Irish Grassland Association

Newsletter Issue No. 29 Autumn 2015

"Advance the knowledge of good grassland management in Irish farming"

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CORPORATE MEMBERS 2015

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Irish Grassland Association President's Address

Dear Member,

Let me give you a quick taster of the latest edition of the Irish Grassland Association's Newsletter. It is another full edition.

For starters we have a sneak preview of two of our upcoming events. The first of which is the AutoGrassMilk event which takes place on the farm of Aidan and Anne Power, Templederry, Co. Tipperary on Wednesday 7th October. This event will showcase the use of a robotic milking system in an intensive grazing farm and is an event not to be missed for anyone considering purchasing a robotic milking machine (details on page 10). Next up is our student conference which takes place on Monday 12th of October in Laois and Kilkenny (details on page 11).

Taking a look back at our most recent events we have a report on our AGM (page 8). Meet our new council members on page 6 and see who has retired from council this year (page 5). Our Lifetime Merit Award was awarded to John Shirley recently. Read all about it on page 12.

Our recent technical events are also reviewed including our Dairy Summer Tour and Beef Conference and Farm Walk. This year the Dairy Summer Tour was hosted by Henry and Patricia Walsh and Noel O'Toole in Co. Galway. Emer Kennedy gives a full review on page 14 including how both of these farms are achieving a net profit of in excess of €900/cow! This year's Irish Grassland Association Beef Conference and Farm Walk took place on the farm of Kevin Farrell, Ballymahon, Co. Longford. The theme of this year's conference was "Dairy calf-to-beef - exploring the potential profit" – see more on page 18.

We have two technical articles on beef genomics and somatic cell count. Pat Donnellan (ICBF) looks at the New BDGP currently being sent to all participating farmers within the BDGP (page 31). He looks at how can farmers use the report to start making decisions regarding future replacement strategy on their farms. Fionola McCoy (AHI) asks if your bulk tank SCC has started to creep up slightly over the last few weeks? If so, don't ignore it! She gives her advice on page 35.

On the regulatory side, Sheila M. Macken, Department of Agriculture gives a comprehensive update on the Sustainable Use of Pesticides Directive (SUD) on page 32.

We also have two very good pieces on the important topic of Health and Safety. I would urge you to take time to read P.J. McDermott's story (page 24), which highlights how easy it is for a potentially fatal farm accident to happen. John McNamara and Patrick Griffin give a practical approach to Health and Safety for farmers on page 26.

Our three 'A Year in my Wellies' contributors give us their latest updates on page 22. JJohn McNamara gives us his view on grassland in Ireland (page 20). Cathal McCormack visits Lisbeg Farms in Co. Galway and tells us why the Bourns family won the 2015 Zurich Sheep Farmer of the Year Award (page 28).

Finally we look forward to the next generation in agriculture with our student bursaries. The Student Bursaries are an integral part of our annual programme of activities. Well-done to our 2015 winners Cormac McElhinney and Frank Campion! Find out more about the deserving winners and their areas of study on page 30. Frank Campion gives us his account of the American Dairy Science Association and American Animal Science Association Joint Annual Meeting in Orlando Florida in July on page 31.

I hope you enjoy this edition of our newsletter and I ask you to mark 7th January 2016 in your diaries for our Dairy Conference – more detail in our next newsletter!

Yours Sincerely,

Karen Dukelow

KAREN DUKELOW
Irish Grassland Association President 2015/'16

Retiring Council Members

PHILIP CREIGHTON

Philip joined the Irish Grassland Association in 2012. He has been very involved in organising the annual Sheep Conference and Farm Walk, as well as a number of other events, during his time on Council. Philip is a grassland researcher based at Teagasc Athenry. His role focuses on investigating grass production and utilisation within sheep systems through the use of optimal technical efficiency in relation to grassland and other management practices. He is the researcher in charge of the Sheep Research Demonstration farm in Athenry. Philip comes from an active sheep farming background in Wicklow.

PHILIP DONOHOE

Philip joined the Council of the Irish Grassland Association in 2006. Philip was President of the Irish Grassland Association in 2010/2011. He also chaired numerous committees and organised many events during his time on Council. Philip is dairy farming near Goresbridge on the Carlow/Kilkenny border. His farming system is very much a simple one which is grass focused and concentrates on maximising the amount of quality grass grown and eaten while delivering the best and most suitable genetics to harvest this grass.

DEIRDRE HENNESSY

Deirdre joined the Council of the Irish Grassland Association in 2007. Deirdre was President of the Irish Grassland Association in 2012/2013. She edited the Association's Journal in 2011, and has edited the Newsletter in recent years. Deirdre chaired numerous committees and organised many events during her time on Council. Deirdre is a Grassland Research at the Teagasc Animal and Grassland Research and Innovation Centre in Moorepark. Her research focus is on incorporating white clover into intensively grazed swards in high stocking rate milk production systems, grass growth modelling and grass production and utilisation.

EDDIE O'DONNELL

Eddie joined the Council of the Irish Grassland Association in 2007. Eddie was President of the Irish Grassland Association in 2013/2014. Eddie is a dairy farmer, farming in partnership with his wife Fiona and his parents Denis and Nora. The O'Donnell's are currently milking 300 spring calving cows on a grass based system with all land farmed reseeded over the last number of years. They also run 110 livestock units of replacement stock on two out farms. He envisages a long term future in large scale commercial dairy farming and their focus is on producing good quality milk and plenty of it as cheaply as possible from grass.

BRIDGET LYNCH

Bridget joined the Council of the Irish Grassland Association in 2009. Bridget edited the Association's Journal from 2012 to 2014. She also previously edited the Newsletter. Bridget has been very involved in organising the annual student conference during her time on Council, as well as being a member of numerous sub-committees. Bridget is a Lecturer in Grass and Forage Science in the UCD School of Agriculture and Food Science. Her current research programme which is based at the UCD Lyons Research Farm focuses on the following topics: forage maize production, evaluation of forage maize for livestock production, alternative pasture species, evaluation of multispecies swards for livestock systems, grazing management for higher input dairy production and knowledge transfer of grassland science.

WILLIAM MORRIS

William joined the Council of the Irish Grassland Association in 2014. Willaim was involved in organising the Dairy Conference and Dairy Summer Tour. William is a 33 year old dairy farmer from Ballydehob in West Cork. He is farming a 40 ha block of owned and leased land of which 60% has been reseeded in the last couple of years. As a participant in Teagasc's cultivar evaluation programme this has all been sown into monocultures with over a dozen varieties on trial. There are 86 milking cows as well as 50 replacement 0 - 2yrs old heifers on farm with over 50% of winter forage being bought in.

ROBERT PRENDIVILLE

Robert joined the Council of the Irish Grassland Association in 2012. Robert is a beef researcher at Teagasc, Grange. His research includes dairy calf-to-beef and suckler systems. He is the researcher in charge of the Maternal herd at Grange. He is currently project leader on three studies at Grange; dairy bull beef production, early maturing dairy cross heifer and steer production and validation of the maternal index for suckler cows. Robert studied Agricultural Science in UCD and thereafter completed a PhD at Teagasc, Moorepark where his work focused on Jersey crossbreeding in the dairy herd. After his PhD he began to work in beef research at Johnstown Castle and is now based at Teagasc Grange. His research work is very much focused on optimising animal production from low input pasture based production systems.

Council members elected and co-opted at the recent AGM

CATHAL MCCORMACK, ALLTECH

Cathal McCormack is County Manager for Alltech Ireland, based in Dunboyne, Co. Meath. In this role Cathal is responsible for the overall management of Alltech Ireland. The Alltech research facility in Dunboyne has a strong emphasis on fundamental research encompassing biotechnology, microbiology and chemistry-based disciplines with yeast technology, the core research area. Previously Cathal was Training and Development Officer for Macra na Feirme. Cathal is also active within the beef industry as a member of the council of the Irish Angus Cattle Society. In this capacity Cathal served on the ICBF ĐuroStar review committee in 2012 which conducted a thorough review of beef breeding objectives for Ireland and led to the development of the new Terminal and Replacement Indexes for beef cattle. Cathal was co-opted on to the Council in 2014 and elected on to Council for a three year term this year.

KEVIN FARRELL, BEEF AND SHEEP FARMER

Alongside his wife Mary and sons Oisín, Patrick, Ríoch and Enda Kevin farms 76 ha just outside Ballymahon in county Longford. Traditionally the farm carried a herd of 60 suckler cows and 230 ewes. The suckler herd comprises of mostly continental type cows calving down in both the autumn and spring. One of the main focuses on the farm over the past five years has been to drive up output and reduce costs through improved grassland management. It was the adoption of better grassland management practices along with the implementation of a reseeding programme that provided him with the opportunity to establish the dairy calf to beef enterprise. Kevin was co-opted on to the Council in 2014 and elected on to Council for a three year term this year.

MICHAEL BATEMAN, DAIRY FARMER

Michael is a Dairy Farmer from West Cork milking 300 cows. He operates a spring calving, grass based system and rears all his replacement heifers. He is an active member Crookstown Dairy Discussion Group. Michael has served one three year term on Council and has been elected for a second term.

ADAM WOODS, TEAGASC

Adam is a beef systems researcher at Teagasc Grange with responsibility for the Derrypatrick Herd at Grange and also the newly established Newford Herd at Athenry. He was previously a Beef Better Farm Programme advisor and he also co-ordinated the programme form 2013 -2015. Adam comes from a beef and sheep farm in Co. Cavan. Adam has served one three year term on Council and has been elected for a second term.

GEORGE RAMSBOTTOM, TEAGASC

George works as a dairy specialist with Teagasc and is based at Oak Park, Carlow. He studied general agriculture in UCD, graduating in 1990 and also hold Masters degrees in Extension and Reproductive Physiology (both from UCD). His masters degrees hold him in good stead as he's involved in facilitation skills training for agricultural advisers and private consultants. Within Teagasc he also focuses on promoting the improvement of dairy cow fertility and works closely with ICBF in developing and promoting EBI. In addition, he's passionate about maintaining the focus on grass based dairying - his research shows that higher input dairying in addition to being more dependent on a higher milk price to underpin its profitability, locks farmers into a higher production cost systems of milk production. He has one discussion group that he facilitates monthly, the Kildalton group, but he attends 30-40 group meetings annually.

PAUL HYLAND, DAIRY FARMER

Paul is a Dairy Farmer from Portlaoise, Co. Laois. He is married to Elaine with four young children. He farms in partnership with his brother David running a Friesian and crossbred herd comprising of 400 cows milked on two farms. All young stock are reared for sale or replacements on an outside farm in Co. Kilkenny. Paul presented a paper at the 2010 Irish Grassland Association Dairy Conference. Paul has spent time working on high input farms in Holland and also worked on grass based farms in New Zealand. This has led him to believe that "no one system is correct; rather we need to embrace the best of both and run our business' with a very open mind".

CIARAN LYNCH, TEAGASC

Ciaran works with Teagasc as a Sheep Research Technologist. Previous to this he graduated from UCD with a degree in Animal Science. Coming from and working on a beef and sheep farm he has always had a keen interest in improving farming practice and continues to base his career in that area. Since its inception in 2008 Ciaran has been coordinating the BETTER Farm Sheep Programme. The main focus of the programme is to transfer key technologies in the areas of grassland, breeding and health to the wider sheep farming community. Demonstrating how to improve management and implementing farm plans have been methods used to help farmers overcome the stumbling blocks they face to improving their own farm profitability. In addition to the technology transfer aspect of his role, Ciaran has had the opportunity to examine a number of the technical issues influencing animal performance at farm level and address how these can be improved. Currently a large proportion of his time is dedicated to contributing to the wider Teagasc Sheep programme in delivering national and local events aimed at improving farmer awareness and knowledge.

BRIAN NICHOLSON, SHEEP FARMER

Brian and his wife Alison farm sheep on 108 ha of grassland at Johnstown, Co. Kilkenny. Brian contributes to the Irish Farmers Journal 'A Farm Writes' column.

LAWERENCE SEXTON, DAIRY FARMER

Lawrence is farming in partnership with two neighbours, milking 330 crossbred cows, and rearing their followers on three blocks of land in West Cork. A large part of the land base has been converted from a tillage/beef enterprise. His focus is on maximising profit through grass, and putting in place a low-cost, effective infrastructure, with the goal of grazing for 300+ days in the year. He is currently serving on the board of Barryroe Co-op, which supplies the Carbery Group. Lawernce has been co-opted on to the Council for the 2015/'16 term.

