal growth pattern than grass and which could be easily shaded out by the grass if the covers were allowed go too heavy. In practise Peadar simply grazed this paddock more frequently and found that livestock grazed the paddock out well and were content with the lower opening covers. The same principle applied during the two winters since establishment where low grass covers were carried over the winter to give the clover the best opportunity to receive sunshine in the spring.

Clover grazing management

Peadar and Aoife were delighted with the clover establishment and with how well they were able to maintain a high level of clover over the past two years. Another 10 acres was stitched in, during May 2023, and the Coyle's plan to continue to incorporate clover at the rate of 10 acres per year until the entire farm has established clover, at which point they will start again with over sowing the paddocks with the lowest clover content. The Coyle's used the clover paddock in the grazing rotation for the cows and ewes in the spring and early summer and then used it for finishing lambs in the late summer and autumn. When asked if he saw any improvement in animal performance when on the clover sward, Peadar said that that it was too small an area of the farm and too short term to make any concrete conclusions, but he did feel the lambs had performed well on the clover and bloat wasn't a problem all the while having a much-reduced fertiliser bill for that paddock.

When asked if he would do anything differently, Peadar remarked that you need to have ideal conditions for good establishment, stating that his 2023 establishment wasn't as successful due to very dry and then very wet conditions pre and post sowing but results were still satisfactory as he followed all the other guidelines exactly as he had in 2022. Another thing he would do differently is to be more careful to avoid poaching the clover paddocks. During the wet weather in September 2023 the paddock was poached by the cattle more than Peadar would have liked and he is not yet sure how much this has damaged the clover but it did set it back. He is hoping it will rebound this spring when temperatures and hours of sunlight

In summary Peadar and Aoife are very happy with how the inclusion of clover on their farm has worked out and they will continue to incorporate more clover into their grass swards in the years ahead.





Dairy-beef adding to the bottom line on Wicklow beef farm

Declan Marren A council member and Aurivo

Brian Doran farms just outside Carnew in Co. Wicklow. He runs a suckler to beef system combined in recent years with a dairy calf to beef enterprise while also operating a tillage enterprise cropping around 150 acres each year.

The suckler herd extends to just over 40 cows which calve down in January/February with a maternal type cow mated to terminal Charolais and Limousin stock bulls.

In 2018 Brian purchased his first batch of 30 dairy-beef calves in order to boost farm output at what is a relatively low initial input cost.

He outlined that "the aim is to finish 80 cattle a year from the farm. I saw the dairy-beef calf as a good way of increasing farm output without a huge cost or a big increase in the overall labour requirement. Calving cows is a demanding job, I really enjoy the cows but during the calving season it is full on – and it has to be in order to have a successful calving season. I don't mind it at all as I know it is for a limited time period but I didn't want to calve any more cows so the dairy-beef calves seemed like a good alternative."

With the farm a busy place in January and February with calving and more so from a disease pressure point of view, Brian gets the calves contract reared by a local farmer who has the expertise in calf rearing.

"I'm busy calving and have plenty going on here in the yard. I feel that having them reared by someone who is really good at it and can focus on calf rearing it is well worth the cost. I provide the milk powder and meal and he provides the shed and labour – it has been working well and it's not something I would change.

The risk of bringing in disease to the suckler herd during that early spring housed period is too big a chance to take in my view. When the calves arrive on my farm, they are weaned off milk, eating almost 2 kg of concentrate/day and ready to move out to grass."

Calf type

Initially Brian was bringing in a mix of bullocks and heifers and a range of breeds, predominantly Angus and Hereford. However, in the system he is operating he found that the heifers, especially the more traditionally bred types couldn't reach a significant carcase weight and he would have to draft them for slaughter earlier than he would like at lighter weights to avoid them going out of specification for carcase fat score.

