



Irish Grassland Association

Members' Information Booklet

Summer Edition Issue No. 42

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





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Cookstown, Kells, Co. Meath, Ireland. Tel: (087) 96 26 483
General Information: office@irishgrassland.ie www.irishgrassland.ie

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Editorial



Rosalyn Drew
IGA Honorary Editor
and Nitrofert Ltd.

As the summer draws to a close, many of our hard working sub-committees can now draw a breath after another successful year of IGA events.

The sheep conference kicked off the busy summer schedule in May and you can catch up on the highlights of the day on page 7. with an overview of a lively panel discussion plus key messages given by host farmer John Brady and guest speakers Mairead McGuinness MEP and Miriam Parker from Livestockwise Ltd.

IGA Beef Event chairman, Christy Watson gives a detailed account of this years' beef conference on page 10. This event was held in Laois and attendees on the day heard excellent presentations from speakers John Geraghty on soil health and Aidan Murray, Teagasc on the profitability of the suckler herd. Renowned beef farmer and former editor of the Farmers Journal Matt Dempsey gave his views on the future of the Irish beef industry before a panel discussion on the options available for todays' beef farmers. After lunch the delegates travelled to host farmer Ken Grahams farm in Mountrath. Typical of many beef producers in Ireland today, Ken works full time off the farm and runs his beef system outside of work hours. Ken is an excellent grassland manager and provided much inspiration to visitors in terms of adapting to difficult changes in the sector and implementing efficient farming practices while maintaining a profitable enterprise.

Held in Co. Westmeath, the IGA Dairy Summer Tour had its usual sell out success with numbers close on 450 in attendance on a beautiful July day. An excellent report on the two host farmers is given on page 14 where the theme this year looked at how new entrants to dairying can become top of their game through a focussed strategy on key areas such as soil fertility, reseeding, grassland management and breeding policy.

The forthcoming Student Conference is scheduled to be held in Kilkenny this October and promises

to be a super informative event. Alan Kelly of UCD outlines what students and visitors can expect to learn on the day on page 17.

In the second section of the newsletter, Year in my Wellies contributors Jason Melbourne and Stephen Coen re-count their past few months on farm while former IGA Council member and drystock farmer Brian Nicholson gives a review of his farm system in our farmer focus piece. In his article Brian highlights the changes he has embraced over the past few years and the benefits they have brought both financially and personally.

Examining ways in which grassland farms can remain environmentally sustainable while also being profitable is looked at in our technical focus section by Dr. Bridget Lynch. As custodians of the soil and the land they work, farmers have a responsibility to embrace changes that are positive to the environment while also remaining productive and profitable. With this in mind, we hope to be regularly featuring articles on this topic in the newsletter that we hope IGA readers will find helpful and informative.

Austin Finn from the Land Mobility Service and IGA council member Noreen Lacey from IFAC both have interesting articles in our farm finance section. Austin goes through the benefits and features farmers should consider when leasing land longterm while Noreen gives a review of agri lending trends over the past 12 months.

In Section 5 we have a treat for those interested in the history of the Irish Grassland Association. Cathal McCormack and his sub-committee have spent the last 12 months digging deep into the archives of the association. It is a great tribute to the success of the association that it is now 74 years young and still going strong. In his report, Cathal gives an overview of a selection of past presidents over the decades, many of whom were also renowned figures in the agri sector and makes fascinating reading. Hope you enjoy the read and as always we welcome any feedback you may have!

Finally, the IGA Annual AGM takes place this September in the Horse & Jockey, Thurles. As this will be my last newsletter as editor I wish to thank my colleagues on council and my newsletter sub-committee for all their help and hard work.

Go raibh mile maith agaibh!

SUGGESTIONS & FEEDBACK PLEASE!

If you have any suggestions for the newsletter or any particular topics or features you would like us to include in our forthcoming issues of the newsletter please send via email to office@irishgrassland.ie We would love to hear from you!



Date set for the 2019 AGM

The 2019 Irish Grassland Association (IGA) Annual General Meeting will take place on Thursday 12th September at the Horse and Jockey Hotel, Tipperary at 10.30am sharp.

All members of the Irish Grassland Association are entitled to register to attend this event. It is an opportunity to see how the Irish Grassland Association operates. A roundup of the year's activities will be presented by the outgoing President Ciaran Lynch and we will also welcome the new incoming President Paul Hyland into office.

Each year a small number of seats on our council can become available to be filled through election on foot of existing council members terms expiring. All fully paid up members of the Irish Grassland Association are eligible to be nominated for election. If you wish to put your name forward this year, then please contact me to express your interest by emailing office@irishgrassland.ie no latter than 9am Monday 26th August 2019. Constitutionally we need to receive two supporting nominations for you in writing from two current Irish Grassland Association members before the Annual General Meeting.

Maura Callery
Irish Grassland Association
Office Manager



We had yet another fantastic term in the Irish Grassland Association. A term under great leadership from outgoing president Ciaran Lynch, saw many welcomed developments in our IT including the launch of a new database and a facelift to the website. IGA Annual Membership will be deducted in September.

I would like to take this opportunity on behalf of the President and Council to thank everyone involved in running our events, our host families and our sponsors. We would also like to thank you, our loyal farming and corporate members for coming to these events in such overwhelming numbers.

We look forward to meeting you all very soon again.

Registration for members to attend the Irish Grassland Association Annual General Meeting is essential.

Please email our office, office@irishgrassland.ie by 9am on the 26th August 2018 if you wish to attend.



IGA Sheep Conference and Farm Walk Review

Over 150 farmers and industry delegates attended the Irish Grassland Association sheep conference and farm walk, sponsored by MSD and Mullinahone Co-op, in Headfort Arms, Kells, Co Meath on Thursday 23rd May.

The morning session featured presentations from Mairead McGuinness, MEP, Miriam Parker, Livestock Wise Ltd. UK and a panel discussion on labour demand and use efficiency on sheep farms. The panel discussion was Chaired by Darren Carty, Irish Farmers Journal and included three speakers: John O'Connor, Teagasc Kildalton, Darrell Meehan, part-time sheep farmer and John Bell, full time sheep farmer, both from Co. Westmeath. The afternoon session incorporated a farm walk on the farm of John Brady, Navan, Co. Meath.

Conference

The last 10 years have seen the Irish sheep

industry overcome many challenges and welcome many opportunities. This was discussed by Mairead McGuinness in her address at the conference. Mairead highlighted the changing and ever evolving situation that we are currently in with Brexit looming and a focus being placed on environmental sustainability throughout Europe. Mairead gave a comprehensive overview of her own personal situation and her history with both politics and the agricultural industry as a whole. She spoke about the importance of the family farm and the ever increasing involvement of women in agriculture.

Effective management of sheep relies on effective husbandry and veterinary jobs such as weighing, vaccination, condition scoring and dosing being carried out at the right time to get the maximum benefit. Our second speaker of the day was Miriam Parker, Livestock Wise, UK. Miriam is an agricultural science graduate who has specialised in animal welfare and

Fiona McGovern
IGA Council Member
And Teagasc Athenry



production. Miriam discussed the importance of handling unit design and highlighted how invaluable it can be to put enough time and effort into designing a handling unit for your farm.

Often we automatically think of ourselves and what will work best for us as humans without considering what the animal requires.

Miriam explained the importance of looking at the design from the animals' perspective and talked us through some of the behavioural instincts of a sheep and how they move / flow whether out in the field or in a handling unit. She gave us a detailed overview of the fight and flight mechanism and explained some interesting facts such as that sheep have no perception of depth which therefore heightens their fear of entering even the smallest amount of water. Miriam demonstrated the binocular vision of a sheep using her specifically constructed glasses. As a result a sheep can only see clearly in a narrow range of approximately 60 degrees directly in front of them. In Miriam's opinion vision and the ability to see in front of them is the most important factor affecting flow and movement within a handling unit. It is crucially important that the sheep have a clear, unobstructed view towards the exit or where you want to move them too.

Labour

"You must be prepared - you can't employ someone and expect them to spend half of their time setting the place up".

Our third section of the morning session was devoted to a panel discussion on labour and labour use efficiency on sheep farms. The audience were introduced to three panel members, John O'Connor, Darrell Meehan and John Bell by the chairperson of the discussion, Darren Carty. Each of the three participants introduced themselves and gave an overview of their relationship with sheep farming. Darren then followed by asking some pertinent questions in relation to the labour demand on sheep farms and the difficulty in finding help during busy times of the year. There was no argument among each of the panellists that

one of the main stumbling blocks in relation to finding labour is organisation. John Bell, a full-time sheep farmer, said that hiring in help on his farm has made him look at his facilities and become more organised. According to John getting additional help isn't always a problem but you 'must be prepared, you can't employ someone and expect them to spend half of their time setting the place up'. If, for example you are hiring in help for dosing, shearing or vaccinating you need to have all of the consumables purchased in advance and have the necessary facilities for the work to be carried out. Darrell explained that he not only lambs his own ewes but has also worked for other neighbouring sheep farms at lambing time. He said that farmers helping other farmers can work out really well but both parties need to be organised from once the rams are let out in order to co-ordinate lambing dates and times. In particular the availability of help from placement students was highlighted by John O'Connor, however it is important for farmers to remember that they are educating the students and imparting new skills and knowledge upon them throughout the placement process.