ALAN KELLY, UCD

Dr. Alan Kelly holds an honours degree in Animal Science (2006) and a PhD in Cattle Nutritional Physiology (2009) from University College Dublin (UCD) and subsequently worked for a year as a post doctoral research scientist at UCD Research Farm, Lyons Estate. Since 2011, he has been employed as a Lecturer in Animal Science at the UCD School of Agriculture and Food Science. He lectured and coordinated modules mainly in the areas of advanced beef production and ruminant nutrition. His research areas of interest include the development of blueprints for efficient bull beef production systems, maximising the performance of beef cattle through dietary and management interventions designed to improve economically important traits (feed intake, growth, feed efficiency, compensatory growth and cattle digestion/fermentation), nutrition and health management of calves and strategies to enhance the reproductive efficiency of beef cows. He has published extensively on these topics and has presented the findings of this research at national and international conferences. Alan has been co-opted on to the Council for the 2015/'16 term.

AUSTIN FLAVIN, TEAGASC

Austin is from Ardmore, Co. Waterford. He has a strong hurling and farming background. He was reared on a suckling farm and continues to work part-time on the family farm. He has worked with Teagasc for the last 15 years. He started working in dairy and REPS planning in the Teagasc office Clonmel, Co.Tipperary, followed by a dairy position in Kilmallock, Co Limerick for four years. In 2008 he moved to Mullinavat as a drystock advisor for South Kilkenny. Recently Austin relocated to Dungarvan as a drystock advisor. Austin has a range of experience in positions from dairy, drystock, education and REPS/AEOS/GLAS planning. He has worked with a lot of farms and farmers and believes this has been important to help develop a broad range of knowledge of all farming systems. Austin returned to college part-time in 2009 to complete a degree in Business Studies at WIT. The family farm has always been the backbone of Irish agriculture and Austin believes farmers will have to be business focussed going forward. Austin has been co-opted on to the Council for the 2015/'16 term.

AGM Review 2015

Paul Crosson,
Irish Grassland Association President 2014/15 and Teagasc Grange

Karen Dukelow,
Irish Grassland Association President 2015/16 and Teagasc Beef Specialist

The Irish Grassland Association 2015 AGM took place on the 17th September at the Heritage Golf and Spa Resort in Killenard, Co. Laois. This is an important event in the Association's calendar providing an opportunity for all members to see how the Association works. It is also an opportunity for members to become involved in the running of the Association. All members can put their name forward for election onto the Council. There are 21 elected members on the Council and the incoming President can also co-opt a further 3 council members. The Council operates on a voluntary basis to organise the events and activities of the Association throughout the year.

This year four members were elected to the council: Paul Hyland, dairy farmer; Brian Nicholson, sheep farmer; George Ramsbottom, Teagasc dairy specialist, and; Ciaran Lynch, Teagasc sheep specialist. Karen Dukelow also co-opted Laurence Sexton, dairy farmer, Alan Kelly, UCD and Austin Flavan, Teagasc. It is a great reflection of the Association that so many people are interested in joining the Council.

A number of council members retired this year. They were Philip Donoghue, Deirdre Hennessy, Eddie O'Donnell, Philip Creighton, Rob Prendiville, William Morris and Bridget Lynch. All of the retiring members contributed greatly to the growth of the Association during their time on Council.

In his overview of the year's activities outgoing President, Paul Crosson, thanked all council members for their commitment to the association over what was an extremely busy year. In particular, he thanked the chairpersons of the dairy conference, sheep farm walk, beef farm walk and conference and dairy summer tour for organising very successful events. He also acknowledged the work of the Regional Development Officers, Noreen Power and Donal Callery. Special mention was given to Maura Callery, Office Manager, who provides huge support for all of the Associations' activities. Finally, he wished incoming President, Karen Dukelow, all the best for the year ahead. Liam Young, IFAC, presented the 2014 accounts at the AGM.

At the AGM Bernard Ging, dairy farmer, was installed as the Vice President of the Association and Paul Crosson, Teagasc beef researcher, was elected as editor of the Annual Journal and Newsletter.

Preview: Farm walk on the farm of Aidan and Anne Power, Co. Tipperary

Philip Donohoe,
Irish Grassland Association
Council and Dairy Farmer

The Irish Grassland Association in conjunction with its AutoGrassMilk partner Teagasc will host an open day on the farm of Aidan and Anne Power, Templederry, Co. Tipperary on Wednesday 7th October.

This event will showcase the use of a robotic milking system in an intensive grazing farm. The Powers milk 95 cows through two milking robots on their 43 ha dry, hilly farm. On the day participants will be able to see the importance of cow trafficability to a system like this and how allocation of grass is the engine that drives it. Learn how to best utilise the robot to achieve maximum profit. And hear how much labour is really saved in automatic milking systems. With two of the three years of the AutoGrassMilk research project now completed, some of the research staff involved with this project will be available on the day to present and discuss some preliminary findings and answer questions. This is an event not to be missed for anyone considering purchasing a robotic milking machine.

The event will run from 11 am to 1 pm. The farm is situated just off the R498 Nenagh to Thurles road, approximately 13 km from Nenagh and 10 km from Borrisoleigh. It will be signposted from the R498.

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AUTOGRASSMILK

Student Conference Preview

Bridget Lynch,
Irish Grassland Association
Council Member and UCD

The Irish Grassland Association will hold its Sixth Annual Student Event on Monday 12th October in Kilkenny and Laois. This event will be attended by students studying a range of third level courses in agriculture at the Agricultural Colleges, Universities and Institutes of Technology across Ireland. It is a unique day and the only event of its kind in Ireland where agriculture students from various third level institutes come together to learn and interact with each other. The student only focus allows the next generation farmers, farm managers, advisor, sales representatives, researcher's, etc. access to excellent farms and farmers, advisors and industry in a forum which allows them to ask questions create debate and discussion.

In previous years the IGA has coordinated the visit of the third level student group to:

- James and Sinéad Walsh's dairy farm in Carrick-on-Suir in 2010
- John Kelly's sheep BETTER farm in Baltinglass and Brendan Byrne's dairy farm in Grangecon in 2011
- Cathal Crean's beef BETTER farm and Kevin and Richard Murphy's dairy farm in 2012
- Heinz Eggert's, beef BETTER farm in Sallins and Laurence and Lorretta Martin's dairy farm in Carbury in 2013
- Owen Brodie's dairy farm, Virginia, Co. Cavan and Tom Halpin's beef BETTER farm in Carlanstown, Co. Meath last year.

The IGA is continuing to give the students access to high caliber farms again this year and they will participate in a farm walk in Brian Nicholson's sheep farm in Johnstown, Co. Kilkenny and Pádraig and Pat Walshe's dairy farm in Durrow Co. Laois.

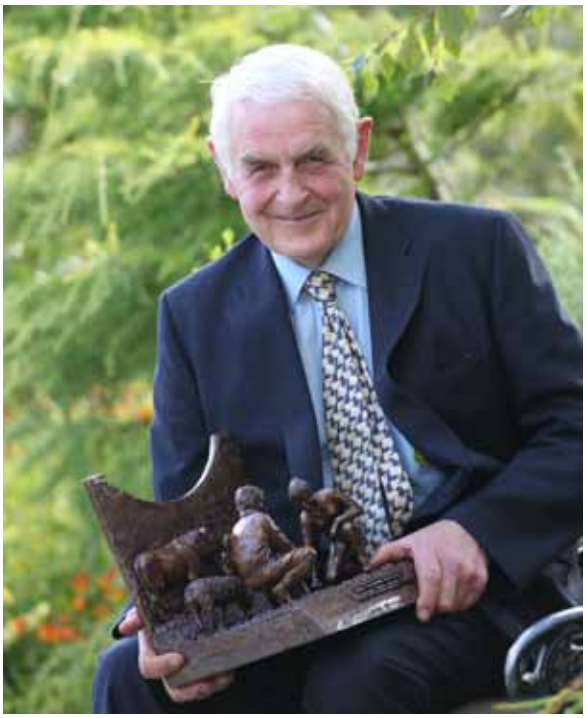
Brian and his wife Alison are part of the BETTER Farm Sheep Programme and Brian is an Irish Farmers Journal 'farmer writes' contributor. They farm sheep on 108 ha of grassland, contract graze 40 cattle from mid-June to housing and also grow seed barley. The focus of the farm walk will not only be on key technologies that can improve the productivity and profitability of the sheep enterprise but also lessons learned as a young farmer expanding a sheep enterprise. The focus on Brian's farm over the past number of years has been to increase flock size and profitability. To achieve this he has focused on improving grassland management, soil fertility and breeding. All of which will be discussed on the 12th October.

Pat Walshe farms in partnership with his parents Padráig and Ella. Pat graduated from the Animal and Crop Production programme in UCD in 2012 during which he spent time working in dairying in New Zealand's South Island. The Walsh's operate a spring calving system with a focus on high grass growth and utilisation. Currently they are milking 165 cows with an EBI of €177 on 52 ha producing 454 kg milk solids in 2014. They grew 18 t DM/ha on the milking platform in 2014. The focus on the farm walk will be getting the basic right such as grassland management and breeding as well as farming in partnership with your parents and getting started in dairy farming.

We would like to thank our sponsor FBD

Lifetime Merit Award Luncheon for John Shirley

Darren Carthy,
Irish Grassland Association Council
Member and Irish Farmers Journal



The 2015 Irish Grassland Association Lifetime Merit Award was presented to John Shirley at a function at the Heritage Golf and Spa Resort in Killenard, Co. Laois on 17th September 2015. John was joined by his wife Heather and past colleagues from his career in agri-journalism. John was also joined by council members of the Irish Grassland Association and past recipients of the Lifetime Merit Award, Sean Flanagan (2010) and Matt Dempsey (2014).

In presenting the award, IGA President Karen Dukelow outlined the considerable contribution that John has made to the beef and sheep sectors over a long and distinguished career. John's career spanned 35-years in agri-journalism, writing for both the Irish Farmers' Journal and the Irish Independent. He informed but also challenged beef and sheep farmers in identifying the most profitable production system. He brought farmers the latest research, working closely with Dr. Frank Crosby, UCD. He also worked closely with the research centre at Knockbeg focusing on grass-based systems. John was also known for his diverse range of subjects with his weekly contributions to "the Farmers Eye" in the Independent and he also returned to The Farmers 'Journal with an online column and is in no doubt putting a phenomenal career to good use on his own farm. John also brought his passion and experience to the National Cattle Breeding Centre in his role of Head of Beef Programme. John reported at and participated in numerous IGA Beef and Sheep events.

In his address, John recognised the work done by the IGA for grassland farming. He thanked the IGA for the awarding of the Lifetime Merit Award and outlined many of the changes he had seen in agriculture over his career, from the introduction of the humble electric fence to the progress made in genetics. He made reference to the significant loss of a dedicated breeding station in the country and the need for an independent appeal system for decisions made by the Department of Agriculture. He thoroughly enjoyed his career as an agri-journalist and still has the best interest of farmers to heart.

The event and presentation of the IGA Lifetime Merit Award is recognition by the IGA of the contribution that John Shirley has made to the Irish grassland farming sector and he is a very worthy recipient.

Review: Irish Grassland Association Dairy Summer Tour 2015

Emer Kennedy,
Irish Grassland Association Council and Teagsc, AGRIC, Moorepark, Fermoy, Co. Cork.

On Tuesday, 28th July 2015 the Irish Grassland Association held their annual Dairy Summer Tour in Co. Galway. A capacity crowd of almost 500 delegates were kindly hosted by Henry and Patricia Walsh and Noel O'Toole. The theme of the day was **'A Roadmap through Expansion'.** Although there were moments when the heavens opened and rain of biblical proportions ensued it wasn't enough to dampen the enthusiasm of the audience who enjoyed a day full of learning and lively discussion.

Henry and Patricia Walsh

Henry and Patricia Walsh farm at The One Mile Dairy in Oranmore, Co. Galway. They have two sons Aidan and Enda, who both help out with the farm. The Walshes addressed the topic of strategies for successful large-scale expansion on the day.

In 1996 Henry and Patricia took over the farm from Henry's parents. The farm was then 40 ha with a 50 cow purebred Holstein Friesian dairy herd supplying a liquid milk contract of 236,400 litres with a small beef enterprise consisting of 20 bullocks. 8.1 ha of land adjoining the farm were purchased and approximately 45,500 litres was also purchased from the Co-op, with some temporary leasing also availed of. Later in 1996 a further 10 ha and 84,000 litres were secured on a 10 year lease. This milk was subsequently purchased. The available quota (owned and temporary) was then over 386,400 litres filled by 72 cows milking all year round. This triggered the start of the expansion and the emphasis on the farm moved to a dairy only enterprise.