"I suppose we have learned a lot since we started at the dairy-beef calves. Firstly, in my system I don't see the heifers working – they are too light for my liking, it is hard to make it pay when you have a carcase weight of 260kg or 270kg, it's just not in it. So, for that reason we have moved to all bullocks. Secondly is calf quality, you must

have the right calf from day one or you are at nothing with this type of stock. One year the calves we bought just weren't up to scratch and it really showed when they were slaughtered – the proof was in the cheque from the factory, poorer grades and less kilos sold.

I target the best calves I can find now; the majority would be AI bred and you have to know the cow they are coming off as well. I haven't used the Commercial Beef Value (CBV) to purchase this year, but it is something I will look at in the future.

We have done more and more Belgian Blue bullocks over the last few years and if I could get enough of them, I would go all that way. The darker the colour the better they seem to be, the whiter ones I find bring more from the dam and are that bit harder, but if you can find the darker blue calf, they are the ones that will weigh and grade."

System

Calves are purchased at a minimum of three-weeks-old, four or five weeks if possible. There is a strict vaccination protocol on the rearing farm for pneumonia – RSV, Pi3 and IBR. All bulls are castrated during the rearing phase, so they are covered for clostridial diseases prior to that taking place as well.

Once arrived on Brian's farm as weaned calves they transition to grass as soon as possible. At this stage they are eating nearly 2 kg of concentrate/day and Brian leaves them on this level of feed for the first grazing season.

"They are rotating around the paddocks to get fresh grass all the time, but I feel feeding the concentrate at this stage hugely benefits overall lifetime performance. My feed trough is a number of blue barrels cut in half and tied together. I can pull it along after the quad from field to field and it keeps the feeding space clean all the time."

Housing for the first winter usually takes place in mid- to late-November, finishing off by grazing the silage ground prior to housing. The first winter diet consists of paddock baled silage and first cut silage plus 2 kg of concentrate. In 2022/2023 first cut silage was 78% DMD while this winter it tested 75% DMD, so really high-quality feed is helping boost performance over the winter period. There is no store period with these animals, they are consistently performing which allows Brian to get them finished at 22 months of age at significant carcase weights. The ration used is predominantly home-grown barley with a balancer and soya bean meal for protein.

Typically, turnout is early-February on the farm however this spring was a little different. Yearlings did get out for three weeks in February, but such was the level of rainfall that they were rehoused for most of the month of March.

Paddock system

When yearlings go back to grass for the second grazing season, they receive no concentrate until autumn. Grass quality and management is excellent on the farm and Brian puts a lot of that down to his learnings from his time in the Irish Farmers Journal/Teagasc BETTER farm programme.

"When I started in the programme, I had six paddocks on the farm. I now have 27 permanent paddocks with the option of splitting some of them if needed. It has been a huge benefit to the overall performance of the farm for something that is so simple to do. My fertiliser input has stayed the same but I am now carrying far more stock than I was before putting in the paddocks. I have grass to turn stock out to in spring which I would never have had otherwise and still I can carry stock at grass further into the autumn now because I have built up the amount of grass during August and September to use later in the year."

In September or depending on weather conditions, concentrate is reintroduced to the year and a half olds at a rate of 2 kg/head up until housing which is usually in mid-October. From then on, they slowly build up on concentrate to 5 kg by Christmas time and they probably go to 8 kg by drafting time.

"When we start drafting, I will be going nearly every week with a few. I don't want to have one or two big drafts; I like to go through stock every week and pick out maybe three this week maybe five next week. They will be from my own suckler stock and the dairy-beef stock. A week can make a huge difference to these animals when its coming to the point of slaughter."

Looking at the slaughter reports from what had been killed already this spring and those from last year the performance of all the stock but especially the dairy-beef stock is impressive. At an average slaughter age for the bullocks of just past two years, the dairy-beef animals have averaged a carcase weight just in excess of 360kg.

This is a result of excellent management and attention to detail on Brian's behalf combined with good genetics that suit the system he has in place. Targeting the best quality calves is costing more initially to buy that type of stock but it is paying dividends on the day of slaughter.

For Brian, sourcing the right calf is one of the biggest issues and he also feels that the cow type is heading in the wrong direction from a beef calf point of view which leaves it difficult for farmers to leave a margin with the average quality calf currently available.