Farm Walk

A beautiful sunny afternoon set the scene for an exciting and thought provoking farm walk on the farm of John Brady, Navan, Co. Meath. John operates a predominantly mid-season lambing flock alongside a beef fattening and contract heifer rearing system which are run as a 60:40 split over 162ha. John's Teagasc advisor Edward Egan discussed his farm structure and grassland management. His land is split into four grazing blocks, with winter facilities split between three yards. John is currently running 1100 ewes plus 260 replacements, which are bred as ewe lambs. His current stocking rate for the sheep enterprise is 12 ewes/ha.

Following on from our panel discussion, John emphasised the importance of labour efficiency on the farm. He highlighted the importance of implementing a grassland management system on his farm and how it has allowed him to operate a profitable production system. The average paddock size is 2ha while temporary fencing

is also used to further divide paddocks during the grazing season. This practice was clearly visible on the day with plans in place to remove heavy grass covers as baled silage. John firmly believes that having smaller grazing areas gives him better control of both grass and animal performance. There are over 60 permanent grazing divisions on the farm and in 2005 a centrally located handling unit was constructed which has greatly assisted flock management.

Soil fertility has been a major focus on John's farm in recent years. A portion of the farm is sampled annually with results continuously monitored. 40-60t of lime is applied annually as required with compound fertiliser used throughout the grazing season. Fields that are index 1 or 2 for P and K are targeted with farmyard manure and slurry while the paddocks cut for silage are rotated each year in order to avoid continually stripping nutrients from same paddocks each year.

Having one of the largest sheep flocks in the country it is understandable that John lambs his ewes in three batches namely late

February, mid-March and early April. In 2018 John scanned with an average litter size of 1.83 lambs per mature ewe joined and an average pregnancy rate of 98.6% in the mature ewes and 69.7% among the ewe lambs. His mature ewe flock is predominantly Suffolk X Lleyen backcross ewes while Charollais rams are used on the ewe lambs. John operates a lamb finishing system where he sells all of his meat lambs directly to the processor.

The target carcass weight is 21.5kg. In order to achieve this lambs are moved onto a concentrate feeding system once they approach the target slaughter weight in order to boost growth rates, build fat covers and reduce finishing times. The final stop on the farm walk reviewed lamb sales and the financial performance of the farm with John addressing the point that your farm is your business and that each farmer must run a profitable system to suit their requirements. Maximising lamb carcass weights ensures John achieves maximum payment for his animals. The beef and sheep enterprises on John's farm are set up in such a way that both complement one another.



Ciaran Lynch IGA President making a presentation to John Brady Host Farmer with event sponsors Mullinahone Co Op and MSD Animal Health.

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Ciaran Lynch IGA President with event speakers, host farmer Ken Graham and event sponsors Mullinahone Co Op and MSD Animal Health.

Beef Conference Review

Christy Watson
IGA Beef Chairman
And Teagasc Naas



The Irish Grassland Association travelled to county Laois for the 2019 IGA Beef Conference and Farm walk. Held on June 20th the event was kindly sponsored by MSD Animal Health and Mullinahone Co-op. At the morning session held in the Abbeyleix Manor Hotel delegates were presented with three very informative and thought provoking papers on the subject of Soil Health, Suckler Herd Profitability and The Irish Beef Industry –Where to from here? In the forum that followed delegates got to hear the views and thoughts on the Beef industry from three excellent beef farmers.

The morning session was followed up by a farm visit to the beef farm of Ken Graham, a part time farmer who despite the fact that he works full time off the farm still achieves excellent performance with a spring calving Suckler to Finish herd.

Soil Health going back to basics- John Geraghty. Geraghty Consulting

In his presentation John initially outlined the importance of knowing the physical properties of your soil particularly the texture of the soil, and he outlined in detail the field attributes of soils with differing structures. In his presentation, John made it clear that it would be very difficult to work a farm without knowing the physical characteristics of the underlying soil and described farming without this knowledge as *“Trying to farm with your hands tied behind your back”*. In covering soil structure John outlined to delegates the consequences of poor soil structure and the negative impact on the environment, leading to flooding, runoff and loss of valuable soil nutrients.

John went on to describe the Soil Food Web outlining the interconnected nature of the



various soil organisms and how they interact together and impact on the living environment on the farm.

Delegates were left in no doubt as to the absolute critical role soil organisms play in maintaining a healthy and productive soil, and the importance of farming in harmony with the living soil.

Whether you are a Tillage farmer or Livestock farmer John stated that *“all farmers are livestock farmers”* in the context of the living soil, and must cherish and protect the organisms that inhabit our soils.

Carbon is an element that is receiving great attention at the moment most of it negative from an environmental viewpoint. The crucial role played by carbon in the physical, chemical and biological process of soils was discussed at length, giving delegates a new perspective perhaps on the positive role played by soil carbon. The impact of the above ground activity of farming on the soil below ground was discussed, specifically damage to soil by machinery with John stating that *“You cannot build soil with steel”*. In his closing slides John said that Soil Health creates wealth and that Soil is a farmers’ primary resource, urging farmers to balance soil nutrient status to boost natural fertility and use plan diversity to improve soil and mineral nutrition.

Profitability of Beef Production-What has been happening? Aidan Murray Teagasc.

To be sustainable, beef farmers need to be profitable. Currently many beef farmers are struggling to return a profit from the marketplace. Aidan Murray of Teagasc outlined in his paper the changes in profitability on beef farms who completed a Profit Monitor over a ten year period commencing in 2008. Aidan identified that the gap between the top performers and those that are classified as average within their respective beef systems widened over the last decade. Encouragingly Aidan found that the top herds are seeing a return from improved efficiency



from production. They are achieving good output on a livestock unit basis first and foremost and then they have the land available to be able to increase stocking rate.

Looking at the changes that occurred over the ten years from 2008 on the top third of beef farms both breeding and non-breeding Aidan noted that stocking rate increased from 1.95lu/ha to 2.26lu/ha on the suckling farms and from 1.61 to 2.2lu/ha on the non-breeding farms and increases of 15.9% and 36.6% respectively. This increase in stocking rate resulted in more kilos of beef live weight per hectare being sold off the farms, with an increase in value contributed to by increased prices and higher volumes. The top third of Suckling to beef farms increased profit from production from €61/ha in 2008 to €380 in 2018 and non-breeding farms over the same period from €83/ha to €605/ha excluding premia. The clear message from Aidan was that improved efficiency and cost control enabled these farmers to deliver more profit from production while their premia take has declined. In conclusion Aidan stated that

- The farms in both systems that have run with improvements in efficiency on a per animal basis firstly and then scaled it up by raising stocking rate have demonstrated that they can derive higher profits from production.
- The average farms over the same period are still only making a modest profit from production and in a difficult year have struggled to breakeven on production. These farmers are hugely important to the rural economy and have constraints to scaling up that might include land type, availability of capital for investment, or off farm employment. Many of them are efficient on a per livestock unit basis but they cannot scale up. Their contribution to environmental sustainability needs to be further encouraged.
- As the profit monitor results show we have a cohort of producers who are pushing production and efficiency. These individuals should be rewarded and encouraged to further record production data, take on new technologies that will ensure they can drive on future genetic progress and sustainability in the sector.

The Irish Beef Industry – Past, Present and Future Matthew Dempsey Chairman, The Agricultural Trust.

To examine any farm enterprise Matt suggested that we should ask three fundamental questions.



1. Is there a market for the product?

For the moment Matt concluded that there is a positive answer on the market for beef with world demand increasing.

2. Are we, as a country competitive in producing beef?.

Broadly speaking within Europe, Matts conclusion to this question was that Irish cash costs of producing beef gives us a highly competitive advantage. However, this competitive advantage disappears when you attribute a cost to reflect the value of land and labour compared to the cost of production in South America particularly Brazil, the largest beef exporter in the world.

3. Are we competitive or can we make a profit within our own Irish society?.

Forestry for the first 15 Years with its Premia system Matt concluded is outperforming the average Beef farm as is Sheep. With regard to Tillage, Matts view was that there is a continuing demand for its products, very high yields by international standards and a significant home market deficit where we only grow about 30% of the grain that we consume. Turning to milk Matt concluded that *“There are only a handful of countries with our grass-based system”*, and as result of the vast difference in incomes in beef and dairy farms there has been a significant move among large scale Suckler farmers into dairy production. With regard to genetic gain Matt showed in stark terms the difference in rate of genetic gain of the first calved Dairy heifer compared to the first calved suckler animal.

Dealing with the challenges to the beef sector Matt outlined 4 key areas.

- 1 Relatively low average incomes on beef farms.
- 2 Limited productivity gain in the beef sector due to breeding.
- 3 The source of much of the raw material coming from the Dairy sector has deteriorated.
- 4 The competitive cost of beef to the consumer versus Pork and Chicken has increased.

Regarding his own involvement in beef farming Matt outlined the history of his farm going back to 1917 when his father purchased the farm which was part of the Duke of Leinsters Enormous Carton Estate. During the 1970s Matt built the second slatted cattle house in Kildare, building another 200 head unit later. Farming 150 acres of grass and 300 acres of Tillage Matt finishes 300 Bull weanlings on a non GM diet mainly with home grown cereals.