Henry says a lot of their success is attributed to meeting Bryony Fitzgerald in 2001. She increased their focus on grass production and net-worth. By spring 2002 the herd had converted to spring milk production with the herd size of 104. A six week family summer holiday to Australia led to a new focus on grass management. While away a 20 year old student fresh from a Stephen Cullinane scholarship to New Zealand managed the farm and with the knowledge he had gained in New Zealand, kept milk supply level through the July-August period and the quality of the pastures on Henry's return opened his eyes to the importance of mid-season grassland management. This trip also included a number of unplanned visits to farms most of whom were milking between ten and twenty rows of cows. The farmers agreed the number of rows was doable so long as you only milked once in the day and someone else did the other milking.

By 2003 herd size had grown to 125 cows. Expansion was slowing down due to quota restraints. In 2006 the opportunity to become a dual supplier with Kerry and Connacht Gold gave Henry access, over the next 8 years, to 500,000 litres of extra quota and a new phase of expansion began. In 2008 157 cows were being milked. Henry built a 130 cow wintering pad, and a 4.2 mn litre lined lagoon. A silage slab was also built and in-parlour feeders installed to speed up milking. In 2011 the collection yard was increased and a backing gate installed in 2012. In 2014 a second calf rearing shed was built as numbers increased.

Grassland Management

All milk from the farm is produced off grass or bales grown on the milking platform. No silage from any of the outside blocks is brought in to supplement the lactating herd. Approximately 400 kg concentrate/cow is fed in the shoulders. The farm needs to grow 13.7 t DM/ha and utilise 11 t DM/ha (80%). To achieve this Henry puts a lot of emphasis on the spring rotation planner and the autumn planner as well as grass measuring and budgeting during the year.

Breeding management

After he took over the farm, Henry started using New Zealand genetics as part of his breeding programme and from 2000 began crossbreeding with Jersey. Henry participated in the Moorepark Norwegian Red On-Farm study in 2004 and there are still some cows from this study in the herd today. Since 2010 the herd has been predominantly crossbred using Friesian and Jersey sires. Henry's ideal cow is 75% Friesian and 25% Jersey.

Achieving 450 kg milk solids per cow

When asked how he achieves 450 kg milk solids per cow Henry said he targets 290 days in milk. He uses bulls with an average €120 EBI for fertility and also selects bulls with high fat and protein – 0.5% in 2014 and 0.42% in 2015. He also tries to ensure that the herd calve compactly, in 2015 65% calved in 3 weeks, 85% calved in 6 weeks and calving interval was 366 days. Low empty rates are also a key criteria.

Labour

As the farm has grown, the role of motivated skilled labour has become more and more essential with regards the day-to-day tasks like milking the cows. Currently, there are six people plus Henry involved in the running of the farm. These are Henry's wife Patricia, sons Aidan and Enda, college students and his neighbour John. The business relationship between John and Henry started in 2007 when Henry got access to extra quota through a dual supply contract and employed John for morning milking. John had just exited dairy farming due to a requirement for major capital investment to continue and had moved into sucklers, dry stock and relief milking. There is a long history of employing students on this farm and there are currently two employed by Henry, Eoin Douglas and Darragh Keane. Patricia, Henry's wife, plays the important role of facilitator on the farm. Most of the planning, organisation and discussion is done at the kitchen table with all the farm workers. Patrica also looks after the feeding of the new born calves, particularly when they are getting colostrum. Contractors are primarily employed for silage, reseeding and land reclamation works.

Financial

The profitability of Henry's farm is excellent with a net margin of €918/cow and €2548/milking platform ha. What makes these figures even more impressive is the fact that continuous expansion has taken place over the past 10 years with little effect on farm profitability. The key to these impressive figures has been Henry's continued pursuit in a low cost model of farming. This, combined with a low infrastructure spend and cheap out-wintering of a portion of the herd has kept the capital spend low throughout his journey of expansion. Profit per ha is also boosted by increased milk solids output/ha (1150+ kg MS/ha on average) over the last 5 years. Henry plans to push stocking rate on the milking platform to 3.5 cows/ha in 2016. The milking platform will increase by 4 ha in 2016 and the herd will grow by 40 cows. The challenge is to keep margin per cow the same by retaining the low cost ethos of the farm. The increased stocking rate and additional 4 ha have the potential to add over €36,000 to existing profits.

Noel O'Toole

The visit to Noel O'Tooles farm was an impressive exercise, not least because of the open manner in which Noel discussed his business, but also his attitude to life and farming, and how he has influenced so many other farmers in the area. The theme of the visit to Noels farm was high output at low cost.

The O'Toole's are farming on a 41 ha milking block near the village of Killimor in east Galway. Noel has been farming all his life and the farm has changed immeasurably under his guidance. Milk production began on the farm in the 1960's but initially this was just one of many enterprises. By the 1970's the enterprise mix had narrowed to just milk and beef production and when quotas were introduced in 1984 Noel was milking 50 cows supplying a 204,600 litre quota. Throughout the 1980's and 1990's Noel expanded his herd through the purchase of milk quota and by 2006 had built the herd up to 75 cows. In 2006 Noel became a dual supplier with Connacht Gold and Kerry which allowed him to expand his herd further. At this point the beef cattle were sold and Noel focused entirely on milk production. A few years prior to this Noel had joined a discussion group of like-minded dairy farmers; this was a turning point for Noel and his farming business. The group facilitator, Bryony Fitzgerald, introduced the group to the concept of calving cows compactly in spring in order to maximise grass utilisation and minimise cost. From this point forward Noel became a true believer in the potential of grass based milk production systems and has spent the past 18 years honing his grassland management skills and breeding a herd of cows capable of converting grass to milk at high stocking rates.

Down through the years Noel has remained an active member of the Galway Grazers Discussion Group and the Greenfield Discussion Group. He is also a member of the European Dairy Farmers Group. The discussion groups have been pivotal to his success and have helped him to keep up to date with the latest developments in grazing technology and systems. Over this period milk solids output/ha has increased to 1575 kg MS/ha with concentrate inputs of 500 - 600 kg/cow. With many dairy farmers planning on expanding milk production on their farms in the coming years there are many valuable lessons to be learned from Noel's experience.

The System

Noel has developed a milk production system that is entirely focused on high production per ha at low cost per kg of milk solids produced. Young stock were originally reared on the home block but they have been replaced by more cows as the herd has expanded. Noel is a firm believer that the milking platform should be used for milking cows only. The 41 ha block produces enough grass to feed the 163 cow herd throughout lactation in the form of grazed grass and some surplus bales which are used to fill feed deficits in spring and autumn. Young stock are reared on outside blocks (15 ha) where some silage is also made. In addition to a very high milking platform stocking rate of 4.0 cows/ha the overall farm SR is also high at 2.8 LU/ha. Shortages of winter feed are filled by buying silage swards on the stem or as bales. All silage is made as round bales; Noel feels that this is a more flexible option than pit silage which allows him to cut silage on different blocks of land at different times. In addition he can avail of opportunities to take grass on the stem at short notice if the opportunity arises. While most see bales as an expensive method of making winter feed Noel sees this as an integral part of his system – the benefits to grass management on both the home block and outside blocks far outweigh the extra cost per kg DM of silage. This approach also lends itself to low levels of investment in machinery and low machinery running costs.

Grassland Management

Noels sees the grazing infrastructure as the most important link in the chain if grass utilisation is to be maximised. Noel has an extensive network of farm roadways giving excellent access to all areas of the farm. Noel has managed to achieve an exceptionally high level of production per ha at low cost through excellent grassland management practices developed over time. In 2014 he grew 13.8 t DM/ha and utilised 11.7 t DM/ha.

Noel firmly believes the starting point is soil fertility and no expense has been spared to improve and maintain the soil fertility status on the farm. Reseeding poor performing swards has also been an essential route to improving grass production. These paddocks are identified through the use of grass measurement. Noel has been measuring grass for a long time but has not become complacent about the exercise – this is the key driver of his business. The secret when operating at a high stocking rate is to be aggressive when removing surpluses. Noel does not believe in skipping over paddocks to allow them to build up heavy covers or closing an area on the milking platform for silage. Instead he cuts the paddock straight away and bales so it is straight back into the grazing rotation.

The grazing season starts on the 10th August when Noel starts building cover; this can be quite a challenge at a stocking rate of 4 cows/ha. High quality bale silage harvested off the milking platform is used as a buffer feed to reduce demand to build. Peak farm cover of 1250 kg DM/ha is reached on 1st October, which is then used to stretch the grazing season into late November. The most critical farm cover of the year is the closing cover which must be 650 kg DM/ha to ensure sufficient grass is available for spring. Cows start calving on the 10th February and are turned out to grass as they calve. The spring rotation planner is used to set the farm up for the second rotation. In conjunction with this, weekly grass walks are used with a grass budget to identify deficits early. Again high quality bale silage is used as a buffer feed.

Breeding Management

Noel believes strongly in breeding a cow that suits his system instead of changing the system to suit the cow. Pre 2000 Noel had always used Holstein×British Friesian bulls. However, around 2000 he started to use some Jersey sires on his heifers mainly for ease of calving as his herd was growing. Around this time he also started to use New Zealand Friesian bulls on his cows to breed a more compact cow with the potential to produce higher milk solids. When choosing bulls Noel picks from the proven bull list and pays particular attention to the calving sub index and the health sub index. The current herd EBI is Ð184 and Noel plans to continue using a mix of high EBI Jersey, Friesian and crossbred sires across the herd in future.

Labour

As the farm has expanded the labour structure has changed to accommodate the extra cow numbers. In addition to more paid labour and contractors being used to cope with an increasing workload, Noel also believes that cow type and farming system are the corner stones of a labour efficient farm. His compact calving pattern allows him to employ labour when it is needed and can be fully utilised. His crossbred cows are easy care animals that do not require a lot of individual attention, particularly around calving. His system also affords him the opportunity to have some down time over the winter months where only the bare minimum tasks are done. According to Noel this quite time of year is essential and gives him a chance to recharge the batteries before the next spring. In recent years Noel has employed a local person to do 6 – 8 milkings a week which has freed him up to do other jobs. This has worked brilliantly and he highly recommends this approach for those operating at scale where hiring someone fulltime is not practical. In addition to this Noel takes a student from an Ag College every year for 12 weeks placement during calving season. Again this has been a positive experience and Noel enjoys teaching and mentoring these young students.

Financial Performance

Noel's constant focus on achieving high levels of grass utilisation have resulted in high profitability per ha which has been sustained across a range of milk prices and weather conditions. With a five year average of €3,500 net margin per ha, Noel is living proof of the potential that exists for dairy farmers in a post quota environment. Noel has maintained a high profit per cow (€932/cow) while increasing stocking rate by increasing grass grown and utilised and by keeping borrowings and investments in capital infrastructure to a minimum. This is a highly profitable and sustainable system which achieves a high output per ha at low cost.

Review: Beef Conference and Farm Walk

Nathan Tuffy,
Irish Farmers Journal

Adam Woods,
Irish Grassland Association Council and Teagasc Grange

This year's Irish Grassland Association Beef Conference and Farm Walk took place in Ballymahon, Co. Longford on Tuesday 30th June. The theme of this year's conference was dairy beef and the title was "Dairy calf-to-beef - exploring the potential profit". The event was kindly sponsored by Bonanza Calf Nutrition.

Friesian steer more profitable in than bulls

Robert Prendiville, Teagasc presented figures showing greater margins in a Friesian calf-to-steer beef system compared to the bull beef alternatives. He detailed four different systems being trialled in Johnstown Castle, 21 month steers, 24 month steers, 15 month bulls and 19 month bulls. Grass drives the budget for the 21 month and 24 month steer systems, equating to 63% and 52% of the total feed budget, respectively, with concentrates making up 18% and 22% of the budget. This is in stark contrast to the bull systems, which have just 18% grass in the budget for the 15 month bull, and 42% in the budget of the 19 month bull, both well shy of the lower cost steer systems.