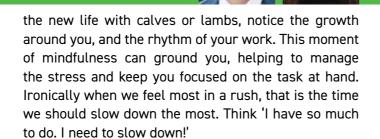
Minding your wellbeing this year

Farming is a rewarding job but it can certainly have its challenges. Bad weather, price fluctuations, physical demands, long hours, regulations, disease outbreaks the list goes on. With several hurdles to jump on a daily basis, it is understandable that these can take a toll on the body and mind, particularly during busy periods like spring. There are however some simple steps we can take to help us cope with the ups and downs of farming. Recent research from the Agri Mental Health team at UCD has highlighted a concept known as 'psychological flexibility which could have major benefits for reducing stress, anxiety and low mood. Psychological flexibility broadly refers to our ability to stay connected to the present moment amidst life's stressors. This means holding our own thoughts and emotions a bit more lightly and acting on longer term values and goals rather than short term impulses, thoughts, and feelings. Here we look at six simple and effective ways you can build your psychological flexibility and improve your wellbeing in 2024.

No 1. Contact the present moment

For farmers the spring season is a busy time of year. It can be overwhelming, leading us to focus on what might go wrong or what needs to be done tomorrow. Take a moment when you feel frantic and at your most busy to pause. Feel the soil in your hands, appreciate

Dr Tomás Russell and Prof Louise McHugh UCD



No 2. Notice your thoughts

Worries like, 'What if I can't get stock out?' or 'What if the weather doesn't cooperate?' can dominate your thoughts. Practice stepping back and observing these thoughts as if they were just noise from a radio. Label these thoughts as 'Station Worry' or 'Station Anxiety'. Ask yourself what happens if you don't buy into these worries, even if they keep playing on the radio. What if you simply noticed these thoughts but instead focused on small steps and meaningful actions that will help you overcome the task or challenge at hand?

No 3. Be curious with your emotions

Feeling anxious or worried about the upcoming season is natural. Instead of fighting these feelings, open yourself up to them without denial or resistance. This willingness or curiosity can allow you to commit to actions within your control, such as preparing your equipment or tending to small jobs around the farmyard, rather than being paralysed by fear of the unknown.

No. 4. Mind your relationship with yourself

You are more than your worries. You are a farmer with experience, skills, and resilience. Recognise that you are not defined by your thoughts or feelings of anxiety. This perspective allows you to see beyond the immediate stressors and continue to act in ways that reflect your identity and overall values as a farmer.

No 5. Connect to Purpose

Identify what truly matters to you. Is it sustainability, providing for your community, or the legacy of your farm? Keeping these values in focus can guide your actions and decisions, even when faced with stress and uncertainty.

No. 6. Commit to healthy habits

Commit to actions that align with your long-term goals and values. Instead of getting bogged down by the immediate stress of spring preparations, dedicate time each day to activities that reflect what's important to you, whether that's innovating on your farm, educating

others about farming, or ensuring the well-being of your livestock.

By integrating these simple psychological flexibility practices into your daily routine you can better navigate the stresses of farming, remain focused and effective, and live a happier and healthier life.

To help the UCD Agri Mental Health team with our research and allow us to further support farmer mental health in Ireland we kindly ask you to participate in a short survey by following the link below or scanning the QR code on your phone. The survey should take around 20 minutes to complete.

https://bit.ly/farmersmentalhealth



Suicide Bereavement Liaison Service Irish Farmers' Association & Pieta House:

Website: ifa.ie/mental health dial the phone number for your area (e.g. for Cork/Kerry dial +353 85 870 6714)

Samaritans:

Website: samaritans.org / 116 123

Pieta House 24 hour helpline:

Website: pieta.ie

Contact 1800 247 247 or text 'HELP' to 51444



IRISH GRASSLAND ASSOCIATION CLG - MEMBERS' INFORMATION BOOKLET

Grass silage - focus on digestibility for high levels of animal performance

Dr Tim Keady



Introduction

The feed value of silage is a combination of its intake potential and nutritive value, both of which are determined, primarily by digestibility. The mean DMD of silages produced in Ireland is approximately 69% (range 52% to 82%). My objective is to present the effects of silage digestibility on animal performance. The major factors that affect silage digestibility are also presented.