In his closing comments Matt commented that

- 1 Nowhere in the world is prime agricultural land devoted to suckling.
- 2 In finishing cattle, Irelands intrinsic competitive advantage is in weight gain from grass, not from finishing with grain.
- 3 His aim is to maximise farm output and potential profitability within the present system.
- 4 If the next generation were committed to full-time farming he would probably encourage them to look at Dairying.
- 5 It was his hope that the importance of China to the dairy and pig sectors will be replicated in the case of beef.
- 6 He had no doubt that the Irish beef sector will continue but expressed the view that prosperity of those taking part in it will vary enormously.

Host Farmer Mr: Ken Graham.Cappanaclear, Mountrath, Co.Laois.



In the afternoon delegates got to visit an excellently managed Suckler to Beef farm. Ken is running 55 Suckler cows with one quarter of a labour unit employed while he works full time off the farm. The beef enterprise comprises 55 Suckler cows with all male progeny finished as bulls under 16 months and heifers at 21 months. The 55 Suckler cows and two breeding bulls are grazed together as one group in one hectare paddocks while the 27 fattening heifers are grazed together in one group. Grassland management is excellent with the 40 ha farm laid out in 34 paddocks, with the provision for subdivision of paddocks when necessary. Good grassland management is to the fore on the Graham farm with just shy of 10 tonnes of grass dry matter/ha grown and utilised on the farm with the recent exception of the BLIP year (2018) as described by Ken. The all grass farm carries a stocking rate of 2.31 lu/ha producing a beef output of 834 kgs of live weight per ha.

Breeding performance in this spring calving herd is excellent with a calving interval of 380 days achieved alongside a calving season of 9 weeks, resulting in 0.93 calves produced per cow per year. All heifers calve down at 24 months of age. The combination of excellent herd fertility combined with superb grassland management results in a gross margin per ha in 2018 of €634

a significant drop compared to 2017 when a gross margin/ha of €981 was achieved, the drop in profitability accounted for by additional feed cost incurred due to the drought in 2018.

On the day the Carbon footprint of the Graham farm was discussed with an output of 11 kg CO2-eq/kg LWT compared to a system average of 14, indicating the high level of efficiency being achieved on the farm.

Ken outlined to delegates some of the key factors in achieving success on the farm.

- Having a short calving season with target of 9-10 weeks with 75% calved in 6 weeks.
- All heifers calve 22-26 months of age.
- Good time management particularly during winter feeding time.
- Good paddock system.
- Placing soil fertility ahead of reseeding on his farm.
- Participating in all schemes that are applicable to his farm
- Regular weighing of cattle.
- Well thought out and designed farmyard and handling system.

Delegates visiting the Graham farm were in no doubt that the excellent results being achieved on this part time Suckler farm were as a result of excellent well thought out farm practices implemented by a busy man with precision.



Ciaran Lynch IGA President and Christy Watson IGA Beef Chairman making a presentation to The Graham Family.

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IGA Dairy Summer Tour visits start up dairy farms

Bernard Ging
IGA Dairy Chairman
And Dairy Farmer

Stuart Childs
IGA Council Member
And Teagasc Moorepark



The Irish Grassland Association Dairy Summer Tour this year visited two farms that have recently converted to dairy and are already achieving high levels of performance. The event, sponsored by AIB Bank, took place on Tuesday July 23rd and attracted an audience of over 450 farmers.

Caroline & Peter Hamm

The first hosts were Peter and Caroline Hamm who milk 106 dairy cows on a 48 ha milking platform at Ballycloughduff, near Moate in County Westmeath. Currently they farm a total of 58 ha of land in three sections. Prior 2013, Peter was farming 25 suckler cows on 24 ha of land of which 16 ha was owned. Until 2009 he was also working off-farm in his own construction operation and with his business partner employed 8 staff. The economic downturn meant that Peter had to change careers. Dairying was the only enterprise that offered him the opportunity to create a secure farm income and improved lifestyle.

A loan of €40,000 was secured to establish the farm as a dairy farm. Costings for the conversion were:

- Construction of the milking parlour shed, collecting yard and slatted soiled water tank cost €15,000;
- Purchase and fitting of a 6-unit second hand milking parlour, 2,500 litre bulk tank and feeders/bin cost €10,000;
- The conversion of a suckler shed to a 28 cubicle cow shed cost €9,000;
- Milking platform infrastructure cost €6,000;
- Water fencing, ESB and reseeding cost €11,000.

The sale of his suckler herd funded the purchase of 30 in-calf heifers across the autumn and winter. He purchased milk quota and began supplying Aurivo in February 2014. The herd size increased steadily and in 2017 Peter was milking 50 cows. Between 2018 and 2019 a total of 32 ha parcel of good quality land and a slatted shed adjoining his milking platform was

long-term leased. Accessible to the dairy herd, Peter has increased the size of dairy herd to the current 109 cows.

Underpinning the development of this farm is a high level of performance of the herd. In 2018 the Hamms produced 539 kg milk solids per cow (4.26% fat; 3.49% protein; SCC 119,000 cells/ml) with 521 kg milk solids sold per cow. Replacement heifers are mainly reared on the out farms with surplus grass harvested for pit silage. Overall stocking rate this year is 2.3 LU/ha with the milking platform grazing the herd of Holstein Friesian cows.

The IGA has committed to reporting dairy financial performance on a whole farm basis. In Table 1, the 2018 financials are adjusted to allow them to be compared to the Moorepark target of €2,489/ha net profit.

The Hamm farm was profitable in 2018 despite experiencing a very dry summer during which a considerable amount of additional meal was fed. The current projections for a stable herd of 120 cows on the farm indicate that a profit of over €1,080 per hectare can be generated at a base price of 30 c/litre by 2021 while allowing Peter to continue to employ part-time help and pay himself a salary of €30,000 p.a.

Table 1. Actual and adjusted whole farm financial performance of the Hamm farm for 2018 and projected for 2021 (120 cows).

	Actual	Adjusted for	Effect	Adjusted	Moorepark Target	2021 (120 cows)
Milk price (c/litre)	35.1	Base milk price	-2.0	33.1		33.7
Gross output (€/ha)	3,932	Base milk price	-220	3,712	6,531	5,043
Total variable costs (€/ha)	2,139			2,139	2,087	1,792
Total fixed costs (€/ha)	1,482	Own labour	+682	2,164	1,956	2,164
Net profit (€/ha)¹	310			-592	2,489	1,087

¹ Based on 44 ha farmed in 2018 and the current 58 ha farmed in 2021.

The English Family

The second farm visited was a larger family unit operated by father and son team Mervyn and Robert English and their respective wives Breda and Aisling at Clonkeen, The Pigeons, Athlone, Co. Westmeath. The English dairy farm was converted from a beef and sheep enterprise in 2014 by the English family. Robert returned home prior to having been employed as a civil engineer in the early 2010's. This is a large farm currently comprising 146 ha of which 113ha is owned land. Fifty three hectares is free draining land and the remaining 60 ha is low lying land. This section of the farm is heavily dependent on a pumped drainage system, installed in the 1960's to drain this part of the farm into the adjoining Lough Ree. All apart from 7 ha of the farm has been reseeded in the past six years. One full-time employee is currently working with the English family on the

farm. In 2018 a neighbouring farmer offered the family the opportunity to long-term lease an adjoining 27ha of land which was reseeded that autumn and now forms part of an enlarged milking platform. The balance of the land (6 ha) is rented on conacre. All of the owned 113 hectares of the land plus 27 ha of the leased land is accessible to the cows and so comprises the milking platform.

Currently Robert is milking 257 cows. Ninety replacement heifer calves left the farm after weaning in mid-May for contract rearing on a neighbouring farm. Fifty in-calf heifers will return on December 1st prior to calving. In 2018 an average of 166 cows produced 537 kg milk solids per cow (4.24% fat; 3.57% protein; SCC 133,000 cells/ml) with 535 kg milk solids sold per cow.

In a similar way to the calculations presented for the Hamm farm, the adjusted whole farm profit per hectare of the English dairy farm is presented in Table 2.

Table 2. Actual and adjusted whole farm financial performance of the English dairy farm for 2018.

	Actual	Adjusted for	Effect	Adjusted	Moorepark Target
Milk price (c/litre)	37.0	Base milk price	-3.2	33.8	
	•/ha		•/ha	•/ha	•/ha
Gross output	3,607	Base milk price	-296	3,311	6,531
Total variable costs	1,612			1,612	2,087
Total fixed costs	1,057	Own labour	+378	1,435	1,956
Net profit	938			263	2,489

In Summary

While different in terms of scale, the importance of sourcing excellent quality high EBI stock at the outset and providing excellent quality feed in the form of reseeded pasture from the outset was common to both farms. Both hosts emphasised the hard work and planning required to establish a new dairy business. Both highlighted the impact of expansion on cash flow. Having worked extremely hard in the early years, both farms can look forward to reaping the fruits of their labour in future years.



Our host's, the Hamm Family with AIB event sponsor and Ciaran Lynch IGA President



Our host's, the English Family with AIB event sponsor and Ciaran Lynch IGA President

We would like to thank our sponsors
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EVENTS

**Irish Grassland Association
2019 Student Conference**

Alan Kelly
University College Dublin and
Irish Grassland Association
Student Chairman



The Irish Grassland Association annual student conference kindly sponsored by FBD is fast becoming a highly anticipated date on the calendar. Last years' conference saw in excess of 500 3rd level agricultural students travelling to Galway for the very educational and social event. For many, this is their first foray with the Irish Grassland Association and one which sows the seed of the advancement of knowledge of good grassland management in Irish farming.