To determine the gross and net margins on a per head basis for each system, Robert explained that to work out these margins, a calf cost of €75/head is assumed, concentrates are assumed to cost €255/t and the beef price is estimated at €3.77/kg. Using these figures he estimates the 21 month steer system, which has the least concentrate input to return a net margin of €258/head. This is followed closely by the 19 month bull system at €220/head. However this comes with a caveat; if the overage 19 month bull receives a 30c/kg price discount for being out of spec, the net margin falls to €124/head, well short of the 24 month steer option at €201/head. The 15 month bull is the worst performer returning a net margin of just €67/head. With the low returns from the 15 month bull option combined with the marketing issues associated with the aged 19 month bulls, farmers from the floor questioned if there was a place for a 15 Friesian bull beef system.

Higher margins from early maturing steer systems

Robert also detailed the margins which he said can be achieved through a dairy calf-to-beef system using early maturing animals. He focused on a heifer system taking calf price at €240/head, concentrate cost at €255/t and beef price at €4.22/kg for an O-3-heifer. For the steer system, calf price was €270/head, again concentrate cost was €255/t and beef price was €4.37/kg for an O+3+ animal. The heifer system finishing off grass at 19-21 months has the greatest level of grass in the diet at 72%, followed closely by the 21 month steer system. The lowest meal input was for the 26 month steer finished off grass with just 10% of its total feed budget coming from concentrates. The lowest net margin per head

was from the heifer system at €177/head, while the highest was from the extensive 26 month system at €322/head. However, if stock carrying capacity is taken into account, the higher stocking rates achieved in the 21 month steers means that this will return the highest net margin on a per hectare basis at €819/ha, followed by the 26 month steer system at €704/ha, and the heifer system at €619.5/ha. The lowest return on a per hectare basis is the 23 month steer system due to the higher finishing cost during the second winter.

Sensitivity analysis

Robert showed the crowd how changes in ration price, concentrate price and beef price would affect the various systems. In terms of the 15 month Friesian bull system, he showed that a €20/t increase in ration price would reduce the margin by over 50% on a per hectare basis in that system. A €20/head increase in calf price would see margins fall by 12% on a per hectare basis in the 19-21 month heifer systems while a 20c/kg drop in beef prices would result in a 21% drop in margin on a per hectare basis for a 21 month early maturing steer system.

€510 projected margin from AA steers on Farrell farm

The afternoon session took place on the farm of Kevin and Mary Farrell and their family. The farm is 188 acres in two main divisions. The farming systems consists of 50 Friesian calves brought to beef as steers under 24 months or bulls under 16 months. The remaining 100 calves are predominantly Angus with some Herefords and these are to be slaughtered off grass in October/November at 19 months of age. The current crop of Angus steers on the farm was bought in at an average cost of €240/head. Over the lifetime of the animal, the total concentrate input is estimated to be between 0.6 and 0.7 t, with the majority of this being fed during the final finishing period. Total variable costs are predicted to amount to €748/head and with a predicted beef price of €4.40/kg (€4.00 base, O+/= €3.88/kg, + 0.12 QA, + 0.4 Triple A Scheme) and a carcase weight of 238 kg the anticipated gross margin anticipated is €510.

Factors affecting gross margin

However, farmers should be aware that farmers who bought calves earlier this year would have paid €70 to €100 more per head than Kevin paid for the current crop of calves. In addition, the grassland management on the Farrell farm is top notch, because of the ewe enterprise. Calves are never forced to eat out a sward bare which ensures that very high levels of live weight gain can be achieved without supplementation. For most farmers supplementing with 1 kg ration per day over the first grazing period may be necessary where grassland management is poorer, this will increase concentrate costs by approximately €50/head.

The final issue is one of carcase specification. The gross margin highlighted is for animals that meet the target specification for the triple A scheme. Where a carcase grade is lower than O=, the 40c/kg price premium will not be achieved which could see output value drop by about €114/head.

Making More from Grass: My View

John Mc Namara,
Teagasc West Cork

I will look at the whole grass year and give my opinion on managing grass for the full year. This is knowledge I have acquired from both research and observing and discussing with farmers their practises. Grass is the cheapest source of feed we have available for cows. This statement is correct even when you have to rent the land to grow the grass. The most cost effective way to convert this high quality material into milk or more accurately milk solids that can be sold off the farm is to get the cow to graze it herself. All other forms of getting the grass into the cow in the form of making silage of it, zero grazing it, drying it, all add significantly to the cost and at some stage don't make the material very cost competitive at all.

We can divide the grass year into four parts. It starts not at the start of the grazing season in spring but the previous late summer when one starts planning for the following year. So part one is from August 1 to when all stock are housed. Part 2 is from when all stock are housed (December 1) until cows go to grass again (depending where in the country, but let's say February 1). Part 3 is from cows out (February 1) until you can fully feed the cows on grass only (magic day). Part 4 is from this magic day until August 1 again. And round and round it goes every year.

Before I start I should state that all I will be saying depends on getting the basics right first. That means ensuring the lime status of the land is correct. That you are maintaining the P and K levels or increasing them if they are low by using the right amount of fertiliser. Yes some ground is free draining and some will always be of a wetter nature and you can only play the hand you are dealt in this matter but investment in drainage when that improved land will be grazed by milking animals gives a good return for your investment. One needs a good road and water network to enable the herd have access to all this grass even in poor weather conditions. Again investment in this area gives a good return as well as making milking a more pleasant job. Good roadways reduce feet problems, reduce veterinary bills, and increase the herd output.

Right, with all that out of the way we best get down to the subject at hand. Starting in August the objective is to start extending the rotation which builds up grass. The management tool to use at this time is your grass budget. Using realistic growth rates from your previous years grass measuring or from local farms you build a grass budget for the autumn. This is a balancing act between building as much grass as possible and not having paddocks with too high a cover which will be lower quality and difficult to graze out. Also there can be very slow regrowth from these high cover paddocks after they are grazed especially if this is in November. Farms with wetter land will find it even harder to graze these high covers off if conditions get difficult, so they have to target a lower maximium cover. I think a maximum farm cover of 1050 kg DM/ha is a good target to aim for by late September. This means that the highest covers on the farm at that stage will be around 2100 kg DM/ha. They will still be less than 2300 kg DM/ha by the time they will be grazed in October. From August on the grass language should move to cover per hectare as cover per cow is no longer a good criteria, it's all about having enough per hectare but not too high a cover. Talking about kg DM/cow involves multiplying by the stocking rate to see if the cover per hectare is on target.

To extend the rotation from August grass growth has to be greater than grass demand. Therefore you drive both sides of this equation. You increase the grass growth by increasing the nitrogen you use in the last two rounds in August and early September. You can decrease the demand by reducing stocking rate or by increasing the area available for grazing. If silage is cut on ground that can be grazed by cows then ensure second cut silage is taken by the 7th August at the latest. The extra silage yield you get by delaying cutting after this date reduces the grass you will have available for the rest of the year by the same amount. So there is no net gain in delaying and grass is more beneficial and cheaper to feed cows in autumn than silage. You can also reduce demand by selling or removing from the cow grazing area other stock. Cows should be scanned at this time and those not-in-calf (NIC) should be taken out of the herd, either sold on or fattened yourself on other land. Once you have to feed supplement to the herd in autumn you are effectively fully feeding these NIC cows completely on supplement. Depending on milk and supplement price and the price for a NIC milking cow in September versus a cull cow in December there may be a margin in milking these on in some years, however its marginal trading.

This is setting you up to be on a 33 day round by early October. A useful guide is to check are you grazing more than 3% of your farm per day in late August. If you are you need to feed supplement so that you are feeding no more than the 3%. Doing this will ensure you build grass to a 33 day rotation by late September. It pays to feed to achieve these cover targets or rotation length targets because it gives you extra days for milking cows grazing grass. Once you get to early October, let's say the 5th October you have to start closing paddocks. In practise you will have paddocks closed before this when you look back the following spring. The plan should be to graze at least 66% of your area in the next 30 days from this date. This is the ground you will go out on first in spring and you are setting it up so they will be grazed early enough now to have enough grass on them in spring to fully feed the herd on grass plus ration after calving, without the need for silage. The more compact your calving is in spring the more of the farm you need to grazed and closed in this 30 days. So with a 90% six week calving rate you need to have 75% closed in that first 30 days. So take the percentage you need to graze and divide by the 30 days and see how much you need to graze per day and adjust the feed supplement to ensure you get it all grazed. Or move into lower covers to achieve your grazing targets.

We have now reached 4th November; at least 66% of the farm is grazed and closed. Your next decision is when you stop grazing. This should be when you reach a target closing cover. Again you are referring to your grass budget for the next year. What cover do you need to open at when you start grazing in spring? You then estimate what growth you will have from closing over the winter until this date. Subtract that growth off your target for spring and that is your closing cover. Once you reach this you house all stock day and night. Most farms make the paddocks remaining after 4th November last out by grazing by day only and feeding silage at night to get to late November or 1st December depending on ground conditions. We know the negative effect on milk yield and composition that happens when grass is taken out of the diet of a milking cow. So it pays to keep grass in her diet as long as possible while she is milking. Yes you will end up leaving paddocks with high covers after you when you close. However, even high cover grass is better that silage for cows next spring. I have seen covers as high as 1600 kg DM/ha being left and the farm was glad of them the following February.

We have got to spring; hopefully the farm has grown enough to be near your target opening cover. The bible from now until the day in April when you are growing enough grass to fully feed the herd on grass only without added supplement (magic day) is the Spring Rotation Planner. Get one and fill in your own farm information. It guarantees that you ration out your grass supply each week. It ensures you have more ground to graze as the milking herd increases in size. I have seen it used now for 25 years and it works. It is easy to use especially when you are up to your tonsils with other work in spring. It shows how much ground you can graze each day. This is your guide to feeding the herd. The objective is to get this amount grazed each day or at least get the weekly amount grazed if the daily amount was not achieved some days due to weather conditions or whatever. If you are not grazing out bare each daily allowance it means you are feeding too much supplement in the yard. Gradually cut this amount back starting with the silage until the herd is grazing out its daily allocation to your satisfaction. If it is all grazed out by day then the herd has to come in that night, if there is still grass left after the day then the herd can go out again after evening milking until the paddock is finished and depending on weather come into the yard after. It is important that cows go to grass with an appetite especially in difficult weather conditions if you want them to graze and not walk around the paddock doing damage. Doing grass covers during this busy period can help you tweak the spring rotation plan, and bring forward or delay your magic day.

From magic day until 1st August is all about regular, at least weekly, grass walks. The grass wedge and cover per cow are the drivers of the key management decisions during this period. I also think that using the following rotation length guide would not be far wrong either. Second round of 16 days, third round 16 days, then move out to 20 day rounds until 1st July and gradually let it out to 23 days by 1st August. You must have a plan for how you will graze out the paddocks fully. Kevin Ahern on Shinagh Dairy farm does not move cows between milkings as he feels it causes them to always be restless and looking to move when they see someone. Instead he decides how many cows to let back into the partly grazed paddock for another milking in order to get it grazed out to the target of 3.5 cm (assessed by platemeter). You err on letting too many rows from the parlour back because they won't be going back a second time! All through this summer period the target is to have high quality grass between 1300 and 1700 kg DM/ha in front of cows. With the aid of the grass wedge paddocks are cut for bales or supplement is fed to achieve this.

A Year in my Wellies

BARRY REILLY, DAIRY FARM MANAGER, CO. MEATH

The last few weeks have been quite the transition. I finished my placement with Patrick Stratford in Cavan at the end of August, signalling the end of my Diploma in Dairy Farm Management and heralding the beginning of a position with Christy Reynolds in Navan, Co. Meath as Farm Manager. I feel well placed to take up my new role given the wealth of experience I gained from working with Patrick for which I would like to thank him.

I am three weeks into my new job and trying to settle into the daily routine. Calving season has just begun here as Christy and his son David run a split calving herd with 250 cows to calve between 20th September and 5th December. The workload will start to pick up rapidly over the next three weeks. There are also 480 cows to calve next spring. At present there are 45 cows left to dry off out of that bunch and they will receive a cepravin tube followed by a boviseal sealer. The cows that are currently dry are on a diet of 9 kg of hay, 3.5 kg of maize gluten and 0.2 kg of mineral dust sprinkled on the maize at a cost of Đ1.54/cow/day.

On 15th September the average farm cover was just short of 600 kg DM/ha with a growth rate of 43 kg DM/ha/day and demand of 38 kg DM/ha/day. Cover per cows is currently 240 kg DM/cow and pre grazing yield is 1300 kg DM/ha. The milking block is currently stocked at 2.5 LU/ha. There are 360 cows being milked. They are producing 20 kg milk/cow/day at 3.55% protein and 3.95% fat (1.56 kg milk solids/cow/day). Cows are consuming 16 kg DM/day of grass and 2 kg/cow of a 16% high energy nut.