Effects of silage digestibility on animal performance

Lactating dairy cows

Data from 23 comparisons involving lactating dairy cows, summarised in Table 1, shows that the mean daily response for each 1 percentage unit increase in silage DMD is 0.33 kg milk. Therefore increasing silage DMD by 5 percentage units (e.g., from 68 to 73 %) increases milk yield by 1.65 kg/day. The response to silage digestibility declines as on concentrate feed level increases. For silage-based diets consisting of forage: concentrate (DM:DM) ratios of 80:20, 60:40 and 40:60 (equivalent to daily concentrate feed levels of 4.2, 8.4 and 12.6 kg, respectively) each 5 percentage unit increase in silage DMD increases milk yield by 2.9, 1.9 and 0.8 kg/day, and milk protein concentration by 0.05, 0.05 and 0.15 percentage units, respectively. Even when cows are offered high levels of concentrate (60% of the diet dry matter) increasing silage digestibility increases the yields of milk and fat plus protein, and milk protein concentration.

To maintain milk yield due to reducing silage digestibility by either 1 or 5 percentage units, or harvesting 1 week later, requires additional concentrate supplementation of 0.55, 2.75 and 1.8 kg/day per cow; which is equivalent to 1.7 t, 8.5 t and 5.6 t per month for 100 cows, respectively.

Table 1. The effects of silage digestibility on dairy cow performance (mean of 23 comparisons)

	Silage DMD (%)	
	67.5	75.7
Silage DM intake (kg/day)	10.1	11.6
Milk yield (kg/day)	25.0	27.4
Milk composition (%)		
Fat	3.98	3.98
Protein	3.20	3.28
	(Keady et al, 2013)	

Finishing beef cattle

There is a substantial body of evidence (34 comparisons summarised in Table 2) which shows that the mean daily response for each 1 percentage unit increase in silage DMD is 23.8 grams of carcass gain. Consequently, an increase in silage DMD of 5 units (e.g., from 68 to 73% DMD) increases daily carcass gain of finishing beef cattle by 0.12 kg/day, which is equivalent to 18 kg carcass gain (approximately €95) during a standard 150 day finishing period. The response to increasing silage digestibility declines as concentrate feed level increases. For silage based diets consisting of forage:concentrate ratios of 100:0, 80:20, 60:40 and 40:60 (equivalent to daily concentrate intakes of 0, 2.1, 4.2, 6.3 kg) for a 150-day finishing period, an increase of 5 percentage units in silage DMD increases carcass gain by 26.3, 19.5, 12.8 and 6 kg, equivalent to approximately €142, €105, €69 and €32, respectively. Even when cattle are offered high levels of concentrate (60% of diet dry matter) increasing silage digestibility increases carcass weight and value.

To maintain carcass gain due to reducing silage digestibility by either 1 or 5 percentage units, or harvesting 1 week later, requires additional supplementation of 0.36, 1.8 and 1.2 kg/head; which is equivalent to 5.4 t, 27.0 t and 17.8 t for each 100 cattle finished during a 150 day finishing period.

Table 2. The effects of silage digestibility on the performance of finishing beef cattle (mean of 24 comparisons)

		Silage DMD (%)	
		66.8	73.8
Silage DM intake (kg/day)		5.6	6.1
Live-weight ga	nin (kg/day)	0.75	0.95
Carcass gain	- (kg/day)	0.49	0.66
	- (kg/150-day winter)	73.5	99.0
		(Kandy at al. 2012)	

(Keady et al, 2013)