This year the tenth annual Irish Grassland Association Student Conference will take place in Co. Kilkenny on Wednesday, October 9th, 2019. Students will have the opportunity to interact with technical experts in various fields covering important topics like grass breeding and varieties, dairy calf to beef systems, animal genetics, feed and environmental efficiency, progression in farming along with the opportunity to meet a progressive dairy farmer and see first-hand the knowledge and

expertise required to manage a successful dairy enterprise.

The day will be broken into a morning and evening session. The morning technical session will start in Kilkenny Livestock Mart. Growing quality grass swards, in order to maximise animal performance from pasture and sward utilization will dominate proceedings in the first session of the conference. Students will be given technical talks on current thinking and up to date research findings on grass breeding, current variety list and reseeding options, the topical area of dairy calf to beef will also be teased out.

The morning session will conclude with an interactive livestock demo presented by ICBF and IFJ representatives with livestock on display from the Tullamore Farm and Tully Performance Test Centre. Following the morning session a hot lunch will be provided for the attendees and

served in the Kilkenny Mart “Hub” event centre. In the afternoon, students will travel to the dairy farm of the O Keeffe Family Farm Churchclara, Co. Kilkenny. Bill O Keeffe is the dairy farmer manager in the farming partnership, during the farm visit he will give an insight into his farming system and the grassland management regime he employs on the farm.

Dr Mary McEvoy of the IGA Council will outline how the Department of Agriculture’s recommended list of grass seeds and the Pasture Profit Index (PPI) values can be used to assist in the decision making required around cultivar selection. She will outline this year’s top performing cultivars for use in grazing and silage swards. Choosing a suitable grass seed mixture is a crucially important decision, as what you sow today you want to last for the next eight to 10 years out on farm. Variety choice has a big impact on the quality of the sward and ultimately farm productivity. During her talk Mary will highlight some of the key factors to consider including quality, sward density, persistency and dry matter productivity cultivars when designing a seed mix.

Alan Dillon, Teagasc Cattle Specialist and manager of the Green Acres Dairy Calf-to-Beef Programme will give an overview of the key criteria to implement for a successful Dairy Beef System. For his talk he will be utilizing real on farm data and knowledge garnered from his interactions with the demonstration farms participation in the Green Acres Dairy Calf-to-Beef Programme. These demonstration farms have been selected from across the country, each with an aim of achieving a net margin of €500/ha (excluding premia). Alan is working on an intensive basis with these demonstration farms to advise best practice on the rearing, growing and finishing of purchased dairy-bred calves through to beef. Dairy calf-to-beef production systems have the potential to be profitable, but these profits are dependent on achieving high animal output from grazed pasture. Systems that have a high proportion of grass in the diet and finish animals at a younger age will both increase profitability and reduce environmental footprint. Special focus during his talk will be placed on key areas such as calf selection and

rearing, animal health, grassland management, soil fertility, financial management, and farm planning.

Livestock Demonstration

This year for the first time at the IGA student conference, The Irish Farmers Journal and ICBF are partnering to bring a selection of cattle exhibits from the IFJ Tullamore Farm and Tully Performance Test Centre. ICBF will cover the potential of the terminal and replacement indexes to increase profitability on suckler beef enterprises. Cattle exhibits will show students the genetic and phenotypic variation that exists in key economically relevant traits such as suckler cow fertility (calving interval, age of first calving), calf performance and weaning weight targets and cow weaning efficiency. They will discuss how can these important parameters be improved in a suckler herd from a breeding and also management perspective. During the discussion comparison will be made between the top performance herds and trends in the national suckler herd. The new dairy beef index will also be discussed and cattle from different star ratings (genetic merit) will be on site to view. From a cattle finishing point of view, the theme of feed conversion efficiency across breed types and diets will be explored along with proper selection of cattle for slaughter. There will also be novel information on methane production potential from continental beef and dairy beef cattle tested in Tully and an update on some of the research work in this field.

O Keeffe Family Farm Churchclara Co. Kilkenny

The O Keeffe farm in Clara, Co Kilkenny is home to the Churchclara Herd of Pedigree British Friesian cows. The herd consists of 300 milking cows in 2019 with 150 in-calf Heifers, 150 heifer calves and 50 young pedigree bulls. The family has been farming here since the 1600s and would have been supplying milk to Kilkenny Creamery as far back as 1916. The herd will grow to 400 milking cows in 2020 with the followers staying at the same level for the next few years. The target is to sell 2.8 million Litres of milk per year from the 400 cows and to supplement this income with the sale of approximately 50 pedigree bulls and 70 calved heifers as well as

high value beef calves and cull cows.

The farm was a traditional family farm that has grown from 120 cows in 2000 to the planned 400 cows next year through mainly the addition of leased land. Land is now leased in from 6 different people with the largest leased block being the 80 acres for the in-calf heifers. The milking platform has grown from 200 acres to almost 400 acres over the past 5 years since quota removal with all extra land leased in through long-term arrangements.

Grass is usually measured weekly on farm with feeding and fertiliser decisions made on the basis of grass available and projected growth for the following week. The herd is stocked at 3 cows/Ha on the milking platform with approximately 1 ton of concentrate fed per (normal) year. Health and Fertility are strong traits of the herd with 90% of the cows calved in 6 weeks for the last few years and cell count averaging around 100,000 in 2017 and 2018. Legs

and feet are excellent in the herd. Production traits are strong too with the herd of 300 cows producing 1.85 million litres of milk at 4.32 Fat and 3.60 Protein in 2018 despite culling 30 cows in early September to spare winter feed.

The family places a lot of emphasis on bio-diversity and farming with nature. Most of the traditional hedges are retained on the farm. Waterways are fenced off and areas have been planted with new trees in recent years. Old buildings are maintained where possible in the yard and Animal Welfare is a huge priority with an effort made to breed healthy long-lasting dual purpose cows that breed a bull calf that can have a sustainable future in the beef industry.

We would like to sincerely thank our hosts Kilkenny Livestock Mart and Bill O Keeffe and Family, Co. Kilkenny for their help and co-operation in hosting our 2019 Student Conference.



We would like to thank our sponsor
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Irish Grassland Association

DAIRY CONFERENCE

8th January 2020

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FARMER FOCUS

Setting goals and recognising the importance of good grassland management

Brian Nicholson
Sheep Farmer and
Past IGA council member



Background

Brian farms 122Ha in Johnstown Co. Kilkenny with his wife, Alison, and their two children, Mia and Drew. He began farming in 2005 when he took over the farm from his grandfather. Brian is an active member of the Irish Grassland Association, holding a position on council for three years. He is a former member of the Teagasc BETTER farm programme and is currently one of the four Sheep Ireland Central Progeny Test (CPT) farmers nationally.

Changing my farming system

In 2005 when I began full-time farming the farm had a limited stocking rate capacity and was operating with very high running costs due to poor facilities and low levels of production. Since then the farm has seen many changes and is continuously undergoing development and improvement. Today, it is predominantly a sheep grazing system carrying 950 mature ewes along with 250 replacements ewe lambs; while I also contract graze 60 dairy heifers during the main grazing season from May – October each

year. In addition to this there are also tillage and forestry enterprises on the farm.

In 2011, I knew it was time to change if I was to continue farming on a full-time basis. Alongside my Teagasc advisor we examined the 2011 Teagasc e-profit monitor results and used these to create a SWOT analysis identifying the farms strengths and weaknesses. This highlighted that the overall farm profit was not in a healthy state and affirmed that while I felt I was constantly busy there was minimal financial return. Having had children at this stage I was also conscious of my work-life balance and wanted to be able to spend more quality time with my family. In 2012, I was afforded the opportunity to join the Teagasc BETTER sheep farm programme. As a result I was now part of a group of twelve other drystock farmers who were running similar enterprises with each one having a primary goal to increase output from a grass based production system thereby increasing their farm financial performance.

One of the first tasks that I completed on joining the BETTER farm programme was developing a detailed farm plan which identified the key areas I needed to focus on in order to achieve my goals.

They were:

- Overall farm stocking rate
- The percentage of lambs finished from a grass based diet
- Breeding my own female replacements
- Improving litter size / number of lambs born per ewe joined



Focus on grassland

The initial focus for me was improving and developing grass production and utilisation on the farm. Soil samples were taken and soil fertility results indicated that the majority of the farm was index 1 or 2 for both phosphorus and potassium (P & K) while the soil pH was too acidic for optimum grass production. This can often be the situation where there is a tillage enterprise on the farm with an annual crop rotation in place. As a result a fertiliser plan was drafted; this is consistently revised each year. One-third of the farm is soil sampled each year allowing us to keep a close eye on soil fertility and these results feed into the annual update of the fertiliser plan. This has worked very well so far with greater than 33% of the farm having a pH → 6.2 and being index 3 or 4 for P and K.