DENISE WEEKS, DAIRY BUSINESS DEGREE GRADUATE, CO. LIMERICK

Usually this is a quieter time on the farm but that hasn't been the case for us this year. After years of talking about putting in a new milking parlour at home we have finally bitten the bullet and installed a 24 unit Fullwood parlour with cluster removers. The first milking passed off without too much trouble and we are hoping to have milking done in an hour once everyone gets used to the new setup.

Despite all the rain we have received over the last week grass growth has held up at 67 kg DM/ha/day and AFC is 933 kg DM/ha. We introduced silage last week to help stretch out our rotation. We will start closing paddocks on the outside farm in early October and by the 10th of October at home. It has been a very good year for grass growth on the farm to date and hopefully this continues for another while.

The cows are milking 1.5 kg MS at present. Our focus is on producing as much milk solids per hectare as possible and we don't chase increasing individual cow production. To date we have produced 1287 kg MS/ha. I think we still have plenty of scope to improve this, mainly through maturing the herd and also through reseeding. Someone said to me recently if you listen to what the cows tell you, you won't go too far wrong. It seems simple but is probably a good guide, particularly when it comes to picking paddocks to reseed.

We scanned the cows in early September and ended up with 9% empty. It's going to be a busy February with 170 expected calving's. We have 5 suspected sets of twins. Hopefully we'll have the same result as last year when 6 cows expecting twins got special treatment all winter ended up with 1 set of twins and 5 well-conditioned cows.

We invested in a weighing scales a few years ago and it has proved an invaluable tool for rearing the young stock. We have found that some of our crossbreds can be hard to judge and the scales take the guesswork out of decisions. I monitor the weights against the Moorepark calf weight guide using 520 kg as our mature weight target. The average weight of the calves is currently 194 kg. Five of the 89 are between 160-170 kg and I am feeding them 1.5k g of meal to bring them up to target. The remainder are on grass only. I try to weigh them once a month and readjust the groups if necessary. The in-calf heifers are all well ahead of target with an average weight of 435 kg.

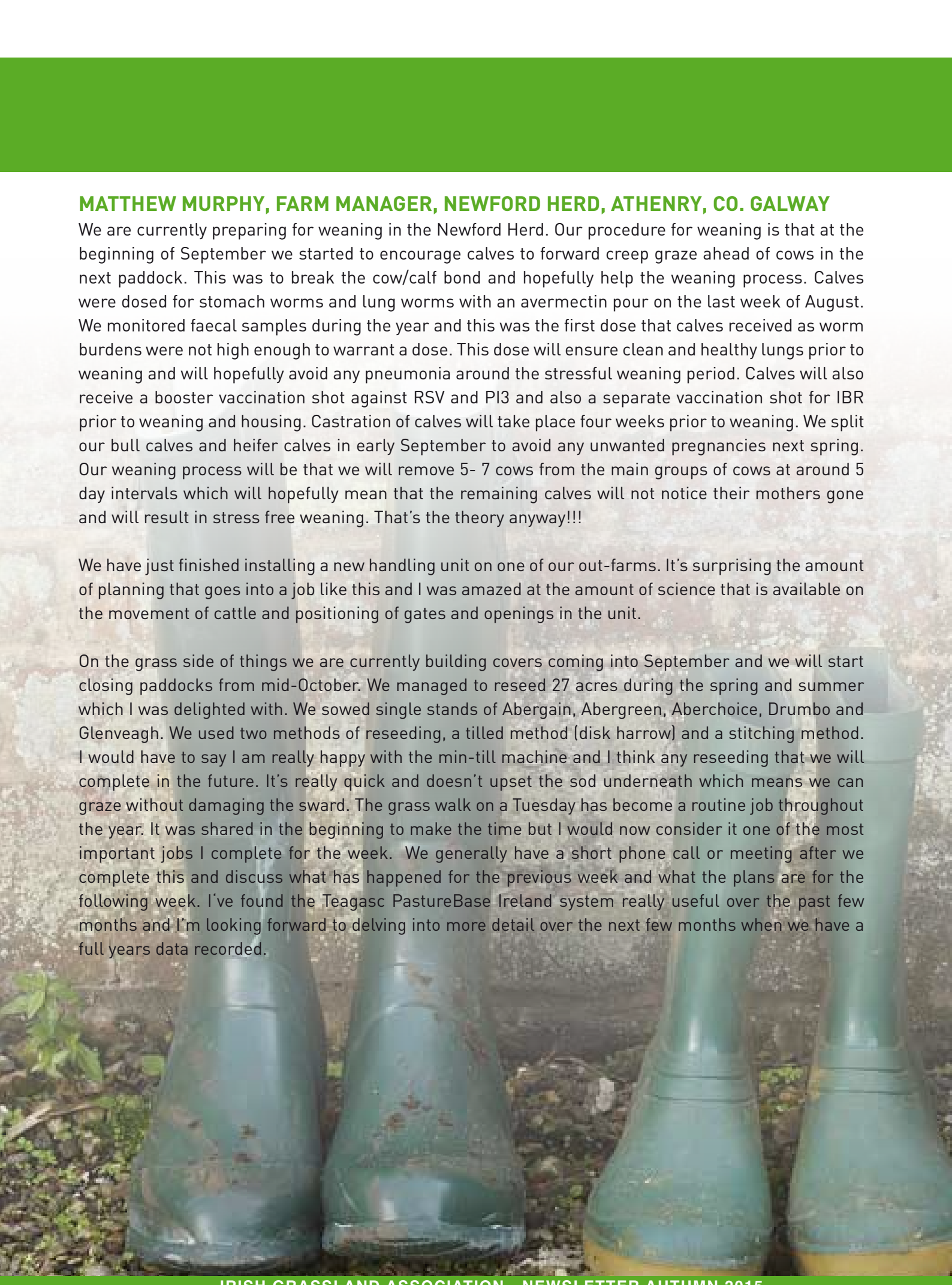
The Dairy Business class of 2015 graduated on the 31st of August. I am starting a new job in October which has finally put an end to my student days. I had four great years in UCD but for now it's onwards and upwards for the next chapter.

MATTHEW MURPHY, FARM MANAGER, NEWFORD HERD, ATHENRY, CO. GALWAY

We are currently preparing for weaning in the Newford Herd. Our procedure for weaning is that at the beginning of September we started to encourage calves to forward creep graze ahead of cows in the next paddock. This was to break the cow/calf bond and hopefully help the weaning process. Calves were dosed for stomach worms and lung worms with an avermectin pour on the last week of August. We monitored faecal samples during the year and this was the first dose that calves received as worm burdens were not high enough to warrant a dose. This dose will ensure clean and healthy lungs prior to weaning and will hopefully avoid any pneumonia around the stressful weaning period. Calves will also receive a booster vaccination shot against RSV and PI3 and also a separate vaccination shot for IBR prior to weaning and housing. Castration of calves will take place four weeks prior to weaning. We split our bull calves and heifer calves in early September to avoid any unwanted pregnancies next spring. Our weaning process will be that we will remove 5- 7 cows from the main groups of cows at around 5 day intervals which will hopefully mean that the remaining calves will not notice their mothers gone and will result in stress free weaning. That's the theory anyway!!!

We have just finished installing a new handling unit on one of our out-farms. It's surprising the amount of planning that goes into a job like this and I was amazed at the amount of science that is available on the movement of cattle and positioning of gates and openings in the unit.

On the grass side of things we are currently building covers coming into September and we will start closing paddocks from mid-October. We managed to reseed 27 acres during the spring and summer which I was delighted with. We sowed single stands of Abergain, Abergreen, Aberchoice, Drumbo and Glenveagh. We used two methods of reseeding, a tilled method (disk harrow) and a stitching method. I would have to say I am really happy with the min-till machine and I think any reseeding that we will complete in the future. It's really quick and doesn't upset the sod underneath which means we can graze without damaging the sward. The grass walk on a Tuesday has become a routine job throughout the year. It was shared in the beginning to make the time but I would now consider it one of the most important jobs I complete for the week. We generally have a short phone call or meeting after we complete this and discuss what has happened for the previous week and what the plans are for the following week. I've found the Teagasc PastureBase Ireland system really useful over the past few months and I'm looking forward to delving into more detail over the next few months when we have a full years data recorded.



FARM SAFETY FEATURE -Thinking Twice Could Save Your Life!

Rosalyn Drew,
Irish Grassland Association
Council and Drummonds Ltd

The fatality rate in agriculture is far higher than in any other economic sector and with this in mind all farmers should make farm safety their number one priority. It is all farmers' responsibility to farm safely and take the right precautions when doing the necessary jobs on the farm. 2014 recorded the highest number of farm fatalities in Ireland for several years with similar types of accidents being repeated each year. On average, 18 people are killed in farm-related accidents every year, with machinery and tractors accounting for more than half of all deaths.

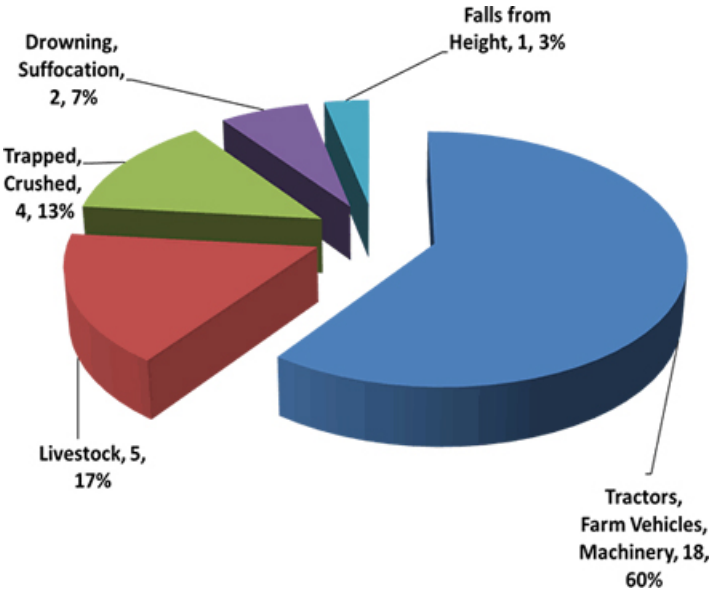


Figure 1. Number of people killed in farm related accidents in 2014. (Diagram & Statistics from the Health & Safety Authority)

Unfortunately, research shows that in general farmers' attitudes to safety only change after a serious injury occurs. P.J. McDermott, a drystock farmer from Co. Longford would agree with this statement and his story below highlights how easy it is for a potentially fatal farm accident to happen.

P.J. McDermott's story

The 9th January 2008 is a date that neither P.J. nor his wife Theresa will ever forget. At about 4 pm that evening P.J. decided that he would hitch up the tractor to the slurry tanker and go spread dirty water. The REPS inspector was due to call the next day and P.J. did not want the tank to be overflowing. When he got to the field P.J. realised that in his hurry to get the job done he had managed to connect the wrong pipe from the tractor into the tanker. This meant he had to get down from the tractor to fix it. Leaving the tractor running he stood to the left of the tractor and leant across to disconnect the pipe when suddenly the open flapping coat he was wearing caught in the rotating PTO. Unfortunately, a couple of weeks previously the cattle had broken the black U cover which connects to the guard on the PTO shaft and had not been replaced. P.J. does not remember much about what happened next other than when he regained consciousness he was lying on the ground on the other side from where he had stood and all his clothes except for his wellies had been stripped from his body and were wrapped around the drive shaft. To this day, P.J. is thankful that he was not wearing denims as he believes they would not have ripped easily off his body and his injuries could have been fatal.

P.J. quickly realised that his arm was badly hurt and he had no way of contacting anyone as the field was a long way from houses. He did not carry a mobile phone at the time. Somehow he managed to pull himself back up into the tractor and drove home all the while blaring the horn to attract attention. When Theresa saw the tractor arriving home she knew something was seriously wrong and immediately ran out to P.J. At this point he had lost a lot of blood and had gone into shock. The ambulance arrived within 30 minutes but while they waited for their arrival the paramedics stayed on the phone to Theresa calmly explaining how to reduce blood loss. P.J. spent 4 weeks in St. James hospital in Dublin undergoing skin grafts and blood transfusions. P.J. says he was lucky that he had Theresa and his son Peter at home to keep the farm going at this time. It was a further 9 months before he was back farming full time.