Finishing lambs

There is a substantial body of evidence (10 comparisons summarised in Table 3) which shows that the mean daily response for each 1 percentage unit increase in silage DMD improves daily carcass weight gain by 9.3

grams. An increase in silage DMD of 5 units (e.g., from 68 to 73%) improves daily carcass gain by 46.5 grams which is equivalent to 3.3 kg carcass during a 70-day finishing period, equivalent to approximately €24. The response to silage digestibility depends on the level of concentrate offered. For finishing lambs offered diets with forage:concentrate ratios of 100:0, 80:20, 60:40 and 40:60 over a 70-day finishing period each 5 percentage units increase in silage DMD increases carcass gain by 5.6, 4.6, 3.2 and 2.1 kg; equivalent to approximately €45, €37, €25 and €17, respectively. Even when finishing lambs are offered high levels of concentrate (60% of the diet) increasing silage digestibility increases carcass weight and value.

To maintain carcass gain, a reduction in the digestibility of silage offered to finishing lambs by either 1 or 5 percentage units, or harvesting 1 week later, increases daily concentrate requirements by 0.07, 0.35 and 0.23 kg/lamb; which is equivalent to 0.49 t, 2.45 t and 1.62 t for each 100 lambs finished over 70 days.

Table 3. The effects of silage digestibility on the performance of finishing lambs (mean of 10 comparisons)

	10	Silage DMD (%)	
		72.8	76.8
Silage DM inta	ike (kg/day)	0.52	0.72
Live-weight ga	in (g/day)	75	128
Carcass gain	- (g/day)	38	73
	- (kg/70 day finishing	2.7	5.1
	period)		

(Keady et al, 2013)

Pregnant ewes

There is a substantial body of evidence which shows that each 1 percentage unit increase in silage DMD increases ewe bodyweight post lambing and lamb birth weight by 1.3 kg and 52 grams, respectively. Ewes in these studies received on average 19.4 kg concentrate during late pregnancy. Consequently, if silage DMD is increased by 5 percentage units ewe weight at lambing and lamb birth weight are expected to increase by 6.5 kg and 0.25 kg, respectively, subsequently increasing lamb weaning weight by 0.8 kg and reducing age at slaughter.

Table 5. The effects of silage digestibility on the performance of pregnant ewes (mean of 9 comparisons)

	Silage DMD (%)	
	71.2	77.8
Ewe weight post lambing (kg)	68.5	76.1
Lamb birth weight (kg)	4.69	5.03

(Keady et al, 2013)

Factors which impact silage digestibility

The main factors that influence silage digestibility are under the control of the producer, namely harvest date, sward type, silage fermentation and wilting.

Harvest date

Harvest date is the most important factor affecting silage digestibility. Silage digestibility declines by 3.3 percentage units for each 1 week delay in harvest date. The rate of decline in digestibility is similar for swards that are closed for first or second cut silage.

Lodging (flattening) of the grass crop prior to harvest accelerates the rate of decline in herbage digestibility (up to 6 to 9 percentage units per week) due to the accumulation of dead leaf and stem at the base of the

Sward type

Some assume that silage produced from old permanent pastures have an intrinsically lower digestibility than silage produced from a perennial ryegrass sward. A 2-year study was undertaken at Grange, using 4 harvests per year, to evaluate the effects of sward type on the feed value of grass silage. In the first year of that study, beef carcass output per hectare for silage produced from old permanent pasture (45% meadow grasses, 26% bent grasses, 10% perennial ryegrass, 6.5% meadow foxtail, 2% cocksfoot, 10.5% other) was similar to that for silage from a newly sown perennial ryegrass sward. Carcass output was lower for the silage from the old permanent pasture in the second year of the study, but this was attributable to the fact that the silage produced from the first harvest off this pasture had a lower digestibility than that from the perennial ryegrass swards (swards closed the previous October).