Although correcting and maintaining an ideal soil fertility status on the farm ensures optimum grass production there were infrastructural changes which needed to take place in order to enhance grass utilisation. Implementing a rotational grazing system for the sheep was obvious as it would encourage more grass growth and allow the animals to achieve higher performance from grass by being offered

fresher, leafier swards. In 2005 when I first took over the farm there were 10-12 grazing divisions at most, this increased to 23 in 2012 but we haven't stopped there as now there are 40 paddock divisions on the farm and we further sub-divide these paddocks as is necessary throughout the grazing season'.

Figure 1. A typical field on the farm in 2012 versus the paddock divisions which are in place today.



Grass measuring and budgeting

In order to facilitate managing paddocks / grazing rotations and grass quality I began grass measuring and budgeting when I joined the BETTER farm programme in 2012. I use the rising plate meter to carry out weekly grass walks and the Pasturebase web management tool for recording all of the grazing and fertiliser decisions. Pasturebase allows us to record the weekly grass covers and grazing rotation data. A grass wedge is then populated each week which can be used as a tool to aid management decisions such as deciding on which paddocks to graze next, which paddocks need to be further sub-divided and which paddocks can be removed from the rotation for making surplus silage. This enables prompt decision making, allows for high quality silage production and overall better grass quality.

Since I began grass measuring and budgeting I have seen a 100% increase in the amount of grass grown on the farm which had a production average of 15 t DM / ha in 2017.

A focused breeding programme

Adjoining the improvements in soil fertility and the uptake of grass measuring on the farm the next focus was on developing a breeding policy. Prior to 2012 all replacement females were bought into the flock however now there is a predominantly closed flock where replacements are produced from within. A reciprocal cross was developed using Texel and Belclare ewes in order to produce replacement ewe lambs. In 2015 I joined the CPT programme which involves artificially inseminating 600 ewes every year to semen from performance recorded Suffolk, Texel, Belclare and Lleyen rams. This has changed the breeding policy slightly but a significant proportion of the replacements are still retained from a maternal X terminal cross to optimise ewe maternal performance. Performance recording all of my flock allows me to select the best ewe lambs from the highest performing dams within the flock. Currently, we are operating with a litter size of 1.98 and achieving average lamb birth weights of 5.6kg, 4.6kg and 3.9kg for single, twin and triplet lambs, respectively.

Figure 2. A Texel X Belclare ewe on the Nicholson farm. Brian firmly believes that a focused breeding plan is vital to extract the best performance from the flock.



Improving farm performance

Over the last seven years the developments I have made to the farm have greatly benefited the overall farm performance and output. In 2017, 57% of all lambs were finished from a grass only diet; a further 23% of lambs were finished on a catch crop, Red Start. The remaining 20% of lambs required concentrate supplementation to reach target drafting weights. This change alone has contributed hugely to the €947 gross margin per hectare which was achieved in 2017 and is a far cry from 2005 when 100% of the lambs born on the farm received concentrate supplementation prior to sale.

However, in farming conditions can often be changeable with unforeseen weather events as we have experienced over the last few years. To put in context the effect these conditions can have: In 2018 the weaning rate (lambs weaned / ewe joined) on Brian's farm was higher than in 2017 however due to increased concentrate and fertiliser costs his gross margin declined to €761 per hectare. Enduring a harsh spring and drought conditions stretching into autumn 2018 put a lot of pressure on farmers however thankfully 2019 to date has been relatively 'normal' and has given most farmers the opportunity to recover.

A Year in my Wellies

Stephen Coen, PhD student, Teagasc Grange, University College Dublin and University Limerick



Sheep Flock

At this stage all the lambs are weaned from the ewes. 80% of our commercial lambs have been slaughtered with approximately 15% (20 ewe lambs) selected as replacements for the commercial flock. We are feeding creep to the final percentage of commercial lambs to finish for slaughter. Our pedigree Texel ram lambs are thriving well and will soon be selected for local Texel sheep society sales and for home sale. We have 30 Texel rams for sale. We also have 5 Blue Leicester X Suffolk hybrid ram lambs for sale. We have found that some of our customers over recent years desire these rams to breed some replacement females for their own commercial flock. All rams are still grazing on the home grazing platform and are getting priority treatment in a leader follower system with the breeding flock cleaning out paddocks after them.

It won't be long before we do our annual "NCT" of our breeding flock to assess what breeding females will stay or go on the farm. As 30 ewe hoggets are joining the breeding flock this year across both flocks, we will have to assess each ewe to see if she is able to breed for another year. Assessment for these females is based on, Sheep Ireland Euro star figures, Feet, Mouth, Mastitis occurrence and the general performance of the ewes offspring regardless of whether she is purebred or crossbred.

Suckler Herd

We have recently sold our 2018 winter born weanlings by home sale. Calves were weaned and on meal for approximately 4 weeks before they were sold. Pictured, is an example of one of the Charolais bull weanlings that was sold. Three, 5 star Limousin females have been selected for replacement as part of our BDGP requirements. These females are sired by AI bulls Castlevew Gazelle (2) and Elderberry

Galahad (1). These females will be bred at 15 months next spring. Our winter 2019 calving cows have scanned successfully in calf to AI bulls Fiston and Cavellands Fenian. The in-calf heifers will calf down to AI Salers bull Spiddal Pat. The suckler herd continues to graze their way through a rotation on an out farm.



Grassland Management

As we continue to record our weekly grass measurements on Pasturebase we consistently make decisions based on what our grass wedge tells us. Several paddocks have been taken out for silage over the summer. Like so many more, we managed to save some hay (pictured). At this stage we have more than enough fodder for the winter requirements. We require a total of 60 tonnes of Forage DM and we have almost 65 tonnes of forage DM available to us at present. All this data has been made available to us via our Pasture Base Fodder budget, which is



a brilliant resource for us to have. We hope to have to 2/3 bales/cow surplus available to cope in case we may experience challenging weather conditions like previous years.

Grass continues to be measured every Saturday where possible throughout the year to give us an idea of what paddocks are performing best. Our farm cover last week 13/07/19 was 673 kg/DM/ha. Our growth was 63 kg DM/ha and demand was 49kg DM/ha. As grass covers on the farm are relatively good the attention is also focused on setting up the farm again for maximising grass growth and utilisation by ensuring paddocks are still in place and carrying out some general fencing maintenance. We aim to ensure we have plenty of grass on the home grazing platform in August in order to have a supply of grass to eat into in the autumn and to extend our grazing season. Although it is challenging as all 3 of us are working off farm we hope to give some time to our out-farm in order to ensure we maximise grass growth and utilisation to graze the suckler herd and to make that surplus silage that we require.

PhD Experience

Currently I have 13 months of my PhD work completed. I have gained a lot of experience and continue to build a bank of knowledge in the fields of bovine male fertility, puberty and nutrition. I have learned so much from my supervisors, technicians and fellow students whilst working across the two main trials of my

project; early life calf nutrition and a study on the genetics related to bull fertility. I spent most of the spring this year carrying out breeding soundness evaluations on 13 month old Holstein Friesian Bulls on commercial farms in Wexford and Offaly. For this study I need to collect fertility data on 1000 bulls and will continue with this data collection in Spring 2020. Since the Spring I have spent the majority of my time working on tissue samples collected from the calf nutrition trial carried out last Winter. Proteins and RNA have been extracted from these tissues and will be sent away for analysis in the coming months. We also collected blood samples which are being analysed at present across various time points of the calf's life for metabolites. Hopefully by the year end I will have a lot of data for analyses after which I hope to start writing my first scientific paper. My PhD experience has been extremely enjoyable so far.



A Year in my Wellies

Jason Melbourne, Dairy Farmer, Co. Waterford



Since my last article we have been pretty busy down here in Mallow. Myself and fellow MoorePark student Robert Larkin have been kept on our toes with the various activities happening on the farm. With calving season finally finished up for the current year we turned our focus to breeding, reseeding and managing our grassland to deal with the ever changing Irish Summer weather. Up to mid July we have fed 340 kg of concentrates out of our budgeted 550 kg for 2019. We are quite proud of this result. Last week was weighing time for the cows and we are glad to say they averaged at 480 kg each. When the herd matures we are hoping to have a mature herd weight of 500kg each which is our main goal. We also recently vaccinated the entire herd for IBR and we do this process every 6 months.

Breeding Policy

Our main aim this year was to try put our focus on creating a cross bred herd. Three weeks prior to mating start date we scanned and body condition scored all the cows. Any cows that were under a body condition score of 2.75 were put on once a day milking and not milked in the evening milking. We do this to optimise their chances of calving early. We also scanned the cows to identify any dirty cows or non-cycling cows. Any dirty cows got washed out with a metricure and received a shot of prosta-glandin. Any non-cycling cows got put on once a day milking until they came cycling. We tail painted all cows at the start of breeding to record heats. Any cows that still had tail paint after 24 days were then scanned to identify any problems. We decided to AI for 6 weeks and finishing off the breeding season by mixing the cows with cross bred bulls. We spent some time deciding on the right mix and eventually agreed that it was best to use jersey sire bulls on the Holstein cows and a cross bred sire on the cross bred cows. Last week, we scanned the cows to try determine the 6 week in calf rate of the cows and we were very pleased with a result of 72% calving within the first six weeks of breeding. This will hopefully

rise to an 85% calving rate once the heifers are introduced.