P.J.'s advice now to farmers on farm safety is that rushing and carelessness causes accidents and to make sure to always turn machinery off when working on it. Also he recommends farmers to never wear loose clothing or have twines on your person that could catch in machinery when operating.

Since the accident, there is an increased awareness of safety on the farm amongst the whole family and this is extended to any visitors such as contractors who come to work on the farm. The McDermotts receive regular Health and Safety inspections and also keep an up to date Farm Safety Statement.

14% of deaths due to machinery in the time period 2005-14 were due to PTO entanglement. (Health & Safety Authority). Sadly P.J.'s accident contributed to this figure and is a stark reminder of the crucial role that the PTO guard plays in using agricultural machinery safely.

Machinery Checks (as recommended by the HSA)

- ✓ All safety guards / devices fitted
- ✓ The PTO '0' guard present
- ✓ Hydraulic systems and hoses in good repair
- ✓ All machinery defects identified and corrected
- ✓ Regular maintenance carried out

Ultimately it is up farmers themselves to change these statistics and to promote farm safety by taking such steps as conducting regular Risk Assessments and having an up-to-date Farm Safety Statement.

Health and Safety for farmers

John McNamara[1]
[1]Teagasc Health and Safety Officer, Kildalton
and Patrick Griffin[2]
[2]Senior Inspector, Operational Compliance and Prevention Division, Health and Safety Authority

Summary
To the end of August 2015, 11 persons have lost their lives due to farm accidents; this follows on from 2014 when 30 persons died in farm accidents.
The farm death level in 2014 made up 55% of all workplace deaths while just 6% of the workforce is employed in the sector. Prevention strategies use two broad approaches; firstly removing hazards and then adopting safe procedures

Introduction
In 2014 farm deaths made up 55% of all workplace deaths, even though agriculture only makes up 6% of the total national work force. Dairy farms have a disproportionately high level of fatal and non-fatal injury levels. Fifty eight percent of fatal farm accidents occur on dairy farms. The level of non –fatal accidents is twice as high in dairy farming compared with other cattle enterprises. This information should motivate everyone in the sector to manage health and safety effectively.

Health and Safety strategies
Prevention strategies use two broad approaches; firstly removing hazards and then adopting safe procedures. These strategies are vital for prevention of farm accidents as farms have a wide variety of hazards. As over 90% of accidents have a behavioural cause, farmer input in managing farm safety is the vital ingredient to preventing accidents.

Managing workload is also crucial to reduce accident levels. This is achieved by having a streamlined livestock system, good facilities and minimising machinery work. Having the workload under control allows adequate time for farm management including implementing health and safety measures, which prevents work being done in a rushed manner.

Vehicles and machinery safety
In 2014, 16 (60%) deaths were associated with farm vehicles or machines with the majority involving crushes or blows. There have been a number of crush deaths associated with tractors rolling-away in farmyards. These are silent killers as people don't see or hear the vehicle coming until it is too late.

To prevent crushing due to vehicle "run-away":
- Stop the engine and leave the fuel-control in the shut-off position and remove key.
- Apply the hand brake securely
- Park on level ground where possible. Leave the vehicle in gear. If on a slope, use the reverse gear if facing downhill and low forward gear if facing uphill.
- Use wheels stops if necessary to prevent a vehicle rolling from its parked position.
- As vehicles vary in operating procedures, always follow the handbook instructions.

ATV safety
ATV's or Quads have huge potential to reduce work time on farms. However, they are lethal machines if used incorrectly. It is imperative that operators undergo essential training before using Quads; children should never be allowed to use them.

Revolving power shafts
The majority of accidents with PTO's or machine moving parts occur when the machine is stationary. Ensure complete covering of the power-shaft and adopt a work procedure where you do not have to work near the rotating shaft. Also, particular care is needed when adjacent to operating powered machines such as balers or combines when stationary. Always turn off the PTO and the power before leaving or approaching a revolving machine component.

Farmer's health
A recent national study indicated that farmers, as an occupational group, have one of the highest "all-cause" mortality rate. In the study, the highest mortality rates were reported for the behaviour-related chronic diseases: cardiovascular disease and cancer. The finding of this study contrasts with Irish farmers perceptions of their health status.

Teagasc actively promotes health practices among farmers in association with other agencies with a role in this area. It is imperative that farmers monitor their health to ensure problems are picked up early.

Completing a risk assessment

The key document for managing farm health and safety is the Risk Assessment Document. Completing and updating this document is a legal requirement under the Safety, Health and Welfare at Work Act (2005). In this document, the key questions regarding safety and health are asked. Information on causes of accidents along with pictures of key controls are provided. Safety and health actions needing attention should be listed on the Action List and acted upon.

The document should be kept on the farm. A Health and Safety Authority (HSA) Inspector can examine the document during an inspection. The HSA recently announced that they plan to use a direct prosecution approach in the following situations: children less than 7 years old being carried as passenger on tractors; uncovered power-shafts; and unprotected slurry tanks.

Teagasc provides a half-day training course to farmers on completion of the Risk Assessment Document. The feed-back from half-day training courses is very positive. Ninety nine per cent of farmers agreed that it would be worthwhile to offer the course to all farmers, 97% of farmers agreed that the course motivated them to implement health and safety measures while 100% stated that they planned to make health and safety improvements on their farms.

Discussion groups

Discussion groups (or other groups) are particularly powerful in gaining health and safety improvements on the farm. These provide a facility to spot safety hazards and suggest better ways of farming safely. The exercise of bringing a number of peers into the farm allows an unbiased assessment of the farm at a relatively low cost. Why not ask a friend or neighbour to take a look at your farm and suggest ways to improve safety.

Conclusion

Farm accidents lead to tragedy, pain and suffering, disability and farm business loss. Farms are very dynamic workplaces and active safety management on an on-going basis is required to minimise the farm related risks. One accident is one too many. By putting safety first you are protecting your vital assets – your life, the lives of your loved ones and the family livelihood.

7th October Farm Walk on the Farm of Aidan and Anne Power, Templederry, Co. Tipperary, 11am-1pm

12th October - Student Conference, Co. Laois and Co. Kilkenny

7th January (Provisional) - Diary Conference more details in next newsletter

Farmer Focus: Attention to detail key for sheep farmer of the year

Cathal McCormack,
Irish Grassland Association Council
Member and Alltech Ireland.

A visit to Lisbeg Farms located just outside the picturesque village of Laurancetown in Co. Galway is certainly an educational experience. The farm which is owned and run by the Bourns family has a reputation within farming circles of being one of the most efficient farms in Ireland. After my visit to the farm it is easy to see why the Bourns family won the 2015 Zurich Sheep Farmer of the Year Award. Although a large scale enterprise, the farm maximises the efficiency of every single part of the sheep production cycle.

Lisbeg Farms consists of 600 ha and is situated in East Galway. The farm is managed over three diverse areas as follows – 200 ha tillage, 275 ha grassland and 125 ha of managed forestry. The farm is run by father and son team Richard and Chris Bourns along with Richard's wife Deirdre and Chris's wife Sarah and five farm employees who help manage the sheep, beef and tillage enterprises.

Sheep enterprise
Lisbeg Farms has the largest lowland flock unit in the west of Ireland and indeed one of the largest in the country.

Table 1. Sheep numbers on farm over the last three years (2012 – 2014).

At year end	Ewes	Rams	Hoggets/Replacements
2014	1,434	51	471
2013	1,363	44	506
2012	1,262	45	410

The Bourns's ewe of choice is the Mayo Mule, as they feel that they are most suited to their farming system. The Bourns's find that the Mayo Mule are very prolific, they have good confirmation, lamb easily and deliver plenty of milk to their lambs. These ewes are mainly sourced from the Ballinrobe mule producers group. In 2012 home bred Suffolk × Mule females were introduced to the ewe flock, these were lambed down in 2013 and 2014. According to Chris Bourns this cross also have excellent mothering ability and have more than adequate milk supply. In order to keep the best quality ewes there is a very strict culling policy in place at weaning time where all ewes are checked for faults. Any ewe that displays any fault at all are culled and replaced.

The ram flock is made up of pure bred Charolais and Suffolk rams bought by Chris and Richard at Charolais and Suffolk society premier show and sales. The Bourn's feel that both of these breeds deliver lambs that are hardy at birth, are fast growing and produce good carcasses at slaughter. The ram is introduced to the ewes on the 1st October and withdrawn in mid- November.

Grassland management
Sheep play a very important role in managing the 275 ha of grazing pasture at Lisbeg. Sheep are grazed along with cattle from the farms beef finishing enterprise which sets out to achieve as much weight gain as possible from grass before cattle are housed for the final finishing period. Both sheep and cattle are grazed on a rotational paddock system. The paddocks are divided into 5 ha paddocks. These paddocks hold 200 ewes and their lambs for a grazing period of 7 days, following this the paddock is rested for a period of 21 days, of course this is weather dependent. Cattle and sheep are grazed together allowing maximum utilisation of the grass available. The use of forage rape has allowed for extended grazing periods during late October and November to reduce housing costs also leaving more grass to be utilised in early spring.

Housing
Ewes are housed mid-December, however if weather is good the ewes can be left out until January. In early January the ewes are scanned and divided into groups according to litter size and body condition and are fed accordingly. Ewes are bedded every second day with lime followed by fresh straw blown into pens by a straw chopper. Once lambing commences all pens are limed and bedded on a daily basis. There is a major emphasis on hygiene to reduce the risk of infection and disease in the flock.

Feeding
The ewes are fed on a 19% protein concentrate. Ewes are introduced to 0.4 kg of concentrate per day rising to 0.6 kg (singles), 0.8 kg (twins) and 1 kg (triplets) at full feeding. Along with concentrates ewes are fed up to 1.5 kg of chopped haylage and 1.5 kg of maize silage per head per day which is produced on farm. Haylage is fed to provide roughage in the diet. A clean and fresh water supply is always available.

Lambing
Lambing starts on 1st March with the majority of the flock lambing in the first 3-4 week period. The ewes are housed in pens of approximately 50. Once lambed down the ewe and lambs are placed into a clean straw bedded individual pen.

A sample of the ewe flock at Lisbeg

They remain in this pen for 24 hours where they are marked and ringed, they are then introduced to a nursery pen that will have up to 12 other ewes of the same litter size. They remain in this nursery for a further 24 hours and then are introduced to grass, again weather dependent. Ewes and lambs are transported in a purpose built trailer which can transport up to 16 ewes and their lambs. At peak there can be 170 ewes lambed in a 24 hour period. To cope with the work load at lambing up to 10 veterinary students from UCD are taken on at this time as part of the veterinary student's farm placement.

Post lambing

Once ewes have lambed they continue to be fed up to 1 kg concentrates per day. When put out to grass ewes are snack fed 18% Ewe Cobs at a rate of 400 g/ewe/day, this has proved very beneficial as it has reduced grass tetany greatly. Weaning takes place from the end of May onwards. All lambs are sold directly to slaughter with choice ewe lambs being sold to neighbouring farmers for future breeding. The target carcass weight is 21 kg with approximately 50% U grades and 50% R grades over the last few years. The goal is to have all lambs either sold or gone to factory by the end of November.

Table 2. Lambing and Weaning figures over the last 3 years (2012 – 2014)

Year	Ewes scanned	Scanning %	Lambs sold & weaned	Weaning %
2014	1370	**1.92**	2312	**1.71**
2013	1262	**1.97**	2144	**1.67**
2012	1138	**2.03**	2026	**1.77**

Recent developments and future plans

2015 has seen the purchase of a new Pratley sheep drafter and digital scales, this will allow for more accurate weight recording, storage of data information and the recording of electronic tags, it will provide information on individual ewes and lambs. The new drafter is much quicker and easier to use, allows for good visibility of the lamb, safe handling of the lamb and most importantly it is safe for the sheep handler.

Also purchased this year was a Forster Technique Automatic Lamb Feeder supplied by Volac. This was purchased to rear surplus triplet lambs or orphans that were unable to adopt onto a single lamb ewe. So far the automatic feeding system has proved a great success as it has reduced the labour required for mixing milk and feeding lambs. This in turn allows for a greater amount of time to be spent in the lambing shed itself.

The construction of a new purpose built sheep shed is the next project on the agenda. The plan is to house all the ewes for lambing under the one roof to utilise labour as effectively and efficiently as possible. The intention is to design the shed so that a TMR (total mixed ration) can be fed to the ewes via a Keenan Diet feeder.