Silage produced from an old permanent pasture (52% perennial ryegrass, 28% creeping bent, 10% meadow grasses, 10% Yorkshire fog) and that from a perennial ryegrass pasture resulted in silages with similar (high) feed value, based on metabolisable energy (ME) concentration and intake, when offered to growing cattle (Table 6). The evidence in the literature clearly shows that high feed-value silage can be consistently

IRISH GRASSLAND ASSOCIATION CLG - MEMBERS' INFORMATION BOOKLET IRISH GRASSLAND ASSOCIATION CLG - MEMBERS' INFORMATION BOOKLET produced from old permanent pasture provided it has a moderate level of perennial ryegrass and is ensiled at the correct stage of maturity using good ensiling management.

Table 6. Effect of sward type on silage composition, digestibility and intake

	Sward type	
	OPP	PG
Silage Composition		
рН	4.1	4.0
ME (MJ/kg DM)	12.0	11.7
Silage DM intake (kg/day)	3.66	3.56

OPP = old permanent pasture, PG = perennial ryegrass

(Keady et al., 1994)

Perennial ryegrass varieties are classified according to heading date. The effects of heading date (intermediate or late) of perennial ryegrass varieties, and date of harvest, on the performance of beef cattle are summarized in Table 7. Whilst the mean heading date of the intermediate- and late-heading swards differed by 24 days (19 May and 12 June), herbage from the lateheading sward had to be ensiled within 8 days of that from the intermediate-heading sward to give the same silage digestibility and daily carcass gain of finishing beef cattle. If the harvest of the late-heading sward was delayed until 50% ear emergence the resulting silage DMD would be 5 percentage units lower than the silage from the intermediate-heading sward at the same stage, consequently reducing silage intake and carcass gain (from 0.63 to 0.40 kg/day).

Table 7. Effect of sward heading date and harvest date on silage digestibility and animal performance

Heading date	Silage		Carcass
×	DMD (%)	DM Intake	gain
Harvest date		(kg/day)	(kg/day)
Intermediate (1	9 May)		
20 May	76.5	6.8	0.63
28 May	72.6	6.2	0.51
5 June	68.1	6.3	0.46
Late (12 June)			
28 May	76.2	6.6	0.61
5 June	72.0	6.4	0.55
13 June	69.3	5.9	0.40
			Steen, 1992)

Silage fermentation

Relative to well-preserved silage, poorly-preserved untreated silage with a low lactic acid concentration and a high concentration of ammonia nitrogen normally have lower digestibility. However for silages that are treated with an effective inoculant at ensiling, but which have poor fermentation characteristics (at feed out), there is no negative impact on digestibility or on subsequent animal performance.

Wilting

Wilting reduces silage DMD due to the loss of available nutrients and an increase in ash concentration. The decline in digestibility due to wilting depends on the length of time between mowing and ensiling the herbage, and on soil contamination due to mechanical treatment. The rate of loss in digestibility has varied, among studies, from 0.2 to 1 percentage unit per 10 h wilting period. Thus, each day (24 h) of wilting can reduce silage DMD by between 0.5 and 2 percentage units, which is equivalent to delaying harvest by up to 4 days.

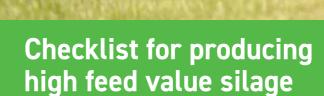
Conclusions

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It is concluded that:

- a. Digestibility is the most important factor influencing silage feed value.
- b. Each one week delay in harvest reduces digestibility by 3.3 percentage units.
- c. Each 1 percentage unit increase in DMD increases:
- 1) daily milk yield of lactating dairy cows by +0.33 kg
- 2) daily carcass gain of beef cattle by +22.8 g
- 3) daily carcass gain of finishing lambs by +9.3 g
- 4) lamb birth weight by +52.3 g
- 5) ewe weight post lambing by +1.3 kg
- d. Produce high feed value silage with a DMD of 75%.





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Each 5 unit increase in silage dry matter digestibility (DMD) increases daily carcass gain of finishing beef cattle by 0.12 kg (18 kg carcass during a 150-day finishing period), milk yield of dairy cows by 1.65 kg/day, ewe weight at lambing by 6.5 kg, and lamb birth weight by 0.26 kg. The following are some practical pointers for the production of high feed value grass silage.