Grassland management – re-seeding focus

Another area we decided to invest a huge amount of time and effort into was reseeding the fields surrounding the farm. In total we reseeded 30% of the milking platform this Spring bringing it up to a total of 60% over the last 18 months. On top of this we also decided to reseed the silage block. We are hopeful that all this reseeding will result in us being fully self sufficient in using this for our winter feed for our current stocking rate. Our grass seed of choice for the milking platform was a mix of Abergain, Aberchoice and one kilogram of Aberherald White Clover. The sward was burnt off using Round Up prior to reseeding and we used a post emergence spray afterwards on the new reseed. The cultivation method we used was 3 runs of a disc harrow



and then sowed using a power harrow one pass at 15kg of seed per acre and then flat rolled. We grazed the reseeded at a cover below 1000 kg/DM/ha to encourage tillering. Our aim is to have the farm growing at least 16 tonnes of grass.

Grazing management

Another area I would like to discuss is how we are managing our grazing this year. This spring had an opening average farm cover of 1300g/DM/ha. We wanted to take advantage of all this grass so cows went to graze day and night since the 5th February without any silage in the diet and have not missed a grazing since. This was achieved by on/off grazing all the spring by giving the cows 2x 3 hour grazings per day. We also used back fencing and spur roadways to eliminate any poaching occurring.

On our most recent grass walk we had a growth of 111 kg/DM. This high growth rate is directly attributable to the reseeded paddocks being introduced back into rotation. We are taking out 20% of the milking platform as surplus grass. At present we are grazing 1400 kg/DM covers with the cows and feeding 1 kg of concentrate. The cows are currently giving 1.5kg/MS with the average lactation of the herd coming in at 2.4.

Autumn Plans

From next month onwards we are going to start building grass for the Autumn. We will start by extending the rotation by 2 days per week to build up grass to hit our target average farm cover of 1200kg by mid September. On the milking platform we sowed 5 acres of fodder beet and hope to graze that this Autumn to help build grass by reducing demand.

In short we are very pleased with the progress we have made here on the farm so far this year.

Our main aims for the remainder of the year are as follows:

- Fencing the farm.
- Placing water troughs in the centre paddocks for ease of strip grazing.
- Building enough grass cover for the Autumn so there is enough high quality, low cost feed for cows.





How grassland farms can meet environmental sustainability standards

Dr. Bridget Lynch
University College Dublin and
Past IGA Council Member



Irish milk and meat production systems are grass based. The green grass based outdoor system has been our unique selling point for our milk and meat based products. However, as an industry we are under increasing pressure to defend and be accountable for our systems of production from an environmental impact perspective.

In Ireland, we have agreed to reduce carbon emissions by 30% by 2030, compared to 2005 levels under the EU Effort Sharing Decision. In 2017, greenhouse gas emissions were estimated to be 20.2 Mt CO₂ eq compared to 19.8 Mt CO₂ eq in 2016. In addition, we need to maintain our good or high status in our water ways, for nitrate and pesticides in particular, under the new River Basin Management Plan (2018-2021). Therefore, reaching the reduction target and maintaining water quality will be very challenging whilst at the same time growing our national dairy herd.

Much of what farmers can adopt and implement at farm level to improve their carbon footprint and nutrient use efficiency will also have an economic benefit. The following is a summary of measures

that grassland farmers can refine if already using or introduce quite readily as part of their current grassland management practises.

1. Paddock based management

The most recent data from PastureBase Ireland (PBI) shows, of the dairy farms routinely measuring, there is a 7.1 tonne dry matter (t DM) difference between the top 10% and the bottom 10%, with the average at 13.2 t DM (O'Donovan and Egan, 2019). Knowing the capacity of your farm to grow grass is vital to stock accordingly and can only be attained by measuring regularly throughout the year. In addition, PBI provides valuable information on how individual paddocks are performing. At any time during the year PBI will generate a report detailing total t DM grown to date, a grass growth curve for the farm, number of grazings (grazing yield), number of silage cuts (silage yield) and N, P, K & S use. This information in tandem with a regular soil text and a grassland renewal plan can help to reduce within farm variability by improving the performance of below average paddocks, thus improving overall grass grown and utilisation.

2. Extending the grazing season

If a farm can grow more grass particularly in the shoulders of the year, it allows animals to get out to grass earlier in the spring and delay housing in the autumn. The longer animals have grazed grass in the diet, the shorter the housing period and associated forage and concentrate supplementation, thus reducing carbon footprint. How do we grow more grass in spring and autumn? Measure, manage by making informed decisions on fertilizer application, reseeding and strategic supplementation.

3. Nutrient management

In spring the nutrient use efficiency of chemical or organic fertilizers is governed by weather conditions and grass growth potential. A simple tool to have on farm is a soil thermometer. At UCD Lyons Farm, we rely on our soil thermometer and latest reports from our nearest Met Éireann station to decide on timing of 1st and 2nd rounds of urea and slurry application. In 2019, we made the decision to use protected urea instead of CAN across the farm. So from March onwards we have been using protected urea (+ S on alternative rounds) and will continue until September. The decision was primarily driven by the wish to reduce N loss but also the cost at 0.95 €/kg/N it is far more competitive than CAN at 1.05 €/kg/N (Forrestal and Burchill, 2019). In addition, we have been using compound fertilisers earlier in the year with 18.6.12 (rate based on soil test) being spread in March and May and then for June reseeding as Teagasc research has shown better use of the nutrients when applied earlier in the year.

The organic fertilizers we produce on farm during the winter period are very valuable, within gate sources of nutrients. The more we get out of them for grass growth and reduce losses to the atmosphere and ground water, the better for economic and environmental sustainability of our systems. Applying slurry in April versus June or July will increase its nutrient replacement value. The use of low emission slurry spreaders will also increase nutrient use (30-50%) and reduce loss. Research shows that an extra three units of N per 1000 gallons of slurry can be gain versus the use of a splash plate (Forrestal and Burchill, 2019).

4. Grassland renewal, longevity and species choice

Reseeding is a high return investment, if completed correctly and if high soil fertility status is maintained. The longer the interval between reseeding the better from a carbon footprint point of view. Thus, strategic use of reseeding method, (a plough is not always necessary and all methods



are effective if implemented correctly), variety selection and good soil fertility should help the longevity of sown swards.

For me, the inclusion of white clover (4-5 kg/ha) in seed mixes is a must. The positives in terms of reduced chemical nitrogen use, increased grass grown and increase in animal performance in worldwide research far outweigh the negatives. The challenges of white clover can be overcome with good management. At UCD Lyons Farm, over the last number of years, we have been investigating adding further species to the seed mix, with the addition of timothy, red clover, forage herbs, plantain and chicory having the most promise with perennial ryegrass and white clover. The inclusion of red and white clover in a multispecies sward has resulted in a significant increase in grass grown at 90 kg N/ha/yr compared to perennial ryegrass only at 250 kg N/ha/yr (Grace, 2018). The additional inclusion of forage herbs has been shown to reduce days to slaughter for lambs and reduce use of anthelmintic doses (Grace et al., 2018). Recent research from New Zealand has shown that plantain can reduce N loss from dairy cows and the pasture that they are grazing. Ongoing research at UCD Lyons Farm via the SmartGrass and GreenLamb project will further investigate strategies to improve persistency of these swards in addition to beef, sheep and dairy production research and their associated environmental impact.

In summary, if we improve efficiency in both grassland and animal production, adopt low emission technology and build soil carbon, we can reduce the kg CO₂ eq/ kg of product significantly across all grassland farms. All of the aforementioned approaches with regards to grassland management will not only reduce the carbon footprint of our farms, they also have the potential to give economic return.

Is Long Term Leasing a Good Option?

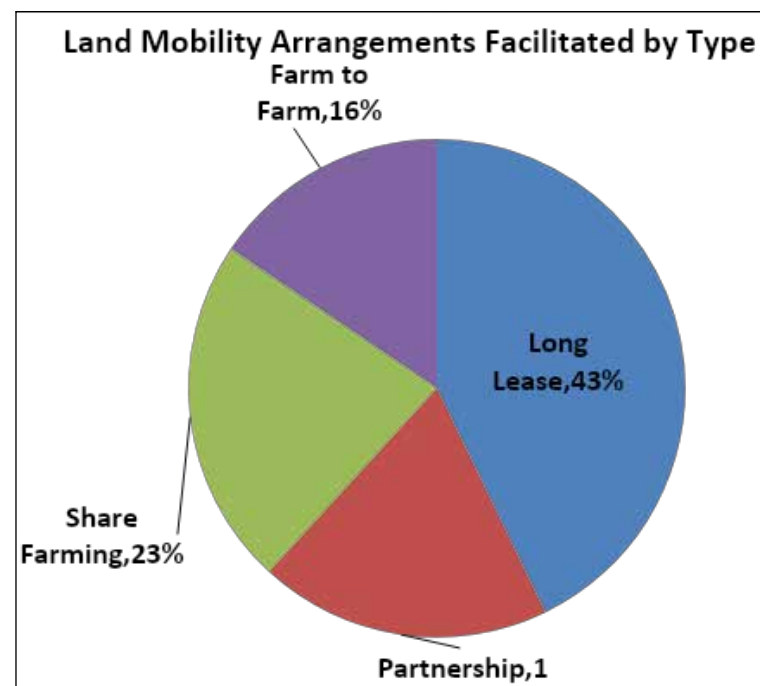
Austin Finn
Programme Manager
Land Mobility Service



The Land Mobility Service was established by Macra na Feirme in 2014 with the support of FBD Trust and other industry stakeholders. The Service supports collaborative farming providing options for land-owners and delivering opportunities for young farmers. Since its inception it has been involved with over 500 arrangements covering 47,000 acres. Long term leasing has proven to be an effective and popular land use collaboration.