Reflecting on the successes of Lisbeg Farms sheep enterprise there are two reasons that I believe are key to their success. First and most foremost is how the Bourns's attend to every detail. Because this is a large operation they could be forgiven for overlooking some of the smaller details however this is certainly not the case. Great emphasis is put on the smaller details such as replacement selection and hygiene at lambing. I believe that this comes from the genuine interest that the family have in their sheep enterprise. Secondly it is clear that Richard and Chris Bourns always want to push ahead and keep on improving on what they are currently doing. They are not afraid to invest in order to either improve animal performance or to increase productivity. This, I believe, is the reason why Lisbeg farms will continue to be one of the leading lights in sheep farming circles for years to come.

I would like to thank the Bourns family for all of their help in compiling this article.

Chris and Sarah Bourns receiving the 2015 Zurich Sheep farmer of the year award

Sarah Bourns coming to the rescue of triplet lambs during lambing season at Lisbeg.

Irish Grassland Association Student Bursary 2015 Winners Announced

Paul Crosson,
Irish Grassland Association Council Member and Teagasc, Grange

Attendance at relevant scientific conferences and events is an important aspect in the development of a postgraduate student's career and provides an opportunity for Irish research to be presented to international audiences. The Irish Grassland Association awards student bursaries to support travel to conferences or events for students undertaking postgraduate studies in grassland or grass-based livestock systems research in Ireland. Following a competitive application process, two bursaries have been awarded for 2015. The winners were Cormac McElhinney and Frank Campion.

Cormac McElhinney is based at Teagasc, Grange and is registered at Queens University, Belfast. He is undertaking a PhD programme on mycotoxins in silage. Mycotoxins in silage can induce a range of detrimental effects in livestock which include reduced feed intake, vomiting, lameness, immuno-supression and abortions. Cormac's study has set out to identify and quantify the challenge posed to livestock from mycotoxins in Irish silage. The Irish Grassland Association Student Bursary supported Cormac's attendance at the International Silage Conference in Brazil in July 2015.

Frank Campion is a PhD student based at UCD Lyons Estate; his study looks at optimising nutritional management of high prolificacy sheep. With ewe milk production peaking approximately three weeks post-partum, and intake potential peaking approximately three weeks later, the aim of the study is to investigate the effect of concentrate supplementation on ewe intake during early lactation. The Irish Grassland Association Student Bursary supported Frank's attendance at the Joint American Society of Animal Science/American Society of Dairy Science Conference in Orlando, Florida in July 2015.

Commenting on the awarding of the 2015 Student Bursaries, Irish Grassland Association President 2014-15 Paul Crosson said, "the Student Bursaries are an integral part of our annual programme of activities. We are committed to the development of the careers of young scientists in grassland and pasture-based animal systems. I would like to congratulate Cormac and Frank on their awards and wish them luck in the remainder of their studies".

Student Bursary Winner: Trip to American Dairy Science Association and American Animal Science Association Joint Annual Meeting

Frank Campion,
UCD

The bursary provided by the Irish Grassland Association allowed me to attend the American Dairy Science Association and American Animal Science Association Joint Annual Meeting in Orlando Florida in July 2015. This prestigious meeting was attended by over 3500 animal scientists, industry representatives and post-graduate students and provided an ideal networking opportunity for me. Furthermore as a final year Ph.D. student this conference gave me a fantastic opportunity to present my work and meet with some of the leading scientists in my field. While there I delivered three presentations based on my Ph.D. experiments, all of which were well received. One of the presentations focused on the grass intake potential of the ewe during early lactation, work that was discussed in an article previously published in the Irish Grassland Association Newsletter in December 2014. My other two presentations focused on the drivers of ewe colostrum production and the relationship between ewe body condition score and lamb litter weights in grass based production systems. In addition I was a co-author on a further three papers.

In addition to presenting my work I was also afforded the opportunity to familiarise myself with the most up-to-date research findings in animal science. The conference ran for four days with several sessions across multiple disciplines taking place through each of the days. There were a number of talks focusing on the grass based ruminant production systems. One of the things that struck me was just how lucky we are to have the climate and soils to produce the volumes and quality of grass that we can. One presenter, Dr. Jose Valentin Cardenas Medina, from Mexico explained that protein content of the swards he was using was 6%, a long way off the 18% protein swards I used for my experiment! Alternative forages and the uses of forages to mitigate greenhouse gas emissions and improve animal health are becoming increasingly important and some of the presentations at this meeting really highlighted this. Dr. Alexandre Berndt gave a very interesting talk on how increasing stocking rates on grassland beef farms in Brazil has the potential to increase output without increasing methane emissions.

One of the most thought provoking talks I felt was the opening address given by Michele Payn-Knoper of the 'Cause Matters Corp'. Michele's work focuses on connecting the farmer to the consumer and trying to help consumers understand where the food they are eating comes from. This work doesn't just focus on getting the consumer to learn more but also getting producers, scientists and industry members within agriculture to communicate in simple, clearer ways about what they do and how they do it. The key way we are going to do this, according to Michele, is through social media and how we use it. While consumer understanding of where their food comes from in Ireland is relatively good, Michele's message and the problems being experienced in U.S. where there is a clear gulf between the producer and the consumer is a cautionary tale for the rest of us!

Attendance at this meeting was an excellent experience and attending meetings such as this is something I would encourage any post-graduate student to do. Without the bursary provided by the Irish Grassland Association it would not have been possible for me to attend this excellent conference, for which I am extremely grateful.

Understanding the new BDGP report

Pat Donnellan,
Irish Grassland Association Council Member and ICBF

Pat Donnellan, Irish Grassland Association Council Member and ICBF

New BDGP reports are currently being sent to all participating farmers within the BDGP. So, what is the objective of the report, and how can farmers use the report to start making decisions regarding future replacement strategy on their farms? The objective of the report is simple: to give farmers a clear understanding regarding the €uro-Star status of their herd. The scheme requirement is that 20% of females (cows and heifers → 16 months) on farms should be: (i) genotyped; and (ii) be 4 or 5 stars on the ICBF Replacement Index on 31 October 2018, with this figure increasing to 50% for 2020. Over the next one to two years, we will be genotyping 4 and 5 star animals as a matter of priority so that farmers can quickly attain full eligibility status for their herds. All breeding females and any breeding males are then listed on the report, so that farmers can quickly assess the Replacement Index of individual animals on their farm. In addition to data on individual animals, the report also provides farmers with information on their number of reference cows (from DAFM), the number of 4 and 5 star animals that are required to meet replacement strategy requirements, and a breakdown of the animals on farm in relation to the age and Replacement Index status. Having all of this information will then allow farmers make a more informed decision regarding their future replacement strategy. Is their existing strategy sufficient, or do they need to buy a new 4 or 5 star Replacement Index bull, or use some AI, or buy in more 4 and 5 star Replacement Index females?

Q & A

How can I find out the Đuro-Star Indexes of my stock?
All herds participating in the BDGP are currently receiving a report from ICBF detailing the €uro-Star Indexes of all of their stock. All participating herds will have received a report by now. These reports are also available online by logging on to www.icbf.com.

How is a €uro-Star Index generated for an animal?
When a calf is born, provided its ancestry is recorded, it receives a Đuro-Star Index based on those of its parents (parent average). As data is recorded on an animal throughout its life (weights, docility, etc), its Index will start to change to reflect its own performance.

Why do some of my animals not have a €uro-Star Index?
The most common reason for this is a missing sire. Missing sires, where known, can be entered online at www.icbf.com.

Progress on the Implementation of the Sustainable Use of Pesticides Directive (SUD)

Sheila M. Macken,
Pesticide Controls Division, Department of Agriculture, Food and the Marine

Introduction
The Sustainable Use Directive (SUD) establishes a framework for community action to achieve the sustainable use of pesticides. It aims to fill the current legislative gap regarding the use-phase of pesticides at EU level through setting minimum rules for the use of pesticides in the Community, so as to reduce risks to human health and the environment. It also promotes the use of integrated pest management. Implementation of the SUD relies heavily on the training of the various people involved at all levels of the industry, including pesticide advisors, professional users, pesticide distributors and inspectors of pesticide application equipment. A new programme to test all pesticide application equipment will commence in 2016.

Pesticide Advisors (PAs)
A PA is any person who has acquired adequate knowledge and advises on pest management and the safe use of pesticides, in the context of a professional capacity or commercial service, including private self-employed and public advisory services, commercial agents, food producers and retailers where applicable.

Registration
Since November 2013, all PAs are required to be registered with the Department of Agriculture, Food and the Marine (DAFM). They may do so by using the online registration facility available on the PCS website (http://www.pcs.agriculture.gov.ie/sud/pesticideadvisors/). In registering, the PA commits to participating in continuous professional education (CPE) in order to maintain his/her registration.

Training
Any person wishing to register as a PA must hold the Prof. Diploma in IPM and Sustainable Use of Pesticides, awarded by UCD. Equivalent qualifications may also be recognised as meeting requirements to register as a PA. The DAFM will determine if alternative qualifications meet requirements on a case by case basis.

Irish Agricultural Supply Industry Standards (IASIS) have developed CPE rules for PAs and compliance with these satisfies the additional training requirements referred to in the legislation (http://www.iasis.ie/PlantProtection/PesticideAdvisors.aspx). Equivalent CPE records may also be recognised as meeting CPE requirements. The DAFM will determine if alternative CPE records meet requirements on a case by case basis.

Professional Users (PUs)
A professional user (PU) is any person who applies/sprays professional use products, including operators, technicians, employees and self-employed people, both in the farming and other sectors, regardless of the quantity or method of application.

Registration
All professional users must be registered by 26th November 2015. From this date, only a registered professional user can apply pesticides authorised for professional use. Existing clients of the DAFM (e.g. farmers) who are registered to use the DAFM agfood.ie online facilities should apply to register as a Professional User by logging onto www.agfood.ie and selecting the Sustainable Use Directive System from the menu of options that are available. The application can then be made by completing a short form.
In order to streamline and simplify future interactions with DAFM, it is recommended that other existing DAFM clients who are not currently registered to use the DAFM online facilities should do so at www.agfood.ie as follows:

- Click on agfood.ie on the DAFM homepage
- Click on 'Register' for Online Services
- Fill out details and 'Submit Registration'

The applicant will be sent their 'PAC' by return of post. They can then log on immediately to www.agfood.ie and register as a Professional User by selecting the Sustainable Use Directive System from the menu of options that are available. The application can then be made by completing a short form and the user will also be able to avail of all other relevant DAFM online facilities.

Other individuals who are not existing clients of the DAFM or who do not wish to use the DAFM agfood.ie online facilities should register using the online registration facility available for Professional Users on the PCS website (http://www.pcs.agriculture.gov.ie/sud/professionalusersprayeroperators/).

Note: You may be asked for proof of qualification at registration but you will be required to have proof of your training (certificate of qualification) should you be the subject of a DAFM on-farm inspection at any time in the future.

Training
A DAFM-registered PA can register as a Professional User without the need for any further formal training.

Those who have completed the Pesticide Application module as part of a Teagasc (FETAC level 5 or 6) course will meet the requirements for professional user training. Similarly, anyone who has completed the Teagasc standalone Pesticide Application short course (Level 5) or the City and Guilds Pesticide Application courses – PA series, will be deemed appropriately trained. PA1 is the foundation module and different modules specific to particular equipment can be chosen to suit the individual user e.g. PA2 for tractor-mounted sprayers, PA6 for hand-held applicators.

The following is a list of qualifications that are recognised by DAFM as being appropriate training for the purposes of registration:
FETAC 5N1797 – Boom Sprayer or City & Guilds PA1 + PA2a – Boom Sprayer
FETAC 5N0731 – Handheld Sprayer or City & Guilds PA1 + PA6 – Handheld Sprayer

Equivalent qualifications may also be recognised as meeting requirements to register as a professional user. The DAFM will determine if alternative qualifications meet requirements on a case by case basis.

There is a list of Professional Pesticides User training providers available on our website at http://www.pcs.agriculture.gov.ie/sud/professionalusersprayeroperators/

Pesticide Distributors (PDs)
From 26th November 2015, a registered pesticide distributor (PD) must be available at all times at the point of sale to ensure that adequate information is provided to customers as regards pesticide use and health and environmental risk and safety.

In order to register as a Pesticide Distributor (Professional Use Products), you must first successfully complete the QQI/FETAC Level 5 Handling and Distribution of Pesticides course (Code 5N2466), or equivalent.