- 1. Closing date: If closing in late autumn graze to a residual sward height of between 4 and 4.5 cm. If closing in spring graze to 4 cm. Excess herbage left at closing will result in decayed material at the base of the sward, which will reduce subsequent silage digestibility.
- 2. Fertiliser N: Apply 110 and 85 kg/ha (90 and 70 units/acre) for the first and second harvests, respectively. If the sward has been grazed prior to first cut and has received fertiliser N, assume that 20 to 30% of the previously applied N is still available and deduct this from the target fertiliser N required. If slurry has been applied adjust organic N application accordingly. There is no benefit to splitting the N application with respect to herbage yield.
- 3. Soil Fertility: Up to 26 kg of potassium are removed per tonne of herbage dry matter. Apply adequate quantities to maintain soil fertility and to meet crop requirements. Inadequate quantities of phosphorous and potassium will reduce herbage yield and reduce the response to fertiliser N. Allow for nutrients from slurry and farmyard manure when calculating the amounts to be applied. Maintain soil pH by applying adequate quantifies of lime. Base lime applications on soil analysis. Apply lime after the last harvest of the season.
- 4. Harvest date: Target at least 75% DMD for ewes in mid and late pregnancy, finishing beef cattle and lactating dairy cows. For swards closed in late autumn target harvest in early-to-mid May. For swards closed post spring grazing, harvest after a regrowth interval of 6 to 7 weeks.
- 5. Timing of Harvest: Base the actual cutting date on inspection of the sward. During inspection check for the proportion of seed head emergence, and the base of the sward for dead/decaying leaf and stem. What happens at the base of the sward has as great an effect on feed value as seed head emergence. Be prepared to harvest a few days early if the weather forecast predicts inclement weather approaching.

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Do not delay harvest by more than 4 to 5 days with the hope of achieving a wilt in dull weather as digestibility is declining.

- 6. Contractor: Book your contractor early inform them if you decide to harvest earlier than normal to ensure that the contractor is prepared.
- 7. Stubble height: Mow to a stubble height of 5 to 6 cm. Mowing to lower heights results in the ensiling of stem and dead leaf (and potentially soil contamination) which is low in digestibility therefore reducing feed value.
- Wilting: If wilting, ensile after a 24 to 30 hour period. Prolonged wilting reduces digestibility. Spread the herbage immediately post mowing. There is no benefit to increasing herbage dry matter concentration above 27%. Wilting to a higher dry matter concentration may result in aerobic instability problems at the time of feed out, particularly during mild weather.
- 9. Operation of machinery: Accuracy when using the tedder/rake and mower is critical to avoiding soil contamination. From a farmers viewpoint, the driver of the tedder/rake is the most important man in the silage crew. If wilting, ensure the tedders and rakes are set correctly to avoid soil contamination. Adequately compact the silo.
- 10. Ensile rapidly into a clean silo: Side sheet the walls prior to silo filling to aid sealing post ensiling. Cover

- the silo with 2 sheets of polythene and weigh down with tyres (touching on all sides) or other adequate material that can form a weighty covering.
- 11. Chop length: Chop length has no effect on the performance of beef cattle or dairy cows. Shorter chop lengths are desirable for sheep, however the impact of chop length is minor compared to the impact of digestibility.
- 12. Additives: Additives are an aid, not a remedy for poor management. Choose an additive based on its proven ability to increase animal performance. Proven bacterial inoculants under a wide range of ensiling conditions, or formic acid under difficult ensiling conditions have been shown to increase animal performance.
- 13. Sward type: Well-managed old permanent pasture, harvested at the correct stage, can consistently produce high feed value silage. If using later heading perennial ryegrass varieties, ensile prior to seed head emergence to maintain digestibility. Later maturing varieties should be harvested within 8 days of intermediate varieties (prior to ear emergence) to maintain digestibility and subsequent animal performance.
- 14. Preparation for subsequent cuts: Apply fertilizer and/or slurry immediately post-harvest (weather permitting) to maximise annual herbage production from the sward.



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