Long term leasing delivers access to land for a definite period at a known cost. This provides certainty and security for the operator allowing him/her develop their farm business. The Farm Operator is the Farmer. The farmer can take a long-term view on the land use to deliver best return and enhance the farm. Leasing arrangements tend to be clean and simple. Long term leasing is very tax efficient and provides income security and certainty for land-owners. Leasing allows land-owners step back while at the same time receiving a secure tax efficient income while their land continues to be farmed and cared for. Land-owners do not have to lease all their land and can lease to more than one farmer.

Leasing may not suit all land-owners as they may not be ready to retire or might need to stay involved. Leasing may have an impact on a land-owners' active farmer status, for many land-owners the trade-off is between tax free income and continuing to be an active farmer. In addition, a young farmer may often not be positioned to take on a significant lease. In situations where leasing does not suit there are a range of other options including shared and partnership arrangements or forms of contract rearing and production.



Land-owners who enter into long term leases qualify for Income Tax Reliefs

The thresholds for Income Tax exemption for leases taken out on or after 1 January 2015

- €18,000 where all the qualifying leases are for 5 or 6 years,
- €22,500 where all the qualifying leases are for 7 but less than 10 years,
- €30,000 where all the qualifying leases are for 10 but less than 15 years,
- €40,000 where all the qualifying leases are for 15 years or more.

The Income Tax Reliefs are per land-owner and annual. For a lease to be qualifying the following conditions must apply:

- The lease term must be at least 5 years (as per above the longer the term the greater the annual income tax exemption).
- The tenant/farmer must be an active or trained farmer, and the lands must be farmed commercially.
- The owners and the tenants/farmer must not be connected, connected persons are parent – child – brother – sister and farming companies or partnerships containing any of these.

If a land-owner has a number of different leases the exemptions and lease values are cumulative. If an

owner has three 7-year qualifying leases with different farmers and the combined lease values of the three leases is €22,000 per year the full €22,000 is exempt from income tax. However, if the combined annual lease values is €24,000 the annual income tax exemption is capped at €22,500.

The annual income tax relief is per land-owner so if land is jointly owned (two land-owners) the thresholds are doubled. A retiring farming couple who jointly own the farm could receive up to €80,000 per year income tax free should they enter into a qualifying 15-year lease. In addition, entering into a long-term lease does not affect the capital tax reliefs available to farmers. The two main capital taxes to consider when transferring or disposing of a farm are CGT (Capital Gains Tax) and CAT (Capital Acquisitions Tax). CGT can apply to the disposer should a land-owner decide to sell or transfer his/her farm during his/her lifetime. Any land-owner over the age of 55 who has farmed the land for at least 10 years qualifies for CGT Retirement Relief, they can have leased the land for up to 25 years subsequent to the 10 years farming and still qualify for this relief.

CAT is payable by the recipient of the farm (farmland, farm assets, agricultural assets). The most important relief for any recipient of an agricultural asset to try to avail of is CAT Agricultural Relief. To secure this relief the recipient must satisfy an 80% asset test, this means that upon receipt of the asset 80% of their assets are agricultural. To hold this relief the recipient must either actively farm themselves for six years or lease the farm to an active farmer for six years or a combination of both. The definition of active farming in this regard is to demonstrate 20 hours per week work on the farm, if the person has a "Green Cert" there is no requirement to be able to prove hours worked. If a person qualifies for this relief the value of the asset transferred is reduced by 90% for CAT purposes, with this reduced value and the available tax-free threshold (currently €320,000 parent to child cumulative) no CAT should apply.

Whether or not the farm is leased prior to the transfer does not affect CAT Agricultural Relief. In fact, having a qualifying lease in place can help especially for non-farming recipients as extending the lease for up to six years post receipt

helps them qualify for the CAT Agricultural Relief. Long term agricultural leases qualify for Stamp Duty Relief, for this the lands must be farmed by an active farmer and the lease must be greater than six years.

Master Lease.

The IFA Master Lease is a legally proofed draft land lease agreement that can be used without the need to directly engage a solicitor. Farmers are advised to seek good independent professional advice when considering long term leasing or any collaborative arrangement.

When considering a lease or any collaborative farming arrangement land-owners and farmers should always think of the three P's

The Person

The Person must be right. It must be someone you can work with, that person's vision for the farm must be compatible with yours. It is important to identify someone who is realistic, has farming ability and has done budgets. Don't be afraid to check out reputations and talk to people they have worked with before, always inspect each other's current / recent businesses.

The Price

The Price must be fair, realistic and sustainable. All parties must make a return and this should be backed up by a proper budget and farm plan. People should be open and be prepared to share this information with confidentiality and respect. Mechanisms and templates exist to link price with farming returns which delivers fairness and avoids complicated price reviews. Chasing the top price or being captivated by price alone is a recipe for disaster.

The Period

The Period or term must be sufficient so that it works for all parties. This is especially relevant where investment is required, the period must be sufficiently long to deliver an adequate return. A longer agreement also gives more security and provides a degree of certainty.

The Land Mobility Service is available to help people formulate leases or other collaborative arrangements. For more information look up www.landmobility.ie or e mail info@landmobility.ie or contact programme manager Austin Finn

Agri Lending Trends

Noreen Lacey,
IFAC Accountants
and IGA Council Member



Introduction

As we progress through 2019, maybe now is a good time to reflect on the effects that a difficult 2018 had on the farming sector from a lending perspective. How has last year's challenging weather conditions, the ongoing Brexit negotiations and market prices impacted lending to the sector – is there a lack of confidence in the market?

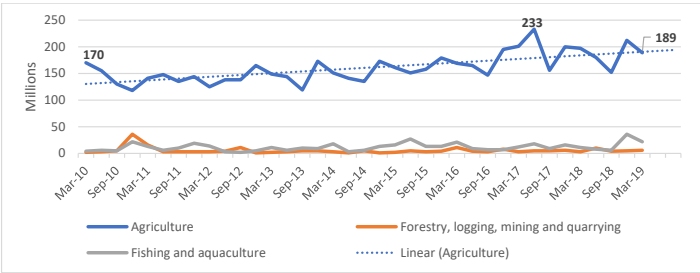
New Lending

Data obtained from Central Bank shows that new lending to the Primary Industry sector in 2018, decreased by 4.5% (863 million to 824 million). New lending to the sector spiked in 2017 as a result of the introduction of the SBCI Agri Cashflow Support Scheme which had a competitive interest rate of 2.95% attached to same, leading to huge interest and demand for the loan product.

Further analysis shows that of the 824 million advances to the Primary Industry sector, Primary Agriculture accounts for 89.9% (741 million); Forestry, Logging, Mining and Quarrying 2.7% (22 million) and Fishing and Aquaculture 7.4%. (61 million).

New lending to Primary Industry accounted for 15.4% within the overall SME sector and ranks second place to the Real Estate Sector, which accounted for 30.8% (1,645 million) of total new lending to SMEs in 2018 (5,346 million total).

Figure 1: New Borrowings by Agriculture SMEs, 2010-2019

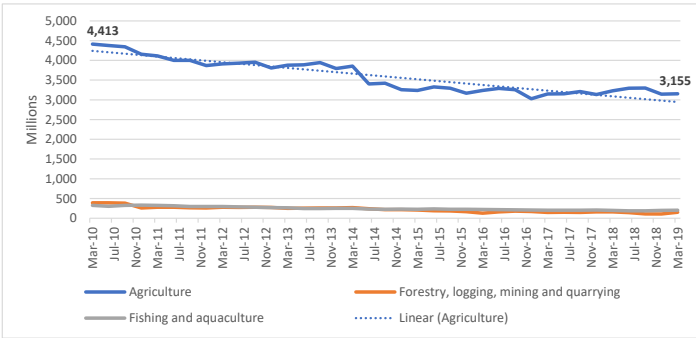


Source: Central Bank of Ireland, Business Credit and Deposits, 2019

Outstanding Balances

Central Bank data indicates that the overall level of borrowing in Primary Agriculture has been declining over the last 8 years, from a peak of €6,412 million in September 2008 (Farm Waste Management Scheme) to €3,509 million at March 2019, a reduction of 54.7%. Loan repayments have been paid down quicker than new lending advances to the sector as a result of deleveraging and low interest rates. See figure 2 below.