In order to register as a PD (amateur/home garden products ONLY), you must first successfully complete the online course for Pesticide Distributors of non-professional/amateur products. This course is being facilitated by IASIS and can be accessed at www.iasis.ie.

Advice given by a Pesticide Distributor is limited to general information regarding the risks posed by pesticides to human health and the environment, on storage requirements and on handling and safe disposal.

Inspectors of Pesticide Application Equipment (EIs)
A pesticide application equipment inspector is any person who has acquired adequate knowledge and verifies that pesticide application equipment satisfies the relevant requirements listed in Annex II of Directive 2009/128/EC, in order to achieve a high level of protection for human health and the environment.

Registration
Inspectors of Pesticide Application Equipment should register using the online registration facility available for Inspectors of Pesticide Application Equipment on the PCS website (http://www.pcs.agriculture.gov.ie/sud/equipmentinspectors/). In registering, the Inspector commits to participating in continuous professional education (CPE) in order to maintain his/her registration.

Training
A two day course has been developed by DAFM in conjunction with Teagasc in Kildalton College, for the training of Equipment Inspectors. Inspectors will be required to complete it in order to be eligible to register. Equivalent qualifications may also be recognised as meeting requirements to register as an Inspector. The DAFM will determine if alternative qualifications meet requirements on a case by case basis. Minimum CPE requirements for an Inspector will be developed in 2015.

Pesticide Application Equipment
All boom sprayers greater than 3m and all blast and orchard sprayers must be tested at least once by 26th November 2016. The interval between inspections must not exceed 5 years until 2020 and must not exceed 3 years thereafter. New equipment must be tested at least once within a period of 5 years after purchase.

The DAFM, in consultation with relevant stakeholders, will determine appropriate timetables and inspection intervals for other types of pesticide application equipment before 2016. It is anticipated that all types of application equipment, with the exception of knapsack sprayers (which are exempt under the provisions of the Directive), will be required to be tested at least once before 2020.

The Pesticide Control Division is currently developing an online system for Inspectors to record all details of tests carried out. The system will also maintain and manage this data and will eliminate the need for any paper in the process.

Integrated Pest Management
All professional users shall apply the general principles of IPM and maintain records to demonstrate the application of these principles. The general principles of IPM are listed in the Sustainable Use of Pesticides Directive which is available on the PCS website (http://www.pcs.agriculture.gov.ie/sud/integratedpestmanagement/).

They include the following practices:
- prevention and/or suppression of harmful organisms
- monitoring of harmful organisms
- application of appropriate plant protection measures
- use of sustainable biological, physical or other non-chemical methods
- use of pesticides that are as specific as possible for the target pest
- use of pesticides to the necessary levels
- use of anti-resistance strategies to maintain the effectiveness of products
- recording of the success of the applied crop protection measure

Record-keeping
Compliance with IPM requirements will be recorded in the user's Plant Protection Product Use Record sheet, which is available on the PCS website (http://www.pcs.agriculture.gov.ie/sud/professionalusersprayeroperators/). A worksheet has also been developed that will record on a whole enterprise level (farm or non-agricultural business e.g. amenity, forestry) how the general principles of IPM are being applied. All individuals who apply plant protection products are required to maintain these records. There are no exemptions from the requirement to maintain these records.

Protecting Water from Pesticides
Careless storage, handling or use of pesticides, or improper disposal of empty pesticide containers, can easily cause breaches of the legal limit for pesticides in drinking water. Water bodies are particularly vulnerable to runoff or washoff inputs from hard or compacted surfaces.

It is essential to take particular care and follow best practice procedures when using any pesticide near water bodies. Some key points to bear in mind are presented below:

ONLY use pesticides if necessary and as part of an integrated pest management strategy. Consider non-chemical methods instead of or in tandem with pesticides.
ALWAYS read and follow the product label.
RESPECT statutory no-use zones (safeguard zones) around drinking water abstraction points.
Ensure that pesticide products are stored in a secure, dry area which cannot result in accidental releases to drains, wells or water courses.
Ensure that pesticide application equipment used is properly calibrated and in good working order.
Ensure that empty, triple-rinsed containers and foil caps are disposed of in accordance with the Good Practice Guide for Empty Pesticide Containers http://www.pcs.agriculture.gov.ie/sud/professionalusersprayeroperators/

Advice leaflets on protecting drinking water from pesticides, prepared by DAFM, Teagasc and the Environmental Protection Agency are available on the PCS website http://www.pcs.agriculture.gov.ie/sud/professionalusersprayeroperators/

Does a rising SCC in late lactation matter?

Finola McCoy, AHI

Despite an annual improvement in the monthly SCC of milk recording herds over the last few years, we still consistently see their herd SCCs starting to rise from early summer. This increase then continues for the rest of the year. It is likely that the same pattern has been happening with your bulk tank SCC. Has your bulk tank SCC starting to creep up slightly over the last few weeks? If so, don't ignore it!

An increase in SCC in late lactation is often attributed to the stage of lactation, and considered inevitable. However, preliminary analysis of Irish milk recording herds has shown that in herds where mastitis is well controlled throughout the year i.e. bulk tank SCC consistently ≤150,000 cells/mL and the number of infected quarters are minimal, there is no significant rise in the bulk tank SCC in late lactation. This supports the theory that the rise in bulk tank SCC that we see towards the end of lactation is generally because of spread of infection throughout the year and an increase in the number of infected quarters. As the level of production drops in late lactation, what is already an increasing SCC because of infected cows is made worse because there is less dilution. What is important to remember is that infection is the underlying reason, not simply 'the time of year'. These infected cows often have no clinical signs i.e. subclinical infections, and at this stage of the year may have been infected for some time. These cows pose 2 problems:

1. Causing your bulk tank SCC to rise
2. Acting as a potential source of infection for other cows

While maximising production and selling as much milk as possible may be a priority this autumn, turning a blind eye to these subclinically infected animals could prove to be a very costly exercise. In fact, sacrificing quality over quantity is a false economy. These infected quarters will not produce as much milk as an uninfected quarter, but may compensate by producing plenty of mastitis-causing bacteria instead! So how should you deal with them?

1. The first thing to do is to **milk record the whole herd**, and identify any high SCC cows i.e. SCC ≥ 200,000cells/mL. While milk recording might be seen as an extra cost, it can be more expensive not to! Without measuring the SCC of each cow individually, there is no way of knowing who the infected ones are-they won't look any different, and neither will their milk. Without individual cow information, it is impossible to make informed decisions-some decisions will prove to be good, while others could prove costly in the long run. One alternative to milk recording is to use the California Mastitis Test (CMT) on the whole herd- but don't forget to record all the results!
2. High SCC cows should be marked and milked last to **minimise disease spread**. If it is not possible to run them as a separate herd, hold them back and milk them as the last row. This will prevent them infecting other cows. It is essential to ensure that the milking machine and equipment is thoroughly washed and allowed to dry before the next milking.

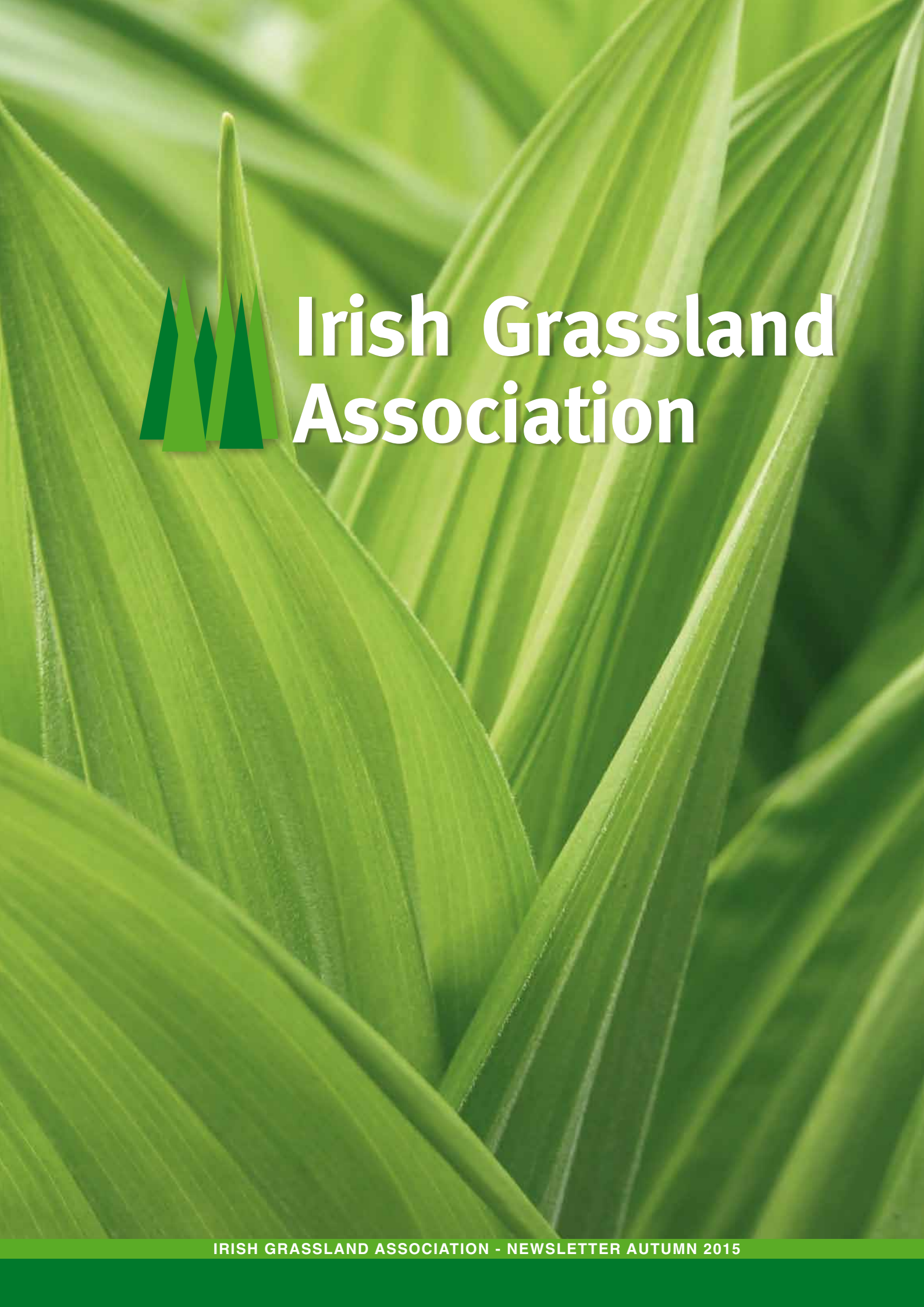
3. **Discuss a treatment plan with your vet-**while treatment may appear to be the most logical option, remember that cure rates can range from 20-80% depending on various factors, such as the bacteria involved, the duration of infection and the cow's lactation number.
4. **Remove the source of infection.** If a cow has a high SCC i.e. ≥ 200,000 cells/mL, identifying the infected quarter(s) can help in the decision making. If she has only one infected quarter, then drying off that quarter is often a workable and practical strategy.

- Use a CMT to identify the infected quarter.
- Don't dry off quarters while they exhibit signs of clinical mastitis.
- Simply stop milking the quarter, and do NOT use a dry cow tube.
- Make sure that you have a good marking system, so that all milkers know which cows have dry quarters and which quarters they are.
- Check/feel the quarter at every milking for the next 10 days, for any signs of heat or pain

5. Consider **drying off high SCC cows early** and treating them with antibiotic dry cow therapy. Although they will not contribute milk for the remainder of the season, cure rates during the dry period are higher compared to during lactation, which increases the likelihood of these animals remaining productive for future lactations. This may be the best option for 1st lactation animals, and for cows nearing the end of their lactation that have had low cell counts in previous lactations.
6. **Develop a culling list** of cows which have had recurring high SCC and mastitis problems and are unlikely to cure – consider culling cows that have had high SCC for two consecutive lactations, despite antibiotic dry cow therapy. These cows will remain a constant source of infection in your herd and to make matters worse, are not producing milk to their full potential because infection has damaged some of the mammary tissue.

The sooner action is taken, the less chance these cows have to infect others, and the more likely you are to have a successful outcome with them. For more information on controlling mastitis in late lactation and dealing with high SCC cows, see Guidelines 14 and 15, and Management Note M in the CellCheck Farm Guidelines for Mastitis Control.

CellCheck
AnimalHealthIreland.ie



Irish Grassland Association