Figure 2: Outstanding borrowings by Primary Agriculture SMEs, 2010 – 2019



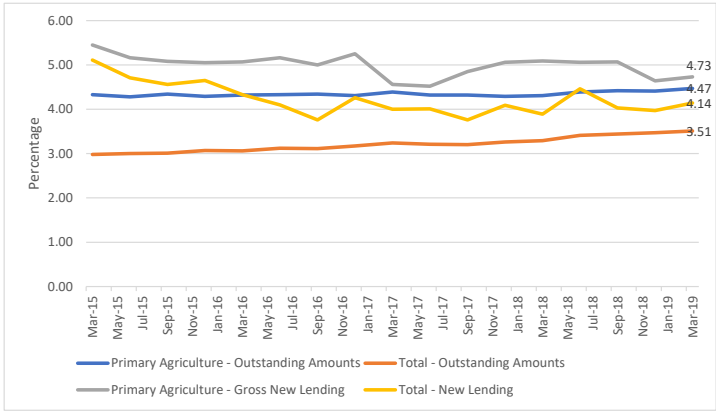
Source: Central Bank of Ireland, Business Credit and Deposits, 2019

Interest Rates

Although interest rates for the sector have been declining, they are higher than the average across all SME sectors. Data obtained from the Central Bank showed that the average *rate on outstanding amounts* in the Primary Agriculture sector at March 2019 was 4.47%, while the average for all other SMEs was 3.51% - a difference of 0.96%.

It's also worth noting that the average *rate for new lending* in the Primary Agriculture sector at March 2019 was 4.73% compared to 4.14% for all other SMEs – a difference of 0.59%. Loans to the Agriculture Sector tend to be larger volume, lower values loans with shorter pay-back periods. This may attribute to some of the differential in interest rate pricing in the inter rate loan profile below.

Figure 3: Interest Rates in Primary Agriculture



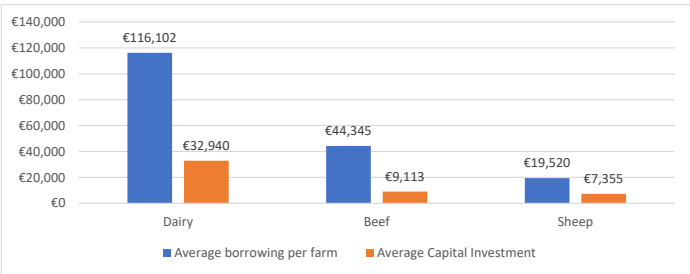
Source: Central Bank of Ireland, Business Credit and Deposits, 2019

IFAC Irish Farm Report

The Ifac 2019 Irish Farm Report which represents data from over 22,000 farm accounts and more than 2,000 farmer opinions highlighted profitability trends and investment trends within the agriculture sector.

As per figure 4 below, dairy farmers continue to be the largest borrowers within the sector with the average loan size of dairy farmers being €116, 102 - most debt acquired from land purchase or on-farm development works. Average borrowings on beef farms are 38.2% lower than the debt levels on dairy farms with capital investments on farm almost a third lower as well, which highlights the pessimism and caution being exercised in drystock farming compared to the optimism in the dairy sector.

Figure 4: Average Farm Borrowings & Farm Investment per Sector, 2018



Source: IFAC Irish Farm Report 2019

While 2018 was a challenging year on many fronts due to weather conditions, low market prices and Brexit, overdraft limits have only experienced a slight increase YoY when compared to 2017 figures. However, creditor balances have experienced a higher increase with the beef sector increasing by over a third. The Ifac Farm Report 2019 also showed that 61% of beef farmers failed to show a profit before EU payments with the average farmer making a loss of €114/ha before EU payments. Paying down the merchant debt and additional fodder costs will be challenging for this sector, in a year of depressed market prices.

Figure 5: Trends in Overdraft and Creditor Balances, 2017 -2018

Sector	Overdrafts Limits	Creditors Balances
	2017 v's 2018	2017 v's 2018
Dairy	Increased by 5%	Increased by 11%
Beef	Increased by 6%	Increased by 36%
Sheep	Increased by 3%	Increased by 12%

Source: IFAC Irish Farm Report 2019

So, what are the trends?

- Decrease in new lending to the Agri sector by 4.5%
- Decline in outstanding loan balances for Agri Sector of over 50% in the last 10 years
- Slight increase in interest rate for new lending – the introduction of the SBCI Agri Cashflow Support Scheme in 2017 drove down interest rates
- Dairy farmers continue to borrow and invest on farm



Past Presidents of the Irish Grassland Association

Cathal MacCormack
Altech and Irish Grassland
Association Archive Chairman



Over the last year a group of members from the Irish Grassland Association council have been busy collecting historical information on the activities of the organisation. One of the first tasks that the group set itself was to collect as much information as possible on the past presidents of the association and the intention is to produce a booklet with the biographies of each past president in the coming months. It is only when one researches the details of the past presidents that you realise the influence that the organisation and its' past leaders have had on the progressive development of Irish agriculture. To give you a flavour of what is to come, we have decided to profile a random selection of our past presidents in this edition of the members information booklet.

THE O' MORCHOE

IGA President 1946-1949

Arthur Donel MacMurrough O' Morchoe was the first president of the Irish Grassland Association. He held the post from 1946 to 1949. Referred to by the clan head title of The O' Morchoe, Arthur was born on the 3rd June 1892.



He was the son of Reverend Thomas Arthur MacMurrough Murphy O' Morchoe - The O' Morchoe - and Anne Gibbon. He married, firstly, Isabel Carden in 1926. After her death he remarried

to Eva Ellis in 1948, during his presidency of the IGA. The O' Morchoe died on the 29th of August 1966, at the age of 74.

Educated at St. Andrews College, Dublin and Trinity College, Arthur then joined the British army, becoming an officer in 1914 in the Leinster Regiment. He fought in the First World War and was Aide-de-Camp to Major General Montagu-Stuart-Wortley between 1917 and 1919. After leaving the army, he joined the British Civil Service in 1924, staying until 1943. Arthur served overseas in Zanzibar and the Gold Coast where he was Commissioner of Police from 1934. On becoming titular head of the O' Morchoe clan, The O' Morchoe moved permanently to a farm at St. Austins, Inch in Wexford and lived there until his death in 1966.

DR. HENRY KENNEDY

IGA President 1954/1955

Born in the tiny village of Toor in North Tipperary Dr. Kennedy has been lauded as a 'visionary' in the development of agriculture for the benefit of farming families in Ireland.



Dr Kennedy was head of the Irish Agricultural Organisation Society (IAOS) for almost four decades (1926-63) – the longest serving chief executive in its 130-year history. His first role in 1920 was chief executive officer of the Irish White Cross Society where he reported directly to Michael Collins and Arthur Griffith. He is credited with having inspired the establishment of the Dairy Disposal Company, allowing the state to take over local ailing creameries and setting up the Agricultural Credit Corporation (ACC) to provide farm finance. It helped that his brother in law, Patrick Hogan, the country's first Minister of Agriculture, was in Government at the time. According to Michael Berkery, former general secretary of IFA, "Dr Kennedy had the ability and the capacity to get local groups to buy into his ideas that ultimately led to the development of the dairy industry that we have today because he was a leader of exceptional ability and yet a very humble man who always described himself as a mountainy man".

DR. HARRY SPAIN

IGA President 1962/63

Dr. Harry Spain was a prominent figure in Irish agriculture from 1948 until his retirement as deputy secretary of the Department of Agriculture in 1978. He devised the Parish Plan which involved assigning an agent, employed by the Department, to every three parishes. The concept was enthusiastically supported by Minister for Agriculture James Dillon, who appointed the first parish agent in Bansha, Co Tipperary in 1948. It was strongly opposed by the Agricultural Science Association and Macra na Feirme. Dr. Spain was a founding member of Macra and later, a president of the Agricultural Science Association.

Dr. Harry Spain was also the chief architect of the National Agricultural Authority (NAA), the first attempt to merge the agricultural research and advisory services into a single national body. A close associate of another former IGA president, former UCD Professor J.B. Ruane, Dr. Harry Spain was also an external examiner in the UCD Faculty of Agriculture for many decades.

DR. JIM O'GRADY

IGA President 1977/78

Jim O'Grady graduated from UCD with a Bachelor in Agricultural Science in 1958. In 1963 he completed a Masters degree, followed by a PhD in 1969. Dr O' Grady joined An Foras Talúntais (AFT) in 1969. He set up the pig research facilities at Moorepark. He was Head of the Pig Husbandry Department until 1983 when he was appointed Director of Teagasc Grange Research Centre. In 1968 he was appointed Deputy Director of AFT with responsibility for the Research Programme. In 1989 he took Voluntary Early Retirement and joined IAWS as group Technical Manager. Dr. O'Grady retired in 2000. From 1977 to 1978 he was President of the Irish Grassland Association.



DR. MICHAEL DRENNAN

IGA President 1989/90

Born in Gowran, Co. Kilkenny, Michael received a degree in Agricultural Science from University College, Dublin in 1964, and a Master of Science from the University of California, Davis in 1969 and a PhD from Trinity College, Dublin in 1974. He spent most of his working life at Grange Beef Research Centre retiring in 2009. His research work was mainly focused on the suckler herd and was aimed at providing breeding, feeding and management programmes for the cows and their progeny. These studies showed the importance of obtaining high liveweight gains on cheap grazed grass and efficient production of lean meat by producing young bulls and progeny of good conformation.

His studies involving carcass dissection examined the relationship between carcass conformation and fat scores with meat yield and carcass value which formed the basis of the beef quality payment grid. In addition to numerous presentations on beef production throughout Ireland (including Irish Grassland Association meetings), he made many presentations at international meetings and presented his research in the agricultural press, scientific journals and in books on beef production, the most recent of which was entitled "Producing high quality carcasses from grass based suckler beef systems" (Michael Drennan and Mark McGee, 2009).





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